THE DISTINCTIVE ATTRIBUTES OF REGISTERED NURSES IN A SOUTH AFRICAN MILITARY CONTEXT

by

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DECLARATION

I, Karen Ann April, hereby declare that the master's degree research dissertation that I herewith submit for the master's degree qualification *Master of Nursing* at the University of the Free State is my independent work, and that I have not previously submitted it for a qualification at another institution of higher education.

29/11/2021

SIGNATURE **DATE**

DEDICATION

I dedicate this dissertation to my late parents, Vernal (“Kallie”) and Mary April.

Thank you for your wisdom, undying love, and support. I am truly grateful for your motivation and belief in me. Precious time lost can never be regained... this is but a small token of my appreciation for all your sacrifices and for all that you have done for me.

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LIST OF ABBREVIATIONS

AMET	Aero Medical Evacuation Team
BARTS	Battlefield Advanced Resuscitation Techniques and Skills
BATLS	Battlefield Advanced Trauma Life Support
CHA	Concurrent Health Assessment
CV	Curriculum vitae
NGT	Nominal group technique
SAMHS	South African Military Health Services
SAMNS	South African Military Nursing Service
SAMS	South African Medical Service
SANC	South African Nursing Council
SANDF	South African National Defence Force
SAQA	South African Qualifications Authority
UFS	University of the Free State

CLARIFICATION OF CONCEPTS

Clarifications of the main concepts of the study are presented below:

Distinctive

The concept *distinctive* is an adjective and refers to something characteristic of one person or thing, which distinguishes it from others (MobiSystems Inc., 2021). In the context of this study, the concept refers to the distinctive characteristics or attributes of registered nurses in the military context.

Attributes

Attributes are the characteristics that, when present, define a person or a thing (Chargualaf, 2016:128). The *Oxford Dictionary of English* (MobiSystems Inc., 2021) describes an attribute as a quality or feature regarded as a “characteristic or inherent part of someone or something”, as well as a “material object recognised as symbolic of a person”. Within the context of this study, the term “attributes” refers to specific characteristics or features of registered nurses working in the military context.

Registered nurses

In terms of the Nursing Act 33 of 2005, registered nurses are qualified nurse practitioners who are registered under section 31(1) of the Act in order to practise nursing or midwifery. For the purposes of this study, registered nurses are included in the concept *military nurses*.

Military nurses

In South Africa, military nurses are trained nurses regulated by the Scope of Practice Regulations of the South African Nursing Council (SANC) as the statutory body (Department of Health, 2020:6-9; SANC, 1991). They are categorised under the South African Military Health Services (SAMHS), which is one of the services that report directly to the Chief of the South African National Defence Force (SANDF). The concept generally includes all categories of nurses (registered nurse, enrolled nurse, auxiliary nurse) who are actively practising in the SANDF (Jumat, Bezuidenhout & Neethling, 2014:2). The term *military nurse* is used interchangeably to refer to registered nurses within the military context, in which this study was conducted.

South African military context

In this study, the term *South African military context* refers to any situation where registered nurses deliver a service within the domain of the SANDF. The terms *defence* and *army* form part of the concept of military context. The South African Defence Review (Department of Defence, 2015:10-18) states that the Military Health Service provides combat service support through force health protection for all operationally deployed forces and force health sustainment for all serving members and their dependants, military veterans and their dependants, and other approved healthcare users. This service is delivered at military facilities, which include sickbays and military medical clinics, community-orientated home-based care, military base hospitals, military hospitals, and specialised institutes that render a specialised function in specific areas of military medicine.

ABSTRACT

Registered nurses who work in the military have the dual role of being both a soldier and a nurse. This unique situation has prompted research about the attributes necessary for them to fulfil their roles. Besides providing general day-to-day nursing care, the reality of unrest in South Africa, terrorism, natural and human-made disasters, and deployment has led to the question of whether South African military nurses have the attributes to manage these added demanding and stressful situations. The differences between the uniqueness of military nursing in relation to civilian counterparts in South Africa are not well reflected in literature. The question was thus posed: “What are the distinctive attributes of registered nurses in a South African military context?”

Since little is known or understood about the distinctive attributes of military nurses, the researcher selected a qualitative research approach through which data could be obtained from registered nurses who experience the challenges of working in the South African military context on a daily basis. The study was conducted at one specific military healthcare institute. The accessible population included 90 registered nurses at the specific military healthcare institute.

The researcher used the nominal group technique (NGT) to obtain nominal and descriptive data about the distinctive attributes of registered nurses within the South African military context. The inclusion criteria for the groups were as follows:

- Being a professional nurse registered with the South African Nursing Council;
- Having two or more years’ experience of working within the South African military context; and
- Being available to participate in the study; e.g., not being deployed during the period of data collection.

To gather sufficient and relevant data, two NGT discussions were conducted. The researcher analysed the various sets of data by using six of the seven steps to analyse the data from multiple nominal groups as described by Van Breda (2005:4-12).

The results of this research study indicate that the general characteristics of military nurses can be categorised as multi-skilled, military discipline, resilience, physical fitness, occupational respect, compliance, and military etiquette. Fostering and cultivating these attributes among registered nurses in the South African military healthcare context is important to ensure that the calibre of nurses meets the required standard in order to achieve the organisation's goals.

Key terms: registered nurse, military nurse, attributes, distinctive attributes, military healthcare context

CHAPTER 1:
OVERVIEW OF THE STUDY

"The character of a nurse is as important as the knowledge he or she possesses."
Carolyn Jarvis (in Whitehead, Dittman & McNulty, 2017:247)

1.1 INTRODUCTION AND BACKGROUND

The nature and milieu of military nursing are unique in nursing practice and distinguish military nurses from nurses who work in the civilian sphere (Mabona, Van Rooyen, Jordan & Ten Ham-Baloyi, 2019:2). The distinguishing characteristics between military nurses and civilian nurses are often described in terms of the many varied roles they play and the environment in which they work, which emphasises that the aforementioned is very different to nurses who work outside the military (Conlon, Wiechula & Garlick, 2019:272).

There is probably no career more perilous than serving in the armed forces of a country, where serving members may come face to face with dire conditions and events (Finnegan, Currie, Ryan & Steen, 2018:38; Kelley, Kenny & Donley, 2017:78). The challenges that military nurses face include the potential ethical issues in providing healthcare to enemy captives and civilian casualties in the host country. Furthermore, military nurses are expected to make triage decisions, manage resources in mass casualty situations when replenishment is problematic, and render care to patients with multiple injuries or who are on the verge of death (Agazio, Goodman, Opanubi & McMullen, 2016:227-228,239). In many cases, military nurses must manage several simultaneous demands; for example, having to relocate to begin a new duty assignment. Military nurses not only render patient care in military hospitals and clinics but also maintain the health of soldiers in an array of possible situations (Mabona *et al.*, 2019:2).

It is important to note that a military nursing career can be very stressful. The environment in which the nurses find themselves can be very dangerous and unpredictable (Conlon *et al.*, 2019:272). Military nurses may also find themselves in dangerous situations when they deploy to foreign war zones with the troops. In addition, Agazio *et al.* (2016:232) highlighted some distinctive characteristics related

to military nursing practice and the reality of being both a soldier and a healthcare professional. These aspects include prohibitions in rendering care to retirees in a number of environments and norms of confidentiality not being honoured in a milieu where superiors could expect disclosure of confidential information.

In terms of their functional environment, military nurses serve in military environments such as war-afflicted areas, disaster areas, and military healthcare facilities on home ground. Military nurses are also required to undergo military training. The civilian nurse, on the contrary, has little experience in caring for the military population (Elliott, 2018:360). Apart from the different functional environments where military and civilian nurses render care, the clientele they serve also differs. Military nurses often tend to acutely injured victims, be it soldiers, family members of soldiers, or refugees, while it is recognised that aspects of their experience can be found in civilian nurses, although not to the same extent (Conlon *et al.*, 2019:269,273).

The distinctiveness of military nursing from their civilian counterparts in South Africa is not well reflected in existing literature. Recent studies focused on the experiences and views of military nursing students, the work environment of the military nurse, and the requirements for the deployment of the military nurse (Jumat *et al*., 2014:5-8; Mabona *et al.*, 2019:5-6; Van Rensburg & Zägenhagen, 2017:33-34; Zägenhagen & Van Rensburg, 2018:103-104).

As with all nursing careers, there are several disadvantages and advantages to being a military nurse. The military environment has distinct features that have a direct impact on a nurse's identity and practice (Elliott, Chargualaf & Patterson, 2017:1376). A military nurse, being both a soldier and a nurse, may have clashes between professional aspects such as governance, command structure, professional duties, humaneness, professional status, assertiveness, management, authority, and ethical ideals (Van Rensburg & Zägenhagen, 2017:31-33). Being submissive to military command is an example of one attribute inherent to being a soldier. With the reality of unrest in South Africa, terrorism, natural and human-made disasters, and deployment, the researcher asked herself: "Do our military nurses have the attributes to fulfil their roles as both a soldier and a nurse in order to render quality care?" The same question applies to those nurses who have been transferred from civilian posts

to military posts – do they possess the required attributes to be both a nurse and a soldier?

The success of any health system is closely related to the role that the nurses in that system play (Mabona *et al.*, 2019:2; Swarna, 2015:30,34). The same can also be said about the success of a military healthcare system and the role of military nurses in that system (Mabona *et al.,* 2019:2). Quality in healthcare is closely related to the professional attributes of the individuals who deliver the service. Better-quality services in a health system may become available to the clientele of caring professions by identifying generalisations from the everyday experiences of these professionals and systematising the generalisations as scientific hypotheses (De Vos, Delport, Fouché & Strydom, 2011:43,45). The International Council of Nurses (2012) described the core professional values of nurses as respectfulness, responsiveness, compassion, trustworthiness, and integrity. Nursing values also include excellence, diversity, holism, patient-centeredness, and ethical practice (Finnegan *et al.*, 2016:86-87).

The process of becoming an exemplary nurse entails the development of professional attributes through nursing education and professional socialisation (Finkelman, 2019:115; Van Rensburg & Zägenhagen, 2017:74; Zägenhagen & Van Rensburg, 2018:96). Whether the country is in a state of war or a time of peace, the military environment cultivates specific values that have a direct impact on a nurse's identity and profession (Elliott *et al*., 2017:1376). The significance of military nurses thus relies on the distinctiveness of the nature and environment of military nursing. In order to explain the relationship between military nurses and their distinctive attributes, within the context in which they practise, research is needed.

Eley and Eley (2011:386) suggested that providing clinicians with an understanding of their personal characteristics may motivate them to think about their own personalities, or attributes, and the ramifications of their work choices. Nortjé (2017:23) recommended that additions could be made to ethics programmes to improve the professionalism of students, and recommended more education and research with this focus. Having an understanding of one's character can lead to a clearer understanding of one's role and how one functions in the workplace (Eley & Eley, 2011:386). It would therefore be beneficial to the nursing profession to continue

investigating what the attributes or characteristics of a registered nurse are, as well as to cultivate these traits through nursing education programmes (Pera & Van Tonder, 2011:49). Hence, the military environment could adapt the exposure of personnel to cultivate the attributes applicable in a military environment, in order to foster military attributes within its serving registered nurses.

1.2 STUDY CONTEXT

The researcher joined the South African National Defence Force (SANDF) 15 years ago during the third year of her professional nursing training at the University of the Free State (UFS). She is now a registered nurse and an officer in the South African Military Health Services (SAMHS). After obtaining her Bachelor of Social Sciences (Nursing) degree, she worked in a military hospital as a registered nurse for a period of nine years, after which she was transferred to the military nursing college in Bloemfontein. She is currently a lecturer at the SAMHS Nursing College.

The SAMHS has three military hospitals, located in Pretoria, Bloemfontein, and Cape Town. Registered nurses who work at these institutions were either trained at one of the military nursing colleges or appointed from outside the SANDF. The SAMHS has an in-house nursing college (SAMHS Nursing College) with three campuses, one at each of the above-mentioned hospitals. The main campus of the SAMHS Nursing College is located in Pretoria, with two satellite campuses in Bloemfontein and Cape Town. The three colleges provide training to students with the aim of producing trained registered nurses for the SANDF for service at various military medical facilities; for example, hospitals and primary healthcare clinics. This research study was undertaken during a period when the SAMHS offered two training programmes that would lead to registration as a professional nurse: a four-year diploma nursing programme and a two-year bridging course programme (Caka, Van Rooyen & Jordaan, 2015:193). The nursing college in Pretoria grants the four-year nursing diploma and the Bloemfontein and Cape Town campuses offer the two-year bridging course for enrolled nurses that will lead to registration as a general nurse (Caka *et al.*, 2015:193). Students who undergo training at these colleges come either from within the SANDF, or are recruited from outside the SANDF.

It is the opinion of this researcher that the standard of nursing care within the military is highly dependable on the ability of military nurses to function optimally in a healthcare environment that has additional challenges, as mentioned earlier. A description of the attributes of military nurses is therefore essential to shed more light on the specific attributes and characteristics required to enable optimal functioning within the military healthcare context.

1.3 PROBLEM STATEMENT

In formulating the research problem, the researcher moved from general interest and curiosity about whether military nurses in the South African military context have distinct attributes, to stating it as the research problem of this study (Merriam & Tisdell, 2016:77). Not all registered military nurses in the SAMHS are trained at the SAMHS Nursing College and might thus not be acquainted with the military environment and its specific expectations. The expectations of the modern military nurse are multifaceted; in particular in relation to the challenges of being both a registered nurse and a soldier (Finnegan *et al.*, 2016:86-87).

Even though there is an acknowledgement of the specific demands and requirements of registered nurses within military environments, the distinctive attributes of these nurses remain understudied. This fact is also true for registered nurses who work in the South African military context. The personal skills and qualities of registered military nurses with deployment experience are described by Jumat *et al.* (2014:9) as including liaison proficiencies, self-discipline, professional poise, and emotional strength. Although the professional attributes of nurses in the SAMHS are expected to align with the attributes of their civilian counterparts, the composition and setting of military nursing are distinctive in nursing practice and distinguish military nurse from nurses in the civilian setting (Mabona *et al.*, 2019:2).

During her pursuit of knowledge, the researcher could not identify a scientific study that specifically described the distinctiveness of registered nurses in the SAMHS. It is anticipated that the specification of attributes for registered military nurses in the South African military context could benefit the healthcare rendered in military healthcare settings. The question thus arises again: “Do our military nurses have the attributes to fulfil their roles as both a soldier and a nurse?”

The SAMHS Nursing College and its campuses have been assigned the responsibility of training general nurses to complement the SANDF's operational needs, as well as to upgrade the country's healthcare capabilities. This qualification must therefore meet all capabilities required from a military nurse and are emphasised in the Diploma of Nursing qualification, such as separate modules for disaster management and emergency care (South African Qualifications Authority [SAQA], 2020). However, since not all nurses in the SAMHS are trained at military nursing colleges, an exploration of the distinctive attributes of registered nurses in the South African military context was deemed necessary. An exploration and description of the distinctive attributes of military nurses could prove a valuable addition to the existing body of knowledge.

1.4 RESEARCH QUESTION

In order to address the problem statement, the research question in this study was formulated as follows: "What are the distinctive attributes of registered nurses in a South African military context?"

1.5 PURPOSE AND AIM OF THE RESEARCH

The purpose of this study was to explore and describe the distinctive attributes of registered nurses in a South African military context.

1.6 DEMARCATION OF THE RESEARCH

The research is situated within the field of Health Sciences and Social Services (Brink, Van der Walt & Van Rensburg, 2018:1). The study relayed the views of registered nurses who work in the South African military healthcare context on the distinctive attributes they possess or should possess. The study results could guide the development of a learning module that considers the distinctive attributes of military nurses. Such a module could be included in existing curricula towards cultivating the attributes necessary for rendering healthcare in the military context, or as an additional post-basic qualification for registered nurses who are working in the SAMHS. This study relates to nursing practice, and was designed to produce

evidence from a professional practice, as well as an education, perspective in nursing (Brink *et al.*, 2018:3).

The research was conducted within a specific context, namely the South African military healthcare context. Registered nurses at a specific military hospital, with two or more years' working experience within the military healthcare context, were included in the study.

1.7 PARADIGMATIC PERSPECTIVE

De Vos *et al.* (2011:41) stated that every scientific study is conducted within a specific paradigm, which refers to how researchers view their research data. The philosophical perspective, otherwise known as the research paradigm, that guided the ontological, epistemological, and methodological perspectives of this study is constructivism. The basic belief of constructivism is that reality or truth is the end result of an individual's own creation as they seek comprehension of the world in which they go about their daily lives (De Vos *et al.*, 2011:7; Merriam & Tisdell, 2016:9). The researcher thus acknowledges that research participants create knowledge from the meaning that they assign to life experiences (Merriam & Tisdell, 2016:23-24; Savin-Baden & Major, 2013:23-63). A thorough description of the paradigmatic perspective of this study is provided in Section 3.2.

1.8 RESEARCH DESIGN AND METHOD

A research design maps the research process of a study and is a plan, structure, and strategy of investigation of how the researcher intends to obtain answers to the research question or problem (Kumar, 2014:122). Since the purpose of this research study was to explore and describe the distinctive attributes of registered nurses in the South African military context, the researcher decided which research plan would best achieve this goal. In an attempt to uncover and understand the distinctive attributes that registered nurses who work in the South African military context should possess, a qualitative approach was used and a qualitative descriptive design was selected.

Qualitative approaches to nursing and healthcare research provide extensive insight into particular occurrences and may be used as a standalone research design (Doyle *et al.*, 2020:2). The researcher selected a qualitative descriptive design to obtain data from registered nurses who experience the challenges of working in the South African military healthcare context on a daily basis (Bloomberg & Volpe, 2012:27). In this study, the researcher explores and describes the attributes of registered nurses in the South African military context, and provides a factual reflection of the participants' insights (Babbie, 2016:91; De Vos *et al.*, 2011:96). Doyle *et al.* (2020:10) suggested that a qualitative descriptive design can be particularly applicable to nursing and healthcare professionals who are undertaking a research study and is an excellent manner to address matters that are of importance to them and their practice setting.

Research methods are explained as the specific ways used to gather data (Botma, Greef, Mulaudzi & Wright, 2010:273). Consensus methods are methods where results are based on the consensus, or general agreement, of a group (Botma *et al.*, 2010:251). This method was selected for this study. For qualitative research, in which a wide range of ideas are to be explored, or where a specific question is to be discussed among a particular population, a group-based technique such as the nominal group technique (NGT) is useful (Boddy, 2012:10). As a consensus method, the NGT was deemed appropriate for this study since the researcher sought to attain a unanimous opinion of what registered nurses in the SAMHS deem their distinctive attributes to be. A detailed description of the research design and method of the study is provided in Chapter 3.

1.8.1 Population and units of analysis

A population is an entire group of individuals or objects that is of significance to a researcher (Brink *et al.*, 2018:45). The population of this study included all registered nurses employed by the SAMHS. At the time this research study was conducted, 891 registered nurses were actively practising in the SAMHS. In an effort to achieve the purpose of this study and given the geographical location of all the military healthcare facilities in South Africa, the population was narrowed down to an accessible population (Brink *et al.*, 2018:193). The study population subsequently comprised 90 registered nurses at one specific military healthcare facility.

A sample is a small representation of a whole (Brink *et al.*, 2018:45; De Vos *et al.*, 2011:73; Merriam & Tisdell, 2016:96). The basic aim of any sampling design is to reduce, within the restriction of cost, the gap between the ideas found from the sample and those that are widespread in the study population (Babbie, 2016:187; Denscombe, 2014:32; Kumar, 2014:40). When sampling is conducted with an explicit purpose in mind, it is almost always by means of purposive sampling (Babbie, 2016:187; Denscombe, 2014:32; Maree & Pietersen, 2019:220). The researcher used purposive sampling, which is a type of non-probability sampling. This sampling is based on the judgement of the researcher regarding subjects that are typical or representative of the study topic, or who have knowledge about the question at hand and can provide the best data to achieve the aim of the study (Creswell, 2014:189; Kumar, 2014:244; Merriam & Tisdell, 2016:96).

Eleven nursing departments at the specific military institute were approached, which comprised nursing management, surgery/orthopaedic ward, internal ward, paediatric ward, psychiatry ward, isolation ward, maternity department, outpatient department, specialist clinics, casualty department, and operating theatre. The participants of this study all shared similar unique experiences in their work environment and were therefore in the best position to answer the study's specific research question.

1.8.2 Inclusion criteria and recruitment of participants

The participants comprised registered nurses with two or more years' experience within a military healthcare setting. The researcher decided to only include registered nurses with two or more years' experience in a military healthcare setting because of the reasonable military and nursing experience and exposure they would have had in the military context. The inclusion criteria for the participant groups were as follows:

- Being a nurse registered with the South African Nursing Council (SANC);
- Having two or more years' experience of working within the South African military context; and
- Being available to participate in the study; for example, not being deployed during the period of data collection.

A total of 16 military nurses participated in the study. The intent was that an initial study would be conducted with registered nurses at one specific military institution, with the option of further exploration on a national level at a later stage.

1.8.3 Data collection

The researcher used the NGT to obtain nominal and descriptive data about the distinctive attributes of registered nurses within a South African military context. The use of this technique was most suitable as it supported the constructivist approach of the researcher, where the participants play an active role in the research process (De Vos *et al.*, 2011:7). An important motivation for the choice of this specific technique is that the NGT eliminates domination of one participant over another by giving every participant an opportunity to give their responses (Boddy, 2012:10). In the military environment, it is quite possible that the rank status of one individual might cause domination over others during an interactive session.

The NGT is a consensus method and has been applied in several studies to ascertain current opinions or attain consensus on a subject (McMillan, King & Tully, 2016:656; Van Breda, 2005:2). Structured face-to-face group sessions are held to methodically generate a list of statements in response to a question posed, and then sorting these statements in order of priority, as judged by group members (Boddy, 2012:6; Foth *et al.*, 2016:114; Van Breda, 2005:3). The researcher did not have experience in the facilitation of NGT discussions and therefore requested the assistance of an experienced NGT discussion facilitator. Due to the lengthy process for an outsider to gain entry into the military environment for research purposes, the researcher sought a skilled NGT discussion facilitator who was employed by the SAMHS. Prior to the intended NGT discussions, the researcher formulated the research question into a research request (for use during the NGT discussions) that was critically reviewed for clarity by posing it to colleagues. The request was: “Write down the distinctive attributes of registered nurses in a South African military context.”

The NGT follows certain steps (Foth *et al.*, 2016:114; Harvey & Holmes, 2012:191). The steps of the NGT entail an introduction and explanation, silent generation of ideas, sharing ideas, group discussion, voting, and ranking of the ideas (Foth *et al.*, 2016:114; Harvey & Holmes, 2012:191; McMillan *et al.*, 2016:656-657).

To gather sufficient and relevant data, two NGT discussions were conducted. The first group included registered nurses in management positions (registered nurses in charge of nursing departments), while the second group included registered nurses who were not in management positions, but who have experience in working in the military healthcare service. Scoring and ranking methods (Harvey & Holmes, 2012:192; McMillan *et al.*, 2016:657) were used to list items from most important (scoring 5) to least important (scoring 1). The data collection process yielded two lists of attributes, provided from the perspective of the participants in Group 1 and Group 2 respectively. A comprehensive description of the data collection process is provided in Section 3.5.

1.8.4 Data analysis

The process of data collection and analysis is a simultaneous process in qualitative research, with analysis intensifying as the study progresses and all the data are collected (Merriam & Tisdell, 2016:195). The purpose of data analysis is to organise and provide structure to the research data and to make sense of the data by taking them apart and putting them back together again (Creswell, 2014:195; Merriam & Tisdell, 2016:202; Polit & Beck, 2012:556). During data analysis, the researcher progresses from having specific unprocessed information gathered during data collection, to the development of categories (Merriam & Tisdell, 2016:19).

The NGT, and other consensus group research methods, is unique in the fact that it derives quantitative estimates through qualitative approaches that should adhere to strict methodological procedures (Foth *et al.*, 2016:113). Inherent to the analysis of multiple nominal group data, the process of analysis of the NGT data entailed a combination of quantitative and qualitative data analysis methods to consolidate, reduce, and interpret what the participants had said, as well as what the researcher construed (Botma *et al.*, 2010:253; Foth *et al.*, 2016:113; Merriam & Tisdell, 2016:202; Van Breda, 2005:3).

Quantitative methods were applied when using numerical values for analysing the data, while qualitative methods were used during content analysis when interpreting the data and creating categories (Botma *et al.*, 2010:253; Van Breda, 2005:3). Consideration was given to both the relative importance of the priority, indicated by the sum of the votes, as well as the voting frequency, which refers to the popularity

of the statement among the participants (Van Breda, 2005:4-10). The data analysis proceeded as follows:

- **Data analysis during the NGT discussions (Stage 1):** Data were analysed quantitatively during the NGT discussions, with the assistance of the participants, immediately after collecting the data. The participants were thus involved in the data analysis process by reducing, validating, and prioritising the data. The data were ranked numerically, in order of priority, when responses were voted for and ranked (Botma *et al.*, 2010:253; Van Breda, 2005:3). The five priorities for each NGT discussion were ranked and voted for, and the results of the voting process were indicated correspondingly on a flip chart during each NGT discussion (see Section 3.5.2.1(e)).
- **Analysis of the multiple sets of data (Stage 2):** The two datasets from the NGT discussions were combined and analysed by following six of the seven steps in multiple group analysis as described by Van Breda (2005:4-12). A thorough description of the data analysis is provided in Section 3.6, and the findings are discussed in Chapter 4.

1.8.5 The role of the researcher

Qualitative research is interpretative research. Researchers should therefore instinctively recognise their own prejudices, values, and personal experience that shape their interpretations during a study (Creswell, 2014:186; Maree, 2019:49). In addition, the researcher's role includes gaining entry to the research site, as well as addressing ethical issues that arise during the course of the research (De Vos *et al.*, 2011:188).

Fostering good relations with participants has a noteworthy effect on the accuracy and reliability of a research study (De Vos *et al.*, 2011:333). In this study, the researcher had previously been employed at the military healthcare facility as a registered nurse. She may therefore have a mix of insider and outsider status in the view of the participants. She also built a trust relationship with the participants by adhering to the ethical principles of respect, justice, and beneficence throughout the research study, as well as applying informed consent and confidentiality throughout the study.

The researcher planned all aspects of the study; from the writing-up of the research proposal to the interaction with the participants during the data collection process (De Vos *et al.*, 2011:123). The role of the researcher included the formulation of the research question and the selection of a research design and method in the research proposal, and subsequently obtaining the necessary approval from the relevant committees (see Section 1.9). Thereafter, she selected the population for the research and recruited participants for the study (see Section 3.4).

The researcher took note of the fact that data are open to interpretation and that it can be viewed in different lights. She avoided influencing the outcome of the study by using an experienced facilitator and not being actively involved in the data collection process. Because the researcher is a registered nurse with experience of the nature of the military work environment, she attempted to eliminate bias through continuous collaboration with her supervisor.

1.9 ETHICAL CONSIDERATIONS

Ethics in research refers to adherence to a set of moral principles in research, such as justice and the rights of the participants involved in the research, and offers guidelines and behavioural expectations for acceptable conduct towards all parties involved in a research study (Creswell, 2014:92; De Vos *et al.*, 2011:114; Polit & Beck, 2012:152). The principles of beneficence, respect for human dignity/autonomy, and justice derive from the Belmont Report, on which the standards of ethical conduct in research are based (Babbie, 2016:63; Maree, 2019:47; Polit & Beck, 2012:152-156). Since the research involved human participants, and in an effort to ensure ethical conduct throughout the research process, the researcher used the following measures to protect the participants:

- Permission to conduct the study;
- Informed consent;
- Voluntary participation;
- Avoidance of harm;
- Voluntary participation; and
- Privacy, anonymity, and confidentiality.

A discussion of how these measures were continuously applied in the study is provided in Section 3.8.

De Vos *et al.* (2011:126,129) and Denscombe (2014:164) highlighted the need to submit research proposals to institutional review boards and ethics committees for consideration and approval to ensure the application of ethical decision making during all stages of research. When this research study commenced, the proposal was evaluated by a research evaluation committee at the School of Nursing and approval was obtained from the head of the School of Nursing at the UFS, where this study was conducted. Approval to conduct the study was then sought from the Health Sciences Research Ethics Committee of the UFS, which approved the study: UFS-HSD2019/0174/3007 (see Addendum A). Further approval was sought from the 1 Military Hospital Research Ethics Committee (see Addendum A). In addition, authorisation to conduct the research was also obtained from the healthcare institute where the research was conducted (see Addendum B) and the Defence Intelligence department of the SANDF (see Addendum B), as well as from the Surgeon General of the SAMHS (see Addendum B).

1.10 METHODOLOGICAL RIGOUR

Rigour is a term used in qualitative research that implies that if researchers work meticulously, it will enable them to obtain data that display a version of the truth (Savin-Baden & Major, 2013:471). Ensuring trustworthiness and rigour in this qualitative research entailed conducting the research in an ethical manner (Merriam & Tisdell, 2016:237). The researcher enhanced trustworthiness during the course of the study by addressing credibility (truth value), dependability (reliability), confirmability (objectivity), transferability (applicability) and authenticity, which differ from the criteria for rigour in quantitative research, namely validity and reliability (Creswell, 2014:201; Kumar, 2014:219; Nieuwenhuis, 2019:143; Polit & Beck, 2012:582-584). In Section 3.9, the researcher provides a detailed description of how rigour was ensured for this study.

1.10.1 Credibility (truth value)

Savin-Baden and Major (2013) stated that credibility indicates that the findings of a research study represent some sort of reality. Credibility indicates the confidence of the reader in the level to which the researcher's findings reflect the opinions of the participants (Grove, Gray & Burns, 2015:502). Credibility subsequently reflects how believable the data are and whether or not the data can be trusted. In this study, the researcher sought credibility by using more than one nominal group and an experienced facilitator, adequate engagement in data collection, clarification of inputs from the participants, and verifying the outcome of the NGT discussions with the NGT facilitator. The researcher also took precautionary steps to conduct the research in an ethical manner.

1.10.2 Dependability (reliability)

If dependable, the research process (data gathering and data interpretation) can be traced and found to be accurate (Bloomberg & Volpe, 2012:113). According to Botma *et al*. (2010:233), dependability implies a dense description of the methodology, and including in the research design what was planned and executed during the study. A study is considered dependable if the results of the research are consistent with the data presented (Merriam & Tisdell, 2016:252). In order to establish reliability in this study, the researcher was comprehensive in her account of data collection, data analysis, and reporting the research findings.

1.10.3 Confirmability (objectivity)

Confirmability entails that data represent a true reflection of the information supplied by the participants and that it was not invented by the researcher. This statement suggests that the researcher must remain impartial during data analysis and interpretation (Savin-Baden & Major, 2013:475), which means that the findings must not be affected by the researcher's viewpoints or opinions (Polit & Beck, 2012:585). In this study, the researcher sought confirmability through the implementation of measures to reduce bias throughout the research process.

1.10.4 Transferability (applicability)

Transferability, also referred to as external validity, is concerned with the degree to which the results of a study can be replicated and applied to other situations (Merriam & Tisdell, 2016:253; Polit & Beck, 2012:585), with the recognition of some similarities in other contexts. If the researcher established a conscientious study, other persons can identify and decide for themselves whether the findings can be transferred to and used in similar situations elsewhere (Savin-Baden & Major, 2013:475).

In this study, the researcher sought transferability by providing thick, detailed descriptions throughout the study. However, it is acknowledged that this research was conducted in a particular setting in South Africa that might not necessarily be transferable across borders.

1.10.5 Authenticity

Authenticity arises when a report adds the ambiance of participants' lives, as they are lived, thereby communicating the feelings of the participants (Botma *et al.*, 2010:235; Polit & Beck, 2012:585). In applying authenticity in this study, the researcher provided a true reflection of the views and experiences of the participants described in the study, while engaging the reader to develop an increased understanding of the issues portrayed in the study (Botma *et al.*, 2010:234).

The participants were asked to write down their individual ideas, and to share and clarify ideas in a group before classifying these ideas and reaching consensus by voting. The use of an impartial NGT discussion facilitator reduced the risk of researcher bias having an impact on the quality of the collected data, as well as the analysis and interpretation thereof. The researcher further aimed to achieve authenticity through continued collaboration with her supervisor, who is an experienced qualitative researcher.

1.11 LIMITATIONS OF THE RESEARCH

Limitations are inherent in academic research, even in the most carefully planned research study (De Vos *et al.*, 2011:111). Maree (2019:50) noted that a researcher should indicate which challenges and limitations affected the research and how the researcher dealt with these challenges and limitations. Identifying limitations and explaining to the reader what effect these limitations had on the study findings not only demonstrate rigour but also enabled the researcher to pinpoint clear directions for further research in the field (Greener, 2018:568).

This research study had limitations. The limitations pertained to the composition of the participants involved in the study, the parameters of the research question, supplementary methods of data collection, and the size of the population. In the concluding chapter, the researcher highlights and elaborates on the limitations specific to this research.

1.12 VALUE OF THE STUDY

A clear and thorough description of the distinctive attributes of military nurses within the South African military nursing context may guide military nurses in the provision of quality nursing care and may enhance their professionalism. Furthermore, an exploration of the distinctive attributes of military nurses may facilitate the formulation of recommendations on how to determine the presence or absence of these attributes within individual registered nurses in the SAMHS and may thus prove a valuable addition to the existing body of knowledge. It is anticipated that the study can promote continuous development of military registered nurses' professional practice by stimulating reflection on their own attributes.

1.13 OUTLINE OF THE STUDY

In this study, the planning, execution, and reporting of the research are presented in five chapters. An overview of the study was provided in Chapter 1. The second chapter provides a description of the perspectives from existing literature on the topic of nursing within the military context, the aspect of military nurses being both a nurse and a soldier, and the education and training of military nurses. A description of the

methodology, including the research design and techniques used for data collection and data analysis, follows in Chapter 3. The findings of the data analysis process are presented and discussed in Chapter 4. In Chapter 5, the researcher presents final remarks, makes recommendations for future research, and discusses the limitations of the study.

1.14 SUMMARY

This chapter provided an overview of the study and included the study context, which was followed by the problem statement, the research question, the purpose of the research study, and the demarcation of the research. The paradigmatic perspective and the research design and methods applied during the study were highlighted. This was followed by a discussion of ethical considerations and methodological rigour. The chapter concluded with a discussion of the limitations of the research, the value of the study, and a presentation of the outline of the study. In Chapter 2, various perspectives found in existing literature that are relevant to the study are reviewed and discussed.

CHAPTER 2:
VIEWS FROM THE LITERATURE

2.1 INTRODUCTION

In the previous chapter, the researcher summarised this qualitative study and outlined the steps followed to answer the research question, namely “What are the distinctive attributes of registered nurses in a South African military context?” This chapter presents views from existing literature related to military nursing and the feature of military nurses being both a nurse and a soldier. As a point of departure, the background of military nursing and the context in which military nurses perform their work are discussed. By expounding on the military context, the researcher brings perspective to the concept of being both a nurse and a soldier and refers to military nurses in relation to civilian nurses. The researcher accentuates the essential attributes required of a nurse and those of a soldier, as well as the challenges experienced by this distinct group. The chapter concludes by explaining aspects of nursing education and the military training of nurses who work in the military context.

2.2 MILITARY NURSING

Nursing has existed for as long as people have been ill. Since the beginning of time, there has always been someone who took care of those who fell ill or suffered injury (Finkelman, 2019:4). Today, nursing is a recognised profession, which demands discipline and dedication from individuals in this field of work.

The main function of the nursing profession is to deliver a service to the public, founded on an accurate knowledge base (Nieswiadomy & Bailey, 2018:5). The development of nursing as a profession is shown by established models of nursing, which focus on the practical use of the knowledge attained (Wasik, 2020:68). The development of nursing protocols and guidelines is testimony to how nurses have self-developed into knowledgeable professionals internationally (Henry, 2018:52; Ten Hoeve, Jansen & Roodbol, 2014:296).

Knowledge borrowed from other fields in healthcare is often not suitable to the needs of the nursing profession (Nieswiadomy & Bailey, 2018:113), and specifically to military nursing. A discussion paper by Ten Hoeve *et al.* (2014:306) suggested that the professional advances in nursing could be better understood by communicating the work experiences of nurses with other professionals in the field. This section describes some aspects of the evolution of military nursing so that the experiences of military nurses and the relationship between being a nurse and a soldier simultaneously, as well as the challenges accompanying this unique role, can be recognised.

2.2.1 Background to military nursing

Nurses are an integral part of any nation's armed forces. They provide care on the frontline and their capabilities enable them to perform in conditions of unrest and care for combat casualties (Suresh *et al.*, 2021:203). Since the arrival of Jan van Riebeeck in South Africa in 1652, the original Dutch and subsequently Huguenot and British settlers, as well as Voortrekker women, provided care in wartime under very demanding circumstances (Stratford & Collins, 1994:1-2). These women, however, did not belong to any official military nursing group and did not wear a prescribed uniform. The first military nurses in South Africa were operational during the Zulu War in Natal during 1877 to 1879 and consisted of 14 ladies sent from England. During the same decade, sisters of the Anglican and Roman Catholic religious orders as missionary nurses provided crucial service to soldiers in South Africa for over 50 years (Harrison, 1979:54; Mellish, 1984:108-109).

Throughout the South African (Anglo-Boer) War from 1899 to 1902, there was a realisation of the need for an organised female military nursing force (Searle, Human & Mogotlane, 2009:19-20) and more and more women were looking to share in the adventure of helping during the war (Suttie, 1998:148). Legislation was passed that made detailed provision for a Military Nursing Service in the Defence Act. This Act was published in the *Government Gazette* on 3 December 1913. On 13 December 1913, the South African Medical Corps was promulgated in the *Government Gazette* (Stratford & Collins, 1994:1-25).

During World War I, which started in 1914, the nurses of the new service, known as the South African Military Nursing Service (SAMNS), served both locally and abroad. The nurses who served with the armed forces resumed their pre-war careers after the Armistice was signed in France in November 1918 (Stratford & Collins, 1994:23-70). During the period 1919 to 1939, the Director General of Medical Services of the Defence Force, aided by the South African Trained Nurses Association, initiated a national register of all trained nurses, other than those working in hospitals, who were willing and able to render service in the case of a national emergency (Stratford & Collins, 1994:70-74).

With the onset of World War II in 1939, all medical services (including those of the Defence Force) were grouped under the control of the Department of Health. This state of affairs was not favourable in a wartime mobilisation situation and led to the appointment of a Director of Medical Services on a full-time basis (Stratford & Collins, 1994:76-79).

In 1940, the South African Trained Nurses Association availed a reserve force that ensured the availability of a group of registered nurses during the organisation of war-time nursing services, while the Red Cross offered the service of young women trained in first aid and home nursing for work in military hospitals in order to free the male orderlies for active service in the field. These volunteers and those from the St John Ambulance Brigade rendered exceptional service in all the areas in which the South African forces served throughout the war (Stratford & Collins, 1994:79).

A shortage of nurses in 1941, when the South African government was called upon to increase its own military programme by providing 8 000 beds for Imperial troops from the Middle East, gave rise to the employment of trained Canadian nurses in the SAMNS in an arrangement between South Africa and the Canadian government (Stratford & Collins, 1994:109-112).

At this stage, the nurses wore insignificant stripes on their epaulettes. In 1942, permission was granted for nurses to wear military ranks (Stratford & Collins, 1994:81). During this time, there was also a campaign for nursing legislation, which included compulsory registration with a nursing council to regulate the profession in the interest of the public (Muller, 2009:30; Stratford & Collins, 1994:82). The Military Nursing Service was reduced to a minimal number to provide service to soldiers

during peacetime. The SAMNS became an integrated part of the Medical Corps in October 1950 and nurses were then allowed to become Permanent Force Members, subject to military law, as well as the applicable rules and regulations (Stratford & Collins, 1994:118). In 1957, the Defence Act 44 of 1957 was passed, which governed members of the South African Defence Force (Stratford & Collins, 1994:114).

The SAMHS, as it is known today, was later formed after the establishment of the SANDF after South Africa's first democratic elections in 1994. The consumers of health services offered by the SAMHS are the members of all arms of services of the SANDF, and include the army, the air force, the navy, the SAMHS, and the military veterans and their dependants. It is important to note, however, that the SAMHS differs from other healthcare providers because of the uniqueness of the military environment (Mabona, 2018:2-3).

2.2.2 The context of military nursing

Serving in the military requires a unique skill set and set of values that, in some ways, differ from those of civilians, as seen in a study conducted by Redmond *et al*. (2015:18), which highlighted the fact that military service is not just an occupation. The military population has unique needs and strengths. Internationally, military nurses have unique experiences while caring for injured service members (Morrison-Beedy, 2016:404).

Military service also has many challenges and dangers that add to health difficulties (Agazio, 2010:173; Collins, Wilmoth & Schwartz, 2013:376). For military nurses, pledging service to the military often includes deployment to a war zone (Best, Durham, Woods-Giscombe & Waldrop, 2020:e57; Elliott & Patterson, 2017:146; Embrey, Gilbert & Taggart, 2019:113), where military forces are required to contribute to the delivery of essential aid and services if civilian agencies are either limited or not present at all (Bricknell & Beardmore, 2011:S431).

All nurses should be equipped to deliver comprehensive care in any setting, considering the unique requirements of each patient (Beckford & Ellis, 2013:403; Embrey *et al.*, 2019:113; Griffiths & Jasper, 2007:98). Military nurses may provide service in military clinics, military hospitals, field hospitals, ambulances, aircrafts,

ships, or alongside deployed soldiers (Kelly, 2010:641-642; Ma *et al.*, 2020:1173; Ma *et al.*, 2021:869).

Other than those nurses who work outside the military setting, military nurses are also required to develop military skills for the battlefield and be suitably equipped to care for patients who sustain multi-trauma injuries. The military nurse should, for example, be able to provide care in military vehicles and aircraft, as well as to execute other military-related services, such as taking part in military parades. It is thus recommended that military nurses be resilient and flexible to deliver care in difficult environments (Fullstone & Hall, 2017:30; Kenny & Kelley, 2019:7).

The registered nurses who work in the SAMHS are an assortment of registered nurses appointed from outside the military and those trained at the SAMHS Nursing College (Mabona, 2018:8). Registered nurses appointed from outside the military have little or no experience of the conditions in conflict situations since they were not exposed to the military environment during their training (Naidoo & Badli, 2016:49). The challenge is to recruit adequate-quality employees with the correct profile and skills (Smith & Heinecken, 2014:102-103). This detail prompted the researcher to investigate what the literature articulates about the attributes of nurses in relation to the attributes as a soldier.

2.3 THE MILITARY NURSE: BOTH A NURSE AND A SOLDIER

Nursing encompasses a distinct body of knowledge paired with the dexterity of caring (Finkelman, 2019:42). Both are equally important to provide quality nursing care. Focusing only on meeting the needs of the patient's illness is not enough. What one does as a nurse directly impacts patient outcomes and quality (Finkelman, 2019:391). Military nursing and civilian nursing have numerous similarities that result from the shared goals to render nursing care to clients and to promote health.

However, there are also differences between the two because of the different contexts in which military nurses perform their duties (Best *et al.*, 2020:e57; Kelly, 2010:636; Conlon *et al*., 2019:273; Ma *et al.*, 2020:1172).

2.3.1 Military nurses in relation to civilian nurses

According to Zangaro and Kelley (2011:76), and from searching existing literature, the researcher concluded that no studies have examined the differences between military nurses in relation to civilian nurses. Military nurses belong to two professions, those of nursing and the military, and they honour the ethical principles of both (Griffiths & Jasper, 2007:93). In South Africa, registered nurses are qualified nurse practitioners who are licensed to practise nursing or midwifery under section 31(1) in terms of the Nursing Act 33 of 2005. The clarification of the scope of practice of registered nurses is explained in the Nursing Act 33 of 2005.

In Table 2.1, the researcher summarises the main similarities and differences between military nurses and civilian nurses according to governance and scope of practice, duty expectations, professional features, and education and training.

Table 2.1: Summary of the main similarities and differences between military nursing and civilian nursing

Aspect	Military nursing	Civilian nursing	Reference
Governance and scope of practice	• Nursing Act • Defence Act • SANC • SANDF	• Nursing Act • SANC • Department of Health	• Nursing Act 33 of 2005 • Defence Act 42 of 2002 • Mabona *et al.* (2019:2) • Mathibe-Neke (2020:52)
Duty expectations	• Day-to-day routine nursing • Deployment in times of disaster • Military training	• Day-to-day routine nursing	• Embrey *et al*. (2019:113) • Rivers (2016:614) • Yoder and Brunken (2003:268)
Professional features	• Addressed by military rank (e.g., Captain) • Military uniform	• Addressed by professional rank (e.g., Sister, Matron) • Nurse's uniform	• Kelly (2010:640)
Education and training	• Professional • Military	• Professional	• Van Wyngaarden (2017:23) • Zägenhagen (2016:15)

Source: Compiled by the researcher from the references listed in the table

2.3.1.1 Governance

Registered nurses in the Defence Force and the civilian sector must comply with the Nursing Act 33 of 2005. The same rules and regulations that apply to civilian nurses apply to military nurses who provide care to uniformed members injured on the battlefield or in a disaster, as well as close relatives and retired service members

(Best *et al.*, 2020:e57; Ross, 2010:169). The Nursing Act contains, for example, the following regulation: “the diagnosing of a health need and the prescribing, provision and execution of a nursing regimen to meet the demand of a patient or group of patients or, where necessary, by referral to a registered person”. Military nurses are also governed by the Defence Act 42 of 2002. Under the Act, nurses are expected to abide by the rules and regulations just like any other soldier.

In South Africa, the SANC is the regulatory body that maintains nurses’ professional and ethical practice related to the nursing programme, the scope of practice, the code of ethics, and continuing professional advancement (Mathibe-Neke, 2020:52). Every nurse must uphold the image of nursing by always acting in a professional manner (Muller, 2009:200). Likewise, military nurses are expected to observe SANC legislature.

In addition to being regulated by the SANC, military nurses also receive governance in their provision of health services from the SANDF, which falls under the Department of Defence (Mabona *et al.*, 2019:2). This feature is unlike civilian nurses, who are mandated by the Department of Health. The Defence Ministry is separate from the public health system for the state’s citizens (Bricknell & Cain, 2020:40).

2.3.1.2 Duty expectations

Military nurses must be capable of working in conjunction with other military teams, including the United Nations and local civilian organisations, to ensure that the best care is given to injured military personnel and the resident civilian population (Griffiths & Jasper, 2007:98). An example of a dissimilarity between military nurses and civilian nurses is that military nurses must always be ready and on standby to render services during disasters and when deployed (Embrey *et al.*, 2019:113; Yoder & Brunken, 2003:268).

Rivers (2016:614) defined a disaster as any non-combat mission, such as humanitarian assistance or response to a natural or human-made event outside of warfare. During disasters, as was the case during the COVID-19 pandemic, military forces may be requested to assist when local disaster response efforts become exhausted (Naidoo & Badli, 2016:46; Rivers, 2016:614). In South Africa, soldiers, among whom military nurses, were deployed to assist the government in burdened areas. Participants who have experience working in battle or humanitarian

emergencies often voice the severity of this peculiar duty compared to those health professionals not in the military (Conlon *et al.*, 2019:269; Naidoo & Badli, 2016:46).

The mission readiness of military healthcare personnel demands competence in military skills, in addition to occupational skills (Naidoo & Badli, 2016:48-49). Military nurses thus have to embark on military training – a component to which civilian nurses are not subjected.

2.3.1.3 Professional features

Military nurses are addressed by their military rank and not by their professional rank. Examples include auxiliary nurses and enrolled nurses who are addressed as Corporal, Sergeant, Staff Sergeant, or Warrant Officer, and registered nurses who are addressed as Lieutenant, Captain, Major, or Colonel (Kelly, 2010:640). Civilian nurses are generally addressed as Sister or Matron.

Military forces are supported by a healthcare team in uniform who are combat ready (Naidoo & Badli, 2016:43), whereas registered nurses in the civilian sector are generally identified by their distinctive devices (epaulettes) as prescribed by the SANC (2003; 2021).

2.3.1.4 Education and training

The combat readiness of military nurses requires additional knowledge about war situations and they therefore need military skills in addition to their professional skills (Naidoo & Badli, 2016:48). The courses they attend encompass military courses for promotional purposes and courses to advance professional skills for the battlefield. Members are nominated to attend the courses and selection is not guaranteed.

2.3.2 Essential attributes required from a nurse

Attributes are the most common characteristics associated with a specific concept. Nursing attributes were grouped into four themes in a study conducted with nurses by Schmidt and McArthur (2018:70-71). The themes were human dignity, integrity, altruism, and justice. According to Wasik (2020:72), research confirms that patients not only expect expert advice and information from healthcare professionals, they also need support, respect, understanding, and empathy. It is generally recognised,

particularly in the hospital setting, that nurses are the primary providers of healthcare and spend more time interacting with patients than any other member of the multi-disciplinary team.

The assumption is that there are changes in patient outcomes when particular nursing traits are present or lacking (Bock, 2020:97), which directly affects the patient's health and even life (Wasik, 2020:72). When assessing the quality of service, the patient considers not only the result of treatment but also features such as employee interest, safety, and respect (Nortjé, 2017:73).

Nurses form the core of healthcare delivery in Africa (Cunningham *et al.*, 2017:147). Competent and caring professional nurses are crucial for effective and quality healthcare (Barr, Ferro & Prion, 2019:369) and character traits reflect personal aspirations and beliefs that evolve over time as a result of life experiences (Eley & Eley, 2011:381). They are shaped by sociocultural learning and develop in progressive steps throughout life. All nurses, whether military or civilian, and whichever discipline or place of employment, are expected to possess attributes such as being trustworthy, caring, and compassionate.

A study by Cain *et al.* (2018:199) revealed seven general themes in terms of key behaviours and characteristics of high-performing nurses to create a tool for job screening, staff development, and performance management. These behaviours and attitudes are teamwork, patient advocacy, communication with patients and families, caring, approach to care, work attitude, and personal attributes. Cain *et al.* (2018:199) believed that selecting nurses with these attributes was a significant factor in attaining quality within their organisation.

The public perception of nursing is an essential indicator of the profession's value in society (Meiring & Van Wyk, 2013:5). The findings of an exploratory study on patients' perceptions of the care rendered by a nurse practitioner revealed that patients highly appreciate the following six fundamental aspects of nurse practitioners:

- As a human, with an empathic nature, helpfulness, and reliability as fundamental concepts;
- As a professional, with responsibilities such as coach, expert, supporter, and patient's advocate;

- Providing care, with the emerging fundamental elements of discussing therapy and advising;
- Providing cure, with monitoring and communication of test results as key elements;
- Organising care, with the focus on coordination and collaboration with other professional caregivers as important considerations; and
- The influence on patients' wellbeing, with participants feeling more empowered, serene, and in control of their sickness, as well as the personalised care that makes them feel understood and being more than just a number (Van Dusseldorp *et al.*, 2019:599-600).

Contrary to the negative image portrayed by the media, a study conducted in South Africa related that the public's opinion is that nurses are caring and understanding and that nurses love their profession (Meiring & Van Wyk, 2013:9). How patients experience caring and how they experience nursing seem to play a significant role in the degree to which patients experience the quality of nursing treatment (Edvardsson, Watt & Pearce, 2017:1).

A study conducted with undergraduate medical students (Nortjé, 2017:21-23) described students' views on the attributes they deemed essential to develop professionalism. These attributes included:

- Respect for patients;
- Clinical competence;
- Ethical conduct;
- Altruism by being non-judgmental and compassionate;
- Education / to go on regular refresher courses;
- Compliance with the law;
- Cultural competence; and
- Good leadership.

In a recent study, nursing students stated that "to be a good nurse" means courage, professionalism, loyalty, humanity, solidarity, and caring (Zydziunaite & Bagdonaite-Stelmokiene, 2020:507). Schmidt and McArthur (2018:69) defined professional nursing values as fundamental nursing concepts of human dignity, integrity,

compassion, and fairness, which serve as a framework for standards, professional practice, and assessment.

A study conducted in Turkey (Aydin Er, Sehiralri & Akpinar, 2017:244) described the opinions of first- and fourth-year nursing students concerning the "attributes of a good nurse" and determined whether and how their views change depending on their year of study. A total of 120 students participated in the study. First-year students placed greater emphasis on professional competence and the attributes of geniality, patience, calmness, love of nursing, loyalty to nursing, and "not attaching importance to material values". Fourth-year students had similar responses but emphasised responsibility and placed higher value on empathy, honesty, responsibility, and scientific curiosity.

A different study revealed that registered nurses described the features of a good nurse as an individual who is compassionate, patient, unselfish, ethical, loyal, honest, trustworthy, courageous, non-judgmental, and responsible (Catlett & Lovan, 2011:62).

A study by Cain *et al.* (2018:199-201) identified key behaviours and attributes that distinguish high-performing nurses. They used the data to develop a tool for employment screening, staff development, and performance management. The outcomes of the study are presented in Table 2.2.

Table 2.2: Key phrases for the attributes of nurses

Attribute	Description
Teamwork	• Assumes leadership in stressful situations • Unifies the team • High expectations of peers • Treats all staff as colleagues – no hierarchy • Collaborative and contributing in interprofessional teams • Shares knowledge and resources
Patient advocacy	• Persistent in determining patient needs and taking action until resolved • Encourages patients to speak up and be their own advocates
Communication with patients and families	• Perceptive regarding how/when to intervene with patient/family • Understands patient perspective and how to intervene therapeutically • Gives patients options and includes them in decision making • Comfortable handling difficult conversations
Caring	• Treats patients as individuals, not illnesses • In tune with what the patient is experiencing • Considers patients' unique needs, interests, and spiritual/cultural concerns • Insightful regarding family dynamics

Attribute	Description
Approach to care	• Proactive – anticipates what can happen and the steps to follow • Systematic, thorough, focused
Work attitude	• Excited about change; leader in innovation • Demonstrates initiative in practice changes • Looks for challenges to enhance expertise
Personal attributes	• Emotional intelligence and maturity • Takes responsibility for actions • Comfortable in asking for assistance or seeking a second opinion

Source: Compiled from Cain *et al.* (2018:199)

Data for the attributes described in Table 2.2 were obtained from mixed groups, including nurse managers, administrators, staff nurses, doctors, nursing assistants, allied health professionals, and patients and their family.

The nursing profession demands a variety of attributes that extend past the basic expectations of skill and competency. Cain *et al.* (2018:199-201) mentioned that selecting nurses who have the specific attributes listed was a significant factor in attaining and retaining nurses who best suited the organisational culture. This notion is further supported by a study where the findings of three focus groups concluded that nurses should have a suitable attitude and attributes in order to be a nurse (Glerean, Hupli, Talman & Haavisto, 2019:390-394). The features of nursing as a profession and what nurses do today have their roots in the past (Finkelman, 2019:4) and it is ultimately the responsibility of every individual nurse to uphold the image of the profession.

Since individuals who join the military have unique backgrounds, with different life experiences, they are moulded into the military culture throughout their period of service (Moss, Moore & Selleck, 2015:307). The recruitment of military nurses focuses on individuals who possess the right proficiencies to deliver admirable and compassionate nursing in challenging military settings (Carter & Finnegan, 2018:305). Henry (2018:53) proposed that approaches be developed to place what nurses do in the context of who they are. What is apparent from the literature is that elemental attributes are expected to be present in every nurse, whether military or civilian. The lack of knowledge about the distinctive attributes of registered nurses in the South African military context motivated this research to determine military

nurses' perceptions of their distinctive attributes and to indicate whether these attributes are aligned with the literature.

2.3.3 Essential attributes required from a soldier

This section focuses on the military (or soldierly) aspects of military nurses. Many nations have and maintain armed forces, even when there is no threat of war (Heinecken, 2015:2). The primary goal of soldiers serving in the armed forces, who are accustomed to the reality of following orders (Bishop & Ross, 2018:77; Naphan & Elliot, 2015:36), is to prepare for battle or to supplement those preparations (Atuel & Castro, 2018:79). The duties of a soldier involve accuracy and vigilance (Turazod, 2021:251). During soldiers' training, military competencies are developed and cultivated (Petrov & Georgiev, 2019:832).

Military nurses are required to not only offer nursing care to the military population and their dependants, but also to undergo training as a soldier. Being both a nurse and a soldier, military nurses have to abide by the ethical codes of both professions (Griffiths & Jasper, 2007:93). Both nursing and military competencies are therefore necessary for a nurse to provide services during deployment operations and thus to display the attributes of a soldier and those required as a nurse.

Ross (2010:172) described the general characteristics of military nurses under the categories of nursing practice, military service, and leadership. In line with the aim of military nursing to provide nursing care and management during both armistice and contingency operations (D'Angelo *et al.*, 2019; Rivers & Gordon, 2017), it is expected of military nurses to be aware of what they may expect during their individual deployment session(s). They should be equipped with the essential knowledge and capabilities they need to be effective in their service delivery (Jumat *et al.*, 2014:1). For example, military nurses must be flexible to be allocated to new duties elsewhere in the country or in Africa, where they might be exposed to severe weather conditions, unfamiliar habits and cultures, communication failures, and pests (Jumat *et al.*, 2014:6).

All military health personnel need to be prepared for operational deployment, which includes being physically fit. Like soldiers, nurses who serve in the military are expected to be physically fit to meet the demands of the service they provide.

Although Pugh *et al.* (2019:2117) suggested that integrating an aspect of physical fitness training is significant in the preparedness of student nurses for occupational demands, this is not the case in many nursing schools.

Knowledge of the “soldier” attributes of registered nurses in the South African military context will be valuable in realising to what extent they consider being capable soldiers as an important factor in their line of work.

Participants in Zägenhagen’s (2016:64-65) study believed that military training helps to develop several professional and personal attributes. These include management and managerial competencies, communication and writing competencies, critical thinking abilities, decision-making abilities, planning proficiencies, self-empowerment, durability, and individuality.

Because of their careers as military nursing officers, these individuals also have clinical competencies and leadership capabilities and may possess a range of interests and skills (Lake, Allen & Armstrong, 2016:243). The findings of the study conducted by Finnegan, Finnegan, *et al.* (2016:93) highlighted the challenges experienced by nurses. They suggested that having a list of key attributes for military nurses may assist when recruiting them by ensuring that consideration is given to all aspects of being a military nurse. The following section deliberates on the challenges experienced by military nurses during the course of their service.

2.3.4 Challenges experienced by military nurses

The field of military nursing holds unique challenges (Currie & Chipps, 2015:1615; Kenward & Kenward, 2015:38; Morrison-Beedy, 2016:404; Scerri, 2020:128,134). The literature indicates that nurses in a war zone offer patient care while working in harsh circumstances (Cuellar, 2009:490), with limited logistical and collegial resources (Mabona *et al.*, 2019:2). Besides frequent polytrauma injuries, common challenges include the management of chronic pain and post-traumatic stress disorder, the effect of parental military deployment on the health of children (Heinecken & Wilén, 2021:428; Morrison-Beedy, 2016:404), and the psychological effect of delivering nursing care in a war-affected area (Morrison-Beedy, Passmore & D’Aoust, 2015:513; Finnegan, Lauder, *et al.*, 2016:450-458; Chargualaf & Elliott, 2019).

The expectations of the modern military nurse are multifaceted, in particular concerning the challenges of being both a registered nurse and a soldier (Finnegan, Finnegan, *et al.*, 2016). Being both a nurse and a soldier concurrently often proves to be tough, even for the most skilled military nurses who must be ready for any mission where their services might be required (Van Rensburg & Zägenhagen, 2017:31-33). During their career, military nurses might be required to be called up for official duties, locally or internationally, in demanding and frequently unique settings, where clinical abilities are connected to the requirement to act autonomously (Carter & Finnegan, 2018:308; Naidoo & Badli, 2016:46).

With deployment, the military nurse may experience difficulties adapting to the new work environment and may also experience short-term and long-term physical or mental health injuries, separation from family and support systems, and other pressures unique to military personnel and their dependants (Elliott & Patterson, 2017:146; Ma *et al.*, 2021:876). There is also the possibility of being in the line of fire, as suggested by participants in Finnegan, Finnegan, *et al.*'s (2016:92) study. However, these participants felt that the additional military duties they were exposed to were beneficial to them and helped them get along with other soldiers.

Registered nurses appointed from the civilian sector and registered nurses trained at the SAMHS Nursing College have the lowest officer rank. This facet proves to be problematic given the hierarchical composition of military ranks. Registered nurses have little influence on policy and planning, which restrains their autonomy (Mabona, 2018:8). Newly appointed registered nurses also experience difficulty acclimating to the challenging military setting, mainly due to their lack of knowledge of this milieu (Mabona, 2018:55). Exposure to an austere environment, especially before military operations, aids with military nurses' psychological coping capabilities during deployment (Finnegan, Finnegan, *et al.*, 2016:90).

2.4 EDUCATION AND TRAINING OF MILITARY NURSES

Ten Hoeve *et al.* (2014:305) argued that people do not always take cognisance of nurses' qualifications for their profession. In this section, the researcher aims to describe the theoretical and clinical nursing education and the military education and

training required by military nurses, to address both the professional and military aspects.

Ever since Sister Henriëtta Stockdale started the first training school for nurses in 1883, nursing education has been an essential aspect of the development of the individual nurse (Searle *et al.*, 2009:20-21). Similarly, the education and training of Defence Force members, including nurses, is an essential part of force preparation. In the late 1960s, Military Nursing Service management realised the need to train their own nurses again. In 1972, authorisation was obtained to offer a three-year diploma in General Nursing at 1 Military Hospital. Initially, the course was only available for white female matriculants older than 18 years. In 1979, males could also be admitted to the course and in 1987, other racial groups were also admitted. 1 Military Hospital and 2 Military Hospital first offered the bridging course, which was a two-year course initiated by the SANC to enable deserving enrolled nurses to obtain registration with a single qualification. One year later, this course was also presented at 3 Military Hospital (Stratford & Collins, 1994:142-145).

In 1984, nursing colleges became autonomous, were associated with universities through legal contracts, and were acknowledged as post-secondary educational institutions. The SANC later gave recognition to nursing colleges as official training schools. On 1 January 1985, the South African Medical Service (SAMS) Nursing College was established in association with the University of South Africa at Voortrekkershoogte. The SAMS Nursing College was the first college in the former Transvaal that offered the four-year diploma in Nursing Science, which would lead to registration as a general nurse and midwife, with further qualifications in psychiatric and community nursing. The three military hospitals and community health services were used to place students for their clinical educational needs (Coetzee, 2013:28; Stratford & Collins, 1994:146).

In January 1988, the SAMS Nursing College (later renamed the SAMHS Nursing College) became an independent military unit (falling under the Military Health Training Formation) where professional military nurses are educated, trained, and developed. It was the only nursing college in South Africa to offer an exclusively professional education, while military qualifications for nurses have become obligatory for military promotion (Mabona, 2018:3-4; Stratford & Collins, 1994:146-

147; Zägenhagen, 2016:8). The researcher subsequently discusses theoretical and clinical (professional) nursing education, as well as the military qualification of military nurses.

2.4.1 Theoretical and clinical nursing education

Nursing education refers to the process of teaching nursing students how to become capable and qualified nurses (Bruce, Klopper & Mellish, 2011:10). Nurses in the British Armed Forces receive their education from the Department of Healthcare Education, which offers a post-registration Bachelor of Science (Honours) in Defence Healthcare Studies (Carter & Finnegan, 2018:304), where defence nurse lecturers deliver the education. Defence nurse educators prepare qualified nurses for operational responsibilities while also assisting students in attaining nursing skills. Higher degrees entail finding a suitable defence nursing subject and selecting a university that can deliver the best guidance and support (Carter & Finnegan, 2018:306).

Similarly, the School of Nursing and Health Professions at the University of San Francisco, in collaboration with the United States Army Cadet Command's Reserve Officer Training Corps programme, work together to provide high-quality training opportunities in nursing and army leadership (Barr *et al.*, 2019:370). To facilitate the student outcomes of both Military Science and Nursing, a designated Nursing faculty adviser serves as an academic advisor and communicates with an army representative on a regular basis (Barr *et al.*, 2019:372). The Nursing programme includes a concurrent four years of Military Science courses that students must complete. These courses are taught by army officers and are highly recommended for use in civilian nursing programmes in the future (Barr *et al.*, 2019:372-377).

Defence and civilian health sectors do not work in isolation (Woodbury & Woodward, 2020:51). *Joining Forces* is an American initiative that aims to enhance the country by forging lasting bonds between civilian communities and the military population by integrating curricular content that incorporates military-related occupational exposures and dangers (Collins *et al.*, 2013:375-376). The development of a curriculum for nurses and military nurses raised awareness of the matters that affect veterans, service personnel, and their dependants (Collins *et al.*, 2013:375; Jones &

Breen, 2015:406; Morrison-Beedy *et al.*, 2015:515-516). Jones and Breen (2015:406) concluded their study by stating that the experience of incorporating military topics and activities into a curriculum was regarded as highly beneficial by both student responses and teacher observations.

In South Africa, the SAMHS Nursing College is the only military nursing college with a unique culture, rules, regulations, and demands, which differ slightly from that of other nursing education institutions, as it houses uniformed members of the SANDF, who are simultaneously soldiers as well as nurses.

At the time that this study was conducted, the SAMHS Nursing College and its campuses offered two programmes to qualify as registered nurses: the four-year Comprehensive Nursing Diploma (general, psychiatric, community, and midwife), and the two-year Bridging Course for Enrolled Nurses that will lead to registration as a general nurse (Zägenhagen, 2016:11). A new nursing qualification offered by the SAMHS Nursing College, which was accredited by SAQA (2020), is in line with the current higher education landscape and the healthcare systems in the country. The qualification aligns with the Higher Education Qualifications Sub-Framework, the new nursing qualifications, and the innovative scope of practice for general nurses as envisaged by the SANC (Department of Health, 2020:6-9; SANC, 1991). Upon completing this qualification, the learner is eligible for registration with the SANC as a general nurse, who will also be able to significantly contribute to the country's health needs, especially in the military community (SAQA, 2020).

The theoretical elements of the courses are provided at the nursing colleges according to a block system, according to which students attend classes for four to five weeks at a time and then work in military and civilian clinical areas for another four to five weeks during the academic year (Van Wyngaarden, 2017:23; Zägenhagen, 2016:15).

2.4.2 Military training

All soldiers in the SANDF need some form of military training. Military education and training of military members can be conducted in formal education and training institutions and operational units (Bell & Reigeluth, 2014:52). Institutional training equips the member with the basic knowledge and skills needed, while advanced

competencies and expertise are attained within the operational facet of the military (Bell & Reigeluth, 2014:52; Petrov & Georgiev, 2019:832).

During basic military training, attributes such as pride, passion, love, camaraderie, and sense of belonging are developed. This unity helps soldiers to develop a sound professional identity by being trained to concentrate on the present goal, to operate as a team, to respect the established hierarchy to achieve mission purposes, and to deal with stress (Geuzinge, Visse, Duyndam & Vermetten, 2020:12; Goodwin, Blacksmith & Coats, 2018:330; Kenward & Kenward, 2015:38; Moss *et al.*, 2015:307; Zägenhagen, 2016:174). After obtaining their nursing qualification, students need to undergo a six-month formative military training course to equip them for officer status (Caka *et al.*, 2015:S193). During this formative military training, candidates attend military parades and are trained in military discipline and protocols. Students are prepared for the circumstances of war in a controlled environment. Admission to the formative military course may be delayed, which results in many registered nurses lacking the necessary military training.

In the SAMHS, all members appointed from outside the military undergo a two-week induction training programme, which prepares them for military practices expected of uniformed members. The training includes wearing the uniform correctly, learning the different types of military ranks, drilling in a squad, and saluting. Nursing students at the SAMHS Nursing College undergo basic military training before starting their nursing education. Alternatively, registered nurses who join the SANDF already qualified attend an officers' formative course to receive military training where they are also exposed to military activities; for example, handling a firearm or pitching a tent.

Participants in Zägenhagen's (2016:63) study felt that military training familiarised them with military norms and values, which dictate how soldiers are expected to conduct themselves, and they agreed that military training had a good impact on instilling discipline in the majority of cases. Nurses may also attend courses relating to military health at the Military Health Training Formation; for example, Battlefield Advanced Trauma Life Support (BATLS).

Military nurses are at times only exposed to the military culture through training late in their careers and have little or no personal exposure until they attend military

courses. They might therefore find it challenging to adapt to the military since health professionals from outside the Department of Defence experience the military environment differently. This aspect may relate to insufficient military induction training upon entering the Defence Force (Mabona, 2018:5). This claim is supported in the study by Mabona (2018:54), where a registered nurse, trained within the military, was quoted as empathising with nurses who came from outside the military.

2.4.3 Challenges identified in the education and training of military nurses

Even though military nursing research is not isolated and has the potential to advance both military and civilian nursing practice (Currie & Chipps, 2015:1607; Trego, 2017:S138; Woodbury & Woodward, 2020:51), one issue stands out: a specific setting that has received limited attention is the military health environment and the people who work there (Currie & Chipps, 2015:1607; Elliott & Patterson, 2017:146; Mabona *et al.*, 2019:2). Healthcare education is inadequately structured to offer realistic experiences for high-risk or infrequently encountered events such as a disaster (Murray, Judge, Morris & Opsahl, 2019:67).

There are very few research studies on nursing education for the care of this unique population, especially if and how it should be incorporated into nursing curricula (Elliott & Patterson, 2017:146). During a survey conducted in American nursing colleges to determine the importance of including care for the retired military community into a nursing curriculum, 93% of the respondents rated the importance of enhancing courses with this content as moderate to vital (Elliott & Patterson, 2017:149).

In the study conducted by Van Wyngaarden (2017:147-148,243), participants questioned registered nurses' behaviour, believing that they fell short on attributes such as compassion and dedication to their work. The participants also noted nursing students' lack of vital caring attributes and ascribed it to the lack of role models, career choices, and the lack of compassion promoted in the nursing programme (Van Wyngaarden, 2017:154).

Research is needed to assess current nursing services and to improve the quality of care, whether in defining certain priorities of the field, recognising the problems in nursing practice, finding optimal nursing methods, or providing guidance in achieving

reasonable healthcare services (Morrison-Beedy *et al.*, 2015:517; Yanbing *et al.*, 2020:2). Nursing schools could place additional focus on the performance and empowerment of nurses and are in a pivotal position to improve military nursing by combining content into a curriculum that addresses the unique needs of the military population (Moss *et al.*, 2015:307; Elliott & Patterson, 2017:145; Power, 2016:4, Ten Hoeve *et al.*, 2014:306).

Magpantay-Monroe (2017:113) recommended including information about military and veterans' health across nursing curricula. This recommendation might be the future objective of the SAMHS Nursing College but there is no indication from the literature that civilian nursing education institutions in South Africa are likely to follow suit.

2.5 SUMMARY

As important members of the healthcare team, nurses have the power and the responsibility to bring about a noteworthy transformation in the way the military community is cared for (Morrison-Beedy *et al.*, 2015:512; Magpantay-Monroe, 2017:111). Nurses and other healthcare providers who are familiar with the diversity of military culture can improve the education of healthcare providers and their ability to care for this population (Collins *et al.*, 2013:376; Elliott & Patterson, 2017:146).

No evidence in the literature could be found of any additional core competencies that specifically address the demands for military nurses in South Africa to act as both a nurse and a soldier, as nursing attributes might be perceived differently from registered nurses who work in the South African military context. Given the unique educational milieu of military nurses, it is challenging to establish the success of cultivating the desired professional attributes of military nurses (Zägenhagen & Van Rensburg, 2018:97). There is thus motivation to explore the distinctive attributes of military nurses, especially in the South African context, as a first step to determining the need for additional education and training in terms of military nursing in South Africa. The following chapter provides a detailed description of the methodology used to explore the distinctive attributes of registered nurses in the South African military context.

CHAPTER 3:
RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

As documented in Chapter 2, nurses who work in the military context face day-to-day challenges that their civilian counterparts do not necessarily have to endure. The uniqueness of military nurses' situation prompted the formulation of the research question: "What are the distinctive attributes of registered nurses in a South African military context?"

The purpose of this study was to explore and describe the distinctive attributes of registered nurses in the South African military context. In this chapter, the researcher describes the research design and method of this study. Plano Clark and Creswell (2015:15) stated that once researchers have a specified purpose for their research, they need to choose the approach they will use to accomplish this purpose. Within the choice of the general research approach, the researcher selected a specific design that was best suited to address the study's purpose and most appropriate to answer the research question (Plano Clark & Creswell, 2015:16).

The following sections discuss the paradigmatic perspective, the research design and method used, the population and units of analysis, data collection, and data analysis. The chapter also includes a discussion of the role of the researcher, ethical considerations, and the methodological rigour of the research study.

3.2 PARADIGMATIC PERSPECTIVE

The research paradigm or worldview that guided this study's ontological, epistemological, and methodological perspectives is constructivism because its collection of beliefs and values was best suited to guide this research. A paradigm guides a researcher's approach to inquiry and acts as a lens or a set of rules through which a researcher explores and analyses reality, frames the views of a specific field, and sets the course that a research study will take (Brink *et al*., 2018:19-20; Polit & Beck, 2012:11). A paradigm can also be defined as personal beliefs or ideas (see Section 1.7). For example, those who hold interpretive beliefs feel that each

individual has different views and that the role of research is to uncover these multiple views (Creswell, 2016:42; Holloway & Galvin, 2017:3,24). The philosophical substructure or paradigm of research consists of three components, namely ontology, epistemology, and methodology.

Ontology involves the researcher's ideas about the nature and characteristics of reality (Botma *et al*., 2010:40; Brink *et al.*, 2018:19; Polit & Beck, 2012:11) and affects all resultant choices made by the investigator. Throughout this study, the only reality for the researcher was that which was created by the individuals involved in the research study (Creswell, 2016:41; Holloway & Galvin, 2017:25). The implication for this study is that the participants, having first-hand information of nursing within the South African military context, shared their thoughts during the NGT discussions.

Epistemology relates to the nature of knowledge or reality (Botma *et al.*, 2010:40; Brink *et al.*, 2018:19; Polit & Beck, 2012:11). In this research study, the researcher asked how she could determine and explain the distinctive attributes of registered nurses who work in a military context while the participants experienced it daily (Creswell, 2016:41; Polit & Beck, 2012:11). The researcher acknowledged that research participants create knowledge from the meaning that they assign to life experiences (Savin-Baden & Major, 2013:23,56,63).

Ontology and epistemology are not independent of each other. Both lead to certain methodologies and mould the methods that are suitable for research (Braun & Clarke, 2013:31). Methodology refers to the guidelines that specify particular ways of gaining knowledge about reality (Botma *et al.*, 2010:41; Brink *et al.*, 2018:19). The researcher selected an appropriate method in order to obtain relevant answers to the research question; a complete discussion of the methods applied in this study follows in Section 3.3.

Botma *et al.* (2010:39) explained that a person's worldviews on reality will impact their choice of the approach used to address a research problem. A few of the best-known approaches to investigate human phenomena are described by De Vos *et al*. (2011:5) as positivist, postpositivist, constructivism, interpretive, and critical. Different points of view are thus likely to produce different results or explanations (Rubin & Babbie, 2017:61).

According to constructivists, individuals want to comprehend the world in which they function and generate personal meanings from their experiences (Creswell, 2014:8; Merriam & Tisdell, 2016:24). The researcher, in her assumption that reality is socially constructed, believes that the experiences of the participants include how they interpret their experiences (Merriam & Tisdell, 2016:9) and that the interaction between the participants during the NGT discussions would therefore have a positive effect on the richness of the information collected.

3.3 RESEARCH DESIGN AND METHOD

A research design is a guideline or template for conducting a study, and the research method includes the specific ways used to gather data (Botma *et al.*, 2010:273; Grove *et al*., 2015:211; Kumar, 2014:122). The research design and method vary based on the study's objective, the type of research topic, and the researcher's abilities and resources (De Vos *et al.*, 2011:75,109). Learning about the methodology was the first step that the researcher took to enable her to select the most appropriate design to address the study's purpose and to answer the research question (Holloway & Galvin, 2017:34; Plano Clark & Creswell, 2015:15-16).

Selecting the appropriate design involved the researcher planning and designing an overall plan for the methods used during the study by choosing a research approach from among the quantitative, qualitative, and mixed-methods approaches (Creswell, 2014:3; Kumar, 2014:14,18; Nieswiadomy & Bailey, 2018:58). As mentioned in Section 1.8, the researcher selected the qualitative research approach because it allowed for a deeper and fuller understanding of reality, as experienced and communicated by the participants, to be obtained and retained through qualitative data (Braun & Clarke, 2013:24).

This research study aimed to describe the distinctive attributes of registered nurses in a South African military context (see Section 1.5). Since little is known or understood about the distinctive attributes of military nurses (Bloomberg & Volpe, 2012:27), the researcher needed a research approach through which she could obtain data from registered nurses who experience the challenges of working in the SAMHS environment on a daily basis. A qualitative descriptive design was therefore selected.

3.3.1 Qualitative approach

Leavy (2017:5) suggested that a researcher can use different approaches to document experiences with regard to the topic under investigation. The three main approaches to research are summarised below:

- The *qualitative approach* is an approach that uses words and spoken language to study and comprehend the meaning that individuals or groups assign to a social or human problem. It involves emerging questions and procedures, data are typically collected in the participant's setting, data analysis inductively builds from particulars to general ideas, and the researcher makes interpretations of the meaning of the data
- The *quantitative approach* uses numbers to investigate objective theories by examining the relationship among variables; these variables can be measured, normally on instruments, so that numerical data can be studied using statistical procedures
- The *mixed-methods approach* is an approach to investigation that entails gathering both quantitative and qualitative data, mixing the two types of data, and employing different designs that may include philosophical assumptions and theoretical frameworks; the main assumption is that combining quantitative and qualitative data provides added knowledge beyond what either of the two types of data could provide individually (Braun & Clarke, 2013:3-4; Creswell, 2014:3; Kumar, 2014:18; Nieswiadomy & Bailey, 2018:59).

Since the researcher was concerned with exploring and making sense of the participants' experiences from their viewpoint, and to have rich, descriptive information (Merriam & Tisdell, 2016:15), she selected the qualitative approach. This approach directed the selection of the sample, the data collection, the data analysis, and the final report writing. All these actions were carefully considered to present a rigorous and ethically sound study (Merriam & Tisdell, 2016:191; Plano Clark & Creswell, 2015:286).

Qualitative methods were deemed most appropriate for this study as they highlighted the qualitative aspects of meaning, experience, and understanding. They were used to study human experience from the participants' viewpoints in their own context to

provide an “insider’s perspective” on the research topic (Brink *et al.*, 2018:104). Emphasis was placed on understanding the importance of the participants’ subjective experiences and meaning-making processes. The selection of a qualitative descriptive design was appropriate because the researcher intended to identify with the participants of the study to understand their point of view (Lune & Berg, 2017:20; Taylor, Bogdan & DeVault, 2016:8-9), which consequently enabled the researcher to determine the perceived distinctive attributes that registered nurses who work in the South African military context should possess.

Methods of data collection are tools that give researchers a clearer picture and accurate measurement of entities and provide facts and evidence about the focus of a research study (Denscombe, 2014:163). Through the use of NGT discussions, there was interaction between the registered nurses working in the military context that led to the provision of data that would otherwise be difficult to obtain through a questionnaire, as there is no interaction between participants when completing a questionnaire. The researcher thus sought to discover the reality of registered nurses in a South African military context through NGT discussions.

3.3.2 Descriptive research

Qualitative descriptive designs for nursing and healthcare research may provide extensive insight into specific events and may be utilised as a standalone research design (Doyle *et al*., 2020:2). Doyle *et al.* (2020:10) further suggested that using this design can be especially useful for nursing and healthcare practitioners who are conducting research, since it serves as an ideal way to address topics of genuine scientific importance to them and their practice environment.

In this research study, the researcher provided a detailed description of the context, the participants, and the activities of interest (Merriam & Tisdell, 2016:17). Descriptive research paints a picture of an event, social location, or connection by describing the exact elements (Neuman, 2014:38). While reviewing the literature and reporting the data, the researcher described registered military nurses who work in the South African military context (Babbie, 2016:91). The information included the background of military nursing in South Africa and described the context of military nursing. The military nurse as both a nurse and a soldier was elucidated with specific

reference to military nurses in relation to civilian nurses. The attributes required as both a nurse and a soldier were discussed and the challenges experienced in military nursing were noted. The researcher concluded with a depiction of the education and training of military nurses in South Africa.

Grove *et al*. (2015:33) stated that a descriptive research design offers an accurate account of the characteristics of an individual, event, or group in real-life scenarios in order to uncover new meaning. This descriptive research study commenced with a question and the researcher attempted to accurately describe related ideas (Neuman, 2014:39). The researcher ultimately aimed to provide a thick description of the attributes of registered nurses in the context in which these attributes are experienced, from the perspective of the military nurses (Leavy, 2017:5; Taylor *et al.*, 2016:9). A descriptive research design was therefore found to be acceptable for achieving this study's aim.

3.4 POPULATION AND UNITS OF ANALYSIS

A population, also often called a target population, refers to an entire group of people that is of interest to a researcher and meets the sample criteria for inclusion in a study (Brink *et al.*, 2018:45; Grove *et al.*, 2015:46). At the time of the enquiry, 891 registered nurses were actively practising within the SAMHS. The researcher then established which population was accessible and could best be represented by the study sample (Brink *et al.*, 2018:45; Holloway & Galvin, 2017:34). The study population subsequently included 90 registered nurses at one specific military healthcare facility within the SAMHS.

Given the geographical positioning of the military healthcare facilities in South Africa, the population was reduced to an accessible population (Brink *et al.*, 2018:193; Holloway & Galvin, 2017:34). To achieve the purpose of this study, the population included all the registered nurses at one specific military healthcare institute. Qualitative researchers attempt to select participants who have relevant experience and/or expertise in the field of investigation (Creswell, 2014:189; Grove *et al.*, 2015:270; Kumar, 2014:244).

The researcher sought to locate individuals from all nursing departments at the specific military healthcare institute; i.e., nursing management, general wards, specialist wards, outpatient departments, specialist clinics, and operating theatre. The sample comprised elements that contained the most characteristic, representative, or typical attributes of the population; thus enhancing the possibility of generalising the results of the study to the research population (Babbie, 2016:190; Merriam & Tisdell, 2016:96).

3.4.1 Accessible population and sampling

Creswell (2014:189) stated that qualitative researchers should strive to select participants who will best elucidate the problem under investigation. The overall purpose of sampling techniques in qualitative research is to collect a broad and diverse range of data (De Vos *et al.,* 2011:391). Purposive sampling is a type of non-probability sampling that is dependent on the researcher's decision regarding which participants could provide the most relevant data to meet the study's goal. Purposive sampling was used in this research study (Creswell, 2014:189; Kumar, 2014:244; Merriam & Tisdell, 2016:96). In other words, the researcher decided what data were needed and looked for persons who could and would supply information based on their expertise or experience (Etikan, Musa & Alkassim, 2016:2). Using purposive sampling to select participants, the researcher subsequently stipulated inclusion criteria to ensure the provision of rich data by the participants.

3.4.2 Inclusion criteria and the recruitment of participants

Before entering into the field, the researcher set certain criteria for the inclusion of participants (Braun & Clarke, 2013:56). In this study, the researcher referred to only the inclusion criteria as no exclusion criteria were foreseen. The following set of inclusion criteria was compiled for the selection of participants:

- Being a nurse registered with the SANC;
- Having two or more years' experience of working as a registered nurse within the South African military context; and
- Being available to participate in the study; for example, not being deployed during the period of data collection.

The researcher works as an officer in the SAMHS, which made it easier to obtain approval to access the research site and the target population. It was thus feasible for the researcher to recruit potential participants and to inform them about the scope of the research (Botma *et al.*, 2010:14; Braun & Clarke, 2013:59; Tracy, 2013:13). The researcher made an appointment with the head of Nursing at the selected institute and requested an opportunity to address the nursing managers at one of their daily mid-day meetings and thereby gained access to the site.

The researcher targeted two groups of registered nurses to avoid participants of lower rank feeling intimidated by the more senior ranks. The first group consisted of registered nurses in management positions and the second group included registered nurses who were not in management positions but performed regular nursing duties in the respective nursing departments.

In total, 21 registered nurses were in management positions. For more information about the research study's nature and goal, copies of the participant information brochure (see Addendum C) of the study were provided to all nursing managers during the above-mentioned meeting. The researcher also distributed participant information sheets to all the registered nurses who were not in management positions by hand-delivering copies to all the nursing departments in the hospital.

At this stage, the information document was handed to all prospective participants merely for their private perusal of the research's purpose and nature. All potential participants were encouraged to ask questions if clarity was needed (Botma *et al.*, 2010:15). The researcher made further provision to visit the managers and other registered nurses on night duty to distribute the information forms. The researcher wore her uniform when recruiting during working hours (07:15 – 16:00) and civilian clothing when recruiting after hours (16:00 – 07:15). During the recruitment process, prospective participants were informed of the timeframe of the NGT discussions and were given the opportunity to contact the researcher to volunteer to participate in the study.

No recruitment method is flawless, although Luck, Chok and Wilkes (2017:48) found that adding a personal touch could contribute to a positive outcome in the recruitment of nurses for research purposes. This implies that the type of interaction between the researcher and potential participants may influence their decision to

participate in the study. The researcher was therefore actively involved in the recruitment process and displayed a pleasant demeanour during all her interactions with potential participants.

3.5 DATA COLLECTION

Researchers need to provide a detailed description of their data collection process (Grove *et al.*, 2015:310). The following section justifies the use of the specific technique to obtain data in support of the selected qualitative research design.

The researcher selected a consensus method to collect data. The term “consensus method” refers to methods where results are based on consensus or the general agreement of a group (Botma *et al.*, 2010:251). Examples of consensus methods include the Delphi technique and the NGT (Botma *et al.*, 2010:251-254), which are often used for the purpose of defining competencies, curriculum development and renewal, and assessment (Foth *et al.*, 2016:112).

The Delphi technique is a method of analytically asking for the judgements of a group of experts on a topic, and then perfecting those judgements (Botma *et al.*, 2010:253). There is no face-to-face interaction between participants in this method. The researcher decided not to use the Delphi method for this study as she wanted to utilise expert opinions for subsequent research, and for this study only focused on the views of actively practising military registered nurses.

NGT discussions were conducted with registered nurses in a South African military context (see Section 3.4). For qualitative research in which a wide range of ideas are to be explored, or where a specific question is to be discussed among a selected population, the NGT is very useful (Boddy, 2012:10). The researcher sought to explore ideas related to the research question. Idea generation is an integral part of the NGT (McMillan *et al*., 2016:660), which made the NGT an appropriate technique for this study.

3.5.1 The nominal group technique (NGT)

Harvey and Holmes (2012:190) described several reasons for using the NGT, which convinced the researcher to use this technique. The NGT was particularly relevant for this study since the researcher required balanced participation from all group members, and the NGT minimised the risk of a dominant or more senior-ranking participants influencing the discussion – all participants had an equal turn to speak (McMillan *et al.*, 2016:655).

3.5.1.1 Advantages of the NGT

Involving members in a face-to-face structured meeting creates a platform to obtain first-hand information from those who work in a specific environment. In an environment such as the military, where the rank hierarchy plays a prominent role, the researcher decided to use a tool that would ensure that each participant has an equal opportunity to participate; thus ensuring equal representation (Harvey & Holmes, 2012:190). A benefit of the NGT is the eradication of participant intimidation due to the rank status of the facilitator and other participants, which in turn may have influenced group participation (Foth *et al.*, 2016:114). Ultimately, the use of the NGT reduces potential dominance by high-status, aggressive, or more articulate members (Foth *et al.*, 2016:114).

The NGT, being a single-occasion procedure, also allows for the attainment of an extensive quantity of data in a short amount of time and was thus advantageous and enhanced the conditions for creativity on the part of the participants. The NGT also proved to be time efficient (Harvey & Holmes, 2012:190; McMillan *et al.*, 2016:660).

The NGT is cost efficient as it does not require an extensive budget. In this research study, the venue was available at no cost and the researcher incurred minimal costs to provide refreshments to the participants (Harvey & Holmes, 2012:190). The NGT required little preparation from the participants and allowed for completion during the discussions, whereafter the results were given to the groups. The participants of the NGT discussions appreciated the in-session completion and immediate availability of the results to the groups (Harvey & Holmes, 2012:190; McMillan *et al.*, 2016:661).

3.5.1.2 Limitations of the NGT

NGT discussions are not without limitations. McMillan *et al.* (2016:661) stated that it may be more challenging to organise an NGT discussion for a time that suits everyone involved. To accommodate the participants, the researcher scheduled a time as early as possible on the proposed dates so that participants who worked night duty on the previous night could also attend the NGT discussions before they went home. NGT discussions also have the potential for participants with dominant personalities to influence the group (Foth *et al.*, 2016:114). With the aid of the group, the facilitator set the rules for the discussions and gave clear instructions of what the process entailed.

NGT discussions ideally include six to 12 participants (Harvey & Holmes, 2012:190). Authority variances between participants in an NGT discussion may have the effect that participants with less authority may feel unable to contribute their own opinions or to oppose the views of someone in a more senior position (Humphrey-Murto *et al.*, 2017:1429; McMillan *et al.*, 2016:660). An NGT discussion consisting of members within a similar category may facilitate more open discussions during group discussions. To minimise potential dominance by participants from higher ranks, the researcher arranged two groups – one consisted of participants in management positions and the other of those in non-management positions.

The research question was formulated into a research request prior to the NGT discussions. After formulating the request, the researcher submitted it to her supervisor for review (Foth *et al.*, 2016:114). After review, no changes were made to the NGT discussion research request. The directives posed were clear enough to generate the necessary responses. During the NGT discussions, the request posed to the participants was: “Write down the distinctive attributes of registered nurses in a South African military context.”

The protocol for conducting the NGT discussions was adopted from Harvey and Holmes (2012:191). The process of collecting the data and the five steps of the NGT are presented in the following section.

3.5.2 The process of collecting data

In Section 3.4.2, the researcher provided a detailed account of how entry was gained to the research site. In this section, the researcher elaborates on how data were collected during the NGT discussions (Botma *et al.*, 2010:291; Brink *et al.*, 2018:133; Creswell, 2016:189). The researcher obtained nominal and descriptive data on the distinctive attributes of registered nurses within a South African military context by using the NGT.

To gather sufficient and relevant data, the participants were divided into two groups. Group 1 was composed of registered nurses in management positions. These participants included registered nurses responsible for taking charge of the respective nursing departments in the hospital and matrons working in the matrons' offices. Group 2 consisted of registered nurses who were not in management positions but performed regular nursing duties in the respective nursing departments.

Although initially planning to conduct both groups on the same day, the researcher ultimately suggested two dates for conducting the NGT discussions (see Section 3.5.2.1) for both NGT discussions to be conducted during the morning of the selected dates. Consideration was given to accommodate the majority of the participants on the selected dates. This measure provided night duty personnel the opportunity to participate after their shift had ended. It also allowed day duty personnel to return to work after the discussions to limit interruption of service delivery. The groups comprised nine and seven participants respectively.

The researcher requested provisional authority from the Officer Commanding of the institute to conduct the discussions during working hours, with the provision that service delivery would not be affected (see Addendum B). The venue for data collection was not in the military healthcare facility itself, but took place in a hall situated on the premises of the healthcare facility, which made it accessible to the participants. The hall was booked six weeks before the planned dates of the discussions. This was a private location and consequently reduced the risk of interruptions and interference during the data collection process. The hall could be cordoned off to suit smaller groups, and only a portion of the hall was used. Arrangements were made for the area to be cleaned, and tables and chairs were set in a U-shape and enough space for 10 participants was ensured.

Construction workers were working in the area around the hall at the time, and since the NGT discussions needed to be conducted in a quiet environment where participants could participate without any disturbances (Botma *et al.*, 2010:251), the researcher politely requested that they limit loud noises during the course of the NGT discussions, to which they agreed.

3.5.2.1 NGT discussions

Since the researcher did not have any experience in facilitating NGT discussions, an impartial, experienced NGT discussion facilitator from the SANDF conducted the discussions. Even though the rank status of the facilitator was the same as some of the participants in management positions, the facilitator was from a non-nursing department and was impartial. This arrangement had the benefit that the participants were not intimidated by the rank status of the facilitator, which encouraged maximum participation (Boddy, 2012:10; Foth *et al.*, 2016:114; McMillan *et al.*, 2016:655). For consistency, the facilitator took care to conduct each NGT discussion in the same manner and followed the same sequence of events.

The first discussion was held on 13 August 2019, and the second discussion on 27 August 2019. Both NGT discussions were conducted in English, and all statements were recorded on a flip chart in English. The same facilitator conducted both discussions in the same venue. The researcher was present as an observer during the NGT discussions and assisted with the logistical aspects where necessary. The researcher opted to take notes during the discussions to better understand the statements given by the participants and the meaning thereof. The notes are applied as reinforcement to the findings discussed in Chapter 4.

The process of conducting NGT discussions consists of various steps (Foth *et al.*, 2016:114; Harvey & Holmes, 2012:191-192), namely introduction and explanation, silent generation of ideas, sharing ideas (round-robin), group discussion, and voting and ranking.

The manner in which these steps were conducted during each of the NGT discussions is described below.

(a) Step 1: Introduction and explanation

The facilitator welcomed everyone and briefly explained the discussion's purpose. The participants were requested to switch off their cell phones to limit disturbances (Botma *et al.*, 2010:251). One participant was on call and was allowed to have her cell phone on and available. Each participant received bottled water, an information sheet and a consent form, an A4 paper folio, five voting cards, a pen, and refreshments. A flip chart was set up at the open end of the U-shaped tables during both NGT discussions, with different coloured markers made available. An adhesive was provided to paste the flip chart pages to the wall before the voting stage.

The facilitator familiarised all the participants with the information and consent form (see Addendum C) and provided a brief overview of the planned events (Harvey & Holmes, 2012:191). Thereafter, all the participants confirmed that they understood the process and signified their consent to participate by signing the consent forms. This first step concluded with the facilitator posing the research request to the participants, which was written on the flip chart and posted to the wall. The facilitator clarified all the concepts in the research question before the participants began jotting down their ideas. The posed research request was: "Write down the distinctive attributes of registered nurses in a South African military context."

(b) Step 2: Silent generation of ideas

The facilitator requested that the participants write down all the ideas they could think of in response to the given request. The participants were not allowed to interact with one another or the facilitator in any way at this stage (Botma *et al.*, 2010:251; Harvey & Holmes, 2012:191). Approximately 10 minutes were allowed for this process. Once all the participants had completed this step, the facilitator proceeded with the round-robin sharing of ideas.

(c) Step 3: Sharing ideas (round-robin)

In this stage, each participant could share the ideas that came to mind during the previous step. This was done in a rotary sequence, and all the participants received the opportunity to voice a single statement at a time, until no more statements were provided (McMillan *et al.*, 2016:656). The facilitator recorded each participant's statement onto the flip chart, using their exact words (Botma *et al.*, 2010:251). The round-robin process continued until all ideas had been listed.

During this step, no discussion took place (Harvey & Holmes, 2012:191-192), and the participants were asked to write down any new ideas that came to mind from points raised by other participants. A participant could skip the round if they did not have any new ideas. During this step, all the participants had an equal chance to contribute statements, and there was written record of all statements mentioned by the group. The round-robin continued until data saturation was achieved, which took between 15 and 20 minutes, and was concluded after all the statements had been listed. Hereafter, the facilitator moved on to the group discussion.

(d) Step 4: Group discussion

The participants elaborated on the recorded statements that the facilitator added to the flip chart. They also combined similar statements into categories (Harvey & Holmes, 2012:192). Additions were made as necessary. The allocated time for this step was 30 to 40 minutes. The participants were now allowed to seek further explanation about any ideas related to the statements listed by other participants that may not have been clear to them. They could also elaborate on recorded statements, which the facilitator added.

During this step, the facilitator's role was to guarantee that all the participants were allowed to contribute and to ensure that the discussion of the statements was thorough without spending too much time on an item. The participants discussed the listed statements, adding and combining ideas until they reached consensus (Botma *et al.*, 2010:252). None of the statements was eliminated. The flip chart papers were then fixed to the wall in clear view of all the participants. The step of voting and ranking then ensued.

(e) Step 5: Voting and ranking

All the listed statements in response to the research request were prioritised by the participants (Harvey & Holmes, 2012:192), using five voting cards per participant. The participants were requested to indicate their preference for important items by rank ordering, where “5” indicated the most important attribute and “1” indicated the least important attribute (Botma *et al.*, 2010:252). The participants from each group identified their five most important ideas. The individual scoring of the statements was confidential (McMillan *et al.*, 2016:657).

The facilitator then collected all the cards, shuffled the cards, and charted the scores from all the voting cards next to the corresponding statements on the flip chart. Scores were tallied and the overall score for each statement was charted while the facilitator and participants controlled the accuracy of the process. After the voting and ranking process, all the listed statements were prioritised in relation to the total scores and the top five statements for each group were sequentially marked in order of priority on the flip chart (Harvey & Holmes, 2012:192). The results were immediately available to the participants and they were able to see which ideas had received priority for them as a group (see Section 3.6.1).

The total amount of time for each NGT discussion was approximately 105 minutes. The participants were thanked for availing themselves for the study and the discussion ended with some refreshments being offered. The process of analysing the data is discussed in the subsequent section.

3.6 DATA ANALYSIS

The data analysis process involved making sense of the data by bringing together the responses of the participants and the knowledge the researcher has gained (Merriam & Tisdell, 2016:19,42,202). To organise and make meaning of the research data (Polit & Beck, 2012:556), different approaches may be followed concerning data analysis. In this study, the data obtained from the two NGT discussions were analysed using both quantitative and qualitative methods (Botma *et al.*, 2010:253; Van Breda, 2005:3). This approach was necessary because the two NGT discussions generated two different lists of statements.

Data analysis occurred in two stages. First, the data generated from the NGT discussions resulted in two lists of top five statements selected by the participants of each respective group. The top five ideas were attained by assigning numerical values to the statements to determine the order of priority. In the second stage of data analysis, the researcher further analysed and interpreted the participants' perceptions according to six of the seven steps for analysing multiple group data as suggested by Van Breda (2005:4-12). Thus, to make sense of the data as a whole, the two lists of statements were ultimately integrated into one list after the data from each group were individually coded and categorised (see Addendum H).

3.6.1 Analysis of data during the NGT discussions (Stage 1)

The first stage of data analysis involved quantitative data analysis, which commenced during the NGT discussions, with the help of the participants. The statements that the participants made were listed chronologically. After in-group discussions and agreement on the listed statements, similar statements were grouped together.

Ranking the data according to priority was done through scoring and ranking methods used to list the statements from most important (scoring 5 points) to least important (scoring 1 point). The facilitator and participants recalculated and confirmed the total points for each group respectively. The tally sheets from both NGT discussions were recorded electronically and are summarised in Tables 3.1 and 3.2.

During the first NGT discussion, 17 statements related to the research request were made. In Table 3.1, the statements are listed along with the scores allocated to each statement by members of Group 1.

Table 3.1: NGT discussion dataset: Group 1 – Management

Item no.	Statement	Scores	Total score
1	**Discipline** - Dress code - Military discipline - Same as nursing - Hairstyles	5,5,2,5,5,5,5,5	37
2	**Physically fit** - Fitness test - Medical classification - Annual health check-up - Looked after - Expected to be physically fit - Using military doctors - Questioned if you report sick	3,1,1,2	7
3	**Knowledge and skills** - Weapons - Take care of yourselves and others - Trained in other things (Aviation; BATLS; and Battlefield Advanced Resuscitation Techniques and Skills [BARTS]; Field hospital)	1	1
4	**No SANC categories visible** - Distinguishing devices - Wear ranks (equal ranks)	0	0
5	**Deployment** - Civilian nurses do not deploy - Nurses deploy when there are strikes outside	2,4,4,2,1	13
6	**Unique culture and values** - High group cohesion and identity - Cohesion	3,3	6
7	**Flexibility** - Fast, unplanned responses - Leave family behind - Time - Family - Social life - Not only nursing tasks; e.g., from nursing tasks to commander - Do parades	4,2,3,4,1	14
8	**Leaders and exemplars** - Fulfil all roles – military and nursing	2,1	3
9	**Military training**	2,4,4,4,5,3	22
10	**Compassion** - Smaller community - Know patients well - More open-door policy than private - Faster service - System woks differently	3	3
11	**Positive mind** - Sharp mind at all times - Appropriate reactions to demands	2	2

Item no.	Statement	Scores	Total score
	- Immediately know how to react when something happens - Combat ready at all times - Appropriate reactions according to the Acts - Military response		
12	**Military etiquette** - Dress code - How to present yourself - Formal dinners, etc. - Know your boundaries - Entering a bar	2,3,3	8
13	**Multi-skilled** - Making patient/soldier ready for battle	5,4	9
14	**Mutual respect** - Know what to do when a senior comes in	1	1
15	**Defence Act** - Regarding uniforms, Acts, dos and don'ts	1,3,4	8
16	**Advocate for patients** - E.g., referrals	0	0
17	**Not financially driven** - Strike, etc.	1	1
	Total	**135**	**135**

As can be seen in Table 3.1, calculations of the correctness of the scoring were done. A total of 15 points (5 + 4 + 3 + 2 + 1) could be contributed by each participant. Group 1 had a total of nine participants and a total of 135 points could thus be allocated. The statement that obtained the highest score for the group was Item 1. Items 3, 14, and 17 received the lowest ranking with one point each. Items 4 and 16 did not receive any votes. The researcher then listed the top five voted priorities of Group 1 (management) and the results are included as Addendum D.

The top five most important ranked statements for Group 1 were:

1) Discipline (score = 37)
2) Military training (score = 22)
3) Flexibility (score = 14)
4) Deployment (score = 13)
5) Multi-skilled (score = 9)

During the second NGT discussion, 17 statements related to the distinctive attributes of military nurses were made. In Table 3.2, the given statements as listed by Group 2 are tabulated along with the scores allocated to each statement by members of Group 2.

Table 3.2: NGT discussion dataset: Group 2 – Non-management

Item no.	Statement	Scores	Total score
1	**Discipline** - Speaking with superiors - The way you conduct yourself - Comply and complain later	5,5,2,5,4	21
2	**Integrity** - Same function of nurses, but more so than in the public sector - Standards prescribed; strict	5	5
3	**Respect** - Earn respect from outside world because of uniform - Most wanted when applying for post - Looks good on CV if you are in the military	3	3
4	**Military orientation** - Military induction or military training - Function as a soldier - Helmet/vest/rifle - Military requirements	5,1,5	11
5	**Fitness** - G1K1 - Have to be fit - Physically fit - Concurrent Health Assessment (CHA) - Fitness test - Run with stretcher on battle ground	4,4,4,3	15
6	**Authority** - Command and control - Command and control structure is different - If the instruction says something, you abide - Line of command - Outside – who is more qualified - Rank structure - Follow instruction - “Oppressed” - Personal restriction	4,1,1,1,2,3	12
7	**Dress code/uniform** - Wear uniform	3,2,3	8
8	**Teamwork/togetherness/commitment** - Training taught leave no man behind - Camaraderie - Do for each other - Help each other out - Night duty will do it if day duty did not - Remain behind if staff don’t pitch	1	1

Item no.	Statement	Scores	Total score
9	**Ranks / form of address** - No epaulettes - Wear ranks - Identify by ranks - Dual identity - Form of address	4,2	6
10	**Combat support capabilities** - Opportunity and additional training to be health / combat support personnel - In clinical setting and also outside (deployment, border, Aero Medical Evacuation Team (AMET))	5,3	8
11	**Taking orders** - Lines of command - Comply and complain later	2	2
12	**Roll call ("off-label" duties)** - Extra duties - Roll call - Board of inquiries	0	0
13	**Functions** - Formal dinners - Parades - Big tea	0	0
14	**Broader opportunities / area function, courses** - Aviation nursing - Field hospital - BATLS and BARTS - Maritime nursing - Broader area of function - Exposure - Courses	2,4,1,2	9
15	**Flexibility/adaptability** - Nurses outside are striking; go and assist - Controlling fleets - Adapt to fit certain roles	3	3
16	**Rules and restrictions** - We are not allowed to strike - "Boycott" - To wear uniform with pyjamas - Great sanctions with restrictions - Doing as we please!	1	1
17	**Operational environment** - Not just hospital environment - Operating outside - On the base - Broader operational environment - Serve and protect (auspice) - Psychology / mentality of having a rank	0	0
	Total	**105**	**105**

As is evident in Table 3.2, calculations of the correctness of the scoring for the second NGT were done. A total of 15 points (5 + 4 + 3 + 2 + 1) could be contributed by each participant. Group 2 consisted of seven participants and a total of 105 points could be allocated by them. The statement that obtained the highest score for the group was Item 1. Items 8 and 16 received the lowest ranking with one point each. Items 12, 13, and 17 did not receive any votes. The researcher then listed the top five voted priorities of Group 2 (non-management) and included the results as Addendum E.

The top five most important ranked statements for Group 2 were:

1) Discipline (score = 21)
2) Fitness (score = 15)
3) Authority (score = 12)
4) Military orientation (score = 11)
5) Broader opportunities / area function, courses (score = 9)

3.6.2 Analysis of the multiple sets of data (Stage 2)

After the initial data analysis during the NGT discussions, the datasets were further analysed and combined. The second stage of data analysis included qualitative (content) and quantitative (ranking) data analysis techniques.

There were 34 statements in response to the research request, of which 29 statements received a score and were subsequently included in the second stage of data analysis (Van Breda, 2005:5). The data were transferred to electronic spreadsheets and then analysed using the analysis method for multi-group data as described by Van Breda (2005:4-12). Six of the seven suggested steps were followed.

3.6.2.1 Step 1: Capture the data on computer

Yin (2016:190) suggested that more organised data will result in stronger analysis and will eventually lead to more rigorous qualitative research. The researcher communicated with the group facilitator and discussed the collected data. Uncertainties were clarified to ensure that the information was correct. As suggested

by Van Breda (2005:4), each set of statements was captured on a spreadsheet, which made it possible to analyse at a later stage. The spreadsheet consisted of six columns; of which an example is provided in Table 3.3:

Table 3.3: Spreadsheet for capturing NGT discussion data (template)

Column A	Column B	Column C	Column D		Column E	Column F
Group no.	**Category**	**Statement**	**Scores**	**Total score**	**Average**	**Top 5**
E.g., "1"	Categories identified	Quotation that was captured on the flip chart	E.g., 3,4,4,5			

Source: Compiled based on Van Breda (2005:4)

The columns were populated with the information from each of the NGT discussions, using only the statements that received scores (Van Breda, 2005:5). The group number, "1" and "2", were typed into Column A to indicate which of the two groups' statements were used. Column B was left blank and was populated after the categories were identified during content analysis. Statements from the two lists were typed into Column C. When the researcher used descriptions as additional information about each statement derived from the group discussion, it was typed into the same cell. To distinguish between actual participant statements and the descriptions, the statements were typed in bold.

In Column D, the individual scores from each idea were typed as listed on the flip chart. The total score of each idea was divided by the total number of participants per group to determine the average score (Column E). Column F was initially left blank but the top five statements of each NGT discussion were added to it later.

The populated spreadsheet is attached as an addendum in order to provide a complete representation of all the datasets (see Addendum F).

The researcher and the group facilitator reviewed the whole set of data to ensure accuracy and that all the statements of both NGT discussions were captured. Both the researcher and the group facilitator were satisfied that the data were correct in terms of the participants' contributions and that this process of data review enhanced the methodological rigour of the study (Humphrey-Murto *et al.*, 2017:149; Yin, 2016:190).

3.6.2.2 Step 2: Identifying the top five statements

The researcher proceeded to the next step where the objective was to identify each NGT discussion's five most important statements (Van Breda, 2005:5-6). The researcher identified each NGT discussion's five most important views and arranged each group's inputs according to how important the group felt that attribute was. This was achieved through a quantitative method, by adding the individual scores of each attribute assigned by the participants and then dividing it by the total number of participants in the group; hence calculating the average score of each attribute. The researcher arranged the data according to group number (Column A) from lowest to highest, followed by Column E (Average) from highest to lowest, arranging each group's inputs according to how important the group felt the statement was (Van Breda, 2005:5-6). The top five statements in each group could thus be identified and were added to Column F, in order of priority, and by marking it with an X (see Addendum G). It was now evident which statements the respective groups perceived as the most important (Van Breda, 2005:10).

3.6.2.3 Steps 3 and 4: Content analysis of the data and confirmation of the content analysis

The researcher now sought to make meaning of the data and rendered it more interpretable through a process called content analysis, which was the qualitative aspect of the data analysis process (Van Breda, 2005:5-6). The content analysis of the data obtained from the participants during the NGT discussions involved combining individual statements into groups of statements in order to reduce the many individual statements collected during each NGT discussion into several general categories (Van Breda, 2005:5; Merriam & Tisdell, 2016:204). The researcher thus combined individual ideas into groups with similar suggestions.

The researcher cyclically read through all the listed statements and identified categories and sub-categories in which similar statements could be grouped together. This process was repeated several times, and the researcher wrote down all the different categories and sub-categories that began to emerge from the list of statements. The categories were listed and numbered on a separate sheet of paper as it represented the suggestions raised by the participants in response to the

request made during the NGT discussions. To reduce many specific ideas and make the data more interpretable, the individual statements were categorised according to the list. The categories were absolute in the fact that each statement could be placed into only one category. The categories and sub-categories were then sorted and noted in Column B.

Confirmation of content analysis (Step 4), an optional step suggested by Van Breda (2005:7), was combined with Step 3 in this study. During content analysis, the researcher occasionally confirmed whether the different categories and sub-categories made sense by communicating with her supervisor, who is an experienced qualitative researcher. The researcher discussed each category with her study supervisor until consensus was reached about the categories. Confirmation of content analysis thus improved the trustworthiness and confirmability of the research, thereby preventing potential researcher bias.

The information was captured into a table and the table was then arranged according to the categories identified by the researcher (see Addendum H).

3.6.2.4 Step 5: Calculating combined ranks

The researcher then determined the importance of each category to both of the NGT discussions, which resulted in a consolidated and prioritised list of attributes (Van Breda, 2005:7-10). This step includes a number of smaller steps to determine the relative importance of each category to all the groups combined (Van Breda, 2005:7).

In order to calculate and tabulate the relevance and importance of each of the categories generated for the entire set of prioritised statements, the researcher selected all the data generated, organised the list according to Column B (Category) from the lowest to the highest, and then Column F (Top 5), from highest to lowest for each category.

A second document was created to calculate the relevant importance of the categories for the entire sample.

Table 3.4: Consolidated and prioritised list of categories (template)

Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H
Category	**Top 5_1**	**Top 5_2**	**Number 1**	**Number 2**	**Average 1**	**Average 2**	**Final rank**

Source: Compiled based on Van Breda (2005:7-10)

The document displays the information used during the process of calculating the combined ranks for the entire sample. Column A was populated with the number and title of each of the categories ascertained by the researcher in the previous steps. The researcher then counted the number of times each category appeared in the top five on the previous list and the total for each category was typed into Column B (Top 5_1). For each category, the number of statements that fell into each category was added and typed into Column D (Number 1).

The researcher added all the average scores in Column F (Top 5) of the previous list, and divided it by the number of statements, as it appears in Column D (Number 1); thus calculating the average score for the statements in each category. The average scores were typed into Column F (Average 1).

The first ranking was done by arranging the entries in ascending order according to Column B (Top 5_1), after which the categories were numbered chronologically in Column C (Top 5_2). Column C indicated the scoring of the statements for the combined list. The combined list displays the top five statements for the entire sample.

The file was subsequently arranged according to Column D (Number 1), from lowest to highest. Entries were numbered chronologically in Column E (Number 2).

The document was saved, printed, and checked for accuracy, after which the file was arranged according to Column F (Average 1), from lowest to highest. The ranking was entered chronologically (1, 2, 3…) in Column G (Average 2). The results were arranged according to Column E (rankings of importance of statements for the entire sample), and Column G (average ranking of combined statements) showed the ranking of the combined statements for the entire sample. Higher values indicated greater importance.

The researcher added the three sets of ranks created in Columns C, E, and G for each category and typed the results in Column H. Subsequently, the data were arranged according to Column H, from highest to lowest. The table displayed the final ranking of the categories for the combined group (see Addendum I).

3.6.2.5 Step 6: Comparing demographic groups (optional step – not included in this study)

Van Breda (2005:10) included an optional step to compare the ranking and relative importance of the results between different demographic groups within the total group. Data to compare may include, for example, race, gender, and socioeconomic status. In this study, the researcher opted not to incorporate a demographic comparison between the two groups involved.

3.6.2.6 Step 7: Reporting the NGT discussion data

Reporting of the data involved the compilation of the collected data into a research report (Van Breda, 2005:11) for distribution to relevant parties. The findings that emerged from the data analysis are presented in Chapter 4 and the conclusions drawn are provided in Chapter 5.

3.7 ROLE OF THE RESEARCHER

The researcher's role included gaining entry to the research site and addressing all the ethical issues encountered during the research (De Vos *et al.*, 2011:188). In an attempt to foster good relations with the participants and to build trust, the researcher adhered to the principles of respect, justice, and beneficence throughout the research study and ensured informed consent and confidentiality. The researcher was responsible for planning the study, writing up the research proposal, and planning the interaction with the participants during the NGT discussions (De Vos *et al.*, 2011:123). The researcher formulated the research question and research request, selected the research design and method, and obtained the necessary approval to conduct the research (see Section 1.9).

Another task of the researcher was to select the population and recruit participants for the study (see Section 3.4) and to assist with the NGT discussions.

The researcher is an active member of the SAMHS and had previously been employed as a registered nurse at the military hospital in which the study was conducted. She therefore had the advantage of knowing how best to approach prospective participants (Greene, 2014:1,3).

Since the researcher held prior knowledge and understanding of the work arrangements of the participants involved in the study, she opted to separate the registered nurses in management positions from the registered nurses who were not in management positions but who performed regular nursing duties in the respective nursing departments for the NGT discussions. This was an ethical role of the researcher to ensure that all the participants would have an equal chance to voice their opinions without being affected by the rank hierarchy of the military.

Since researchers may have preconceived and sometimes inaccurate notions about the group under study, the researcher prevented bias during data collection by not facilitating the NGT discussions herself but requesting an experienced facilitator to conduct the NGT discussions (Greene, 2014:4-5). The researcher assumed the role of an observer during the NGT discussions and enhanced credibility through the continuous involvement and collaboration of the study supervisor.

3.8 ETHICAL CONSIDERATIONS

Researchers need to ensure that their actions during the research process are ethical (Rubin & Babbie, 2017:83). During the course of this research, the researcher took the necessary measures to protect the participants. These measures are also called “ethical considerations” and refer to the adherence to moral principles throughout the research process (see Section 1.9). The Belmont Report describes three primary principles to guide ethical conduct in research (Babbie, 2016:63; Grove *et al.*, 2015:98; Polit & Beck, 2012:152). These ethical principles, namely beneficence, respect for human dignity, and justice, as well as other specific measures that the researcher adhered to during the research, are discussed in the following sections.

3.8.1 Beneficence

This principle encourages the researcher to do good and not to do any harm (Babbie, 2016:63; Grove *et al*., 2015:98). Polit and Beck (2012:152) listed the right to freedom from harm and discomfort and the right to protection from exploitation under beneficence. The researcher assessed the risks and benefits of the research, and minimised any threat of harm to any of the participants (Yin, 2016:49).

A risk foreseen by the researcher was potential discomfort between participants due to the impact of the military hierarchy and the obligation to use military ranks when addressing one another. Beneficence was achieved by requesting the participants to wear civilian clothing during the NGT discussions and to avoid the use of military ranks when addressing other participants. While some participants made use of the first option, others came from night duty and opted not to exchange their military uniform for civilian attire. The participants addressed more senior officers by their ranks, regardless of whether they wore civilian attire or uniform. Participants of the same ranks, who knew one another on a more personal level, addressed each other by their first names. In order to ensure that the participants neither felt coerced nor obliged to answer what they thought the researcher expected of them, the researcher and the facilitator also refrained from wearing military uniform during the NGT discussions. Another effort to minimise discomfort associated with military ranking was to divide participants into two distinct groups: (1) management and (2) non-management.

The NGT discussion facilitator emphasised that there were no incorrect answers in order to set the participants at ease and to encourage participation. The researcher ensured that the environment in which the discussions took place was safe and comfortable for everyone involved.

3.8.2 Respect for human dignity

People should be treated autonomously, with the right to self-determination and freedom of choice with regard to participation in research (Babbie, 2016:62; Grove *et al*., 2015:98). Respect for human dignity was achieved by the researcher ensuring that the participants knew that participation was completely voluntary and that there were no known physical risks or harm related to participation in the study. To ensure

voluntary participation, the participants were informed in writing that participation was completely voluntary. The participants understood that they could withdraw at any time, with no consequences.

3.8.3 Justice

Justice includes participants' right to fair treatment and their entitlement to privacy (Babbie, 2016:63; Polit & Beck, 2012:155). The selection of participants was based purely on the needs of the study and the researcher did not favour one above the other. The participants were selected equitably, and the researcher took care to not unfairly include or exclude anyone from the research (Yin, 2016:49).

No discrimination occurred if a member decided not to participate in the study or withdrew from the study after agreeing initially. The participants were treated with respect by both the researcher and the NGT facilitator. The time schedule for the NGT discussions was adhered to. The quantitative results of the NGT were revealed to the participants during the groups and they could see the value of their contributions. In addition, the researcher endeavoured to share the final results with the participants when the study was concluded.

3.8.4 Approval

Ethical approval must be obtained before data collection commences (Babbie, 2016:64; Denscombe, 2014:164). Before engaging in data collection, permission from all the gatekeepers was obtained to conduct the research. The committees responsible for reviewing the study protocol outlined the main features of the study in relation to concerns over protecting the participants (Yin, 2016:48).

The research proposal was evaluated by a research review committee at the UFS School of Nursing. Approval to conduct the research was obtained from the head of the School of Nursing. The relevant ethical clearance was obtained. Approval to perform the study was obtained from the Health Sciences Research Ethics Committee of the UFS, and additional approval was obtained from the 1 Military Hospital Research Ethics Committee (see Addendum A). Further permission to conduct the research in the military was obtained, which included permission from the military institute where the data were collected, authorisation from the Defence

Intelligence department of the SANDF, and permission from the Surgeon General of the SAMHS (see Addendum B).

3.8.5 Informed consent

Consent to participate in research must be voluntary. Voluntary informed consent from participants involves them signing a written statement after ensuring they understood the purpose and nature of the research and their role in it (Babbie, 2016:64; Yin, 2016:49).

The researcher provided the participants with thorough information about what the study would entail so that they could decide for themselves whether they wanted to participate. An overview of the study and its purpose was offered to the participants to explain what was required from them. The researcher arranged an information session with the managers of the various nursing departments to inform them of the proposed study and to invite them to participate. Information brochures were provided to the managers for distribution to all registered nurses who fitted the inclusion criteria. The brochures displayed the contact details of the researcher to which volunteers could reply.

Information and consent forms were provided to the voluntary participants and included information about the protection of the human rights of the participants as stipulated by Polit and Beck (2012:158) and Creswell (2014:96). Elements included in the consent form were the identification of the researcher, the right of participants to voluntarily withdraw from the study at any time, the central purpose of the study and the processes to be utilised to collect data, the expected benefits to accrue to participants in the study, and the level and type of participant involvement in the research. The known risks (if any) associated with participation in the study, assurances of the confidentiality of the participants (declaration of confidentiality), the names and contact details of persons to contact if any questions arose, and a space for the signature of the participant as well as the researcher were also included on the consent form (see Addendum C).

The participants were required to give their informed consent to participate in the study. The facilitator explained to the participants that they could withdraw at any stage of the research should they feel uncomfortable and wished to withdraw.

This could be done without being victimised in any way. They were also informed that there were no monetary benefits related to participation in this study (Polit & Beck, 2012:158).

3.8.6 Right to privacy

Participants have the right to expect that any data that they provide will be kept in the strictest confidence (Babbie, 2016:65; Denscombe, 2014:189; Polit & Beck, 2012:157). NGT discussions cannot be conducted in private. The participants were, however, assured that they would not be forced to disclose any information that might make them feel uncomfortable. On the basis of privacy, the researcher held in confidentiality all information contributed by the participants. The researcher assured the participants that she would not disclose identifying information that could lead to the recognition of the participants (Yin, 2016:49). The NGT is also of such a nature that it does not allow any names to be coupled to the listed statements (Waggoner, Carline & Durning, 2016:664), which means that no one can subsequently link a specific participant to any of the listed statements.

3.8.7 Data anonymity

When anonymity is not possible, as is often the case with qualitative data, confidentiality processes must be put in place (Babbie, 2016:65; Polit & Beck, 2012:162). Anonymity could not be assured; instead, the participants were assured that their information and the data they provide would be confidential. The participants also declared confidentiality by agreeing not to disclose any information regarding the co-participants.

The groups for the NGT discussions were homogenic and the discussions were conducted by an experienced facilitator, which ensured that the responses received from the participants were not influenced by the researcher's own views. Data collected during the process were kept in a safe and all electronic documents were password-protected. Research data were captured electronically on the researcher's personal computer. The latter is password-protected in order to keep information private and confidential. After the completion of the study, all documents and information gathered will be destroyed after five years.

Information obtained during data collection did not implicate the participants in any way. The researcher ensured that all references to names were removed from all records. All the participants signed an informed consent form in which they declared confidentially by stating that they would not disclose any personally identifying information about co-participants that they may have become aware of during the NGT discussions. The selection process was fair and unbiased; the selection criteria were based purely on the needs of the study and all registered nurses who fit the criteria could participate in the study.

3.9 METHODOLOGICAL RIGOUR

Researchers need methods to ensure the integrity of their research, regardless of the type of research (Merriam & Tisdell, 2016:238). As with all types of research, qualitative research should be rigorous in design to enable researchers to obtain data that display a version of the truth (Savin-Baden & Major, 2013:471).

In this study, the researcher instilled trustworthiness and authenticity through the use of certain quality criteria (Kumar, 2014:219; Yin, 2016:86). Lincoln and Guba (in Polit & Beck, 2012:584) and De Vos *et al.* (2011:419) describe a framework of quality criteria in qualitative research. The quality criteria applicable to this study were credibility (truth value), dependability (reliability), confirmability (objectivity), transferability (applicability), and authenticity (Kumar, 2014:219; Polit & Beck, 2012:582-593). Table 3.5 summarises how these criteria were applied during the study.

Table 3.5: Application of the criteria for trustworthiness

Criteria for trustworthiness	Application of the criteria to ensure trustworthiness
Credibility: Confidence in the truthfulness of data and interpretations	- Use of an experienced NGT facilitator - Data saturation - Member checking, to ensure consensus about the results - Verifying the findings with the facilitator - Ethical conduct of the researcher throughout the study
Dependability: The findings are consistent with the data presented	- Providing a comprehensive account of data collection and data analysis, and reporting the research findings - Communicating all changes that occurred to the supervisor - Aligning the planning and execution of the processes
Confirmability: The data represent a true reflection of the information supplied by the participants	- Use of an impartial NGT facilitator - Remaining neutral throughout both of the NGT discussions - Not influencing the responses by the participants by any means - Confirming interpretation of the data with the supervisor

Criteria for trustworthiness	Application of the criteria to ensure trustworthiness
Transferability: The extent to which the findings of one study can be replicated and applied to other situations	- Giving rich, thick descriptions of the processes followed during the study - Providing thorough, in-depth descriptions in reporting the findings - Including detailed descriptions of the limitations of the study
Authenticity: The tone of the research reflects the atmosphere of the participants' lives as they are lived	- Giving thick descriptions of the participants of the study - Providing a true reflection of the participants' views and experiences - Engaging the reader to develop an increased understanding of the issues portrayed of the participants

Source: Adapted from Kumar (2014:219); Polit and Beck (2012:582-592); Yin (2016:86)

3.9.1 Credibility

The credibility of a study indicates the reader's confidence about the level to which the researcher's findings reflect the opinions of the participants (Grove *et al.*, 2015:502), which indicates how believable the data are and whether or not the findings can be trusted. Credibility in qualitative research is usually gained from discovering human experiences as they are lived and interpreted by the participants (Botma *et al*., 2010:233).

As a point of departure, two NGT discussions were conducted to generate data from people with different experiences, responsibilities, and perspectives (Merriam & Tisdell, 2016:245). The researcher sought credibility by requesting an experienced facilitator of NGT discussions to facilitate these discussions. In this way, the responses received from the participants were not biased by the researcher's own views but were accurate reflections of the participants' views (Kumar, 2014:219).

Data saturation, obtained through adequate engagement in data collection until no more new responses are received, was the strategy used in an attempt to get as close as possible to the participants' understanding of the distinctive attributes of registered nurses in the SAMHS (Merriam & Tisdell, 2016:248; Richards, 2015:154). Furthermore, the facilitator ensured that all the participants clarified their inputs and reached consensus about the interpretation of the suggestions they made, by confirming with the participants whether the results were correct (Merriam & Tisdell, 2016:246).

In the NGT discussions, the statements listed during the discussions were clarified in order to strengthen credibility. By also verifying the outcome of the NGT discussions with the facilitator afterwards, the researcher ensured that the results were portrayed accurately. The researcher herself aspired to credibility by conducting the study in as ethical a manner as possible (Merriam & Tisdell, 2016:265).

3.9.2 Dependability

Dependability, also referred to as reliability, refers to consistent and stable evidence and entails obtaining the same results if the study is repeated (Babbie, 2016:318; Grove *et al.*, 2015:175). To improve the chances of the study yielding similar results if repeated (Merriam & Tisdell, 2016:251), the researcher provided a step-by-step report of how the data were collected and analysed in order to convince the reader of how she determined the findings related to the distinctive attributes of registered nurses in a South African military context. Throughout the research process, the researcher communicated all her actions to her supervisor (Savin-Baden & Major, 2013:475).

All the findings were controlled with the facilitator of the NGT discussions and the supervisor of the study to ensure that the findings were consistent with the data (Merriam & Tisdell, 2016:252). The researcher also provided detailed information in order to ensure that the conclusions are understandable (Merriam & Tisdell, 2016:238,251).

3.9.3 Confirmability

Confirmability is the extent to which the study results originated from the characteristics of the participants and from the study context, and not from the researcher's biases (Polit & Beck, 2012:175). The use of an impartial NGT discussion facilitator reduced the risk of the researcher being biased and affected the quality of the data and the analysis, interpretation, and reporting thereof. In an effort to avoid researcher bias (Cohen, Manion & Morrison, 2018:250), the researcher remained neutral through both of the NGT discussions. She only tended to logistical issues at the research venue, and did not influence the participants' responses by any means.

Throughout the data analysis process, the researcher checked for accuracy with her study supervisor. In order to eliminate any bias while reporting the research findings (Cohen *et al.*, 2018:250), the researcher also confirmed the interpretation of the data with her supervisor, who is experienced with qualitative studies and the NGT.

3.9.4 Transferability

Transferability refers to the ability to make the research findings of a study useful in other similar contexts, thereby extending the findings beyond the data (Leavy, 2017:155). The researcher aimed to produce a meticulous study, by giving rich, thick descriptions throughout the study (Merriam & Tisdell, 2016:256) and providing a detailed presentation of the setting and the participants of the study (Cohen *et al.*, 2018:255; Merriam & Tisdell, 2016:257), which makes it possible for other persons to identify and decide whether the findings can be transferred to and used in similar situations elsewhere (Savin-Baden & Major, 2013:475).

The researcher also provided thorough, in-depth descriptions in her report of the findings, which add to the transferability of the study (Merriam & Tisdell, 2016:254,256), as well as a detailed description of the limitations of the study.

3.9.5 Authenticity

Authenticity refers to the extent to which qualitative researchers fairly and faithfully show a range of different realities in the collection, analysis, and interpretation of data (Polit & Beck, 2012:720). Authenticity in a report reflects the atmosphere of participants' lives as they are lived (Botma *et al.*, 2010:234; Polit & Beck, 2012:585). The researcher aimed to achieve authenticity by adequately representing the multiple opinions of the participants and providing a deeper and more sophisticated understanding of registered military nurses and their distinctive attributes (Cohen *et al.*, 2018:253) through thick descriptions of the participants and the process of obtaining and analysing the data. Furthermore, the research may bring benefits to all involved by empowering the participants and making their voices heard, and prompting the development of educational programmes to foster distinctive attributes in registered nurses within the South African military context.

3.10 SUMMARY

This chapter presented a detailed description of the research design and methods used during the study. The researcher clarified the selected research design and research method of the study. The research processes further included a description of the population and units of analysis, as well as an overview of the process of data collection and data analysis. The researcher described the role of the researcher and the ethical considerations encountered during the research study and concluded with a description of how trustworthiness was ensured during the course of the study. In the chapter that follows, the researcher provides a presentation of the findings of the research and a discussion thereof.

CHAPTER 4:
RESEARCH FINDINGS AND LITERATURE CONTROL

4.1 INTRODUCTION

In the previous chapter, the researcher discussed the research design and method used during the study. In this penultimate chapter, the findings of the research are presented. The research study aimed to answer the research question: “What are the distinctive attributes of registered nurses in the South African military context?” To ensure that relevant information was obtained, and to reach the aim of the study, registered nurses at an SAMHS institute were invited to participate in the study. Two NGT discussions were conducted. The researcher grouped the participants of the NGT discussions into management and non-management categories (see Section 3.5.2). At the time of data collection, the unit of analysis comprised 16 participants.

In the following sections, the researcher presents the research findings, which are substantiated and triangulated with literature control. A summary with contextual information about the participants is provided before an in-depth discussion about the categories and sub-categories of distinctive attributes that emerged from the participants’ ideas during the two NGT discussions.

4.2 DATA ANALYSIS AND FINDINGS

The researcher provided a detailed description of the data analysis process in Section 3.6. Apart from the NGT discussion data, the researcher obtained additional information from the participants, which is reflected in Table 4.1. This information was obtained because the researcher wanted to determine whether the participating registered nurses met the inclusion criteria by enquiring about their experience in the military, which aimed to only include participants with two or more years of experience in the military. The participants who met the criteria included registered nurses in management positions (n=9) and those from non-management positions (n=7). In addition, age and gender were noted for the sake of interest.

Table 4.1: Demographic information of participants (n=16)

Consideration	Group 1	Group 2
Group description	Management	Non-management
Total: (n=16)	n=9	n=7
Gender: - Male - Female	 2 7	 3 4
Age range (in years)	43 – 59	26 – 40
Experience in the military (in years)	8 – 25	2 – 10

All the participants had two or more years of experience in a military setting with those from the management group having the most experience. Participants from this group fell into higher age categories (43 to 59 years), with non-management participants being between 26 to 40 years old.

During data analysis, the researcher configured and integrated the collected data in two stages. This first stage occurred during the NGT discussions, where numerical ranking of the data according to priority was done during the discussions. The participants individually allocated their top five statements with a score ranging from 1 (least important) to 5 (most important). The most important statement was thus the one that received the most points. Scores were calculated, after which numerical ranking of the data according to priority was done during the NGT discussion process (see Section 3.6.1).

The second stage of data analysis involved both qualitative and qualitative techniques and commenced by capturing the data on a computer. Data were derived from the cards and sheets created during the NGT discussions, as well as from the researcher's notes. From the two NGT discussions, a total of 34 statements were captured. The researcher, in collaboration with the study supervisor, captured the collected data electronically on a spreadsheet (see Addendum F). The average of each of the total scores was calculated by adding the individual scores of each statement and then dividing the total score by the total number of participants – this was done for both groups respectively. The top five statements were then indicated with an "X" (see Addendum G).

Each statement listed during the NGT discussions was grouped into an applicable category (see Addendum H). The researcher verified that the different categories related to the study topic by discussing and confirming the findings with her

supervisor, who is an experienced qualitative researcher. The categories were ranked and sorted to display a prioritised list of categories (see Addendum I). Refer to Sections 3.6.1 and 3.6.2 for a detailed description of both stages of the data analysis process. The prioritised categories and sub-categories that emerged are displayed in Table 4.2.

Table 4.2: Categories and sub-categories of the distinctive attributes

Category	Sub-categories	Group of origin
Multi-skilled	- Combat readiness - Military experience - Military training	G1 and G2
Military discipline	- Strictly obey military rules and command - Submission to higher ranks - Leadership exemplar	G1 and G2
Resilience	- Emotional strength - Ready for immediate deployment under various circumstances	G1 and G2
Physical fitness	- Compulsory physical fitness training - Adhere to military health and fitness protocols	G1 and G2
Occupational respect	- Respected for being in the military	G2
Compliance	- Willingly obey strict military command - Willingly comply to military etiquette	G1
Military etiquette	- Camaraderie - Submissive - Respectful - Neat - Immediate service to members and patients	G1 and G2

As depicted in Table 4.2, similar sub-categories were grouped together, which gave rise to the respective categories. In the third column of the table, the groups of participants from whom the categories originated are noted. The main categories of distinctive attributes related to aspects of being multi-skilled, having military discipline, resilience, physical fitness, occupational respect, compliance, and military etiquette.

4.3 FINDINGS

The seven categories are presented in this section and the discussion is arranged according to these main categories, in the sequence of their relative importance to the combined groups. Triangulation with the literature includes cross-referencing to Chapter 2 and other literature where applicable. The researcher added verbatim

excerpts from the participants' discussions to illustrate their perceptions where necessary.

4.3.1 Multi-skilled

The participants from both groups mentioned that being multi-skilled was a distinctive attribute of registered nurses in the military context. The unique situation of military nurses often being exposed to broader opportunities and areas of functionality necessitates additional skills other than those needed for nursing care only. The literature states that military nurses should be provided with opportunities to increase their knowledge base. Opportunities can take the form of annual seminars, conferences, workshops, and continuous in-service training for military nurses (Mabona, 2018:7). Jumat *et al.* (2014:9) further suggested that training and expertise in theatre, casualty, and intensive care be planned and implemented proactively. In her concluding remarks, Davidson (2017:2) stated that it is imperative that research continues to ensure that military nurses are equipped with the current, evidence-based practice needed to care for the wounded in current and future conflicts.

Nurses who have a military mindset are more likely to take on non-clinical positions and participate in normal military duties. This inclination to immerse oneself in military life can have far-reaching implications in terms of identification within the larger military team, potentially lowering stigma, and facilitating greater communication with troops (Finnegan *et al*., 2016:92). Additionally, nursing knowledge specific to military nursing, and the populations served, is vital to mission success, in addition to achieving the optimum outcomes for patients (Blaz, Woodson & Sheehy, 2013:602; Davidson, 2017:1). Military nurses thus attend military courses to increase their combat support capabilities. With that said, the participants in this research were of the opinion that military nurses needed additional knowledge and skills to be able to perform their duties. They associated additional knowledge and skills with combat readiness, military experience, and military training where they study topics such as combat tactics, weaponry, aviation, and working in field hospitals.

4.3.1.1 Combat readiness

Combat readiness of military nurses for operational deployment encompasses additional combat knowledge (see Section 2.3.1.3). They need military skills in addition to their professional skills (Naidoo & Badli, 2016:48), being ready to "pack up and go", and meeting medical and psychosocial requirements. Ideally, all military health personnel should be ready for operational deployment (see Section 2.3.3). The environment in which they work requires that military nurses have a positive, sharp mind at all times. Views from the literature revealed that nurses at three military hospitals and eight clinics in the SAMHS felt that they were not up to date with the latest nursing information and that they were not able to update their nursing skills and knowledge because of their military duties that took precedence (Mabona *et al*., 2019:5). However, the participants in this study acknowledged the responsibility to be ready for combat and the multiple skills that accompany such readiness.

4.3.1.2 Military experience

As a member of the armed forces, military nurses attend promotional courses, similar to soldiers who are not functioning in the healthcare environment, to advance their military career. Naidoo and Badli (2016:48) listed the following promotional courses:

- Officer's Formative Course;
- Medical Task Team Commander's Course;
- Junior Command and Staff Course;
- Joint Senior Command and Staff Programme; and
- National Security and Defence Strategic Programme.

In these above-mentioned courses, members are acquainted with the planning and execution features of combat. Their additional exposure to military life has the effect that military nurses also have clinical competencies and leadership capabilities and may possess a wider range of interests and skills than their civilian counterparts (Lake *et al.*, 2016:243).

The participants noted:

> *"We are expected to fulfil all roles… military and nursing. We receive military induction or military training, functioning as a soldier and fulfilling military requirements with exposure to helmets, vest and rifles"* (Group 2).

Prior to their nursing training, military training is a requirement for nursing students at the SAMHS Nursing College in Pretoria. Military training ensures effective initiation into the military environment, which has its own culture, laws, and regulations (Van Wyngaarden, 2017:23). Newly hired nurses were dissatisfied with the limited time allotted for induction training when they first started at the SAMHS. They felt that the two weeks of induction training for newly appointed members were insufficient to adopt the military culture and they suggested that they were not ready to wear the uniform and perform tasks normally performed by soldiers in uniform (Mabona, 2018:55). It is thus noteworthy that the participants from both groups in this study mentioned military experience as imperative to develop the skills necessary to perform military duties and to not only focus on nursing tasks.

4.3.1.3 Military training (combat tactics, weaponry, aviation, field hospital)

Being operationally deployable is one of a soldier's main goals. Participants in Zägenhagen's (2016:64-65) study agreed that military training prepares a student to become a competent soldier. Military nurses must undergo extensive training in order to offer operational support and function under pressure. Military nursing students attend a six-month formative military training course to prepare them for the assumption of their role as an officer in the armed forces (Caka *et al.*, 2015:S193). The officers' formative course is designed to provide students with the abilities, expertise, and beliefs necessary to perform as junior military officers in a specific, defined military setting (Zägenhagen, 2016:11). The course prepares military members for combat situations (see Section 2.4.2). Health professionals need support so that they can comprehend and prepare for exposure to severe operational environments (Sonesson *et al*., 2018:95).

The findings of Sonesson *et al*.'s (2018:95) study revealed the necessity of hands-on training with medical equipment and in extreme settings such as a burning building, in the dark, and in open spaces. To notionally prepare them for this experience, military healthcare professionals may be nominated and selected to attend BATLS and BARTS courses (see Section 2.4.2). These courses are intended to equip members with the skills needed to perform in the combat zone to preserve life at the warfront and include practical exposure to triage, resuscitation, and evacuation of wounded victims (Naidoo & Badli, 2016:47).

4.3.2 Military discipline

Participants from both groups ranked the attribute of discipline as their top priority. Interestingly, participants of Group 1, who were registered nurses in a management position, ranked discipline significantly higher than those from Group 2, who were nurses not in management positions. Discipline is inherent to the military environment and is expected from serving members whether they are soldiers or nurses (or both). The *Oxford Dictionary of English* (MobiSystems Inc., 2021) defines discipline as controlled behaviour ensuing from the training of individuals to obey rules, using penalties to amend disobedience. Discipline improves self-control, traits, and competence. In the military, as the result of such training, discipline implies orderly or prescribed conduct (Merriam-Webster Inc., 2021) and suggests the state of order present within a command.

Military discipline can be viewed as the authority of one service member over another, where emphasis is placed on the chain of command (Redmond *et al*., 2015:13). The rank system, which determines who is in command, has an impact on many aspects of military culture. Military nurses in the SAMHS also receive military instruction in discipline and protocol throughout formative military training where they are prepared for war-like situations in a controlled environment (Caka *et al*., 2015:S193). In this study, qualities associated with military discipline included strict obedience to military rules and command, submission to higher ranks, and being exemplary leaders. The researcher included verbatim excerpts from the participants to elucidate.

4.3.2.1 Strictly obey military rules and command

The military environment requires that one becomes a soldier in the true sense of the word, by acquiring military culture and values. As for all soldiers in the military, military nurses are obligated to obey all lawful orders issued by their superiors. This is not always a simple task, as is apparent in the fact that nurses at three military hospitals in South Africa found it difficult to balance their twin roles as active military members and professional nurses (Mabona *et al*., 2019:4). Additionally, unlike civilian nurses, military nurses are obliged to wear a military uniform. They do not wear the distinguishing devices (epaulettes) as prescribed by the SANC (2003; 2021).

> *"We do not have visible SANC categories and distinguishing devices. Instead, we wear uniform and ranks ..."* (Group 1).

Although people's attire might reveal their personal tastes, they are also frequently connected with specific occupations (Küster, Krumhuber & Hess, 2019:24). Uniforms are a visible way to identify a certain profession. Registered nurses in the civilian sector are generally identified by their uniform and distinguishing devices and a hierarchy exists where lower-category nurses must adhere to orders given by higher-ranking nurses. A military uniform is a visual reminder of the military rules and regulations. Serving members wear military uniforms with rank insignia, and higher ranks exercise command over subordinates, who obey the commands given. The military employs a hierarchal rank system that places a premium on authority (Redmond *et al*., 2015:13), the extent of which is much more intense than in the civilian sector.

4.3.2.2 Submission to higher ranks

Submission refers to the characteristic of being submissive, humble, or obedient, and accepting the instruction of another individual (Merriam-Webster Inc., 2021). The military hierarchical ranking system is bureaucratic and authoritarian and often results in military rank taking precedence over professional rank, professional experience, professional qualifications, and academic qualifications (Kramm & Heinecken, 2015:127; Van Rensburg & Zägenhagen, 2017:31; Zägenhagen & Van

Rensburg, 2018:97). Since military nurses are exposed to the rules and regulations applicable to other arms of service, they are obligated to obey commands given by higher authorities – provided these are within a legal framework.

> *"The command-and-control structure in the military is different. The line of command outside depends on who is more qualified … [I]n the military we have the rank structure"* (Group 2).

Even though military nurses encounter conflicts between their dual professional positions in terms of authority (see Section 2.3.4), higher authorities remain accountable for those serving under their command. As such, serving in the military necessitates subordination and submission (Redmond *et al.*, 2015:13).

This requirement might explain why the participants in management positions felt so strongly about the attribute of discipline.

4.3.2.3 Leadership exemplar

The literature repeatedly highlights leadership, alongside compassion, respect, and integrity, as important in supporting quality care and professionalism (Kowalski *et al.*, 2020:68; Nortjé, 2017:22). Being leaders and exemplars and displaying compassion, respect, and integrity are often used synonymously with the profession of nursing (see Section 2.3.2). Nurses with leadership traits are required to facilitate development at all levels of the healthcare system. These traits seem to be well defined and provide adequate guidance toward the advancement of the nursing profession (Heinen *et al*., 2019:2379).

In the military context, however, a leader also alludes to an authority figure (Bishop & Ross, 2018:77). Leaders in the military are individuals who have a high regard for the trust component because of the life-or-death situations that serving members are exposed to. In addition, O'Connor, Grunberg, Kellermann and Schoomaker (2015:149) noted the acquisition of fundamental military information combined with cognitive, affective, and psychomotor proficiencies in order to advance as leaders in the military. Nursing officers in the military also attend military courses (see Section 2.4.2) and have the ability to lead and serve as role models in society (Lake *et al*.,

2016:243). Therefore, apart from the leadership component in their nursing profession, the participants felt that they should have the quality of military leadership as serving members in the SANDF – again reflecting their dual identity as both a nurse and a soldier.

4.3.3 Resilience

In the context of this study, resilience refers to the capacity to recover from, or to easily adapt, to difficulties, which define the strength and pliability of an individual (Merriam-Webster Inc., 2021). For military nurses, who have a professional identity and military duties, the characteristic of being physically and mentally strong is necessary to help them cope with harsh conditions (Finnegan *et al*., 2016:92).

Nindl *et al*. (2018:1116) suggested that military resilience, which is the capacity to overcome the negative effects of setbacks and associated stress on military performance and combat effectiveness, can be nurtured in an individual. When joining the military, an individual's psyche alters and acclimates to the new milieu and experience (Turazod, 2021:249). For participants in both groups of this study, resilience was offered as a distinctive characteristic and was sub-categorised into emotional strength and being ready for immediate deployment under various circumstances.

4.3.3.1 Emotional strength

Nurses who had been trained in the military, and those professionals who joined the military with a qualification, all expressed tension as a result of their dual duties as both soldiers and nurses (Mabona *et al*., 2019:4). The high expectations set for them interfered with their nursing practice and family lives. This reality might explain why the participants of this study mentioned challenging situations such as having to leave their family behind when deployed or being away from loved ones for long periods of time.

> *"When nurses in the public sector strike, we have to step in. Sometimes you will find that we are the only ones remaining after a long day, waiting for the next shift to arrive … regardless of whether the shift has ended and whether someone will actually arrive to relieve us"* (Group 2).

Elliott and Patterson (2017:146) reported that military service has the potential to leave members in the military without their support systems, which causes their physical and mental health to suffer. Since military nurses are required to handle a great deal of pressure, they experience several psychological responses (Ma *et al*., 2021:870). Resilience is therefore an essential characteristic for military nurses to fulfil their roles (Tow & Hudson, 2016:331).

Participants in Fullstone and Hall's (2017:30) study reinforced the notion that being prepared in advance to work well under difficult circumstances as part of basic military training makes military nurses more flexible to manage other challenging environments. Naidoo and Badli (2016:48) noted mental resilience as an imperative component of combat and they stated that doctors, in addition to staff tending to the mental health of the military forces, receive fundamental preparation in psychosocial and spiritual wellbeing.

Prior experience in a harsh setting aided deployed military nurses' psychological wellbeing, which made them less vulnerable to the clinical presentation of victims, high activity levels, or a harsh environment (Finnegan *et al*., 2016:90). It is thus not surprising that participants from both groups in this study related to being emotionally strong to fulfil their duties in the military environment.

4.3.3.2 Ready for immediate deployment under various circumstances

The flexibility and adaptability of military nurses in South Africa have recently been shown in the media, over the period March 2020 to date. The focus came about after the deployment of medical staff from the SAMHS, among whom were registered nurses, to assist in areas with heavily burdened healthcare systems during the COVID-19 pandemic. This capability to adapt and adjust to altering conditions is what makes military nurses exceptional and distinctive (Van Rensburg & Zägenhagen, 2017:34).

Interestingly, there are no studies that have sought to ascertain the level of resilience that enable registered nurses working in the South African military context to function in austere environments. However, the findings of this study highlight the necessity of military nurses to have the attribute of resilience and flexibility so that they are prepared to operate in an environment where circumstances may suddenly change.

Military nurses must be ready for deployment in a variety of conditions with limited resources (Fullstone & Hall, 2017:30).

4.3.4 Physical fitness

Military nurses are required to be physically fit in order to meet the demands of their duties (see Section 2.3.3). Being physically fit did not feature in the top five priorities of Group 1. This finding may be attributed to them being in management positions and thus being less likely to participate in fitness activities. Rather, they remain in their departments and continue with nursing activities. In contrast, the participants in Group 2 ranked fitness as the second priority on their list of statements.

Physical training is unavoidable in environments such as the military (Jones & Hauschild, 2015:S58). Military physical training, like any other activity, should focus on achieving success in the tasks at hand. Workouts that focus on developing strength and power, as well as endurance, should thus be implemented. The primary goal of the workouts is to boost physical functioning (Pihlainen, Santtila, Häkkinen & Kyröläinen, 2018:1096). Since military medical personnel are also operational combat risks (Blaz *et al*., 2013:602), military nurses are also expected to be physically fit. In this study, the sub-categories of physical fitness were associated with compulsory physical fitness training and the military nurses' obligation to adhere to health and fitness protocols.

4.3.4.1 Compulsory physical fitness training

It is important that military nurses maintain their baseline fitness levels given that physical fitness also influences the ability of individuals to manage and adapt well to stressors (Kelly & Jameson, 2016:603; Nindl *et al*., 2018:1119). Considering the significance of progressively beginning a physical training programme, training components are adequately proportioned to military nurses' specific fitness levels and demands (Kyröläinen *et al*., 2018:1131; Wood & Krüger, 2013:215). Military nurses in the SAMHS are afforded the opportunity to exercise during official working hours on specified weekdays. Civilian nurses, on the other hand, are exempted from this activity since physical fitness is not a requirement for their service delivery.

4.3.4.2 Adhere to military health and fitness protocols

A military occupation is very challenging and military nurses must be physically prepared to adapt to resist the forces of nature, including physiological predispositions and harsh environmental and climatic circumstances (Jumat *et al*., 2014:3; Nindl *et al*., 2018:1122; Pihlainen *et al*., 2018:1089). The SANDF incorporates a health classification system. In a G1K1 classification, the "G1" component denotes that a soldier is healthy and can engage in physical activities. The "K1" component indicates that the member is deployable, both locally and abroad, without requiring a medical facility in the proximity (Engelbrecht, 2009).

Participants from both groups underscored the relevance of being physically fit. One participant commented:

> *"We must be physically fit ... [W]e do CHAs and fitness tests because we must run with stretchers on the battleground"* (Group 2).

Nindl *et al*. (2018:1117) highlighted that one of the leading causes of soldiers leaving the military is associated with poor physical fitness, especially being overweight, despite the essential significance of a healthy body for cognitive preparedness. Age-appropriate physical fitness tests are utilised by the armed forces to determine the level of fitness of its members (Lisman, O'Connor, Deuster & Knapik, 2013:636; Sarah *et al*., 2017:3218). These tests are also compulsory for military nurses and include an array of push-ups, sit-ups, shuttle-runs, running, and walking, which must be completed within a specified timeframe.

4.3.5 Occupational respect

A surprising category that emerged from this study was occupational respect. Being in the military and wearing a uniform emphasise the respect and consideration the individual expresses to society at large, and vice versa. Participants of Group 2 mentioned that they earned respect from society because of being in uniform, which raises the idea that society generally respects persons in the armed forces. This is noteworthy because the literature typically reflects the concept of respect of the

individual towards others, and not vice versa (Cain *et al*., 2018:199; Nortjé, 2017: 21-23).

In their report, Van Rensburg and Zägenhagen (2017:32) mentioned that military students are very respectful. Serving in the military and wearing the uniform show that an individual is trained to serve and protect and therefore denote the many virtues demanded by society – more so than any other profession (Heinecken, 2015:4; Montesh & Basdeo, 2012:78-80). In return, society respects those who serve in the military. Hines *et al*. (2015:14-18) noted that public support of the armed forces in the United Kingdom is related to the understanding thereof and the operational circumstances of the armed forces. Reputation incessantly echoes respect for the individual as the result of prevailing relations in society, as well as the positive virtues of an individual (Turazod, 2021:254). Any strains in the relationship between the military and society may have an unpredictable effect on a state's capabilities (Brooks, 2019:393).

> *"We earn respect from the outside world because of the uniform. We are also most wanted when applying for a post because it looks good on your CV if you're in the military"* (Group 2).

The participants from Group 1 mentioned that a military post reflects positively on one's résumé, which makes one more sought after when applying for a position. They highlighted a correlation between being in the military and the prospects of successful job applications. This statement is in contrast with the findings of the study by Smith and Heinecken (2014:113-114), where school learners with a healthy economic status indicated their disapproval of joining the South African military.

Taking cognisance of the statements made by the participants in this study, the question can, however, be raised whether the respect is solely related to the uniform or if the individual in the uniform holistically also contributes to the level of respect received.

4.3.6 Compliance

The attribute of compliance was mentioned only by the participants from Group 1. Since these participants were older and had more experience, the researcher deduced that they understood the wisdom of readily obeying the strict rules and command of the military environment rather than resisting them. Compliance refers to the activity of conforming to a wish, a command, or a demand (Merriam-Webster Inc., 2021; MobiSystems Inc., 2021). The military maintains strict rank and order. Since members join the military voluntarily, they willingly submit themselves to the constraints of military life with the realisation that expulsion may occur if they disregard the regulations (Cole, 2014:498-499; Kuehner, 2013:78). It should be noted that the distinct attribute of compliance here denotes a willingness to obey and submit as opposed to being forced to do so. As such, the participants related compliance with willingly obeying military command and complying with military etiquette.

4.3.6.1 Willingly obey strict military command

The compliance to duty is emphasised in Kenny and Kelley's (2019:4) study, where military nurses confirmed their priority given to operational and military duties. However, certain situations may challenge being obedient at all times and may cause inner conflict. Participants from the aforementioned study knew their obligation towards the military but found it difficult to find balance between military demands and human suffering. An example used was the turmoil that nurses experienced when having to use limited resources, meant for own forces, to benefit adversaries and civilians from the opposing country (Kenny & Kelley, 2019:4).

Van Rensburg and Zägenhagen (2017:33) described that nursing students in the SAMHS are frequently forced to choose between doing what they believe is right and following instructions. The participants discussed the ethical dilemma that students face when presented with a military order or instruction from a higher-ranking officer, which may be in violation of the patient's right to privacy and confidentiality. Nevertheless, the structure and purpose within the military serve their value in the sense that military nurses are accustomed to the structure and control to reduce uncertainties (Elliott *et al*., 2017:1379-1383).

4.3.6.2 Willingly comply with military etiquette

Blacker *et al*. (2019:34) pointed out that compliance is one of the aspects to be considered during cognitive training of the military population. The kind of work performed by military personnel may expose them to life-or-death situations. This aspect, along with the authoritative inclination of military preparation, causes compliance, and motivation, to be pre-eminent in the military population as opposed to the conventional academic milieu (Blacker *et al*., 2019:44). Military nurses willingly comply with strict military etiquette. Standards in the civilian sector, however, are less structured and have fewer regulations (Elliott *et al*., 2017:1383).

4.3.7 Military etiquette

The term “etiquette” is used to label the conventional code of refined conduct, which delineates how people behave in society or among members of a specific profession or clique (Merriam-Webster Inc., 2021). The military is a system with clear norms of conduct. Apart from military discipline that obligates members to adhere strictly to military command and rules, military etiquette denotes the way in which members interact with their superiors and fellow workers. The participants identified with military etiquette in the following comment:

> *“Military nurses should have military etiquette. We should know the dress code and how to present ourselves. We attend formal dinners and should know our boundaries and must also know what to do when entering a bar”* (Group 1).

From the participants’ responses, military etiquette was sub-categorised into camaraderie, being submissive, respectful, and neat and to provide immediate service to members and patients.

4.3.7.1 Camaraderie

Camaraderie, also described as brotherhood, is a sense of reciprocal trust and friendliness among people who work together toward a common goal or who share a great deal of time and experiences (Elliott *et al*., 2017:1379; Merriam-Webster Inc., 2021). This valuable attribute is usually developed during basic military training (see

Section 2.4.2). The sense of unity between soldiers helps develop their professional identity and aids in their adaptation to the military milieu (Geuzinge *et al*., 2020:12; Goodwin *et al*., 2018:330; Kenward & Kenward, 2015:38; Moss *et al*., 2015:307; Zägenhagen, 2016:174).

Participants from both groups identified with the perception of military nurses as being compassionate towards fellow members and patients, looking out for one another, being willing to walk the extra mile, and to foster teamwork. It is thus apparent that they considered camaraderie as interwoven with the attribute of military etiquette and thus fundamental in shaping the identity of military nurses. The importance of camaraderie is supported by Tow and Hudson (2016:331), who stated that military nurses are expected to show respect to all individuals and care about the entire team's safety. Respondents in Sonesson *et al*.'s (2018:95) study stressed the necessity of team training and the fact that members should understand their roles and duties within the team, both in terms of the military medical hierarchy and international coordination.

4.3.7.2 Submissive

When someone is submissive, the individual is described by the *Merriam-Webster Dictionary* (Merriam-Webster Inc., 2021) and the *Oxford Medical Dictionary of English* (MobiSystems Inc., 2021) as being keen to docilely and inertly follow and submit to the wishes of others. Soldiers serving in the armed forces are familiar with the importance of obeying orders (Bishop & Ross, 2018:77; Naphan & Elliot, 2015:36). As soldiers, military nurses are expected to comply with any commands given by superiors, provided these are within a legal framework. The participants from both groups seemed to value the characteristic of being submissive as inherent to the military context and their work environment:

> *"You follow instruction. And if the instruction says something, you abide"* (Group 2).

Military nurses trust that the commands they receive are legal, and believe that the danger and sacrifice required to complete the task are necessary. Similarly, a senior must have faith that their instructions will be carried out and that all activities will be carried out in a manner that emphasises military decorum (Redmond *et al*.,

2015:13). The hierarchy in the military resembles an interconnectedness, where each person is connected to others. This notion is critical for missions and makes submissiveness a valuable asset to possess, both as a nurse and as a soldier.

4.3.7.3 Respectful

Respect was one of the attributes identified as most important overall in Nortjé's (2017:21-23) study, which indicated that a nurse should have respect for patients. An example of respect in the military is demonstrated when military members stand up when a senior officer enters the establishment and when they salute senior officers. A military nurse is expected to show respect to all persons while caring enough to respect limited resources (Tow & Hudson, 2016:331). According to the participants from both groups in this study, being respectful is related to military etiquette as a distinctive characteristic of those who work and serve in the military context.

4.3.7.4 Neatness

The participants of this study associated the quality of neatness with military etiquette. In this sense, both groups mentioned the military uniform as distinctive. Neatness and pride when wearing the military uniform are firmly ingrained in the perception of military nurses – the significance of which were perceived as being of lesser value in the civilian sector (Elliott *et al.*, 2017:1379). Uniforms make persons from a certain profession or occupation easily identifiable (Küster *et al*., 2019:24). First impressions last and the appearance of a person, including their grooming preferences, will influence how they are perceived both personally and professionally (Viviers, 2016:898). The standards for wearing a military uniform are outlined in dress regulations. Ultimately, soldiers personify traditional values such as neatness and preparedness (Achter, 2019:269).

4.3.7.5 Immediate service to members and patients

Delivering a service to the public is the main function of the nursing profession (Nieswiadomy & Bailey, 2018:5) and is done in an erudite manner (see Section 2.2). The SANDF is responsible for providing healthcare to its personnel, which it does through the SAMHS. The SAMHS is the SANDF's healthcare division, which renders

services to soldiers, military veterans, and their families (Mabona, 2018:3-4). When called upon to provide any additional service to members and patients, military nurses follow instructions swiftly and express self-satisfaction in terms of their ability to serve their country. Civilian nurses, on the other hand, are often experienced as being hesitant to go above and beyond the call of duty (Elliott *et al.,* 2017:1377,1379).

4.4 SUMMARY

In this chapter, the researcher presented the findings that were generated from asking the research question “What are the distinctive attributes of military nurses in the South African military context?” The findings reflected the perceptions of two groups of participants that comprised registered military nurses in management positions and registered military nurses in non-management positions. Seven categories and related sub-categories emerged, which were discussed in triangulation with the existing literature. The distinct attributes related to being multi-skilled and having military discipline, resilience, physical fitness, occupational respect, compliance, and military etiquette. In the following final chapter, the researcher provides concluding thoughts and remarks.

CHAPTER 5:
FINAL REMARKS AND RECOMMENDATIONS

5.1 INTRODUCTION

The researcher provided details on how the study was conducted in Chapter 3 and presented evidence to support the findings in Chapter 4. The research question of the study was: “What are the distinctive characteristics of registered nurses in a South African military context?” In this concluding chapter, the researcher presents deductions from the NGT discussion data and offers summative thoughts and recommendations. The limitations and significance of the study are also presented, followed by a concluding summary.

5.2 RESPONSE TO THE RESEARCH PROBLEM

As was highlighted throughout this study, the expectations of the modern military nurse are multifaceted, in particular concerning the challenges of being both a registered nurse and a soldier. Due to the nature and environment of the military healthcare environment, the attributes of military nurses differ from nurses in the civilian sector. An existing knowledge gap in terms of the required attributes of military nurses prompted this qualitative descriptive study. To achieve the aim of discovering the distinctive attributes of military nurses, two NGT discussions were conducted with participants comprising registered nurses from an SAMHS institute. All participants had two or more years of experience working in a military healthcare setting, and were divided into management and non-management categories to elicit trustworthy and credible responses (see Section 3.4.2).

Data were analysed in two stages (see Section 3.6). Initially, the data collected during the NGT discussions resulted in two lists of the top five statements chosen by participants in each group. In the second stage of data analysis, the researcher examined and interpreted the perceptions of the participants using six of Van Breda’s (2005:4-12) seven steps for analysing multiple group data. This stage resulted in a prioritised list of categories and sub-categories that revealed the distinctive attributes of military nurses in a South African military context.

5.3 DEDUCTIONS FROM THE NGT DISCUSSION DATA

The inferred distinctive attributes were discussed in order of relative importance to the combined groups, and cross-referenced with Chapter 2 and other literature as part of the literature triangulation process (see Section 4.3). The findings revealed the attributes as being multi-skilled and having military discipline, resilience, physical fitness, occupational respect, compliance, and military etiquette.

5.3.1 Multi-skilled

In the military, being multi-skilled is a distinguishing feature of registered nurses. The researcher deduced that military nurses require additional knowledge and skills to perform their duties. Additional knowledge and skills were linked to combat readiness, military experience, and military training (see Section 4.3.1).

Since all military medical personnel should, in theory, be ready for operational deployment, the participants in this study highlighted the importance of being combat ready and the multiple skills that go with it. The participants cited military experience as essential for developing the skills needed to perform military duties in addition to their nursing tasks.

5.3.2 Military discipline

During the NGT discussions, participants from both groups identified the attribute of discipline as their highest priority. It was apparent that they had an understanding of the value and importance of discipline within their military nursing roles. Military nurses, like all other soldiers in the military, are required to obey any valid commands issued by their superiors (see Section 4.3.2). Commands are to be executed and orders are to be performed as per military instruction. The military atmosphere necessitates one’s development as a true soldier, complete with military culture and principles. Similar to soldiers in other military departments, this includes wearing the uniform, which was suggested to be a distinctive feature of military nurses as opposed to civilian nurses. The participants also reflected their dual identities as nurse and soldier through leadership as an emerging sub-category of military discipline.

5.3.3 Resilience

Resilience was presented as a distinctive attribute by participants in both groups of this study, and it was sub-categorised into emotional strength and readiness for immediate deployment under various circumstances (see Section 4.3.3). The research participants noted challenging scenarios such as leaving their family behind when deployed or being apart from loved ones for long periods of time. They identified the need to be flexible and its inevitable impact on themselves as well as their families. As expected, participants from both groups in this study delineated the importance of being emotionally strong to perform their obligations in a military setting. The outcomes of this study further emphasised the importance of resilience and flexibility of military nurses to function in austere environments during times of being deployed.

5.3.4 Physical fitness

Physical training is an important element in the military environment. Participants of Group 2, the non-management group, significantly rated physical fitness as a priority as opposed to the rating given by the participants from the management group (Group 1). This inference could be explained by the fact that participants in Group 1 were in management positions and therefore less inclined to engage in fitness activities. Compulsory physical fitness training and the military nurse's obligation to adhere to health and fitness protocols as sub-categories were linked to the category of physical fitness (see Section 4.3.4). Military nursing is a physically demanding vocation, and military nurses should be physically prepared to perform their duties. Ideally, military nurses maintain their physical fitness and comply with the expectation to do fitness tests.

5.3.5 Occupational respect

Occupational respect emerged as an unexpected category in this study. Being in the military and wearing a uniform emphasise the individual's respect and care for society as a whole. The belief was expressed that members of the military forces are generally respected by society (see Section 4.3.5). The notion that prior military service makes one the most sought-after candidate when applying for other work

opportunities was reflected favourably by the participants. The participants thus drew attention to a link between military service and the likelihood of securing a successful career outside the military. The category also motivated the researcher to question whether respect is exclusively tied to the military uniform or whether the individual wearing the uniform contributes to the overall respect received.

5.3.6 Compliance

Only participants from the management group mentioned the attribute of compliance. The researcher deduced that they recognised the prudence of complying with the military's severe regulations and commands rather than resisting it since they were older and had more military experience (see Section 4.3.6). The distinct attribute of compliance denoted voluntary willingness to obey and submit. As a result, the participants associated compliance with willingly obeying military orders and following military protocol. The extreme environments that military nurses may be exposed to, combined with the authoritative nature of the military, renders compliance paramount in the military populace.

5.3.7 Military etiquette

The military is a system with well-defined rules of engagement. The sub-categories of military etiquette comprised camaraderie, being submissive, respectful, and neat and providing immediate service to members and patients. Teamwork was mentioned as a collaborative effort to achieve tasks in the most effective way. The relevance of "leave no man behind" emphasises a sense of cohesion among members in a military environment – teamwork and being part of a team are therefore essential attributes of registered nurses, in general, and specifically for registered nurses in the military context (see Section 4.3.7). It was evident that they deemed camaraderie as an integral element of military etiquette and hence crucial in depicting the distinctive attributes of military nurses.

Participants from both NGT discussions regarded submissiveness as a valuable feature in their work environment, both as a nurse and as a soldier. Submissiveness is a crucial asset because it is critical for operational success. In addition, the researcher deduced that respect is associated with military etiquette and accepted

by individuals who work and serve in the military. Both groups cited the military uniform as a distinguishing feature. Military nurses' perceptions of neatness and pride when wearing the military uniform reflected how deeply rooted military etiquette is within the participants. The researcher further deduced an expression of pride from the participants in their ability to contribute positively to the country.

5.4 RECOMMENDATIONS

Since a description of the attributes of military nursing is essential to ensure that the curricula are specifically directed at military nursing, a subsequent study could include participants with deployment experiences as an inclusion criterion, in order to compare results (Smith & Godfrey, 2002:301).

The participants in this study did not directly refer to ethics-related challenges in providing healthcare. More research may be needed to establish to what extent registered nurses in the South African military healthcare context are exposed to ethical challenges such as the potential ethical ramifications of providing nursing care to enemy captives and civilian casualties in a host country.

Research comparing the views of civilian registered nurses and military registered nurses regarding the attributes they perceive as distinctive could illustrate more distinct differences between the two groups. Such a study could positively impact the image of nursing and military nursing held in the minds of the population of South Africa.

It is the opinion of the researcher that nursing training curricula within the military, as well as a potential post-basic military nursing course, could be adapted to cultivate the distinctive attributes of registered nurses in a South African military healthcare context. An example thereof is the recommendation of Jumat *et al*. (2014:9) concerning the inclusion of the Geneva Convention and Protocols in a programme in view of training and development. Hence, nursing curricula used in the military, as well as prospective post-basic courses in military nursing, could be refined to cater for specific needs, attributes, challenges, and expectations, including combat readiness, mental health, social health, and physical health and fitness.

An in-depth exploration of the extent to which the distinctive attributes manifest in military nurses may provide more evidence on the specific attributes and characteristics required to afford optimal functioning of registered nurses within the South African military healthcare context. The findings and recommendations of this research can also be brought into consideration when training military nurses at the SAMHS Nursing Colleges.

5.5 LIMITATIONS OF THE STUDY

Some critics may consider a descriptive study as insubstantial because the design cannot be used to infer causality or to investigate a relationship between variables (Botma *et al.*, 2010:110). However, the existing knowledge gap regarding the distinctive attributes of military nurses justified a descriptive study as a point of departure.

One of the limitations of this study related to the small number of participants. Not all members who indicated their willingness to participate in the study were present for data collection. Of the 30 registered nurses who verbalised that they would attend, only 16 arrived. Subsequently, only two NGT discussions were held, and less data were thus generated. The results may be viewed as not representative of the military nursing population in South Africa and thus not entirely transferable to similar contexts. Due to time constraints on the part of the researcher, the study population was narrowed down significantly. The study only included participants from one military healthcare facility. Richer data may have been collected if the study included more military healthcare facilities, even if the focus was on one province. The trustworthiness of the study would be enhanced if the study population was larger and more NGT discussions were held.

In hindsight, the researcher considered that an additional research question, focusing on strategies to equip registered military nurses in the South African military healthcare context could have added value by posing recommendations for the development of a military nursing programme. In-depth interviews with experts could have led to a deeper understanding of the unique situation of military nurses as being both a nurse and a soldier. The researcher should also have considered

including structured field notes in her research design to support her findings and to enhance methodological rigour.

For subsequent investigations, the researcher will consider including previous deployment experience of registered military nurses as a criterion for participation in further research.

5.6 SIGNIFICANCE OF THE STUDY

In this study, the primary aim of exploring and describing the distinctive attributes of registered nurses in the South African military healthcare context was achieved. The research succeeded in drawing attention to those attributes that the participants either possessed or deemed necessary for military nurses. Irrespective of a nurse's working context, there are certain general or unique characteristics that nurses need as caregivers, albeit in a military context.

The data collected by this study emphasised the limited information on the distinctive attributes of military nurses in the South African military context. A knowledge gap was thus addressed and this study may also encourage future research in this field. Although nursing attributes may be regarded as general, it is evident that providing healthcare in the military environment necessitates additional characteristics that are not expected of civilian nurses.

Having addressed a knowledge gap in terms of the required attributes of military nurses, the researcher can make suggestions for current training programmes so that attention is paid to developing these characteristics.

5.7 CONCLUSION

This study yielded seven distinctive attributes of military nurses in the South African military healthcare context. The findings laid a foundation upon which subsequent research can add valuable insight into military nurses' work experiences and expectations. Curricula could be enhanced by adding scope that will address the cultivation of the attributes presented by this study.

As a military nurse and an educator herself, the researcher realised that the participants portrayed a true reflection of attributes required to be effective and to

thrive in the military context and towards rendering healthcare that results in positive patient outcomes. The researcher hopes that military nurses will be inspired to attain these distinctive attributes, and she aspires to realise this potential in those nurses under her guidance.

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ADDENDUM A

Ethical clearance letters

UNIVERSITY OF THE FREE STATE
UNIVERSITEIT VAN DIE VRYSTAAT
YUNIVESITHI YA FREISTATA

UFS·UV
HEALTH SCIENCES
GESONDHEIDSWETENSKAPPE

Health Sciences Research Ethics Committee

02-Jul-2019

Dear **Miss Karen April**

Ethics Clearance: **The distinctive attributes of registered nurses in a South African military context.**
Principal Investigator: **Miss Karen April**
Department: **School of Nursing Department (Bloemfontein Campus)**
APPLICATION APPROVED

Please ensure that you read the whole document

With reference to your application for ethical clearance with the Faculty of Health Sciences, I am pleased to inform you on behalf of the Health Sciences Research Ethics Committee that you have been granted ethical clearance for your project.

Your ethical clearance number, to be used in all correspondence is:**UFS-HSD2019/0174/3007**

The ethical clearance number is valid for research conducted for one year from issuance. Should you require more time to complete this research, please apply for an extension.

We request that any changes that may take place during the course of your research project be submitted to the HSREC for approval to ensure we are kept up to date with your progress and any ethical implications that may arise. This includes any serious adverse events and/or termination of the study.

A progress report should be submitted within one year of approval, and annually for long term studies. A final report should be submitted at the completion of the study.

The HSREC functions in compliance with, but not limited to, the following documents and guidelines: The SA National Health Act. No. 61 of 2003; Ethics in Health Research: Principles, Structures and Processes (2015); SA GCP(2006); Declaration of Helsinki; The Belmont Report; The US Office of Human Research Protections 45 CFR 461 (for non-exempt research with human participants conducted or supported by the US Department of Health and Human Services- (HHS), 21 CFR 50, 21 CFR 56; CIOMS; ICH-GCP-E6 Sections 1-4; The International Conference on Harmonization and Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH Tripartite), Guidelines of the SA Medicines Control Council as well as Laws and Regulations with regard to the Control of Medicines, Constitution of the HSREC of the Faculty of Health Sciences.

For any questions or concerns, please feel free to contact HSREC Administration: 051-4017794/5 or email EthicsFHS@ufs.ac.za.

Thank you for submitting this proposal for ethical clearance and we wish you every success with your research.

Yours Sincerely

Dr. SM Le Grange
Chair : Health Sciences Research Ethics Committee

Health Sciences Research Ethics Committee
Office of the Dean: Health Sciences
T: +27 (0)51 401 7795/7794 | E: ethicsfhs@ufs.ac.za
IRB 00006240; REC 230408-011; IORG0005187; FWA00012784
Block D, Dean's Division, Room D104 | P.O. Box/Posbus 339 (Internal Post Box G40) | Bloemfontein 9300 | South Africa
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UNIVERSITY OF THE FREE STATE
UNIVERSITEIT VAN DIE VRYSTAAT
YUNIVESITHI YA FREISTATA

UFS·UV
HEALTH SCIENCES
GESONDHEIDSWETENSKAPPE

Health Sciences Research Ethics Committee

17-Jun-2020

Dear **Miss Karen April**

Ethics Number: UFS-HSD2019/0174/3007

Ethics Clearance: **The distinctive attributes of registered nurses in a South African military context.**

Principal Investigator: **Miss Karen April**

Department: **School of Nursing Department (Bloemfontein Campus)**

SUBSEQUENT SUBMISSION APPROVED

With reference to your recent submission for ethical clearance from the Health Sciences Research Ethics Committee. I am pleased to inform you on behalf of the HSREC that you have been granted ethical clearance for your request as stipulated below:

- Continuation report and annual re-approval until 01/07/2021.

The HSREC functions in compliance with, but not limited to, the following documents and guidelines: The SA National Health Act. No. 61 of 2003; Ethics in Health Research: Principles, Structures and Processes (2015); SA GCP(2006); Declaration of Helsinki; The Belmont Report; The US Office of Human Research Protections 45 CFR 461 (for non-exempt research with human participants conducted or supported by the US Department of Health and Human Services- (HHS), 21 CFR 50, 21 CFR 56; CIOMS; ICH-GCP-E6 Sections 1-4; The International Conference on Harmonization and Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH Tripartite), Guidelines of the SA Medicines Control Council as well as Laws and Regulations with regard to the Control of Medicines, Constitution of the HSREC of the Faculty of Health Sciences.

For any questions or concerns, please feel free to contact HSREC Administration: 051-4017794/5 or email EthicsFHS@ufs.ac.za.

Thank you for submitting this request for ethical clearance and we wish you continued success with your research.

Yours Sincerely

Dr. SM Le Grange
Chair : Health Sciences Research Ethics Committee

Health Sciences Research Ethics Committee
Office of the Dean: Health Sciences
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HEALTH SCIENCES
GESONDHEIDSWETENSKAPPE

Health Sciences Research Ethics Committee

24-Jun-2021

Dear **Miss Karen April**

Ethics Number: UFS-HSD2019/0174/300702

Ethics Clearance: **The distinctive attributes of registered nurses in a South African military context.**

Principal Investigator: **Miss Karen April**

Department: **School of Nursing Department (Bloemfontein Campus)**

Submission Page

SUBSEQUENT SUBMISSION APPROVED

With reference to your recent submission for ethical clearance from the Health Sciences Research Ethics Committee. I am pleased to inform you on behalf of the HSREC that you have been granted ethical clearance for your request as stipulated below:

- Continuation Report: Annual re-approval: The ethical clearance of this project is extended to 23 June 2022.

The HSREC functions in compliance with, but not limited to, the following documents and guidelines: The SA National Health Act. No. 61 of 2003; Ethics in Health Research: Principles, Structures and Processes (2015); SA GCP(2006); Declaration of Helsinki; The Belmont Report; The US Office of Human Research Protections 45 CFR 461 (for non-exempt research with human participants conducted or supported by the US Department of Health and Human Services- (HHS), 21 CFR 50, 21 CFR 56; CIOMS; ICH-GCP-E6 Sections 1-4; International Council for Harmonisation (ICH) Harmonised Guideline, Integrated Addendum to ICH E6(R1), Guideline for Good Clinical Practice (GCP) E6(R2), 2016, SAHPRA Guidelines as well as Laws and Regulations with regard to the Control of Medicines, Constitution of the HSREC of the Faculty of Health Sciences.

For any questions or concerns, please feel free to contact HSREC Administration: 051-4017794/5 or email EthicsFHS@ufs.ac.za.

Thank you for submitting this request for ethical clearance and we wish you continued success with your research.

Yours Sincerely

Prof. A. Sherriff
Chairperson : Health Sciences Research Ethics Committee

Health Sciences Research Ethics Committee
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1MH/302/6/01.03.2019

sa military health service
Department:
Defence
REPUBLIC OF SOUTH AFRICA

Telephone: 012 314 0013
Facsimile: 012 314 0013
Enquiries: Prof / Lt Col M.K. Baker

1 Military Hospital
Private Bag x 1023
Thaba Tshwane
0143
21 June 2019

CLINICAL TRIAL APPROVAL: 01.03.2019: "THE DISTINCTIVE ATTRIBUTES OF REGISTERED NURSES IN A SOUTH AFRICAN MILITARY CONTEXT"

1. The 1 Military Hospital Research Ethics Committee (1MHREC) registered in South Africa with the National Health Research Ethics Council (NHREC) (REC-111208-019-RA) adhering to GCP/ICH and SA Clinical Trial guidelines, evaluated the above-mentioned protocol and additional documents.

2. The following documents were evaluated:

   a. Personalised covering letter from investigator
   b. Research Proposal
   c. Patient Information and Informed Consent Document
   d. Approval Letter from the University of the Free State
   e. Declaration Regarding the Storage of Research Data
   f. Letter of Permission from [redacted] and Surgeon General
   g. Letter of Permission from Defence Intelligence
   h. Declaration of Conflict of Interest
   i. Good Clinical Practice Certificates
   j. Updated Curricula Vitae:

      i. K.A. April
      ii. C. Spies
      iii. J. Coetzee

3. The recommendations are: The study was ethically approved on 21 June 2019. The approved principal investigator is Capt. K.A. April.

4. The study is granted research ethics approval for a period of 12 months. At the end of this period the Principal Investigator must apply for re-approval of the study. Failure to re-apply will result in approval expiring and data generated after the 12-month period, not being able to be included as part of the research project. Report backs are to be made to the 1MHREC annually, in the event of any serious adverse events and on completion or termination of the study. Should publications result from the study the relevant manuscripts will also need to be approved by Military Counter Intelligence. All funds generated through this research study must be paid into an approved Regimental Fund account.

Health Warriors Serving the Brave

5. The 1 MHREC wishes you success with the study.

(M.K BAKER)
CHAIRMAN 1 MILITARY HOSPITAL RESEARCH ETHICS COMMITTEE:
LT COL / PROF

DIST

For Action

Capt. K.A. April

1MH/302/6/01.03.2019

sa military health service
Department:
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REPUBLIC OF SOUTH AFRICA

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1 Military Hospital
Private Bag x 1023
Thaba Tshwane
0143
15 May 2020

CLINICAL TRIAL APPROVAL: 01.03.2019: "THE DISTINCTIVE ATTRIBUTES OF REGISTERED NURSES IN A SOUTH AFRICAN MILITARY CONTEXT"

1. The 1 Military Hospital Research Ethics Committee (1MHREC) registered in South Africa with the National Health Research Ethics Council (NHREC) (REC-111208-019-RA) adhering to GCP/ICH and SA Clinical Trial guidelines, evaluated the above-mentioned protocol and additional documents.

2. The following documents were evaluated:

   a. Personalised covering letter from investigator
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   f. Letter of Permission from [redacted] and Surgeon General
   g. Letter of Permission from Defence Intelligence
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   i. Good Clinical Practice Certificates
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      i. K.A. April
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3. The recommendations are: The study was ethically approved on 21 June 2019. The approved principal investigator is Capt. K.A. April.

4. The study is granted research ethics approval for a period of 12 months. At the end of this period the Principal Investigator must apply for re-approval of the study. Failure to re-apply will result in approval expiring and data generated after the 12-month period, not being able to be included as part of the research project. Report backs are to be made to the 1MHREC annually, in the event of any serious adverse events and on completion or termination of the study. Should publications result from the study the relevant manuscripts will also need to be approved by Military Counter Intelligence. All funds generated through this research study must be paid into an approved Regimental Fund account.

5. The 1 MHREC wishes you success with the study.

Post Scrip 1: On 15 May 2020 the following documents were reviewed and approved

I. Application for Re-approval for study.

II. Extension as requested above is hereby granted. This extension is valid until 21 June 2021.

(M.K BAKER)
CHAIRMAN 1 MILITARY HOSPITAL RESEARCH ETHICS COMMITTEE:
LT COL / PROF

DIST

For Action

Capt. K.A. April

1MH/302/6/01.03.2019

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1 Military Hospital
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21 May 2021

CLINICAL TRIAL APPROVAL: 01.03.2019: "THE DISTINCTIVE ATTRIBUTES OF REGISTERED NURSES IN A SOUTH AFRICAN MILITARY CONTEXT"

1. The 1 Military Hospital Research Ethics Committee (1MHREC) registered in South Africa with the National Health Research Ethics Council (NHREC) (REC-111208-019-RA) adhering to GCP/ICH and SA Clinical Trial guidelines, evaluated the above-mentioned protocol and additional documents.

2. The following documents were evaluated:

   a. Personalised covering letter from investigator
   b. Research Proposal
   c. Patient Information and Informed Consent Document
   d. Approval Letter from the University of the Free State
   e. Declaration Regarding the Storage of Research Data
   f. Letter of Permission from [redacted] and Surgeon General
   g. Letter of Permission from Defence Intelligence
   h. Declaration of Conflict of Interest
   i. Good Clinical Practice Certificates
   j. Updated Curricula Vitae:

      i. K.A. April
      ii. C. Spies
      iii. J. Coetzee

3. The recommendations are: The study was ethically approved on 21 June 2019. The approved principal investigator is Capt. K.A. April.

4. The study is granted research ethics approval for a period of 12 months. At the end of this period the Principal Investigator must apply for re-approval of the study. Failure to re-apply will result in approval expiring and data generated after the 12-month period, not being able to be included as part of the research project. Report backs are to be made to the 1MHREC annually, in the event of any serious adverse events and on completion or termination of the study. Should publications result from the study the relevant manuscripts will also need to be approved by Military Counter Intelligence. All funds generated through this research study must be paid into an approved Regimental Fund account.

5. The 1 MHREC wishes you success with the study.

Post Scrip 1: On 15 May 2020 the following documents were reviewed and approved

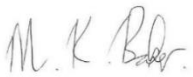
I. Application for Re-approval for study.

II. Extension as requested above is hereby granted. This extension is valid until 21 June 2021.

Post Script 2: On 21 May 2021 the following documents were reviewed and approved:

I. Application for Re-approval for study.

II. Extension as requested above is hereby granted. This extension is valid until 21 June 2022.



(M.K BAKER)
CHAIRMAN 1 MILITARY HOSPITAL RESEARCH ETHICS COMMITTEE:
LT COL / PROF

DIST

For Action

Capt. K.A. April

ADDENDUM B

Permission letters

3MH/R/99009649MC

Telephone: 051 4022468
Extension: 2468
Cell phone: 083 2940305
Enquiries: Capt K. A. April
E-mail: karenapril69@yahoo.co.uk

SAMHS Nursing College
Private Bag X40003
Brandhof
9324
19 March 2019

The Officer Commanding
3 Military Hospital
Private Bag X40003
Brandhof
9324

REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN [redacted] 99009649MC CAPT K. A. APRIL

1. I hereby request permission to conduct research at [redacted] in fulfillment of the degree Magister Societatis Scientae in Nursing at the University of the Free State. The research will be conducted under the supervision of Dr C. Spies.

2. The study is titled "The distinctive attributes of registered nurses in a South African military context" and the purpose of this study is to describe the distinctive attributes of registered nurses in a South African military context.

3. Submissions to the 1 Military Ethics Committee, Defence Intelligence as well as the Health Science Research Ethics Committee of the University of the Free Sate are in progress.

4. The research will be conducted in May 2019 – the date is still to be determined and precautions will be taken not to affect service delivery negatively. Participants will be divided into two groups: Group 1 comprising of registered nurses in a management position (registered nurses in charge of nursing departments, matrons) and Group 2 of registered nurses who are not in management positions but who works in the relevant nursing departments. Both groups will be conducted on the same day.

5. Thank you for your highly appreciated assistance in this regard.

April (Capt)

(K. A. APRIL)
LECTURER SAMHS NURSING COLLEGE BLOEMFONTEIN: CAPT

REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN [redacted]:
99009649MC CAPT K. A. APRIL

Remarks:

Approved.

(A. COETZEE)
VICE-PRINCIPAL SAMHS NURSING COLLEGE BLOEMFONTEIN: LT COL

Remarks:

Recommended.

[redacted]
OFFICER COMMANDING [redacted]: COL

DISTR

For Action

SO1 Nursing [redacted]

RESTRICTED

defence intelligence
Department:
Defence
REPUBLIC OF SOUTH AFRICA

DI/DDS/R/202/3/7

Telephone: (012) 315-0215
Fax: (012) 326-3246
Enquiries: Brig Gen T.G. Baloyi

Defence Intelligence
Private Bag X337
Pretoria
0001
08 April 2019

AUTHORITY TO CONDUCT RESEARCH IN THE DEPARTMENT OF DEFENCE (DOD): CAPT K.A. APRIL

1. A telephonic discussion between Capt K.A. April of the SAMHS Nursing College in Bloemfontein and WO1 K. Skweyiya of the Defence Intelligence (DI) on the 26 March 2019, as well as a receipt of a request letter 3MH/R/99009649MC dd 19 March 2019 with a research proposal attached as required has reference.

2. Capt K.A. April is hereby granted permission from a security perspective to conduct research in the DOD on the topic entitled **"The Distinctive Attributes of Registered Nurses in a South African Military Context,"** to be submitted in conformity with the requirements for the Degree Magister Societatis Scientae in Nursing under the auspices of the University of Free State as requested.

3. After the completion of the research, the final research product must be forwarded to Defence Intelligence (DI), Sub-Division Counter Intelligence (SDCI) for a final authorisation before it may be published or distributed to any entity outside the DOD.

4. Access to DOD information is however granted on condition that there is adherence to inter alia Section 104 of the Defence Act (Act 42 of 2002) pertaining to protection of DOD Classified Information and the consequences of noncompliance.

5. For your attention.

(G.S. SIZANI)
CHIEF DIRECTOR COUNTER INTELLIGENCE: MAJ GEN
KS/KS (Capt K.A. April)

DSTR

For Action

Surgeon General (Attention: Capt K.A. April)

Internal

File: DI/DDS/R/202/3/7

RESTRICTED

RESTRICTED

3MH/R/99009649MC

Telephone: 051 402 2468
Extension: 850 2468
Cell phone: 083 294 0305
Enquiries: Capt K. A. April
E-mail: karenapril69@yahoo.co.uk

SAMHS Nursing College
Private Bag X40003
Brandhof
9324
01 April 2019

Office of the Surgeon General
Private Bag X102
Centurion
0046

REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN THE MILITARY HEALTH SERVICES: 99009649MC CAPT K. A. APRIL

1. I hereby request permission to conduct research at [redacted] in fulfillment of the degree Magister Societatis Scientae in Nursing at the University of the Free State. The research will be conducted at own expense under the supervision of Dr C. Spies. Her contact details: 051 4019721.

2. I am currently employed by the South African Military Health Service as a lecturer at the SAMHS Nursing College in Bloemfontein.

3. The study is titled "The distinctive attributes of registered nurses in a South African military context" and the purpose of this study is to describe the distinctive attributes of registered nurses in a South African military context.

4. Submissions to the 1 Military Ethics Committee, Defence Intelligence as well as the Health Science Research Ethics Committee of the University of the Free Sate are in progress.

5. Thank you for your highly appreciated assistance in this regard.

(K. A. APRIL)
LECTURER SAMHS NURSING COLLEGE: CAPT

Recommended / Not recommended:

(A. COETZEE)
VICE-PRINCIPAL SAMHS NURSING COLLEGE BLOEMFONTEIN: LT COL

Health Warriors Serving the Brave
RESTRICTED

REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN THE MILITARY HEALTH SERVICES: 99009649MC CAPT K. A. APRIL

Recommended / Not recommended: The Members Request is supported as this will assist college and it's endevour to be accredited by CHE. The Member's Request has also to be Approved by relevant Military Ethics committees

(M. A. MAPUKATA)
ACTING OFFICER COMMANDING SAMHS NURSING COLLEGE: LT COL

Recommended / Not recommended:

(J. A. LOUW)
ACTING GENERAL OFFICER COMMANDING MILITARY HEALTH TRAINING FORMATION: COL

Recommended / Not recommended: Recommended for SG authority through COMHFP Afhahey and purpose/ educative purpose of benefit to the organisation

(Z. MASO)
DIRECTOR NURSING: BRIG GEN

REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN THE MILITARY HEALTH SERVICES: 99009649MC CAPT K. A. APRIL

Recommended / Not recommended: for SG authority for final approval

Z Dabula Brig Gen 16/05/2019

(Z. W. S. DABULA)
CHIEF DIRECTOR MILITARY HEALTH FORCE PREPARATION: MAJ GEN

Approved / Not approved: Not

2019/05/20

(A. P. SEDIBE)
SURGEON GENERAL: LT GEN

ADDENDUM C

Participant information and consent form

PARTICIPANT INFORMATION AND CONSENT FORM

TITLE OF THE RESEARCH PROJECT:

THE DISTINCTIVE ATTRIBUTES OF REGISTERED NURSES IN A SOUTH AFRICAN MILITARY CONTEXT

REFERENCE NUMBER: **2002037485**

PRINCIPAL INVESTIGATOR: **KAREN ANN APRIL**

ADDRESS: **UNIVERSITY OF THE FREE STATE**
SCHOOL OF NURSING

CONTACT NUMBER: **0832940305**

You are invited to partake in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher or supervisor any questions about any part of this project that you do not fully understand. It is very important that you are content that you clearly understand what this research entails and how you could be involved. Also, your participation is **completely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the **Health Sciences Research Ethics Committee at the University of the Free State (HSREC)** (Tel: 051-401 7795) as well as the **1 Military Research Ethics Committee** (Tel: 012-3140013) and will be conducted according to the set ethical guidelines and principles.

What is this research study all about?

- *The study will be conducted at the* [redacted] *and the total number of participants will be determined by the total number of volunteers to partake in the study.*

- *The study aims to describe the distinctive attributes of registered nurses in a South African military context in order to recommend the necessity of additional steps to be incorporated when professionally training military nurses.*
- *Participants will be expected to participate in group sessions using the nominal group technique, which a 'consensus method' referring to methods where results are based on consensus / general agreement of the group.*
- *A question will be asked on which participants will be requested to provide relevant answers.*
- *There are no right or wrong answers.*
- *The session will be facilitated by an experienced facilitator who will guide the participants through the steps of the nominal group.*
- *No preparation is needed to participate.*

Why have you been invited to participate?

- *The researcher decided to only include registered nurses with two or more years' experience in a military health care setting because of the reasonable military and nursing experience and exposure they would have had in the military context.*

What will your responsibilities be?

- *No preparation is required. You will be expected to participate in the group by providing your opinion as indicated by the facilitator.*

Will you benefit from taking part in this research?

- *There are no tangible benefits to participating in this study – the valuable information gathered from your participation will be utilised to improve nursing and nursing education within the military environment.*
- *There is no remuneration offered for participants.*

Are there any risks involved in your taking part in this research?

- *The research study does not pertain any risks.*
- *Should you experience uneasiness at any stage, feel free to discuss it with the researcher.*

If you do not agree to take part, what alternatives do you have?

- *The study is completely voluntary. Should you wish to not take part or withdraw, it will not influence you in any way.*

Who will have access to your information?

- *All information obtained during this study will be treated as confidential and will be protected – the researcher will not disclose identifying information that could lead to recognition of the participants and information will be kept on a password-protected computer.*
- *The researcher, the supervisor of the study, the facilitator and assessors will have access to the information. Data obtained may be reported in a scientific journal but will not include any information that identifies you as a participant in this study.*
- *If information is used in a publication or thesis, the identity of the participants will remain confidential.*
- *the 1MHREC will have access to the information (contact number: 012-3140013)*

What will happen in the unlikely event of some form injury occurring as a direct result of your taking part in this research study?

- *There are no risks involved in this study.*

Will you be paid to take part in this study and are there any costs involved?

- No, you will not be paid to take part in the study. There will be no costs involved for you, if you do take part.

Is there anything else that you should know or do?

- *You can contact the study supervisor DR C. Spies at 051-401 9721 if you have any concerns or complaints that have not been adequately addressed by the researcher.*
- *You will receive a copy of this information and consent form for your own records.*
- *Contact person University of the Free State Health Science Research Ethics Committee:*
  Ms M. A. Molundo
  Tel: 051-401 7795

Declaration by participant

By signing below, I ……..……. agree to take part in a research study entitled “The distinctive attributes of registered nurses in a South African military context”.

I declare that:

- I have read or had read to me this information and consent form and it is written in a language with which I am comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I am aware that I shall receive a signed and dated copy of this Informed Consent Document
- I shall not be remunerated for participation in this study

Signed at (*place*) .....……. on (*date*) ……...…….. 20...

....

Signature of participant **Signature of witness**

Declaration by investigator

I *(name)* ……..…… declare that:

- I explained the information in this document to ……..
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above.

Signed at (*place*) .....…….. on (*date*) ……...…….. 20….

....

Signature of investigator **Signature of witness**

ADDENDUM D

Top five statements for Group 1: Management participants

Top five statements for Group 1: Management

Priority	Item No.	Statement	Scores	Total score
1	1	**Discipline** - Dress code - Military discipline - Same as nursing - Hairstyles	5,5,2,5,5,5,5,5	37
2	9	**Military training**	2,4,4,4,5,3	22
3	7	**Flexibility** - Fast unplanned repsonses - Leave family behind - Time - Family - Social life - Not only nursing tasks e.g. from nursing tasks to commander - Do parades	4,2,3,4,1	14
4	5	**Deployment** - Civilian nurses do not deploy - Nurses deploy when there are strikes outside	2,4,4,2,1	13
5	13	**Multi-skilled** - Making patient/soldier ready for battle	5,4	9

ADDENDUM E

Top five statements for Group 2: Non-management participants

Top five statements for Group 2: Non-management

Priority	Item No.	Statement	Scores	Total score
1	1	**Discipline** - Speaking with superiors - The way you conduct yourself - Comply and complain later	5,5,2,5,4	21
2	5	**Fitness** - G1K1 - Have to be fit - Physically fit - Concurrent Health Assessment (CHA) - Fitness test - Run with stretcher on battle ground	4,4,4,3	15
3	6	**Authority** - Command and control - Command and control structure is different - If the instruction says something, you abide - Line of command - Outside – who is more qualified - Rank structure - Follow instruction - “oppressed” - Personal restriction	4,1,1,1,2,3	12
4	4	**Military orientation** - Military induction or military training - Function as a soldier - Helmet / vest / rifle - Military requirements	5,1,5	11
5	14	**Broader opportunities / area function, courses** - Aviation nursing - Field hospital - BATLS and BARTS - Maritime nursing - Broader area of function - Exposure - Courses	2,4,1,2	9

ADDENDUM F

Illustration of how data were captured for Group 1 (management participants) and Group 2 (non-management participants)

Illustration of how data were captured for Group 1 (management) and Group 2 (non-management)

Column A	Column B	Column C	Column D	Column E	Column F
Group	**Category**	**Statement**	**Scores**	**Ave.**	**Top 5**
1		Discipline	5,5,2,5,5,5,5,5	4,11	
1		Physically fit	3,1,1,2	0,78	
1		Knowledge and skills	1	0,11	
1		Deployment	2,4,4,2,1	1,44	
1		Unique culture and values	3,3	0,67	
1		Flexibility	4,2,3,4,1	1,56	
1		Leaders & exemplars	2,1	0,33	
1		Military training	2,4,4,4,5,3	2,44	
1		Compassion	3	0,33	
1		Positive mind	2	0,22	
1		Military etiquette	2,3,3	0,89	
1		Multi-skilled	5,4	1	
1		Mutual respect	1	0,11	
1		Defence Act	1,3,4	0,89	
1		Not financially driven	1	0,11	
2		Discipline	5,5,2,5,4	3	
2		Integrity	5	0,71	
2		Respect	3	0,43	
2		Military orientation	5,1,5	1,57	
2		Fitness	4,4,4,3	2,14	
2		Authority	4,1,1,1,2,3	1,71	
2		Dress code / uniform	3,2,3	1,14	
2		Teamwork / togetherness / commitment	1	0,14	
2		Ranks / form of address	4,2	0,86	
2		Combat support capabilities	5,3	0,14	
2		Taking orders	2	0,29	
2		Broader opportunities / area functionality, courses	2,4,1,2	1,26	
2		Flexibility / adaptability	3	0,43	
2		Rules & restrictions	1	0,14	

ADDENDUM G

Voted priorities of nominal groups (top five): Group 1 (management participants) and Group 2 (non-management participants)

Voted priorities of NGT discussions (Top 5): Group 1 (management) and Group 2 (Non-management)

Column A	Column B	Column C	Column D	Column E	Column F
Group	**Category**	**Statement**	**Scores**	**Ave.**	**Top 5**
1		Discipline	5,5,2,5,5,5,5,5	4,11	**X**
1		Military training	2,4,4,4,5,3	2,44	**X**
1		Flexibility	4,2,3,4,1	1,56	**X**
1		Deployment	2,4,4,2,1	1,44	**X**
1		Multi-skilled	5,4	1	**X**
1		Military etiquette	2,3,3	0,89	
1		Defence Act	1,3,4	0,89	
1		Physically fit	3,1,1,2	0,78	
1		Unique culture and values	3,3	0,67	
1		Leaders & exemplars	2,1	0,33	
1		Compassion	3	0,33	
1		Positive mind	2	0,22	
1		Knowledge and skills	1	0,11	
1		Mutual respect	1	0,11	
1		Not financially driven	1	0,11	
2		Discipline	5,5,2,5,4	3	**X**
2		Fitness	4,4,4,3	2,14	**X**
2		Authority	4,1,1,1,2,3	1,71	**X**
2		Military orientation	5,1,5	1,57	**X**
2		Broader opportunities / area functionality, courses	2,4,1,2	1,26	**X**
2		Dress code / uniform	3,2,3	1,14	
2		Ranks / form of address	4,2	0,86	
2		Integrity	5	0,71	
2		Respect	3	0,43	
2		Flexibility / adaptability	3	0,43	
2		Taking orders	2	0,29	
2		Teamwork / togetherness / commitment	1	0,14	
2		Combat support capabilities	5,3	0,14	
2		Rules & restrictions	1	0,14	

ADDENDUM H

Categorising listed statements

Categories identified from listed statements: Group 1 and Group 2

Group code	Category and sub-categories	Statement	Scores	Total score	Average score	Top 5
G1	**Military discipline** - dress code - uniformity - neatness	**Discipline** - Dress code - Military discipline - Same as nursing - Hairstyles	5,5,2,5,5,5,5,5	37	4,11	X
G1	**Physical fitness** - military fitness training - keep to health protocols	**Physically fit** - Fitness test - Medical classification - Annual health check-up - Looked after - Expected to be physically fit - Using military doctors - Questioned if you report sick	3,1,1,2	7	0,78	
G1	**Multi-skilled** - military weaponry - combat readiness - military experience (being a soldier)	**Knowledge and skills** - Weapons - Take care of yourselves and others - Trained in other things (Aviation; BATLS and BARTS; Field hospital)	1	1	0,11	
G1	**Resilience** - deployment during strikes	**Deployment** - Civilian nurses do not deploy - Nurses deploy when there are strikes outside	2,4,4,2,1	13	1,44	X
G1	**Military etiquette** - group cohesion - military identity	**Unique culture and values** - High group cohesion and identity - Cohesion	3,3	6	0,67	
G1	**Resilience** - ready for immediate deployment	**Flexibility** - Fast unplanned repsonses	4,2,3,4,1	14	1,56	X

	- quick adjustment to change - emotional strength	- Leave family behind - Time - Family - Social life - Not only nursing tasks e.g. from nursing tasks to commander - Do parades				
G1	**Military discipline** - leadership role in military and nursing	**Leaders and exemplars** - Fulfil all roles, military and nursing	2,1	3	0,33	
G1	**Multi-skilled**	**Military training**	2,4,4,4,5,3	22	2,44	X
G1	**Military etiquette** - compassionate towards fellow members and patients - transparency - immediate service	**Compassion** - Smaller community - Know patients well - More open-door policy than private - Faster service - System woks different	3	3	0,33	
G1	**Compliance** - ready to think and react when situation changes - immediate response to military commands - combat ready	**Positive mind** - Sharp mind at all times - Appropriate reactions to demands - Immediately know how to react when something happens - Combat ready at all times - Appropriate reactions according to the Acts - Military response	2	2	0,22	
G1	**Military etiquette** - well-mannered - neatness - submissive	**Military etiquette** - Dress code - How to present yourself - Formal dinners, etc. - Know your boundaries - Entering a bar	2,3,3	8	0,89	
G1	**Multi-skilled** - combat readiness - military experience (being a soldier)	**Multi-skilled** - Making patient / soldier ready for battle	5,4	9	1	X

G1	**Military etiquette** - well-mannered - respectful - submissive	**Mutual respect** - Know what to do when a senior comes in	1	1	0,11	
G1	**Military discipline** - obey military rules and command	**Defence Act** - Regarding uniforms, Acts, do's and don'ts	1,3,4	8	0,89	
G1	**Military discipline** - not allowed to strike	**Not financially driven** - Strike, etc.	1	1	0,11	
G2	**Military discipline** - submissive to higher ranks - obey military rules and command	**Discipline** - Speaking with superiors - The way you conduct yourself - Comply and complain later	5,5,2,5,4	21	3	X
G2	**Military discipline**	**Integrity** - Same function of nurses, but more so than in the public sector - Standards prescribed, strict	5	5	0,71	
G2	**Occupational respect** - respected for being in the military - benefit of being in the military	**Respect** - Earn respect from outside world because of uniform - Most wanted when applying for post - Looks good in CV if you are in military	3	3	0,43	
G2	**Multi-skilled** - military weaponry - being a soldier - combat readiness - military training	**Military orientation** - Military induction or military training - Function as a soldier - Helmet / vest / rifle - Military requirements	5,1,5	11	1,57	X
G2	**Physical fitness** - military fitness training - keep to health protocols	**Fitness** - G1K1 - Have to be fit - Physically fit - Concurrent Health Assessment (CHA) - Fitness test - Run with stretcher on battle ground	4,4,4,3	15	2,14	X

G2	**Military discipline** - obey military rules and command - submissive to higher ranks - no free will	**Authority** - Command and control - Command and control structure is different - If the instruction says something, you abide - Line of command - Outside – who is more qualified - Rank structure - Follow instruction - “oppressed” - Personal restriction	4,1,1,1,2,3	12	1,71	X
G2	**Military discipline** - dress code and uniformity	**Dress code / uniform** - Wear uniform	3,2,3	8	1,14	
	Military etiquette - protective of fellow soldiers - walk the extra mile - virtuous	**Teamwork / togetherness / commitment** - Training tought leave no man behind - Cameraderie - Do for each other - Help each other out - Night duty will do if day duty did not - Remain behind if staff don’t pitch	1	1	0,14	
G2	**Military discipline** - dress code - submissive to higher ranks - address by rank (not by professional title of RN)	**Ranks / form of address** - No epaulettes - Wear ranks - Identify by ranks - Dual identity - Form of address	4,2	6	0,86	
G2	**Multi-skilled**	**Combat support capabilities** - Opportunity and additional training to be health / combat support personnel - In clinical setting and also outside (deployment, border, AMET)	5,3	8	0,14	
G2	**Military discipline** - obey military rules and command	**Taking orders** - Lines of command	2	2	0,29	

	- submissive to higher ranks	- Comply and complain later				
G2	**Multi-skilled** - additional training other than general nursing	**Broader opportunities / area function, courses** - Aviation nursing - Field hospital - BATLS and BARTS - Maritime nursing - Broader area of function - Exposure - Courses	2,4,1,2	9	1,26	X
	Resilience - ready for immediate deployment - quick adjustment to change	**Flexibility / adaptability** - Nurses outside are striking, go and assist - Controlling fleets - Adapt to fit certain roles	3	3	0,43	
	Military discipline - obey military rules and command - no free will	**Rules & restrictions** - We are not allowed to strike - “boycott” - To wear uniform with pyjamas - Great sanctions with restrictions - Doing as we please!	1	1	0,14	

ADDENDUM I

Consolidated and prioritised list of categories

Consolidated and prioritised list of categories

Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H
Category	**Top 5_1**	**Top 5_2**	**Number 1**	**Number 2**	**Average 1**	**Average 2**	**Final rank**
4. Multi-skilled	4	7	6	6	4,83	2	**15**
1. Military discipline	3	6	11	7	2,63	1	**14**
5. Resilience	2	5	3	4	9,65	4	**13**
3. Physical fitness	1	4	2	3	14,48	5	**12**
7. Occupational respect	0	3	1	1.5	28,95	6.5	**11**
6. Compliance	0	2	1	1.5	28,95	6.5	**10**
2. Military etiquette	0	1	5	5	5,79	3	**9**

ADDENDUM J

Declaration by language editor

GRAMMAR GUARDIANS

29 November 2021

To whom it may concern

Re: Proofreading and academic editing: Ms K. April

I, J.L. van Aswegen of Grammar Guardians, hereby confirm proofreading and academic editing of the thesis entitled "The Distinctive Attributes of Registered Nurses in a South African Military Context" by Ms Karen April (student number 2002037485) in November 2021.

Please contact me on 082 811 6857 or at jeanne@grammarguardians.co.za regarding any queries that may arise.

Kind regards,

J.L. van Aswegen

Grammar Guardians