SCHOOL OF NURSING AND MIDWIFERY
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LEADERSHIP BEHAVIOURS OF NURSE MANAGERS AS PERCEIVED BY NURSES IN THE 37 MILITARY HOSPITAL GHANA

BY

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THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF SCIENCE IN NURSING

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DECLARATION

This is to certify that this dissertation is the result of the research done by Ijeoma Miriam Emeagha towards the award of the Master of Science in Nursing degree in the School of Nursing and Midwifery, University of Ghana. I also certify that the dissertation has not been submitted concomitantly in candidature for any other degree. All sources, authors and publishers whose works were used in this study have been duly acknowledged in this dissertation. The study was conducted with the guidance and supervision of Dr Adelaide Maria Ansah Ofei, and Atswei Adzo Kwashie (Mrs), at the School of Nursing and Midwifery, University of Ghana.

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ABSTRACT

The perception of nurses about the leadership behaviours of their Nurse Managers is essential in determining the kind of leadership behaviours Nurse Managers adopt, what influences these leader behaviours and their effectiveness. This study investigated the leadership behaviours of Nurse Managers as perceived by nurses in the 37 Military hospital Ghana. A quantitative cross-sectional approach was used to collect data from 205 nurses who met the inclusion criteria took part in the study, with a 98% (201) response rate. Data were processed and analysed using descriptive and inferential statistics. Descriptive statistics revealed that nurses had the perception that the predominant leadership behaviour adopted by the Nurse Manager, was the directive leader behaviour (M=3.95, SD=0.66). The participative leader behaviour (M=3.36, SD=0.64), was the least adopted leadership behaviour. A moderator analysis was done to determine the influence of employee and task characteristics on the relationship between leadership behaviours and leader effectiveness. The moderator analysis indicated that 88% of nurses between the ages of 22-42years had the perception that their Nurse Managers adopted the supportive, participative, and achievement-oriented leadership behaviours. Educational qualifications also had a significant moderator effect on directive leader behaviour. For task characteristics, the study revealed that nurses had the perception that when the task is well structured and outlined, their Nurse Managers employed the supportive, participative and achievement-oriented leader behaviours; and the participative and achievement-oriented leader behaviours for team dynamics. A multiple linear regression analysis was used to examine the relationship between leadership behaviours and leader effectiveness. The study further revealed that nurses had the perception that when their Nurse Managers used the directive and participative leader behaviours, it led to leader effectiveness. The findings have implications for nursing management and practice,

nursing education and future research. It is hoped that further research will be done on the perception of nurses on the leadership behaviours of their Nurse Managers, and the influence of employee and task characteristic on the leadership behaviours of Nurse Managers. The finding of this study further supports that situational leadership is used by nurse leaders.

DEDICATION

I dedicate this dissertation to my beloved father, Dr Cosmas Okafor of blessed memory, who instilled the value of education in me; and to my dearest mother, Mrs Maureen Okafor for her words of encouragement, prayers and support.

I also dedicate this study to my loving husband, Mr Augustine Emeagha for his immense love and support, and for being my pillar of strength throughout my studies. This dissertation is also dedicated to my awesome children, Chigozirim, Chisom and Ada, for their prayers and support.

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LIST OF ABBREVIATIONS

AOLB	-	Achievement-oriented Leader Behaviour
CHAG	-	Christian Health Association of Ghana
DLB	-	Directive Leader Behaviour
GHS	-	Ghana Health Service
IRB	-	Institutional Review Board
LB	-	Leader Behaviour
LE	-	Leader Effectiveness
M	-	Mean
MOH	-	Ministry of Health
NMs	-	Nurse Managers
NMC	-	Nursing and Midwifery Council
NMIMR	-	Noguchi Memorial Institute for Medical Research
PGL	-	Path-Goal Leadership
PLB	-	Participative Leader Behaviour
SD	-	Standard Deviation
SLB	-	Supportive Leader Behaviour
WDQ	-	Work Design Questionnaire
WHO	-	World Health Organization

CHAPTER ONE

INTRODUCTION

This chapter presents a concise view of the conceptualized meaning of leadership behaviours. It explores the leadership behaviours of Nurse Manager based on the perception of the nurses working with them, as well as highlighting the effectiveness of these leadership behaviours. This chapter states the objectives and purpose of the study and will also give a detailed problem statement; the significance of the study and operational definitions of the terms used in this study.

1.1 Background of the Study

Advancing the healthcare sector by employing leadership behaviours which are effective have become exigent. Given the global dynamic society which we live in and with the trends and influx of technologies, the method with which healthcare was administered has had a significant change in the last decade (Goh, Ang, & Della, 2018). The challenges of the fast-changing society have, thus, resulted in the need for leadership behaviour adopted by leaders to be effective, as it greatly influences the motivation of subordinates and the attainment of organizational goals.

Leadership behaviours are elaborate and have multidimensional methods; and there is equally no universally accepted description of leadership (Grossman & Valiga, 2013; Mannix, Wilkes, & Daly, 2013). The distinction in the definition of leadership may be an outcome of attempts to define the concept of leadership, divulging different vital standards and philosophical issues (Saleh et al., 2018). In this study, the definition of leadership will be according to Northouse (2015), which states that leadership entails influencing people to attain set goals and objectives. This definition is also in line with House (1996), who stated that leadership is the

skill a person possesses to influence, motivate and empower individuals working with them to contribute toward the effectiveness and success of the organization.

For effective leading in the nursing profession, the Nurse Manager needs to have motivational skills, and the ability to inspire skilled and experienced employees. The Nurse Manager also needs to help nurses to achieve their goals; which would, in turn, result in employee job satisfaction (Abualrub & Alghamdi, 2012). The Nurse Manager, therefore, is one who is accountable for the supervision of the nursing personnel in the nursing practice. They oversee patients' care, make organizational decisions, set work agendas, organize meetings, and make decisions about the nurses working with them.

The Nurse Manager evaluates each nurse's needs and ascertains which leadership behaviour to adopt which would get the work done with minimal hitches. A good working rapport between the Nurse Manager and the nurses working with them is essential because it has a lot of positive impacts. Thus, Nurse Managers adopt different leadership behaviours to achieve organizational goals. These leadership behaviours may be directive (autocratic), supportive (transformational), participative (democratic), and achievement-oriented (transactional); depending on the situation at hand (Asamani, Naab, & Ofei, 2016).

Leadership behaviours are, therefore, the collective styles or skills that influence people in achieving their goals. Leadership is not about the use of forced power, but the ability to effectively inspire and motivate employees and ensure positive team dynamics and structured task, taking into consideration the employee's age, years of experience, expertise, and educational qualifications. Northouse (2015), is of the opinion that employee characteristics like skills and expertise can determine the type of leadership behaviour a manager would adopt in the work environment. Nurse Managers who have newly qualified nurses as part of their team would

certainly adopt a different leadership behaviour when working with them as compared to when working with nurses who have had more years of experience on that same team. Employee characteristics, therefore, can influence leadership behaviours.

Leadership is also associated with the performance of the team members and their commitment to attaining the unit/ward's objectives, through motivation and job satisfaction (Leroy, Palanski, & Simons, 2012), as well as interest in the wellbeing of the nurses. The wellbeing of nurses according to Fisher (2014) includes improving the nurses' job satisfaction, their professional growth and their competence. Nurses are also seen to show a preference for leaders who clarify their expectations and acknowledge their contributions (Andrews, Richard, Robinson, Celano, & Hallaron, 2012).

Furthermore, previous studies on leadership behaviours in high-income countries show that the supportive (transformational) leadership behaviour, is adopted more than other leader behaviours. A study which involved the North-Eastern parts of the United States of America indicates that nurses perceived that the supportive (transformational) leadership behaviour (style) was widely adopted by their Nurse Managers, and it led to leader effectiveness (Casida & Parker, 2011). Similarly, in lower-middle-income countries, a study conducted in Saudi Arabia indicated that nurses perceived that the supportive (transformational) leadership behaviour was mostly used by their leaders, resulting in leader effectiveness (Abdelhafiz, Alloubani, & Almatari, 2015).

In recent times, leader effectiveness in the healthcare sector and precisely in nursing practice has become vital in enhancing the efficiency of the healthcare system. Studies have shown that leader effectiveness in the nursing profession brings about increased motivation among nurses, who strive to attain the goals of their institution, and are also satisfied with their

work performance (Abdelhafiz et al., 2015; Spence Laschinger, Wong, Grau, Read, & Pineau Stam, 2011).

In Ghana, effective leadership is a key component of healthcare. Leadership behaviours of Nurse Managers are, thus, essential because their responsibility is to ensure a favourable working environment for the nurses working with them. This study explores the perception of nurses on the leadership behaviours their Nurse Managers adopt. The Path-Goal Leadership theory is the guiding framework for this study.

1.2 Problem Statement

Leadership behaviours are essential in nursing practice, being that they contribute to a conducive working environment, job satisfaction and attainment of the unit/ward goals. It is important to adopt leadership behaviours which would enhance the performance of nurses. Although the importance of leadership skills in creating a healthy work environment cannot be overemphasized, there are, however, some arguments as to what makes up effective leadership in dynamic organizations faced with challenges (Albert, 2015; Sherman & Pross, 2010). House (1971) proposed that for leaders to be effective, employees should be motivated, satisfied with their job, and accept their leader.

Leadership behaviours of their Nurse Managers as perceived by the nurses will, thus, give feedback on the leadership behaviours their Nurse Managers adopt. These perceptions would also influence their decision on the leader effectiveness of their Nurse Managers. Accordingly, the leadership behaviour Nurse Managers adopt is crucial, because it goes a long way in ensuring that the goals and objectives of their institutions are obtained. However, many Nurse Managers have been seen to accept the complex position of leadership with little or no

knowledge of skills on being a leader, and sometimes, the confidence needed for this position may not be seen (Ofei, 2015). Thus, in recognizing the necessity for effective leadership in the health system, a lot of thought should be given to leadership advancements and enabling through educational growth (Abualrub & Alghamdi, 2012).

Previous studies on leadership behaviour seek to describe the kind of leadership behaviours adopted by Nurse Managers themselves, as they perform their duties. There have been studies on leadership behaviours of Nurse Managers in Ghana, but there are few studies on the nurses' perception of these leadership behaviours. Also, the notion on Nurse Manager's leadership behaviour in Ghana, according to Asamani et al. (2016) is that leadership behaviours are situational, and Nurse Managers tend to adopt each of these leader behaviours depending on the situation. However, it was noted that the supportive leader behaviour ranked high as compared to the other leader behaviours Nurse Managers adopt (Asamani et al., 2016).

This study, therefore, explores the leadership behaviours of Nurse Managers as perceived by Nurses in the 37 Military Hospital. The perception of leadership behaviour in the 37 Military Hospital by anecdotal belief, is that of the "authoritarian" leadership behaviour, and presuming it to be the major leadership style or behaviour by virtue of it being a military institution. It is, thus, essential to carry out this study in the 37 Military Hospital, in order to explore the leadership behaviours employed by Nurse Managers, using House (1996) Path-Goal theory as the guiding framework for this study.

1.3 Purpose of the Study

The purpose of this study is to explore the leadership behaviours of Nurse Managers as perceived by nurses in the 37 Military Hospital Accra.

1.4 Objectives of the Study

The objectives of this study are to:

1. Describe the leadership behaviours of Nurse Managers as perceived by nurses in the 37 Military Hospital.
2. Determine the employee characteristics that influence the leadership behaviours of Nurse Managers as perceived by nurses in the 37 Military Hospital.
3. Investigate the influence of task characteristics on leadership behaviours of Nurse Managers as perceived by nurses in the 37 Military Hospital.
4. Examine the relationship between the leadership behaviours of Nurse Managers and Leader effectiveness as perceived by nurses in the 37 Military Hospital.

1.5 Significance of the Study

The study would help the nursing practice have a clearer insight into the nurses' perception of leadership behaviours. This study will also give more insight into the leadership behaviours of Nurse Managers at the 37 Military Hospital and by extension, hospitals in general. This study will also help the researcher to acquire more knowledge and awareness on the different styles of leadership, and that these leadership behaviours can be situational, depending on the environmental contingencies.

The findings from this study will enlighten policymakers on the leadership behaviours which Nurse Managers employ. This would then, give policymakers a clear guide to ascertain if these leadership behaviours are effective in the nursing practice; and if there is a need for more leadership development programs for nurse leaders. It would also make nurse leaders knowledgeable on the leadership behaviours they adopt, and to see if there is room for

improvement. Findings will also prepare new Nurse Managers on the need for effective leadership behaviours in the management of nurses working with them, attainment of organizational goals and desired patient outcomes.

1.6 Operational Definition of Terms

- **Leadership Behaviour** – They are the behaviours that Nurse Managers adopt in directing, motivating and inspiring nurses in order to attain job satisfaction and achieving their set goals.
- **Nurse Manager** – A Nurse Manager is one who is accountable for the supervision of nursing staff in the nursing profession.
- **Nurse** – A trained professional who has a diploma, bachelor or master's degree in nursing/midwifery, and who has been fully registered and licensed by the Nursing and Midwifery Council of Ghana.
- **Perception** – The knowledge obtained from the course of coming to know or comprehend something (Merriam-Webster, 2006).

CHAPTER TWO

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.0 Introduction

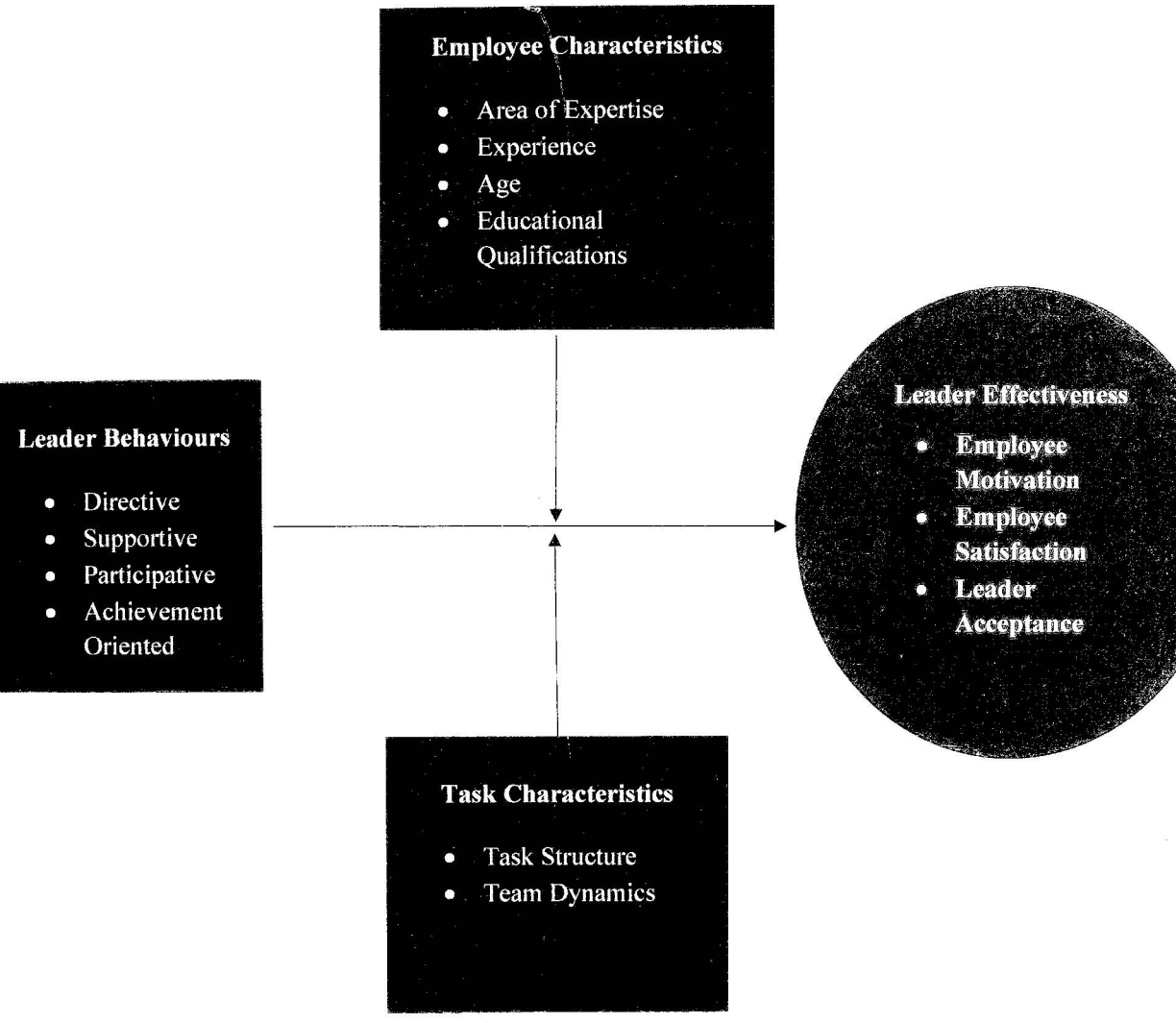
This chapter presents an overview of the theoretical framework and the review of literature related to leadership behaviour of Nurse Managers. The first part of this chapter consists of the explanation of the theoretical framework that was adopted to guide this study and the application of the various constructs. The second part of this chapter consists of literature reviews on the study, using keywords from the objectives of the study to search for studies related to this study.

2.1 Theoretical Framework

House (1996), Path-Goal Leadership Theory is the theoretical framework for this study. According to House (1971), the Path-Goal Leadership model is a theory centred on denoting a leader's behaviour that best suits the employee and the work environment to achieve a goal. Figure 2.1 shows the Path-Goal Model used for this study.

Figure 2.1: Theoretical Framework for the Study

House (1996), Path-Goal Theoretical Framework.



Martin Evans in 1970, first developed the Path-Goal Leadership theory, and further expanded by Robert House in 1971. The preliminary theoretical work by Evans (1970), states that leaders will be effective by ensuring re vards are available to subordinates and making these

rewards dependent on the subordinates' achievements. His findings also proposed that the major impact of a leader in subordinate's accomplishments is in clarifying the path to attain set goals. The Path-Goal Leadership theory is also based on Victor Vroom's expectancy theory developed in 1964. The expectancy theory states that a subordinate's satisfaction with the job or leader behaviour can be predicted by the extent to which the job or leader behaviour leads to various outcomes (expectancy) and evaluation of these outcomes.

House (1971), motivated by this logical reasoning, proposed a multifaceted theory of the outcomes of leader behaviours on the motivation of employees. There have been reviews and modifications of the Path-Goal Leadership theory by House in 1996, and by House and Mitchell (1997) respectively. The theory states that the leader's responsibility is to aid subordinates in attaining set goals and objectives (House, 1996). The leader also provides the direction and support needed to ensure that their individual goals are in line with that of the organization (House, 1971). The Path-Goal Leadership theory is, thus, a method whereby leaders select specific behaviours which best fit the basic need of the employees and that of the working environment, thus, clarifying the path for employees in the attainment of goals and objectives (House & Mitchell, 1997).

The theory also explains the outcome of four leader behaviours through employee satisfaction, acceptance and motivation (House & Mitchell, 1997). These four leader behaviours are the directive, supportive, participative and achievement-oriented leadership behaviours. The theory further asserts that leaders will engage in these four different types of leader behaviours depending on the nature and the demands of a situation. The theory comprises of the employee (skills and experience) and task characteristics (task structure and team dynamics) constructs. Thus, leadership behaviours which a leader adopts are based on the employee and task

characteristics which then determines the effectiveness of the leader (House & Mitchell, 1997). The employee and task characteristics, therefore, moderates the relationship between the leadership behaviours and leader effectiveness.

In this study, the Path-Goal Leadership theory will be used to determine the perception of nurses on the leadership behaviours which their Nurse Managers adopt. This will depend on the employees' characteristics (age, educational qualifications, expertise or skills and experience) and task characteristics (nature of the task and team dynamics). The employee characteristics were modified, with age and educational qualifications added to fit the purpose of the study. The leader effectiveness is ascertained through employee satisfaction, motivation and leader acceptance. Additionally, in this study, the directive leader behaviour will be viewed as the autocratic leader behaviour because they share some similarities, the supportive leader behaviour as the transformational leader behaviour, the participative leader behaviour as the democratic leader behaviour, and the achievement-oriented leader behaviour as transactional leader behaviour.

Some other studies which have adopted the Path-Goal Leadership model are, Asamani et al. (2016); Lynch (2015); Malik (2013); Polston-Murdoch (2013). The Path-Goal Leadership theoretical framework consists of four constructs namely, leadership behaviours, employee and task characteristics and the leader effectiveness, and are described in the sections that follow.

2.1.1 Leadership Behaviours

The directive path-goal leader behaviour is characterized by a leader who instructs followers on the task anticipated of them, and also tells them what is to be done and how it is to be done (House, 1971). A directive leader sets a standard of work schedule and makes clear rules and regulations for subordinates (House, 1996). This theory also states that the directive leader

applies this leader behaviour when the task demands are vague. Directive leadership, therefore, complements work done by followers through supervision and giving instructions (House & Mitchell, 1997).

Supportive leader behaviour requires an amicable leader who is concerned about the wellbeing and needs of employees (House, 1971). Leaders who adopt supportive leader behaviour go out of their way to make work more agreeable for employees and treat employees with respect. Supportive leader behaviour is, therefore, a foundation for poise and social satisfaction, and also promotes the career development of employees (House & Mitchell, 1997).

Participative leader behaviour focuses on encouraging subordinates to be part of the decision-making process of the working environment. It entails conferring with subordinates and enquiring for their opinions and ideas and taking their views into consideration while making decisions (House, 1971). The participative leader helps in achieving work goals, which provides some extrinsic rewards (House & Mitchell, 1997). It also creates a balance between the employees' goals and that of the organization. Participative leadership behaviour, when employed by leaders, gives the employees autonomy. This makes them more committed to attaining organizational objectives as they see themselves as part of the decision-making process (House & Mitchell, 1997).

Achievement-oriented leader behaviour is thought to motivate employees to strive for excellence in performances and to boost their confidence in attaining challenging goals (House & Mitchell, 1997). Hence, it is more effective in settings where employees are required to perform daunting tasks. Achievement-oriented leaders strive for excellence in performance by setting thought-provoking tasks, seeking for development of employees' capabilities, and showing confidence that employees can attain high standards of performance (House & Mitchell,

1997). Achievement-oriented leaders also set higher standards to raise the confidence of subordinates, thereby, inspiring them to achieve more (House, 1996).

2.1.2 Employee Characteristics

According to House (1996), the employees' characteristics are the person's features which determines how the leadership behaviour of the leader is interpreted. Employee characteristics are also said to be the locus of control, experience and perceived ability (House & Mitchell, 1997). Hence, the leadership behaviour employed by a leader can be influenced by the personal characteristics of the employees (House, 1996). The employee characteristics also act as a moderator in determining the relationship between leader behaviour and perceived leader effectiveness. The employee characteristics were modified, with age and educational qualifications added, as these are also a crucial part of the employee's personal characteristics.

2.1.3 Task Characteristics

Task characteristics entail the outline of the employees' task. According to the Path-Goal Theory of Leadership, task characteristics are of two components; task structure and team dynamics. The task structure entails the daily running of the organization and the key work design of the employees (House, 1996). The task structure is also the level of the monotony of the job, the leader's position of power and influence on its team, and the effectiveness in carrying out tasks (Lussier & Achua, 2015).

Task structure also includes the autonomy of the employee in carrying out daily tasks. Autonomy refers to the extent the employee has substantial independence and choice in scheduling tasks and deciding methods to carry out these tasks (Hackman & Oldham, 1975). Task shifting is, synonymous to task structuring which is a part of task characteristics. Task

shifting, is thus, the realistic allocation of tasks which helps assist in maximizing productivity in the healthcare sector (WHO, 2008). It entails appropriate delegation of tasks by the Nurse Manager or leader, effective task structures and realistic workloads and the creation of cohesive teams.

Carron, Brawley, and Widmeyer (1998) defines team dynamics as a method that reflects on the inclination of a group to put in their collaborative effort stick in the pursuit of its organization's objectives or for the satisfaction of individual needs. Additionally, team dynamics involves having the social support of the team as well as interdependence. Social support according to Karasek (1990), is the positive social collaboration available to managers and colleagues at the workplace, while interdependence is the dependence on members of the team in getting the task done (Zawawi & Nasurdin, 2017). Thus, the task characteristics consisting of the task structure and team dynamics, determine the type of leadership behaviour to be adopted, if the employee's capabilities are to be maximized (House & Mitchell, 1997).

2.1.4 Leader Effectiveness

In the Path-Goal Leadership theory, the leadership behaviour a leader will adopt is based on the employee and task characteristics which will lead to leader effectiveness (House & Mitchell, 1997). The leader effectiveness is shown by the employees' motivation, satisfaction and acceptance of their leader. This theory states that in practice, it gives a sense of direction on how leaders can help subordinates to accomplish their work in a manner that is acceptable (House, 1996). Subsequently, leader effectiveness is the result of individuals in positions of leadership, being able to positively influence the team they are working with, in order to realize organizational goals (Madanchian, Hussein, Noordin, & Taherdoost, 2017).

2.1.5 Justification for Adopting the Path-Goal Leadership Theory (PGL)

The Path-Goal Leadership theory is a type of situational leadership theory, which the researcher is adopting in this study because it creates some latitude for leaders to apply the leadership behaviour according to its suitability in each situation. The Path-Goal Leadership theory gives room for flexibility in adopting leadership behaviours, clarifies and gives a sense of direction to employees, supports and motivates employees, provides encouragement and reward for goal achievement (Farhan, 2018). Other leadership theories which were reviewed are; the transformational leadership theory, trait and contingency leadership theories. These leadership theories are not situational leadership theories; for example, the transformational leadership theory by Bass (1999), focused on a particular leadership style or behaviour and may not fit this study.

The Path-Goal Leadership Theory is considered relevant and right for this study because it is a situational leadership theory. It is also relevant to this study because the PGL theory deems that based on the employee and task characteristics, a leader will employ any of these four types of leadership behaviour in diverse situations. Hence, in this study, the PGL theory will help determine the different leadership behaviours implemented by Nurse Managers from the perception of the nurses working with them, as well as their effectiveness.

2.2 Review of Related Literature

This section reviews the literature on studies conducted on the leadership behaviours of Managers based on the perception of employees as outlined by the framework of this study. It also reviews studies centred on the objectives of the study. A methodical search of published literature using the University of Ghana subscribed databases like Science Direct, Wiley Online,

Medline, PubMed, Scopus, Cumulative Index of Nursing and Allied Health Literature CINAHL, EBSCO, and Google Scholar, to search for journals and articles, and book chapters. The keywords are, 'leadership behaviours/styles', 'leader effectiveness', 'nursing leadership', 'nurses' perception of leadership', employees' perception of Managers leadership behaviours', 'employee characteristics' and 'task characteristics' were either searched separately or in combination in order to identify related studies. Data search exceeded a 10-year period, because of the historical and evolving nature of leadership behaviours adopted by leaders. Reviewed studies date to the 1990s; and this extant review was carried out because leadership behaviours are dynamic. The review was also done to give an insight into leadership behaviours in the past, and the present. This literature review is organized based on the constructs of the theoretical framework and the objectives of the study.

2.2.1 Leadership Behaviours of Managers

Leadership is the method of influencing the actions of individuals or a group of people towards attaining set goals and objectives (Malik, 2013). Leadership has been an important concept in the nursing service; in large hospital facilities, and small facilities as well, and it can sometimes be complicated (Asamani, Kwafo, & Ansah-Ofei, 2013). The nursing leadership triggers a lot of interest because leader effectiveness leads to more positive outcomes for nurses. In this study, House (1996), identified four leader behaviours adopted by leaders. These are; directive, supportive, participative and achievement-oriented leader behaviours.

According to Eagly, Makhijani, and Klonsky (1992), the directive (autocratic) leader dissuades subordinates from participating in decision making. The directive leader behaviour is also linked with gender roles, and comparatively more dominant in men than women (Eagly et al., 1992). There are, however, fewer studies on the use of directive leader behaviour which

reveal that it results in leader effectiveness. In the 1980s and 1990s, many researchers turned their attention to other types of leadership behaviours (style), by distinguishing leaders who adopt the supportive (transformational) and those who use the achievement-oriented (transactional) leader behaviours (Bass, 1999).

Schwartz, Spencer, Wilson, and Wood (2011), assert that Nurse Managers who adopt supportive (transformational) leader behaviour, create a more favourable working environment for their employees. Thus, nurses feel empowered to do their jobs, resulting in better quality care for patients. DeRue (2011), states that achievement-oriented (transactional) leader behaviour leads to improvement on the task or job, while the supportive leader behaviour, had positive effects on the employees' efficiency and equally on their perception of the leader. Thus, studies by DeRue (2011); Schwartz et al. (2011), show that when Nurse Managers adopt the supportive leader behaviour, the nurses are empowered to their jobs in an auspicious working environment. Subsequently, managers who adopt the supportive leader behaviour motivate employees and maintains a friendly working relationship with them; while managers who employ the achievement-oriented leader behaviour focus on promoting fairness and rewards for work well done (Aboshaiqah, Hamdan-Mansour, Sherrod, Alkhaibary, & Alkhaibary, 2014; Roberts-Turner et al., 2014).

In a study conducted by Ojokuku, Odetayo, and Sajuyigbe (2012), on leadership styles in Nigerian banks and consisting of 60 employees; findings show that both the supportive (transformational) and participative (democratic) leader behaviours (style) with a p-value $< .05$, were significant to the study. This implies that the employees have the perception that managers who adopt supportive and participative leader behaviours focused on their professional development, in motivating them, as well as giving them a chance to make inputs. It was also

noted that the employees observed that their managers adopted the directive (autocratic) leader behaviour occasionally (Ojokuku et al., 2012).

In another study conducted by Asamani, Naab, and Ofei (2016) on leadership styles in nursing management; the perception of 275 nurses and midwives in five hospitals in Ghana on the various leadership styles (behaviours) were determined. The findings indicated that adopting any of the four leadership behaviours in the Path-Goal Theory of Leadership depends on the situation. However, nurses rated the supportive leader behaviour (M = 16.70, SD = 3.903) the most frequently used style of leading by their Nurse Managers, followed by the achievement-oriented leader behaviour (M = 16.55, SD = 3.592). Nurses also observed that the participative (M = 15.07, SD = 3.168) and directive (M = 13.15, SD = 2.521) leader behaviours were least adopted by their Nurse Managers. Asamani et al. (2016), stated that the use of the directive leader behaviour by Nurse Managers is infrequent.

Asamani, Naab, and Ofei (2016); Ojokuku et al. (2012) have related studies, because in their studies, they both showed that in the different industries; banking and healthcare sector, employees have the perception that their Managers adopt all leadership behaviours, with the supportive leader behaviour mostly employed by their leaders, while the directive leader behaviour was adopted intermittently.

Furthermore, in a study by Nyirazigama (2017), carried out in a Rwandan Military hospital, on supportive (transformational) leadership style and its outcomes among nursing staff, 153 questionnaires were distributed and 146 returned, with a response rate of 96.4%. Findings from this study indicated nurses rated that some of their Nurse Managers had moderately employed the supportive leader behaviour (43.8%), while other Nurse Managers adopted less of the supportive leader behaviour (24.6%). Nurse Managers were, thus, encouraged to practice

more of the supportive leader behaviour, as nurses perceived this leadership behaviour to be a motivating factor for them (Nyirazigama, 2017). Additionally, in related studies, nurses perceive that when their Nurse Managers adopt the supportive leader behaviour, they encourage and influence the employees to achieve a common goal (Boamah, Spence Laschinger, Wong, & Clarke, 2018; Olu-Abiodun & Abiodun, 2017).

2.2.2 Influence of Employee Characteristics on Leadership Behaviours

House (1996), is of the opinion that employee characteristics determine the kind of leadership behaviours or styles a manager would implement in each work situation. Therefore, the leadership behaviour a Nurse Manager will adopt may likely be dependent on the employee characteristics like age, years of experience, educational qualification, area of expertise. The leadership behaviour a Nurse Manager would likely adopt for a nurse with 10 years of experience may likely differ from that of a nurse who is newly qualified.

In a study conducted by Aboshaiqah et al. (2014), on the differences in perceived leadership styles related to sociodemographic characteristics in Saudi Arabia; findings revealed that the nurses' personal characteristics (educational status and years of experience), did not influence the leadership behaviours their Nurse Manager adopts. It implies that no significant difference was seen regarding the influence of the nurses' educational status and years of experience on their perception of the leadership behaviours their Nurse Manager adopted. Findings further show that younger nurses between the ages of 20-30years of age were more inclined to use the laissez-faire leadership behaviour ($p = .043$) (Aboshaiqah et al., 2014).

Al-Yami, Galdas, and Watson (2018) in their study on leadership style and organizational commitment among nursing staff consisting of 223 nurses in Saudi Arabia revealed that employee characteristics had some influence on the leadership behaviour the Nurse Managers

adopted. The influence of employee characteristics was drawn from the demographics (age, educational qualification and years of experience) of the nurses who rated a particular leader behaviour high. The study indicated that 65% of the nurses were aged 30 – 40years, while 35% were aged 40 years and above; 58% of the nurses were educated to bachelor degree level or above, while 42% had diplomas, and 61% had over 18 years of experience. It was, thus, observed that nurses aged 40 years and above had the perception that their Nurse Managers adopted the supportive (transformational) leader behaviour, and which they termed to be effective.

Subsequently, nurses with over 18 years of experience had the perception that their Nurse Managers, used supportive leader behaviour as well. There was a significant difference between those with experience less than 7 years and those with working experience more than 18 years, which indicates that the number of years of experience of nurses influences the leadership behaviour the Nurse Manager adopts (Al-Yami et al., 2018). However, all age groups had the same inclination or scores towards achievement-oriented leader behaviour, which depicts that all the nurses irrespective of their age perceived their Nurse Managers to adopt achievement-oriented leader behaviour. There was, however, no significant difference between educational qualification levels of the nurses and their perception of leadership behaviours of their Nurse Managers. This implies that nurses' educational qualifications had no influence on the leadership behaviours adopted by Nurse Managers (Al-Yami et al., 2018).

On the other hand, Olu-Abiodun and Abiodun (2017) in their study on perception of leadership behaviour among nurses in Nigeria, indicated that nurses who are ≤ 40 years perceived their Nurse Managers to adopt the supportive (transformational) leader behaviour than those between 41 – 60years. Nurses with less than 10 years of experience have the perception

that their Nurse Managers adopt the supportive leader behaviour (M = 3.75), while those who are older in age, observed that their Nurse Managers used less of the supportive leader behaviour (M = 3.67) with them. Nurses with diploma qualification also had the perception that Nurse Managers adopt supportive leader behaviour (M = 3.84), while those with higher degrees observed that less of the supportive leader behaviour was adopted (M = 3.64). There have, however, been very few studies which have shown a correlation between the leadership behaviour adopted by Nurse Managers and expertise.

Aboshaiqah, Hamdan-Mansour, Sherrod, Alkhaibary, and Alkhaibary (2014); Al-Yami, Galdas, and Watson (2018) studies have disparities, because Aboshaiqah et al. (2014) asserts that the nurses' personal characteristics (educational qualifications and years of experience) had no influence on the leadership behaviour Nurse Managers adopt. However, Al-Yami et al. (2018); Olu-Abiodun and Abiodun (2017)'s studies showed that nurses'age influence the leadership behaviour the Nurse Manager adopts; though, there were some differences with the age range. While Olu-Abiodun and Abiodun (2017)'s study showed that younger nurses perceived that their Nurse Managers employed the supportive leadership behaviour, Al-Yami et al. (2018) indicated that older nurses have the perception that their Nurse Managers adopted the supportive leader behaviour.

2.2.3 Influence of Task Characteristics on Leadership Behaviours

Task characteristics as a moderator for leader behaviour can influence the type of leader behaviours a Nurse Manager chooses to adopt, and these may bring about a positive or negative impact on the team. Henderson, Paterson, Burmeister, Thomson, and Young (2013), conducted a study on staff perception of leadership during implementation of task shifting in 3 surgical units in a tertiary institution in Australia, using 115 nurses across 3 wards, A, B and C. In Ward A, the

of standards of practice (Geraghty & Paterson-Brown, 2018). The achievement-oriented leader tells the team what to do, but may not actually get involved in the task, unlike the leader who adopts the supportive leader behaviour (Al Rahbi, Khalid, & Khan, 2017).

Findings from the studies reviewed have, therefore, indicated that supportive leader behaviour is essential in team dynamics and for the task structure. Also, previous studies have further shown that supportive leadership behaviour is positively correlated with good team dynamics and team motivation, while achievement-oriented leader behaviour had a negative correlation with team dynamics. It is therefore recommended that leaders focus on the supportive leader behaviour which helps to encourage team members, as well as in promoting a defined task structure and good team dynamics (Al Rahbi et al., 2017; Geraghty & Paterson-Brown, 2018; Vera, Martínez, Lorente, & Chambel, 2016).

2.2.4 Relationship Between the Leader Behaviours and Leader Effectiveness

Perception according to McDonald (2012), is the way one sees the world. It is the way a person or a group of people uniquely review occurrences, which involves processing information, recollecting experiences in the process of understanding them. Abualrub and Alghamdi (2012), in their study on the impact of leadership styles on nurse job satisfaction in Saudi Arabia, using 308 nurses, stated that, nurses had the perception that their Nurse Managers widely adopted the supportive (transformational) leader behaviour ($M = 3.43$, $SD = 0.82$), which resulted in leader effectiveness, as the nurses derived satisfaction from their jobs, and were motivated by their leaders (Abualrub & Alghamdi, 2012).

Abdelhafiz, Alloubani, and Almatari (2015), in another study, asserts that staff nurses had the perception that their Nurse Managers adopted both the supportive (transformational) and achievement-oriented (transactional) leader behaviour, and they both led to leader effectiveness.

Correspondingly, both leadership styles had a positive relationship with leader effectiveness, because it increased employees' satisfaction and motivation, as well as acceptance of their leader (Abdelhafiz et al., 2015). Thus, Abdelhafiz, Alloubani, and Almatari (2016); Abualrub and Alghamdi (2012) both asserted that nurses had the perception that the supportive leader behaviour leads to leader effectiveness.

Furthermore, Herman and Chiu (2014) in their study on leadership and job performance in Hong Kong, revealed that employees had a positive perception of their leaders because they adopted supportive (transformational) leader behaviour, and this was seen in the employees' attitude towards work. Supportive leader behaviour, therefore, has a positive influence on work attitudes of employees. It also shows that supportive leadership builds on fundamental motivation and job satisfaction of employees and that managers who seek to be effective in their leadership should adopt supportive leader behaviour. Hence, effective leaders should be able to motivate employees to do their best and ascertain that all their potentials contribute to the development of their organization (Alanazi, Alharthey, & Rasli, 2013; Herman & Chiu, 2014). Thus, when employees are satisfied with their job and are motivated, they are more likely to accept their leader, which denotes effective leadership (House, 1996; Northouse, 2018).

Cummings et al. (2018) conducted a systematic review analysing 129 studies in the healthcare setting, and 20 of these analysed studies were from Africa. Findings from this analysis indicated that nurses perceived the supportive (transformational) leader behaviour to lead to more positive outcomes, unlike the other leader behaviours (Cummings et al., 2018). The conclusion drawn from the systematic review is that nurses see supportive leader behaviour as being effective than other leadership behaviours. This is because managers who adopt this

leadership behaviour, inspire them, are friendly with them and care about their professional advancement.

In addition, House and Mitchell (1997) assert that the directive, supportive, participative and achievement-oriented leader behaviours lead to leader effectiveness, but is based on the employee and task characteristics. This implies that leadership is situational and that based on an individual's personal traits, a leader can adopt any of the four leader behaviours. Subsequently, the nature of the task and the dynamics of the team can influence the leadership behaviours of the leader. Thus, the leader is termed effective by the employees, when they are satisfied and motivated with any of the leader behaviours adopted.

2.3 Summary

From the reviewed literature, various studies have shown that supportive leader behaviour brings out the best in employees, increases job satisfaction, and promotes positive team dynamics. Furthermore, reviewed studies have shown that achievement-oriented leader behaviour, promotes job satisfaction among employees. It is also essential to note that in developed countries where there are advancements in the healthcare system, the participative leadership behaviour is infrequently employed, as well as the directive (autocratic) leader behaviour. Nurse Managers adopt more of the supportive and achievement-oriented leadership behaviours.

Leadership behaviour, which was effective in a situation may not be effectual in another. It suffices to say that leadership behaviours are situational. Some studies reviewed gave a self-report of Nurse Managers on their leadership behaviours, and the self-report of these Nurse Managers may have some amount or level of accuracy, but would also have a tendency to be

biased. This self-report from Nurse Managers, therefore, brings a gap in the literature provided on how nurses perceive leadership behaviours of their Nurse Managers and how effective they are. However, people's perception has a tendency to be biased as well, but it is important to state that feedback usually arises from people's perception. Another gap noted is, that there is a paucity of literature on the influence of employee characteristic and task characteristic on the relationship between leader behaviours and leader effectiveness. It is then essential that when conducting research on the leadership behaviours of Nurse Managers, findings and response should be from the perception of the employees.

This current study, therefore, explores the leadership behaviours of Nurse Managers as perceived by nurses in the units/wards. It seeks to determine the influence of employee and task characteristics on the leadership behaviours of Nurse Managers. This study will also ascertain the relationship between leadership behaviours and nurses' perception of leader effectiveness in the 37 Military Hospital Accra.

On the basis of the discussed literature, the following hypotheses were tested:

H_1: There will be a significant moderating effect of employee characteristics on the relationship between leadership behaviours and leader effectiveness as perceived by the nurses.

H_2: There will be a significant moderating effect of task characteristic on the relationship between leadership behaviours and leader effectiveness as perceived by the nurses

**H_3: There will be a significant relationship between leadership behaviours and leader effectiveness as perceived by the nurses.

CHAPTER THREE

RESEARCH METHODS

3.0 Introduction

This chapter describes the research design, research setting, target population, inclusion and exclusion criteria. In addition, it also provides details of the techniques for sampling participants, data collection, data management, validity and reliability of data and data analysis. Ethical considerations are also presented.

3.1 Research Design

A quantitative cross-sectional design was used to collect data from nurses in the 37 Military Hospital, Accra Ghana. A survey design gives a quantitative description of trends, viewpoints, or perceptions of a population by studying the sample of that population (Creswell, 2014), hence, the justification for adopting it in this study. Cross-sectional design was adopted because it involves the gathering of data for a short period of time, making it cost-effective (Creswell, 2014). The cross-sectional design was also used because it is economical and suitable for determining the leader behaviours of Nurse Managers. A structured questionnaire was used as a research tool, and variables measured were; leadership behaviour, employee characteristics, task characteristics, and leader effectiveness. The study lasted for five weeks from 4th February to 11th March.

3.2 Research Setting

The study was conducted in the 37 Military Hospital. The hospital consists of five departments, namely; Medical, Surgical, Paediatrics, Obstetrics and Gynaecology and Public

Health Departments, with the addition of a new Dialysis, Haematology and Anaesthesia units. The hospital's mission is to maintain health, promote health and rehabilitate the health of people within the Accra Metropolis and beyond. The hospital has 400 hundred bed capacity and can make provisions or improvise to stretch to 600 to accept more patients during an emergency. The hospital provides services on General Medical Care, Eye Care Services, Ear, Nose and Throat care, Theatre Services, Laboratory and Pharmacy Services, and Dialysis services.

In the 37 Military Hospital, there are twenty-five (25) Deputy Directors of Nursing Services (DDNS) and sixty-five (65) Principal Nursing Officers (PNO). The Deputy Directors of Nursing Services and some of the Principal Nursing Officers are Nurse Managers, across the five departments in the hospital. The nurses and midwives in the hospital are three hundred and fifty-nine (359), excluding nurses on Peace Keeping, as it is a military institution. The hospital is well known for providing holistic and affordable healthcare services to all people, irrespective of their age, gender, religion or nationality. The hospital was decided as the study area because it is a large tertiary hospital, as well as the care it renders and the facilities it has.

3.3 Target Population

The target population were all professional nurses working in the wards of the various departments in the 37 Military Hospital.

3.3.1 Inclusion Criteria

The inclusion criteria for this study were:

- Professional nurses who are in good standing with the Nursing and Midwifery Council of Ghana.

- Professional nurses that have been working for at least one year and above with their Nurse Managers in the 37 Military hospital.
- Professional nurses working with a Nurse Manager who supervises them directly.

3.3.2 Exclusion Criteria

The exclusion criteria for this study were:

- Professional nurses who have been working for less than a year.
- Nurse Managers.
- Auxiliary nurses.

3.4 Sample Size

The 37 Military hospital has a total of three hundred and fifty-nine (359) nurses and midwives. Using the total population of nurses and midwives in the hospital, the sample size is calculated using the formula proposed by Cochran (1977), and with a 95% confidence level.

$$n = \frac{n_o}{1+\frac{(n_o - 1)}{N}}$$

Where:

n is the new adjusted sample size,

n_o, is the Cochran (1977)'s constant sample size recommendation = 385

N is the population size = 359

$$n = \frac{385}{1+\frac{(385 - 1)}{359}} = 385/1+(384/359) = 186.$$

For "No responses," 10% of the adjusted sample size is added.

= 10/100 x 186 = 18.6

186 + 18.6 = 204.6. Approximately = 205

The estimated sample size used is 186 participants. An additional 10% was added to give room for "no responses". Therefore, the sample size for this study was 205.

3.5 Sampling Technique

The sampling technique adopted by the researcher is the quota sampling technique, which was used to recruit participants for the study. A quota sample is one in which the researcher identifies the population sections and then determines how many participants are required for each section. This is attained by using information about population features. Researchers can thus, make sure that varied sections are represented in the sample, preferably in the proportion in which they occur in the population (Polit & Beck, 2012). The quota sampling technique also shares some similarities with the convenience sample technique.

The population of the study was divided into groups, using the 5 major departments in the 37 Military Hospital – Medical, Surgical, Paediatrics, Obstetrics and Gynaecology, and Public Health; and which were mutually exclusive. The proportional quota was allocated to each department according to the nurses and midwives who were expected to meet the inclusion criteria required for the study. Participants from each ward were conveniently selected to be part of the study until the calculated quota was filled and making sure that the sample size was a representative of the total population.

The weightage for each subgroup was 20% of the sample size calculation (205) for the medical department, 25% for Surgical department. 20% for Paediatrics, 20% for Obstetrics and Gynaecology, and 15% for Public Health respectively. The sample size for each department in the hospital is shown in Table 3.1

Table 3.1: Sample size for each Department

DEPARTMENTS	CALCULATION	APPROXIMATED SAMPLE SIZE
Medical Dept	20/100 x 205 = 41.4	41
Surgical Dept	25/100 x 205 = 51.75	51
Pediatric Dept	20/100 x 205 = 41.4	41
Obstetrics/Gynecology Dept	20/100 x 205 = 41.4	41
Public Health Dept	15/100 x 205 = 31.05	31

3.6 Research tool for Data Collection

The tool used for data collection was a structured questionnaire as well as a newly developed questionnaire by the researcher to fit into the context of this study. Creswell (2014) states that questionnaires are frequently used tools for data collection. The questionnaire (See Appendix B) was categorized into four different sections. Section "A" focused on the demographics, Section "B" was on the Path-Goal Leader Behaviour, Section "C" was on work design and Section "D" was on leader effectiveness. These four different sections also assess the constructs in the Path-Goal model.

Section "A" collected data on the socio-demographics of participants. It consisted of 12 questions which include questions on age, gender, marital status, number of children educational qualifications, area of expertise, departments, rank, training on leadership, years of experience and how long the nurse has worked directly with the Nurse Manager.

Section "B" was on leadership behaviours, and this was measured by adapting the Path-Goal Leadership (PGL) questionnaire. The PGL questionnaire was developed by Indvik (1986). It has been used in various theses and doctoral dissertations. The PGL questionnaire is a 20-item

scale questionnaire, with four different variables: directive leader behaviour, supportive leader behaviour, participative leader behaviour, and achievement-oriented leader behaviour. The PGL questionnaire is a 7 Point Likert frequency scale, which ranges from, 1 = Never, 2 = Hardly ever, 3 = Seldom, 4 = Occasionally, 5 = Often, 6 = Usually, and 7 = Always. It was modified to a 5 Point Likert frequency scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. This was done to reduce ambiguity, and to help the participants understand the scaling better with less confusion. The modification of the questionnaire for this study was primarily the use of the term "Nurse Manager", to fit the topic of interest.

Section "C" collected data on task characteristics using the Work Design Questionnaire (WDQ). The WDQ tool was developed by Morgeson and Humphrey (2006). It is a standard tool for measuring job design and the nature of work. and it has been used in several thesis works. This questionnaire has a 77-item scale, consisting of different constructs, which are, task characteristics, knowledge characteristics, social characteristics, and work characteristics. The WDQ instrument was measured on a 5 Point Likert frequency scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The WDQ was modified to fit this study, and not all constructs are used. The constructs used were for task structure (autonomy), and team dynamics (social characteristics and interdependence) constructs.

Section "D" collected data on leader effectiveness. The researcher developed the Leader Effectiveness Questionnaire because a tool which measures leader effectiveness seemed challenging to obtain. Questions for this tool were obtained from reviewing literature on leadership and leader effectiveness, and 20 questions were developed. The tool was then sent to the two (2) supervisors for the study, who scrutinized and ensured that the questionnaire was measuring what it was supposed to measure. Face and content validity were also used to

determine the validity of the questionnaire. Subsequently, 12 questions emerged to form the tool for the questionnaire. A pilot study was done, and its reliability was ascertained. The Leader Effectiveness tool was measured on a 5 Point Likert frequency scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The leader effectiveness tool is focused on measuring employee motivation, employee satisfaction and leader acceptance.

3.7 Validity and Reliability

Polit and Beck (2012), states that validity is the dependability of the research findings, and reliability is defined as the consistency and accuracy of the data gotten in a study. Face validity and content validity were employed to validate the instrument. Neuman and Robson (2014) refer to face validity as the opinion of research experts showing that instrument is a precise reflection of what it intends to validate. Face validity was, therefore, made certain by adopting and developing questionnaires to reflect the research objectives and questions.

Content validity of the research instrument was ensured using the results of the pilot study to identify and modify some areas which were unclear in the instrument. The researcher systematically conceptualized the constructs of the study to ensure the content area was well attended to. Also, an extensive literature review was done by the researcher, and the questionnaire was organised in sections to ensure all variables in the study were investigated.

According to Polit and Beck (2012), the reliability of the instrument or tool is measured by Cronbach's alpha coefficient. Thus, the overall Cronbach alpha for research instrument of 0.70, is considered adequate for an adopted standard tool (Polit & Beck, 2012). To ensure the reliability of the instrument, the researcher and supervisors adopted, developed and edited the instrument to reflect the framework of the research. The tool for data collection was pretested

with 20 nurses and midwives at the University of Ghana Hospital, Legon. The pilot study was done to correct any ambiguities in the instrument, and Cronbach's alpha coefficient of the instrument was determined.

Therefore, the pretested reliability for the items on the scale is; directive leader behaviour = 0.84, supportive leader behaviour = 0.79, participative leader behaviour = 0.84, and achievement-oriented leader behaviour = 0.70. The Work Design Questionnaire (WDQ) scale yielded a Cronbach alpha coefficient of 0.76, while the reliability of the Leader Effectiveness tool yielded a Cronbach alpha coefficient = 0.70.

Additionally, the questionnaire used for this study was grouped into sections and includes all variables that are to be assessed. The questionnaire was reviewed by the supervisors of this dissertation, corrections made to ensure all the sections reflected the research questions being studied and was then approved to be used. The researcher made sure that all the study objectives were fully portrayed in the questionnaire. The proposal was sent to the 37 Military Hospital Institutional Review Board and the Noguchi Memorial Institutional Review Board for ethical clearance.

3.8 Ethical Consideration

Polit and Beck (2008), defined ethical clearance as a structure of ethical principles that involves the extent to which research procedures keep to the professional, legal and social obligations to the study participants. It is, thus, crucial that researchers be aware of the ethical procedures and abide by them. The researcher explained to the voluntary participants on the purpose and objectives of the study, benefits, methods, confidentiality, right to withdraw, and

privacy. Ethical consideration like the principle of beneficence, non-maleficence, respect for the individual will also be ascertained.

Taking this into consideration, an introduction letter was obtained from the School of Nursing and Midwifery, University of Ghana. This introduction letter (See Appendix C) was sent to the Commandant of the 37 Military Hospital, introducing the researcher and seeking ethical clearance to carry out the study. Ethical clearance was obtained from the Institutional Review Board of the 37 Military Hospital IRB (IPN/2752018), (See Appendix D). Ethical clearance was also gotten from the Noguchi Memorial Institute for Medical Research Institutional Review Board IRB (045/18-19), (See Appendix E). This ethical clearance was obtained by presenting the study proposal, information about the participants, a tool for data collection and consent form (volunteer agreement form) (See Appendix A) to the IRBs. After obtaining the ethical clearance letter, copies were sent to the Nurse Managers of each unit in the hospital, by the researcher, introducing herself and stating her intentions.

The researcher conveniently selected participants until they filled up the allocated quota. A form containing detailed information on the research topic was made available to the participants who consented to be a part of the study. The purpose, objectives and implications of the study to the nursing practice were also clearly stated and explained. The researcher explained in detail to the participants how the findings from this study would impact the nursing profession. The researcher assured the participants that no harm will come to them, from being a part of the study. The participants were also assured of confidentiality and privacy. A consent form was then presented to the participants to sign for eligibility to be part of the study. The participants were also informed of their right to participate or not to participate. They were equally informed that they could opt-out of the study when they choose to.

Confidentiality and privacy of voluntary participants were clearly stated and ensured. To maintain confidentiality and privacy, participants' names were omitted from the questionnaire. Participants were guaranteed that their names would not be reported as part of the research findings. Participants were also advised to thumbprint with ink if they were not comfortable with disclosing their signatures or names on the consent form. The researcher collected the completed questionnaires herself as well. To also guarantee anonymity and privacy, the questionnaires were given numerical codes when collected from the participants. The participants who volunteered to be part of the study were assured that the researcher will not disclose any information about them.

3.9 Procedure for Data Collection

Data collection is the process of gathering information from a population of interest to the researcher, in an established systematic and objective manner (Creswell, 2014). This is for the purpose of finding answers to research problems, testing hypothesis and evaluating outcomes (Creswell, 2014). To explore the leadership behaviour of Nurse Managers and the perception of nurses on these behaviours, quantitative methods were used to collect data, using a questionnaire. Data was collected from the 37 Military Hospital using the voluntary agreement form (See Appendix A), questionnaire (See Appendix B), ethical clearances from the 37 Military IRB (See Appendix D) and the Noguchi Memorial Institute for Medical Research-IRB (See Appendix E).

Prior to seeking for ethical clearance at the 37 Military Hospital, an introductory letter from the School of Nursing and Midwifery (SONM) (See Appendix C), was sent to the Commandant of the military institution, seeking approval to conduct the study. After the approval was granted, ethical consideration was applied for and obtained. The researcher made copies of the ethical clearance letters and distributed it herself to each ward in the hospital. The

researcher introduced herself to each Nurse Manager in the respective wards, stating her intentions. In some wards, the Nurse Manager assisted with putting up the approved ethical clearance letter on the notice board, so that the nurses would be aware of the upcoming study.

The researcher then approached each nurse, introducing herself, stating her purpose and explaining in detail the current study to each participant whom she approached. Only nurses who met the inclusion criteria could be part of the study, however, some nurses declined to be part of the study, while those that accepted were given consent forms. The participants were given the opportunity to make their own individual choices if they would want to be a part of the study or not. Comprehensive information about the study was readily available to all participants who gave their consent. The researcher answered questions and gave further clarifications on the purpose of the study when needed. Participants who signed the consent forms were given questionnaires to answer and return once completed.

Data was collected from 4th February to 11th March 2019. Two hundred and five (205) questionnaires were distributed to the participants and 201 questionnaires were returned, representing a 98% response rate. The distribution of the questionnaire was carried out daily until the total of 205 participants was suitably attained. Participants who chose to be a part of the study were also given the option of completing and returning the forms within 15 – 30 minutes, or the option of giving them 24 hours to complete the questionnaires. This was done so that the nurses who had hectic work schedules, but also chose to be a part of this study could complete their questionnaires without much pressure.

Some of the participants completed the questionnaire while the researcher waited; while most of the participants that consented to participate in the study, chose the 24hours timeline to complete and return the questionnaires. Upon collection of the completed questionnaires, it was

meticulously cross-checked by the researcher to ensure there were no uncompleted sections. Some participants decided not to complete some parts like age, as they termed it private. The researcher constantly visited the hospital during the period of the data collection. This was done to ensure that the data collection process was successful.

3.10 Data Management

Data management is important to make sure that there is data quality. It is decisive that data is managed properly for future purposes. Surkis and Read (2015) stated that researchers should be more interested in data management because it makes data more discoverable, accessible, and understandable. During data collection, the researcher ensured that all questionnaires handed out were returned as soon as they were completed. Data collected was meticulously examined for completeness and consistency of responses. Grammatical errors and misspelt words were identified and corrected.

Prior to running the analysis, data were edited and verified to decrease the number of errors. The raw data were then coded using the Statistical Packages for Social Science (SPSS) version 23.0. However, the researcher discovered some missing data on age in the questionnaire, because some of the participants were not willing to give out information about their age. Some other participants whose questionnaires had missing data were not available to make inputs, due to their work schedules. The arithmetic mean imputation was used to fill up the missing data, and this is the replacing of missing values with the mean (Enders, 2010). The age of the participants had 4.4% of missing data. The mean score of the age of the entire participants is 35years old and was used to fill up the missing data.

Variables like educational qualifications were recoded into dichotomous variables. This helped simplify the analysis and ensured that each category had an adequate sample size. A dichotomous variable is a variable, which entails having two levels or categories that take the value of either 0 or 1 (Garavaglia & Sharma, 1998). The data have been stored under lock and key with the researcher and would be kept for five (5) years.

3.11 Data Analysis Strategy

Data were analysed using the software tool; Statistical Packages for Social Sciences (SPSS) version 23.0. The analysis done comprised of both descriptive and inferential statistics. Descriptive statistics such as frequencies, percentages, and standard deviation were used to summarize data. Secondly, a bivariate correlation analysis was used to examine the relationship between the continuous variables.

Afterwards, a moderator analysis was done to investigate the extent to which employee and task characteristics influence the relationship between the leader behaviours and leader effectiveness of the Nurse Managers as perceived by the nurses. A moderator analysis seeks to determine the situational features that influence the strength of the relationship between a predictor and outcome (Edwards & Lambert, 2007). Moderating variables can also alter the relationship between the independent variable and dependent variable.

The moderator analysis proceeded by first centring the variables. This was achieved by subtracting the total mean of the variables from their respective mean scores for each participant $(x - \bar{x})$. The variables were centred for easy interpretation of the results, and to avoid multicollinearity between the interaction of the continuous variables which could inflate standard errors (Gatignon & Vosgerau, 2006). Following the centring of variables, an interaction was

created between the moderator variables and independent variables. This was achieved by multiplying the moderator with the independent variable. Also, for a significant moderator effect on the relationship between the independent and dependent variable, the p-value is expected to be 0.05. Further probing was done using a process macro analysis, which helped determine the nature of the interaction between the moderator, predictor and outcome variables. According to Hayes (2017), a process is a macro for SPSS, which conducts in-depth analysis on either a mediation, moderation or conditional process analysis.

Furthermore, multiple linear regression analysis was conducted to determine the relationship between the independent variable (leader behaviours) and dependent variable (leader effectiveness). Multiple linear regression is deemed appropriate for examining the correlation between independent and dependent variables (Cohen, West, & Aiken, 2014). A (p) – value of <0.05 was used to determine the level of statistical significance.

3.12 Summary

This chapter examined the research methods. The research design is a quantitative design, involving a cross-sectional survey. This was used to explore the leader behaviours of Nurse Managers as perceived by the nurses. The study was carried out in the 37 Military Hospital, which is a tertiary institution. Ethical clearance was obtained from the Institutional Review Boards of the 37 Military hospital and Noguchi Memorial Institute for Medical Research. 205 questionnaires were distributed and 201 were returned. Rights of participants were ensured, as well as privacy and confidentiality. The researcher ensured that every participant had informed consent. Participants were only registered professional nurses who had worked for at least a year with their Nurse Managers. All questionnaires were carefully examined for completeness and

data was cleaned, coded and stored under lock and key. Data analysis was done using both descriptive and inferential statistics.

CHAPTER FOUR

FINDINGS

4.0 Introduction

This chapter presents the findings of the study on leadership behaviours of Nurse Managers as perceived by nurses. The results of this research work, are in four different sections and are in accordance with the objectives of this study. The four sections are: leadership behaviours of Nurse Managers, the influence of employee characteristics on leadership behaviours, the effect of task characteristics on leadership behaviours, and the relationship between leadership behaviours and leader effectiveness.

Also, hypotheses were formulated to investigate and examine the influence of the moderators (employee characteristics and task characteristics) on the relationship between the independent variable (leadership behaviours) and dependent variable (leader effectiveness). The hypotheses were formulated to test the relationship between the independent variable (leader behaviours) and dependent variable (leader effectiveness). To test these hypotheses, a moderator analysis, multiple linear regression analysis and a process macro analysis were conducted.

4.1 Socio-demographics of Participants

To determine the leadership behaviours of Nurse Managers as perceived by nurses at the various units of the hospital, socio-demographics such as age, qualifications, expertise, and years of experience were ascertained. From the descriptive statistical analysis, the mean age of the nurses in this study was 35years (SD = 5.83). Majority of the nurses (62.2%) were between the ages of 31years to 40years, whilst 25.4% (n = 51) of the nurses were between the ages of

22years – 30years, and 12.4% (n = 25) of the nurses were 40years and above. Findings also showed that the majority of the nurses (71.6%) were females, whilst 28.4% (n = 57) were males. Majority of the nurses (64.2%) had higher degrees, whilst 35.8% (n = 72) of the nurses had diplomas in different nursing specialities.

Also, 38.8% (n = 78) of the nurses had expertise in paediatrics, obstetrics and gynaecology, whilst 31.8% (n = 64) of the nurses' area of expertise, were in surgical and theatre nursing. The nurses who had expertise in the medical unit constituted 25.4% (n = 51), and 4% (n = 8) of the nurses had their area of expertise in the public health unit. Furthermore, 30.8% (n = 62) of nurses had 1-5 years of experience, whilst 30.8% (n = 62) of the nurses had 5years to 10years, and 38.3% (n = 77) of the nurses had 10years and above experience in the nursing practice. Table 4.1 presents the socio-demographics of the respondents.

Table 4.1: Socio-demographics of Respondents

Variables	Frequency(n)	Percentage(%)	Mean	St. Dev.
Age				
22years – 30years	51	25.4	35	5.83
31years – 40years	125	62.2		
41years and above	25	12.4		
Gender				
Males	57	28.4		
Females	144	71.6		
Qualifications				
Diploma	72	35.8		
Higher Degree	129	64.2		
Which unit do you work in (Expertise)?				
Medical	51	25.4		
Surgical/Theatre	64	31.8		
Peads/OBGY	78	38.8		
Public Health	8	4.0		
Years of Experience				
1 - 5years	62	30.8		
5years – 10years	62	30.8		
10years and above	77	38.3		
Total	**201**	**100**		

Source: Field data 2019

4.2 Leader Behaviours of Nurse Managers

The perception of the nurses about their Nurse Manager's leader behaviours was measured using a 5-point scale and analysed using descriptive statistics (frequency). As stated previously, there are four types of leader behaviours and they are: directive, supportive, participative and achievement-oriented leader behaviours. The percentages are the sum of Agree and Strongly Agree; as well as Strongly Disagree and Disagree.

For the directive leader behaviour, 93.5% of the nurses had a strong conviction that their Nurse Manager asks subordinates to follow standard rules and regulations, while 47.3% of the nurses do not agree that their Nurse Manager gives a vague explanation of what is expected of subordinates on the job. For the supportive leader behaviour, the results revealed that 92% of the participants agree that their Nurse Manager maintains a friendly working relationship with subordinates, while 67.2% of the nurses disagree that their Nurse Manager says things that hurt subordinates personal feelings.

For the participative leader behaviour, 80.6% of the participants agree that their Nurse Manager listens receptively to subordinates ideas and suggestions, while 70.6% of the nurses disagree that their Nurse Manager acts without consulting subordinates. Furthermore, for the achievement-oriented leader behaviour, findings showed that 87% of the nurses agree that their Nurse Manager informs subordinates that they are expected to accomplish tasks at their highest level, while 32.8% of the nurses disagree that their Nurse Manager shows that there are doubts about subordinates ability to meet objectives. Specifics of the analysis are shown in Table 4.2A and Table 4.3B.

Table 4.2A: Leader Behaviours of Nurse Managers

Leader Behaviours	Frequency (Percentage %)				
Directive Leader Behaviour	**SD**	**DA**	**UD**	**AG**	**SA**
The Nurse Manager lets subordinates know what is expected of them.	3(1.5)	5(2.5)	15(7.5)	84(41.8)	94(46.7)
The Nurse Manager informs subordinates about what needs to be done and how it needs to be done.	6(3.0)	3(1.5)	19(9.5)	87(43.3)	86(42.7)
The Nurse Manager asks subordinates to follow standard rules and regulation	3(1.5)	4(2.0)	6(3.0)	**81(40.3)**	**107(53.2)**
The Nurse Manager explains the level of performance that is expected of subordinates	8(4.0)	7(3.5)	20(10.0)	99(49.2)	67(33.3)
The Nurse Manager gives vague explanations of what is expected of subordinates on the job.	**51(25.4)**	**44(21.9)**	31(15.4)	45(22.4)	30(14.9)
Supportive Leader Behaviour					
The Nurse Manager maintains a friendly working relationship with subordinate	3(1.5)	7(3.5)	6(3.0)	**79(39.3)**	**106(52.7)**
The Nurse Manager does little things to make it pleasant to be a member of the group.	24(11.9)	32(15.9)	35(17.4)	68(33.8)	42(20.9)
The Nurse Manager says things that hurt subordinates' personal feelings.	**80(39.8)**	**55(27.4)**	30(14.9)	22(10.9)	14(7.0)
The Nurse Manager helps subordinates overcome issues that stop them from carrying out their tasks.	13(6.5)	15(7.5)	39(19.4)	90(44.8)	44(21.9)
The Nurse Manager behaves in a manner that is thoughtful of subordinates' personal needs.	6(3.0)	17(8.5)	38(18.8)	91(45.3)	49(24.4)

Source: Field data 2019

SD: Strongly disagree, DA: Disagree, UN: Undecided, AG: Agree, SA: Strongly agree.

Table 4.3B: Leader Behaviours of Nurse Managers

Leader Behaviours	Frequency (Percentage %)				
Participative Leader Behaviour	**SD**	**DA**	**UD**	**AG**	**SA**
The Nurse Manager consults with subordinates when decisions are to be made.	10(5.0)	19(9.5)	29(14.4)	92(45.7)	51(25.4)
The Nurse Manager listens receptively to subordinates' ideas and suggestions.	6(3.0)	13(6.4)	20(10.0)	**99(49.3)**	**63(31.3)**
The Nurse Manager acts without consulting subordiantes.	**68(33.8)**	**74(36.8)**	32(15.9)	18(9.0)	9(4.5)
The Nurse Manager asks for suggestions from subordinates concerning how to carry out assignments.	13(6.5)	26(12.9)	25(12.4)	102(50.7)	35(17.4)
The Nurse Manager asks subordinates for suggestions on what assignments should be made.	17(8.5)	32(15.9)	42(20.9)	89(44.3)	21(10.4)
Achievement-Oriented Leader Behaviour					
The Nurse Manager lets subordinates know that they are expected to perform at their highest level.	6(3.0)	6(3.0)	4(7.0)	**92(45.7)**	**83(41.3)**
The Nurse Manager sets goals for subordinates' performance that is quite challenging.	15(7.5)	34(16.9)	59(29.4)	74(36.8)	19(9.5)
The Nurse Manager encourages continual improvement in subordinates' performance.	8(4.0)	14(7.0)	26(12.9)	101(50.2)	52(25.9)
The Nurse Manager shows that there are doubts about subordinates' ability to meet objectives.	**29(14.4)**	**57(28.4)**	55(27.4)	47(23.4)	13(6.5)
The Nurse Manager consistently sets challenging goals for subordinates to attain.	17(8.5)	53(26.4)	47(23.4)	65(32.3)	19(9.5)

Source: Field data 2019

SD: Strongly disagree, DA: Disagree, UN: Undecided, AG: Agree, SA: Strongly agree.

4.2.1 Bivariate Correlation Analysis of Continuous Variables

A bivariate correlation analysis was conducted to check the correlations between the continuous variables. This was to determine if the variables in the Path-Goal Leadership model are significantly correlated, and the categorical variables were not included. From the table, it can be seen that the variables had strong statistical significant correlations ($p < 0.01$).

Findings indicate that leader effectiveness correlates significantly and positively with the directive ($r = 0.43$), supportive ($r = 0.30$), participative ($r = 0.45$) and achievement-oriented leader behaviour ($r = 0.41$), as perceived by the nurses. This suggests that nurses who rated their Nurse Managers leadership behaviours high also rated the effectiveness of their Nurse Managers' leadership high. It also implies that nurses have the perception that their Nurse Managers adopted all leadership behaviours as the situation demands, and which led to leader effectiveness.

Table 4.4 shows the result of the bivariate analysis of the continuous variables (leader behaviours, leader effectiveness, task characteristics).

Table 4.4: Bivariate Correlation of Continuous Variables

Variable	1	2	3	4	5	6	7
Leader Behaviours							
1. DLB Total							
2. SLB Total	0.31**						
3. PLB Total	0.36**	0.52**					
4. AOLB Total	0.46**	0.35**	0.53**				
Task Characteristics							
5. TSA Total	0.06	0.30**	0.26**	0.29**			
6. TD Total	0.22**	0.28**	0.23**	0.34**	0.36**		
Leader Effectveness							
7. LE Total	0.43**	0.30**	0.45**	0.41**	0.26**	0.36**	
M	**3.95**	**3.48**	**3.36**	**3.43**	**3.44**	**3.49**	**3.89**
SD	**0.66**	**0.62**	**0.64**	**0.68**	**0.80**	**0.56**	**0.56**

DLB: Directive Leader Behavior, SLB: Supportive Leader Behavior, PLB: Participative Leader Behavior, AOLB: Achievement-Oriented Behavior, TSA: Task Structure-Autonomy, TD: Team Dynamics, LE: Leader Effectiveness. M =Mean, SD = Standard Error.

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

4.3 Influence of Employee Characteristics on the Relationship between Leadership Behaviours and Leader Effectiveness

H1: There will be a significant moderating effect of the employee characteristics on the relationship between the leadership behaviours and leader effectiveness as perceived by the nurses.

To test the hypotheses, the following employee characteristics were investigated as moderators on the relationship between the leadership behaviours (LB) and leader effectiveness as perceived by the nurses. They are age, educational qualifications, area of expertise, and years of experience. For each moderator model, leadership behaviours, employee characteristics and the interaction between the LB and employee characteristics were entered into the model. The result indicated that the models which consist of the employee characteristics, leadership behaviours and leader effectiveness is statistically significant. For example, model 1A to 1D (See Table 4.5A, consisting of the directive leader behaviour and employee characteristics, revealed that age ($R^2 = 0.19$, $F_{(3,197)} = 15.88$, $p < 0.001$), educational qualifications ($R^2 = 0.21$, $F_{(3,197)} = 17.53$, $p < 0.001$), area of expertise ($R^2 = 0.18$, $F_{(3,197)} = 14.89$, $p < 0.001$), years of experience ($R^2 = 0.19$, $F_{(3,197)} = 14.98$, $p < 0.001$) are significant. Models 2, 3, and 4 are also statistically significant, (See Table 4.5A and Table 4.6B).

Probing further, findings indicate that some specific employee characteristics of the participants showed a statistically significant moderator effect on leadership behaviour. Model 1B, revealed that the educational qualifications of nurses had a statistically significant moderator effect on the directive leader behaviour and leader effectiveness ($B = -0.59$, $t = -2.28$, $p = .024$). It further indicated that nurses with diploma certificates in different nursing specialities and nurses

with higher degrees had the perception that their Nurse Managers adopted more of the directive leader behaviour.

The results also showed that for models 2A, 3A, and 4A, age had a statistically significant moderator effect on the relationship between the SLB (B = -0.05, t = -2.21, p =.028), PLB (B = -0.05, t = -2.42, p = .017), and AOLB (B = -0.05, t = -2.23, p = .027) and leader effectiveness. A further probe using the process macro analysis showed that nurses between the ages of 22 – 42 years, and which constituted 89.6% of the participants had the perception that their Nurse Managers adopt more of the supportive, participative and achievement-oriented leader behaviours. However, there was no significant moderator effect of age on the directive leader behaviour, educational qualification on the supportive, participative and achievement-oriented leader behaviours, and no significant moderator effect of years of experience and expertise on the four leader behaviours. The hypothesis is thus, partially supported. Table 4.5A and Table 4.6B shows the findings.

Table 4.5A: Moderator Effect of Employee Characteristics on the relationship between Leadership Behaviours and Leader Effectiveness

Variables	R^2	*Beta*	SE	*t-value*	*p.value*	R^2	*Beta*	SE	*t-value*	*p.value*
Directive Leader Behaviour						**Supportive Leader Behaviour**				
Model 1A						**Model 2A**				
Constant	0.19	13.62	13.79	0.99	.325	Constant	0.13	0.91	13.21	0.07	.945
Age		0.47	0.40	1.16	.248	Age		0.94	0.36	2.63	.009
DLB Total		1.52	0.69	2.18	.030	SLB Total		2.39	0.78	3.06	.003
Interaction		-0.02	0.02	-0.93	.351	**Interaction**		**-0.05**	**0.02**	**-2.21**	**.028**
		$F_{(3,197)} = 15.88, p < 0.001$						$F_{(3,197)} = 10.05, p < 0.001$			
Model 1B						**Model 2B**				
Constant	0.21	8.64	8.73	0.99	.324	Constant	0.09	27.11	9.47	2.86	.005
Educational Qualification		12.99	5.32	2.44	.015	Educational Qualification		4.97	5.49	0.90	.367
DLB Total		1.83	0.43	4.27	.000	SLB Total		1.08	0.54	2.02	.044
Interaction		**-0.59**	**0.26**	**-2.28**	**024**	Interaction		-0.26	0.31	-.083	.410
		$F_{(3,197)} = 17.53, p < 0.001$						$F_{(3,197)} = 6.85, p < 0.001$			
Model 1C						**Model 2C**				
Constant	0.18	28.99	7.74	3.75	.000	Constant	0.09	34.37	6.70	5.11	.000
Area of Expertise		0.15	3.15	0.05	.962	Area of Expertise		0.47	2.75	0.17	.863
DLB Total		0.92	0.38	2.42	.016	SLB Total		0.79	0.39	2.03	.044
Interacton		-0.02	0.16	-0.10	.919	Interaction		-0.06	0.16	-0.38	.707
		$F_{(3,197)} = 14.89, p < 0.001$						$F_{(3,197)} = 6.94, p < 0.001$			
Model 1D						**Model 2D**				
Constant	0.19	27.26	6.00	4.54	.000	Constant	0.19	34.24	5.77	5.94	.000
Years of Experience		0.76	2.13	0.36	.721	Years of Experience		0.43	1.97	0.22	.829
DLB Total		0.96	0.29	3.25	.001	SLB Total		0.71	0.33	2.17	.032
Interaction		-0.03	0.11	-0.28	.783	Interaction		-0.02	0.11	-0.20	.842
		$F_{(3,197)} = 14.98, p < 0.001$						$F_{(3,197)} = 6.52, p < 0.001$			

LB: Leader Behaviour, DLB: Directive Leader Behaviour, SLB: Supportive Leader Behaviour, PLB: Participative Leader Behaviour, AOLB; Achievement-Oriented Leader Behaviour.

Table 4.6B: Moderator Effect of Employee Characteristics on the relationship between Leadership Behaviours and Leader Effectiveness

Variables	R^2	*Beta*	SE	*t-value*	*p.value*
Participative Leader Behaviour					
Model 3A					
Constant	0.23	-3.99	12.95	-0.31	.758
Age		1.03	0.38	2.72	.007
PLB Total		2.78	0.77	3.61	.000
Interaction		**-0.05**	**0.02**	**-2.42**	**.017**
		$F_{(3,197)} = 20.08, p < 0.001$			
Model 3B					
Constant	0.21	19.90	8.36	2.38	.018
Educational Qualifications		6.58	4.84	1.36	.176
PLB Total		1.49	0.48	3.11	.002
Interaction		-0.33	0.28	-1.19	.237
		$F_{(3,197)} = 17.28, p < 0.001$			
Model 3C					
Constant	0.21	31.81	5.94	5.36	.000
Area of Expertise		-0.48	2.45	-0.19	.844
PLB Total		0.99	0.36	2.77	.006
Interaction		-0.02	0.15	-0.11	.911
		$F_{(3,197)} = 17.21, p < 0.001$			
Model 3D					
Constant	0.20	27.41	4.99	5.49	.000
Years of Experience		1.42	1.79	0.79	.426
PLB Total		1.13	0.29	3.89	.000
Interaction		-0.08	0.10	-0.75	.456
		$F_{(3,197)} = 16.52, p < 0.001$			

	R^2	*Beta*	SE	*t-value*	*p.value*
Achievement-Oriented Leader Behvaiour					
Model 4A					
Constant	0.21	-0.54	12.81	-0.04	.966
Age		0.98	0.38	2.61	.009
AOLB Total		2.42	0.72	3.35	.001
Interaction		**-0.05**	**0.02**	**-2.23**	**.027**
		$F_{(3,197)} = 17.04, p < 0.001$			
Model 4B					
Constant	0.17	30.62	8.03	3.81	.000
Educational Qualifications		1.30	4.69	0.28	.782
AOLB Total		0.85	0.45	1.91	.058
Interaction		-0.03	0.27	-0.12	.906
		$F_{(3,197)} = 13.47, p < 0.001$			
Model 4C					
Constant	0.17	34.39	6.53	5.26	.000
Area of Expertise		-0.65	2.75	-0.23	.813
AOLB Total		0.76	0.37	2.06	.040
Interaction		0.02	0.16	0.13	.894
		$F_{(3,197)} = 13.33, p < 0.001$			
Model 4D					
Constant	0.17	35.70	5.11	6.98	.000
Years of Experience		-1.13	1.77	-0.64	.524
AOLB Total		0.62	0.29	2.11	.036
Interaction		0.08	0.10	0.76	.446
		$F_{(3,197)} = 13.55, p < 0.001$			

LB: Leader Behaviour, DLB: Directive Leader Behaviour, SLB: Supportive Leader Behaviour, PLB: Participative Leader Behaviour, AOLB: Achievement-Oriented Leader Behaviour.

4.4 Influence of Task Characteristics on the Relationship between Leadership Behaviours of Nurse Managers

H_2: There will be a significant effect of task characteristics on the relationship between the leadership behaviours and leader effectiveness as perceived by the nurses.

As earlier stated, task characteristics (task structure and team dynamics) were investigated as moderators on the relationship between the leadership behaviours (LB) and leader effectiveness. For each moderator model, the leadership behaviours, task characteristics and the interaction between the LB and task characteristics were entered into the model. The result indicated that each model consisting of the task characteristics, leadership behaviours and leader effectiveness were statistically significant. For example, model 5A to 5D (See Table 4.7) consisting the directive leader behaviour, task structure and team dynamics, showed that task structure ($R^2 = 0.28$, $F_{(3,197)} = 22.02$, $p < 0.001$), and team dynamics ($R^2 = 0.26$, $F_{(3,197)} = 23.40$, $p < 0.001$) were statistically significant. Models 6, 7, and 8 were also statistically significant (See Table 4.7).

Probing further, using the process macro analysis, findings from the analysis showed that for model 6A, there was a significant moderator effect of task structure ($B = 0.03$, $t = -2.19$, $p = .030$) on the relationship between the supportive leader behaviour and leader effectiveness. Model 7A and 7B showed a significant moderator effect of task structure ($B = 0.03$, $t = -2.17$, $p = .031$), and team dynamics ($B = -0.06$, $t = -3.29$, $p = .001$), on the relationship between participative leader behaviour and leader effectiveness. Model 8A and 8B, further indicated a significant moderator effect of the task structure ($B = -0.04$, $t = -3.27$, $p = .001$), and team dynamics ($B = -0.05$, $t = -3.28$, $p = .001$) on the relationship between achievement-oriented leader behaviour and leader effectiveness. There was, however, no significant moderator effect

of the task structure on supportive leader behaviour, and no significant moderator effect of team dynamics on the supportive and directive leader behaviours (See Table 4.7).

The findings further showed that nurses who rated task structure low had the perception that in situations where they do not have the autonomy to carry out tasks, and where the task structure was vague and not outlined, Nurse Managers adopt the supportive, participative and achievement-oriented leader behaviours. The nurses who rated team dynamics low also had the perception that when there was minimal social support and interdependence to attain good team dynamics, Nurse Managers used the participative and achievement-oriented leader behaviours, which ensued leader effectiveness With the exception of the directive leader behaviour, the hypothesis is supported. Table 4.7 shows the findings.

Table 4.7: Moderator Effect of Task Characteristics on the Relationship between Leadership Behaviours and Leader Effectiveness

Variables	R^2	*Beta*	SE	*t-value*	*p.value*
Directive Leader Behaviour					
Model 5A					
Constant	0.28	6.96	9.74	0.71	.476
Task Structure		0.75	0.31	2.41	.017
DLB Total		1.67	0.49	3.43	.000
Interaction		-0.03	0.02	-1.73	.085
		$F_{(3,197)}$=22.02, p<0.001			
Model 5B					
Constant	0.26	8.15	11.70	0.69	.487
Team Dynamics		0.64	0.33	1.96	.051
DLB Total		1.36	0.59	2.30	.022
Interaction		-0.02	0.02	-1.04	.299
		$F_{(3,197)}$=23.40, p<0.001			
Participative Leader Behaviour					
Model 7A					
Constant	0.24	12.89	7.41	1.74	.084
Task Structure		0.65	0.24	2.69	.008
PLB Total		1.81	0.46	3.92	.000
Interaction		**0.03**	**0.01**	**-2.17**	**.031**
		$F_{(3,197)}$=20.56, p<0.001			
Model 7B					
Constant	0.31	-11.68	10.56	-1.11	.270
Team Dynamics		1.19	0.28	4.27	.000
PLB Total		2.90	0.65	4.47	.000
Interaction		**-0.06**	**0.02**	**-3.29**	**.001**
		$F_{(3,197)}$=28.92, p<0.001			

Variables	R^2	*Beta*	SE	*t-value*	*p.value*
Supportive Leader Behaviour					
Model 6A					
Constant	0.14	13.38	9.04	1.48	.140
Task Structure		0.78	0.28	2.73	.007
SLB Total		1.68	0.55	3.08	.002
Interaction		**-0.03**	**0.02**	**-2.19**	**.030**
		$F_{(3,197)}$=10.86, p<0.001			
Model 6B					
Constant	0.19	1.87	12.64	0.15	.882
Team Dynamics		0.94	0.32	2.94	.004
SLB Total		1.92	0.75	2.55	.011
Interaction		-0.04	0.02	-1.96	.052
		$F_{(3,197)}$=15.27, p<0.001			
Achievement-Oriented Leader Behaviour					
Model 8A					
Constant	0.23	8.41	7.04	1.19	.234
Task Structure		0.88	0.23	3.77	.000
AOLB Total		2.09	0.44	4.77	.000
Interaction		**-0.04**	**0.01**	**-3.27**	**.001**
		$F_{(3,197)}$=19.69, p<0.001			
Model 8B					
Constant	0.26	-5.61	9.78	-0.57	.567
Team Dynamics		1.13	0.27	4.19	.000
AOLB Total		2.60	0.61	4.26	.000
Interaction		**-0.05**	**0.02**	**-3.28**	**.001**
		$F_{(3,197)}$=23.47, p<0.001			

DLB: Directive Leader Behaviour, SLB: Supportive Leader Behaviour, PLB: Participative Leader Behaviour, AOLB: Achievement-Oriented Leader Behaviour

4.5 Relationship between Leadership Behaviours and Leader Effectiveness as Perceived by the Nurses

H_3: There will be a significant relationship between leadership behaviours and leader effectiveness as perceived by the nurses.

Multiple regression analysis was done to test the hypotheses on all the leadership behaviour and leader effectiveness. From the result of the analysis, it showed that all the leadership behaviour significantly predicted leader effectiveness ($R^2 = 0.29$, $F_{(4,199)} = 20.59$, $p = 0.001$). Findings further indicate that directive leader behaviour (DLB) and participative leader behaviour (PLB) show statistically significant relationships with leader effectiveness (DLB: $B = 0.54$, $t = 3.82$, $p = .000$; PLB: $B = 0.55$, $t = 3.33$, $p = .001$).

However, the supportive and achievement-oriented leader behaviours do not have a significant relationship with leader effectiveness (SLB: $B = 0.08$, $t = 0.49$, $p = .627$; AOLB: $B = 0.28$, $t = 1.87$, $p = .064$). The findings from this study may, therefore, indicate that nurses have the perception that the directive and participative leader behaviours lead to leader effectiveness in this study setting. The hypothesis is partially supported. Table 4.8 shows the findings.

Table 4.8: Relationship between Leadership Behaviours and Leader Effectiveness

Variables	R^2	Adjusted R	*Beta*	Std.Error	*t-value*	*p.value*
Model 1	**0.29**	**0.28**				
Constant			20.77	3.06	6.79	.000
DLB			0.54	0.14	3.82	.000
SLB			0.08	0.16	0.49	.627
PLB			0.55	0.16	3.33	.001
AOLB			0.28	0.15	1.87	.064

DLB: Directive Leader Behaviour, SLB: Suppportive Leader Behaviour, PLB: Participative Leader Behaviour, AOLB: Achievement-Oriented Leader Behaviour

4.6 Key Findings of the Study

- Nurse Managers adopt more of the directive leader behaviour. The supportive and achievement-oriented leader behaviours are moderately used, while the participative leader behaviour is the least adopted leadership behaviour.
- Findings indicated that the variables (leader behaviours, leader effectiveness and task characteristics) have statistically significant correlations with the model. However, the directive leader behaviour as perceived by the nurses has no significant correlation with task structure ($r = 0.06$, $p > 0.05$).
- Age has a significant moderator effect on the relationship between the supportive, participative and achievement-oriented leader behaviour and leader effectiveness, as perceived by the nurses. Educational qualification showed a moderator effect on the directive leader behaviour. Thus, the hypothesis is partially supported.
- Task structure has a significant moderator effect on the relationship between the supportive, participative and achievement-oriented leader behaviours. Team dynamics have a significant moderator effect on the relationship between participative and achievement-oriented leader behaviour and leader effectiveness. With the exception of the directive leader behaviour, the hypothesis is supported.
- Directive and participative leader behaviours as perceived by the nurses show significant relationships to leader effectiveness (DLB: $p = .000$, PLB: $p = .001$).

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.0 Introduction

This chapter discusses the key findings of this study, in relation to the reviewed literature. The purpose of this study was to explore the leadership behaviours of Nurse Managers as perceived by the nurses in the 37 Military Hospital. House (1996) Path-Goal Leadership theory is the framework guiding this study. This framework was adopted because it has constructs which outline the different leadership behaviours adopted by leaders. A quantitative cross-sectional design was adopted to study the leadership behaviours of Nurse Managers as perceived by the nurses. Two hundred and five (205) nurses were conveniently selected from the various wards in the 37 Military Hospital, and a 98% (201) response rate was achieved.

This discussion is organized based on the objectives of this study, as well as three tested hypotheses. Hypothesis 1 stated that there will be a moderating effect of the employee characteristics on the relationship between the leadership behaviours and leader effectiveness as perceived by the nurses. Hypothesis 2 stated that there will be a moderating effect of task characteristics on the relationship between leadership behaviours and leader effectiveness. Hypothesis 3, was to ascertain the relationship between leadership behaviours and leader effectiveness. The demographic characteristics (employee characteristics) of the participants are first discussed followed by the findings based on the specific objectives of the study.

5.1 Leadership Behaviours of Nurse Managers

The need for effective leadership behaviour has become crucial in the healthcare sector. Nurse Managers are expected to be dynamic, inspirational, and passionate. They are also

expected to demonstrate leadership behaviours which will influence the successful development of the nurses working with them (Frankel, 2019). Findings from this current study revealed that nurses had the perception that their Nurse Managers adopted all four leader behaviours; directive ($r = 0.43$), supportive ($r = 0.30$), participative ($r = 0.45$), and achievement-oriented ($r = 0.41$) leader behaviours. The findings from this study are consistent with that of Xu (2017), which states that adopting leadership behaviours (styles) depending on the situation, is recommended for Nurse Managers; and further urges Nurse Managers to be flexible in the leadership behaviours they employ. It is, therefore, important to state that situations are not the same, and leadership behaviours may vary depending on a particular situation.

Probing further into each of the leader behaviours, findings from this study indicated that nurses had the perception that directive leader behaviour ($M = 3.95$, $SD = 0.66$), was the widely adopted leader behaviour in the 37 Military hospital. This finding refutes the result of a study in Ghana by Asamani et al. (2016), who revealed that the directive leader behaviour is infrequently used by Nurse Managers. Due to the study setting, much precedence is given to higher levels of hierarchy over the lower levels and subordinates are expected to carry out orders, as well as follow standard rules and regulations without questions (Rozčenkova & Dimdiņš, 2010). Although, situational leadership gives room for leaders to adopt leadership behaviours as the need arises; shared leadership, where employees working in an organization are involved in the decision-making process is widely encouraged.

Findings from this current study revealed that nurses had the perception that supportive leader behaviour ($M = 3.48$, $SD = 0.67$), was moderately adopted by Nurse Managers. This finding is consistent with that of Nyirazigama (2017), which was carried out in a Rwandan Military hospital. The study revealed that nurses had the perception that their Nurse Managers

moderately adopted supportive (transformational) leader behaviour. The study also divulged that nurses had the perception that their Nurse Managers using more of the supportive leader behaviour is essential because, it made the working environment pleasant and favourable for them (Nyirazigama, 2017). Therefore, a working environment that is favourable for the nurses would lead to favourable patient outcomes, and also boost the image of the hospital.

Similar studies indicated that nurses have the perception that Nurse Managers who employ the supportive leader behaviour, are motivating, as well as positively influencing them to perform at their maximum potential (Andrews et al., 2012; Boamah, Laschinger, Wong, & Clarke, 2018; Olu-Abiodun & Abiodun, 2017). Thus, by adopting the supportive leader behaviour, Nurse Managers, assist nurses in overcoming the issues which prevent them from accomplishing their tasks or in attaining organizational goals. Additionally, supportive leader behaviour leads to a pleasant work climate for nurses and is more likely to have a positive impact on attaining the objectives and goals of their institutions (Schwartz et al., 2011). These findings, therefore depict that the use of supportive leader behaviour by Nurse Managers can be encouraged in healthcare institutions.

In this study, findings showed that nurses perceived achievement-oriented leader behaviour ($M = 3.43$, $SD = 0.68$) to be moderately used by their Nurse Managers. The findings in this study are consistent with that of Aboshaiqah et al. (2014a); Roberts-Turner et al. (2014), which revealed that nurses perceived that their Nurse Managers adopted the achievement-oriented (transactional) leader behaviour. Thus, Nurse Managers who are achievement-oriented leaders consistently set challenging goals for subordinates to attain and also encourage continual improvement in their performance. Achievement-oriented leaders also focus on promoting fairness and rewards for work well done (DeRue, 2011). Therefore, the Nurse Manager who

adopts the achievement-oriented leader behaviour challenges the nurses to perform at their maximum potentials in order to attain the institution's objectives.

Furthermore, this study indicates that the nurses perceived the participative leader behaviour ($M = 3.36$, $SD = 0.64$), to be the least adopted leader behaviour by their Nurse Managers. This is consistent with that of Asamani et al. (2016), which indicated that participative leader behaviour is the least adopted leadership behaviour (style). Subsequently, it is encouraged that the participative leader behaviour is suitably employed as the need arises. This is because when employees are part of the decision-making process, it gives them the opportunity to share their views and opinions with other members of the institution.

The results from this current study, therefore, show that nurses in the 37 Military Hospital have the perception that all the leadership behaviours are adopted by their Nurse Managers, but the directive leader behaviour is dominant, while the participative leader behaviour is least adopted.

5.2 Influence of Employee Characteristics on Leadership Behaviours

The Path-Goal Leadership theory was adopted for this current study, and it showed that employee characteristics act as a moderator on the relationship between leadership behaviours and leader effectiveness. Northouse (2015) states that the employee characteristics of the nurses may influence the type of leadership behaviour a Nurse Manager would adopt in a given situation. In this study, the employee characteristics used are age, educational qualifications, expertise, and years of experience.

This study showed that only respondents between the ages of 22 – 42 years which constituted 89.6% of the participants of the study, had the perception that their Nurse Managers adopted the supportive (SLB), participative (PLB) and achievement-oriented leader behaviours

(AOLB), which would influence their decision on their leader's effectiveness. These leadership behaviours showed a statistically significant interaction with age [(SLB: $p = .028$), (PLB: $p = .017$), (AOLB: $p = .027$)]; indicating that age had a moderator effect on the relationship between these leadership behaviours and leader effectiveness. Thus, the perception of nurses on these leadership behaviours their Nurse Managers adopt shows that leadership behaviours which leaders use are important. Nurse Managers, by the leadership behaviours they adopt, would influence the nurses to share their ideas, be creative, as well as motivating them to attain their personal career goals and that of the institution.

The results from this current study are partially consistent with that of Olu-Abiodun and Abiodun (2017), which assert that nurses who were at least 40 years of age had the perception that their Nurse Managers adopted the supportive leader behaviour. Al-Yami et al. (2018) in their study, further revealed that all age groups had the perception that their Nurse Managers adopted achievement-oriented leader behaviour. This contends with this current study because only nurses within 22 – 42years of age had the perception that their Nurse Managers adopted the achievement-oriented leader behaviour. Findings from this study further indicate that nurses between 22 – 42 years are goal-driven, and also believe in shared governance.

This current study, also showed that there was no significant moderating effect on the number of years of experience and area of expertise on the directive, supportive, participative and achievement-oriented leader behaviours. This may imply that the number of years of experience and the areas of expertise of the nurses did not influence the leadership behaviours their Nurse Managers employ. Conversely, findings from Olu-Abiodun and Abiodun (2017)'s Nigerian study revealed that nurses with less than 10 years of experience had the perception that their Nurse Managers adopted supportive leader behaviour.

Additionally, findings from Al-Yami et al. (2018)'s study, also stated that nurses with at least 18 years of experience, observed that their Nurse Managers, employed more of the supportive leader behaviours. These studies are, however, in contrast to the findings of this current study, which showed that the number of years of experience of the nurses and their area of expertise did not influence the leadership behaviours their Nurse Managers adopt. This may suggest that irrespective of the nurses' skills or experience, the nurses perceive their Nurse Manager to use any leadership behaviour they deem suitable, and which would ensure leader effectiveness.

Findings, further indicate that educational qualification had a significant moderating effect on only the directive leader behaviour ($p = .024$). It also indicates that nurses who had diploma educational qualifications, and those with further qualifications in the nursing profession had the perception that their Nurse Managers adopted directive leadership behaviour. This may suggest that in the working environment, leadership behaviours which best suits the task at hand to achieve maximum results are adopted, irrespective of the educational qualifications of the individuals. In contrast, Olu-Abiodun and Abiodun (2017), reported that nurses with diploma had the perception that supportive leader behaviour was used by their Nurse Managers. However, there are no previous studies supporting these current study's findings because the directive leader behaviour is infrequently used by leaders (Asamani et al., 2016).

These findings indicate that nurses' perception of leadership behaviours is partly influenced by their personal characteristics. Some nurses would see a Nurse Manager as a directive leader, while others would see their managers as supportive, participative or achievement-oriented leaders, based on their individual characteristics. The results from this

study, thus, denote that employee characteristics of nurses have some influence on the leadership behaviours which a Nurse Manager chooses to adopt.

5.3 Influence of Task Characteristics on Leadership Behaviours

In this study, the task characteristics moderated the relationship between leadership behaviour and leader effectiveness. It sought to determine the influence of task characteristics on the leadership behaviour that a Nurse Manager would adopt, and which ensued leader effectiveness. Task characteristics according to House (1996), consists of task structure and team dynamics, and a task is seen as a sequence of actions that a person takes to accomplish goals.

This study revealed that task structure had a significant moderator effect on the supportive ($p = .030$), participative ($p = .031$), and achievement-oriented ($p = .001$) leader behaviours, as perceived by the nurses. This showed that nurses who rated task structure low had the perception that when there is no work autonomy, Nurse Managers tend to adopt the supportive, participative and achievement-oriented leader behaviours. Work autonomy for nurses is vital as it allows them to be creative and use to their initiatives. Rao, Kumar, and McHugh (2017) have indicated that Nurse Managers have roles to play in ensuring autonomy for nurses and must employ various methods to make certain that nurses working with them have autonomy. Thus, Nurse Managers, through their leadership skills can ensure that the nurses working with them work independently.

The results also revealed that when a task is vague or unstructured, Nurse Managers adopt supportive, participative and achievement-oriented leader behaviours. However, House and Mitchell (1997) stated that the directive leader behaviour is used by leaders when the nature of the task is vague and not outlined. He further stated that the supportive, participative and achievement-oriented leader behaviours are employed when the task is physically challenging

when subordinates are highly trained and involved in their work, and when subordinates are expected to perform at their highest level.

Findings from this current study, also partly corroborate the findings of a study in Australia by Henderson et al. (2013), who reported that nurses have the perception that Nurse Managers adopt the participative leader behaviour during task delegation and to clearly define the nature of the task. Geraghty and Paterson-Brown (2018), also divulge that leaders who adopt the supportive, participative and achievement-oriented leader behaviours motivate members of their team to use their initiative in performing challenging tasks. The use of these leadership behaviours by Nurse Managers, therefore, ensures that nurses work independently and encourages them to be resourceful at the workplace.

Results from this study, further showed that task characteristics did not have a significant moderating effect on the relationship between directive leadership behaviour and leader effectiveness. This, therefore, indicates that with an unstructured task, the Nurse Managers are perceived by the nurses to use the supportive, participative and achievement-oriented leader behaviours. These leader behaviours motivate the nurses and ensure that nurses become part of the decision-making process and goals set are attained.

The results also show that team dynamics had a significant moderating effect on the participative and achievement-oriented leader behaviours to predict leader effectiveness. This indicates that the majority of the nurses had the perception that their Nurse Managers used the participative and achievement-oriented leader behaviours when team dynamics (social support and interdependence) was low. The findings from current study refute the finding reported in Abu Dhabi by Al Rahbi et al. (2017), who revealed that nurses had the perception that with team dynamics (social support and interdependence), the Nurse Manager tends to adopt supportive

leader behaviour. However, Henderson et al. (2013), revealed that for good team dynamics, Nurse Managers employed participative leader behaviour. Findings from this study, therefore, suggests that when there was lack of cohesiveness among team members; their leaders ensured that each member of the team was part of the decision-making process, and also challenged the team members to maximize their potentials.

Nurse Managers who adopt the participative and achievement-oriented leader behaviours, also increase social support and interdependence among members of the team. This would, in turn, ensure that members of the team are united in the pursuit of the organization's objectives, as well as their own personal objectives. Additionally, in this study, team dynamics did not have a significant moderating effect on the relationship between supportive and directive leader behaviours and leader effectiveness. It indicates that nurses have the perception that when there is high team dynamics among members of the team, Nurse Managers adopt the supportive and directive leader behaviours. This may suggest that nurses perceive their Nurse Managers to be more supportive and also directive when they had high team dynamics (social support and interdependence).

5.4 Relationship between Leader Behaviours and Leader Effectiveness

According to Madanchian et al. (2017), leader effectiveness is the result of individuals in positions of leadership, being able to positively influence the people they are working with to achieve organizational goals. Generally, findings from this study revealed that nurses who rated all four leader behaviours significantly predicted leader effectiveness. This depicts that the nurses have the perception that all four leader behaviours lead to leader effectiveness. This also indicates that when Nurse Managers employed any of the leadership behaviours, which best fits the situation, the nurses would be satisfied, motivated and accept their leader. This confirms

House and Mitchell (1997) theory, which stated that all four leader behaviours, based on the situation, predict leader effectiveness.

Delving more into each leader behaviour, findings in this current study indicate that nurses have the perception that the directive and participative leader behaviours are dominant among the leadership behaviours which enhance leader effectiveness. The findings from this current study, thus, refute the findings of various studies, which disclosed that nurses perceived the supportive (transformational) leader behaviour to led to leader effectiveness, when it positively influenced their work attitudes and motivated them (Abdelhafiz et al., 2015; Abualrub & Alghamdi, 2012; Alanazi et al., 2013; Herman & Chiu, 2014). In the Ghanian context, a person in authority is accorded respect and gives directives on what should be done. Hence, the use of directive leader behaviour may also be attributed to the cultural context of the study setting.

Furthermore, Abdelhafiz et al. (2015), also reported that nurses observed their Nurse Managers are effective when they adopt the achievement-oriented leader behaviour, which ensures that nurses are satisfied with their jobs and rewarded for a work well done. However, Cummings et al. (2018) in a systematic review, reported that excluding supportive leader behaviour, achievement-oriented leadership behaviour and other leadership behaviours lead to negative outcomes, and may not lead to leader effectiveness. This current study, thus, refutes the findings of Cummings et al. (2018)'s because nurses have the perception that though all leader behaviours result in leader effectiveness, the directive and participative leader behaviours are most widely perceived to lead to leader effectiveness.

This, therefore, shows an interesting result from the study conducted because, there are few studies which support that nurses have the perception that the participative leader behaviour

leads to leader effectiveness; or that the directive (autocratic) leader behaviour is still encouraged, or that it leads to leader effectiveness. It further indicates that directive and participative leader behaviours are still adopted, and nurses have designated that it lead to leader effectiveness. Leadership behaviours Nurse Managers adopts are essential because a leader's primary responsibility is to develop people and enable them to reach their full potential. Although people are from different backgrounds, they all have goals they want to achieve. It is, thus, the Nurse Manager's duty to create a friendly working environment, where nurses working with them can explore all their potentials, and derive satisfaction from their jobs.

5.5 Summary

In summary, this study revealed that Nurse Managers adopted all the leadership behaviours in line with the Path-Goal Leadership theory. In varying degrees, it was also noted that these leadership behaviours were used as the need arises. Nurses also had the perception that the directive leader behaviour is the leading leadership behaviour adopted by Nurse Managers, while the participative leader behaviour is the least adopted. It was observed that age had a significant moderating effect on the supportive, participative and achievement-oriented leader behaviours, while educational qualification (diploma and higher degrees) had a significant moderating effect on directive leader behaviour. Hence, employee characteristics partially influenced the type of leadership behaviour a Nurse Manager would choose to adopt.

This study also revealed that for task characteristics, task structure had a significant moderating effect on the supportive, participative and achievement-oriented leader behaviours. It, therefore, indicates that in situations where tasks are unstructured, and nurses had less autonomy in carrying out tasks, their Nurse Managers adopted these leader behaviours. Subsequently, team dynamics significantly moderated with the participative and achievement-

oriented leader behaviours where the majority of the nurses who rated team dynamics low, had the perception that their Nurse Managers employed these leadership behaviours to ensure team cohesiveness. Furthermore, nurses had the perception that when their Nurse Managers adopted the directive and participative leader behaviour, it led to leader effectiveness.

CHAPTER SIX

SUMMARY, IMPLICATIONS, LIMITATIONS, CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This chapter presents the summary, contribution to nursing knowledge and conclusion of the research. The chapter outlines the implications, limitations and recommendations based on the study findings.

6.1 Summary of the Study

The nursing profession is a people-centred profession, which requires effective leadership, which is determined by the leadership behaviours adopted by the leaders in the profession (Andrews et al., 2012). The nursing profession is also changing through new roles, advancement in technology and further research and education. Nurse Managers who are effective, dynamic and are constantly abreast with the evolving nature of the profession are required. In this study, the leadership behaviours of Nurse Managers as perceived by nurses in the 37 military hospital was ascertained. The main purpose of this study is to explore the perception of nurses on the leadership behaviours which are adopted by their Nurse Managers. This was done using the House's Path-Goal Leadership theory as the guiding framework.

A quantitative cross-sectional design was used to test the study hypotheses, in exploring the perception of nurses on leadership behaviours of their Nurse Managers and the effectiveness of these leadership behaviours. The survey approach was used to administer questionnaires to 205 nurses, which had a 98% (201) response rate. A structured standardised questionnaire comprising of 64 items was used. The questionnaire was divided into four sections (A, B, C, and

D). Section "A" determined the socio-demographic (employee) characteristics of the respondents. Section "B" focused on describing the leadership behaviours of Nurse Managers, Section "C" investigated the influence of task characteristics leadership behaviours, and Section "D" examined the leader effectiveness of Nurse Managers as perceived by nurses.

Descriptive and inferential statistics were employed for data analysis, using SPSS version 23. Descriptive statistics were used to determine the mean, frequency, percentages and standard deviations of the sociodemographics and leadership behaviours. The study reveals that the mean age of nurses was 35years. Subsequently, 71.6% of the nurses who participated were females, while 28.4% of the nurses were males. Findings from the study also showed that 64.2% of nurses have higher degrees, while 38.8% have diplomas in nursing, indicating that the nursing profession has advanced significantly in terms of education. Findings also show the diversity in specialization, as nurses acquire different skills in the various nursing specialities. Also, 38.3% of the nurses have 10years and above experience, while 30.8 of the nurses have 1 – 10years of experience. The study showed that nurses have the perception that their Nurse Managers adopted all leadership behaviours. The directive leader behaviour ($M = 3.95$, $SD = 0.66$) was the most adopted leadership behaviour, while participative leader behaviour ($M = 3.36$, $SD = 0.64$) was the least employed leadership behaviour by Nurse Managers.

Inferential statistics were used to test the moderator effect and relationship between the leadership behaviours and leader effectiveness. A moderator analysis was done to ascertain the moderating effect of employee and task characteristics on the relationship between leadership behaviours and leader effectiveness. Findings indicated that 89.6% of the respondents, between the ages of 22 – 42 years had the perception that their Nurse Managers used the supportive, participative and achievement-oriented leader behaviours which lead to leader effectiveness.

Findings further indicated that nurses with both diplomas and higher degrees in nursing had the perception that their Nurse Managers used the directive leader behaviour.

For the task characteristics, findings showed that there was a significant moderating effect of task structure on the supportive ($p = .030$), participative ($p = .031$) and achievement-oriented ($p = .001$) leader behaviours. Further probing revealed that when nurses do not have the autonomy to carry out their task, and when the task was not clearly defined. Nurse Managers adopted the supportive, participative and achievement-oriented leader behaviours. Findings also showed that there was a significant moderating effect of team dynamics on the participative ($p = .001$) and achievement-oriented ($p = .001$) leader behaviours. Findings further indicated that the nurse had the perception that the Nurse Managers used the participative and achievement-oriented leader when team dynamics was low. A multiple linear regression analysis was done to determine the relationship between leadership behaviours (predictor) and leader effectiveness (outcome). Findings indicated that nurses had the perception that the directive ($p = .000$) and participative ($p = .001$) leader behaviours used by their Nurse Managers ensued leader effectiveness.

The findings in this study on the leadership behaviours of Nurse Managers as perceived by nurses is quite interesting. This is because, in recent times, leaders are being urged to adopt more of the supportive (transformational) and achievement-oriented (transactional) leader behaviour. The findings from this study have, therefore, revealed that leadership behaviours are situational and are highly determined by the personal characteristics of an employee including the nature of the task in the workplace. This study has also shown that leadership behaviours can be influenced by the organisational culture and its bureaucracies.

6.2 Contribution to Nursing Knowledge

Determining the perception of nurses about the leadership behaviours of their Nurse Managers is important because feedback on their leadership behaviours, help to ascertain if they are effective or if there is a need for improvement. Previous studies conducted have either determined the leadership behaviours of Nurse Managers from themselves or from both the Nurse Managers and nurses alike. This study has provided to a great extent, objective views of the nurses on the leadership behaviours of their leaders. The effectiveness of these leadership behaviours was also ascertained by the motivation and satisfaction of the nurses, and the acceptance of their leader. It will also give room for improvement of Nurse Managers in leadership and management, and for further empirical studies.

6.3 Implications for Nursing Practice and Management

The study has established that the perception of nurses about the leadership behaviours of their Nurse Managers is vital. It has also ascertained that the personal characteristics of employees and the task characteristics influence the leadership behaviours employed by Nurse Managers. The findings of this study further indicated that among all leadership behaviours adopted by Nurse Managers, the directive leader behaviour is widely employed, while the participative leader behaviour is the least employed. The nurses also had the perception that when Nurse Managers adopt the directive and participative leader behaviours, they both lead to leader effectiveness. It was also observed that although the Nurse Managers in the institution used all the leadership behaviours as the situation demanded; the directive leadership behaviour, entailed giving clear instruction which employees are expected to follow, and this was the most adopted leader behaviour. This is likely to be attributed to the fact that the study setting is a military institution. The findings, therefore, suggest that the nurses perceived that their Nurse

Managers adopted all the leadership behaviours, however, the most adopted leadership behaviour was the directive leader behaviour as perceived by the nurses.

6.4 Implication for Nursing Education

The study has shown that leadership is an important concept, and that leadership and management courses in the curriculum should be restructured regularly in nursing colleges. There is also a need to include leadership and management training as a sub-speciality course at postgraduate levels as well as post-basic levels, to enable contemporary and upcoming Nurse Managers to get empowered. The study further showed that the use of leadership behaviours is based on situations, and this is important for the nursing profession, as nurses in the profession are unique with different experiences. Therefore, it is important that Nurse Managers are flexible in the leadership behaviours they adopt. Subsequently, the study showed that the culture of an institution may influence the leadership behaviours adopted by their leaders because the nurses in this study had the perception that their Nurse Managers mostly adopted the directive leader behaviour.

6.5 Implication for Future Research

- Researchers should consider carrying out more studies on the influence of employee characteristics of nurses on the leadership behaviours their Nurse Managers adopt.
- Researchers should consider further investigations on the influence of task characteristics on the leadership behaviours of Nurse Managers.
- Researchers should consider carrying out more studies on the perception of nurses on leadership behaviours of their Nurse Managers.

- Researchers should also investigate the culture of an institution influencing the leadership behaviours adopted by their leaders.

6.6 Limitation of the Study

The main objective of this study was to explore the leadership behaviours of Nurse Managers as perceived by nurses. A quantitative cross-sectional design was adopted to collect data. However, the use of cross-sectional design does nor infer a cause and effect relationship among variables. Also, the study does not represent the general situation in Ghana, since the study was conducted in one of the military hospitals in Ghana, which has caused some variations in the findings when compared to other studies conducted in other findings in the literature. Despite the study limitations, findings indicated that Nurse Managers did adopt leadership behaviours based on the situation and that to a large extent, the employee and task characteristics influenced the leadership behaviours that Nurse Managers adopt. This implies that the approaches adopted were adequate in presenting the scientific evidence of the leadership behaviours of Nurse Managers as perceived by nurses. This also implies that despite the limitations, this study can be replicated in other settings.

6.7 Conclusion

The study met the outlined objectives, answered the research questions. The study hypothesis was partially confirmed, and this may be attributed to the study setting. The study also tested and stated the hypotheses and established statistical significant relationships between leadership behaviours and leader effectiveness as perceived by the nurses. The application of the Path-Goal Leadership theory was useful in determining the leadership behaviours of Nurse Managers as perceived by the nurses. This current study indicated that nurses had the perception that all leadership behaviours are adopted by their Nurse Managers, but the directive leader

behaviour is widely used, while the participative leader behaviour is least used. Nurses also perceived that the employee and task characteristics partially influenced the leadership behaviours their Nurse Managers employed.

Furthermore, the nurses have the perception that directive and participative leader behaviours lead to leader effectiveness. Hence, the perception of nurses on the leadership behaviours their Nurse Managers adopt gives a rather objective view. There may, however, be some bias, but it would be quite minimal as compared to the views of Nurse Managers themselves. The nurses' observations on the leadership of their Nurse Managers gives room for feedback and improvement, in the quality of leadership in nursing as this would ensure effectiveness in leadership. It also suggested that situational leadership models be used as leaders tend to adopt different leadership behaviour based on different characteristics.

6.8 Recommendations

Based on the study findings, the following recommendations are made for the national level; Ministry of Health (MOH), Ghana Health Service (GHS), Christian Health Association of Ghana (CHAG), Nursing and Midwifery Council of Ghana (NMC). Recommendations are also made for regional and district level, as well as the facility level. These recommendations are intended to inform various organizations and individuals on the need for more awareness and research on leadership in the nursing profession.

6.8.1 National Level

National level support is crucial for the recognition and success of reforms in nursing and leadership management. The responsibility of the national level is to provide strategies and assistance in structuring in-service training on leadership and formulating policies to guide the appointment of Nurse Managers. Collaboration with all stakeholders in the health sector

especially Nursing and Midwifery Council is very important. The following recommendations will aid in creating awareness and the importance of leadership in nursing.

- It is suggested that when setting up management committees, Nurse Managers should involve nurses working with them to also be part of these committees. This would promote shared governance in institutions.
- MOH and agencies should develop structured in-service training programmes for future and current Nurse Managers in leadership and management.
- MOH should liaise with Nursing and Midwifery training institutions in the country to introduce specialization programmes in clinical leadership and management at the postgraduate levels.
- Managerial positions should be open for all those who qualify, and a competitive selection interview conducted.

6.8.2 Regional/District Level

Regional/district level have an important role in districts are aware of the importance of effective leadership. This can be done by supervision, facilitation, and monitoring, through the following;

- Regular workshops using structured in-service training curricula for Nurse Managers in the region.
- Opportunities should be given to Nurse Managers to upgrade themselves through formal training to enable them to improve their competencies in leadership.
- Exceptional Nurse Managers should be recognized based on their performances and competencies and rewarded.

6.8.3 Facility Level

The following recommendations were proposed to aid in strengthing the functions of the Nurse Managers at the facility level.

- Nursing service administrators should collaborate with the in-service training coordinators and hospital management to ensure regular training on leadership and management principles for Nurse Managers to facilitate efficiency and effectiveness at the unit
- Nurse Managers should ensure flexibility in leadership, and ensure that leadership behaviour are used appropriately, depending on the situation and individual characteristics of each employee.
- Nurse Managers should avail themselves for training and supervision in acquiring leadership and managerial skills before assuming leadership positions in healthcare institutions.
- Nurses should be also part of the committees set up for Nurse Managers' appraisals.
- Shared leadership should be encouraged at the clinical level to encourage junior nurses to develop potential leadership skills.
- Succession planning should be adopted by all facilities so that young nurses with leadership potentials could be identified and developed.

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APPENDICES

Appendix A: Respondent information leaflet and informed consent

NMIMR-IRB CONSENT FORM

Title: Leadership Behaviors of Nurse Managers as Perceived by Nurses in the 37 Military Hospital Accra

Principal Investigator: Emeagha Ijeoma Miriam
Address: School of Nursing and Midwifery
P.O. Box LG 43
University of Ghana, Legon

General Information About the Research
The main objective of this study is for you to describe your perception of the leadership behavior adopted by your direct Nurse Manager. This study seeks to determine the Leadership Behaviors of Nurse Managers as Perceived by Nurses in the 37 Military Hospital Accra. Studies conducted, have shown that effective leadership behaviors lead to employee satisfaction, employee motivation and acceptance of their leader which is why your participation is needed. You will be expected to answer questions in the questionnaire between 20-30 minutes. This questionnaire will also need you to give information on your demographics which are age, gender, educational qualifications, specialty, years of experience and how long you have worked with your Nurse Manager. You will also be required to give information on your perception of your Nurse Manager's Leadership Behavior and Leader Effectiveness as well as your daily Work Structure. You are also expected to willingly sign a consent form before a questionnaire will be administered to you.

Possible Risks and Discomforts
There are little or no risks associated with this study but if a participant becomes uncomfortable and wishes to take a break during the time for consent or during data collection, he or she is free to do so and continue later.

Possible Benefits
The findings gotten from this study will help determine the leadership behaviors of Nurse Managers which lead to leader effectiveness, and this would aid in strengthening and improving the leadership skills of Nurse Managers and also give an insight of effective leadership to upcoming Nurse Managers. The findings from this study will also contribute to the knowledge of leadership in nursing practice and nursing education.

Confidentiality
To maintain confidentiality your name will not be used. Your questionnaire will be assigned a coded numerical value. No one else will have access to the information you provide apart from the researcher and supervisor and we will protect the information about you in the best way we can. Data collected will be analysed and stored safely in the office of the researcher and then destroyed after about 5 years.

Voluntary Participation and Right to Leave the Research
Your being part of this study is unconditional and you are free to withdraw from this study whenever you wish. Do kindly inform the researcher if you feel a need to withdraw from this study at any given time.

Contacts for Additional Information

EMEAGHA IJEOMA MIRIAM
(Researcher)
Tel No. 0558203005
Email: imemeagha@st.ug.edu.gh

Appendix B: Data collection tool

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COLLEGE OF HEALTH SCIENCES, UNIVERSITY OF GHANA, LEGON

INSTITUTIONAL REVIEW BOARD

APPENDICES

Data Collection Instruments

SECTION A
DEMOGRAPHIC CHARACTERISTICS OF THE NURSE/MIDWIFE

This section seeks to get information about your age, gender, marital status, educational status, area of expertise, qualifications and years of experience, etc.
Please indicate by ticking (√) what applies to you

1. **Age** _____

2. **Gender**

   i. Male ☐
   ii. Female ☐

3. **Marital Status**

   i. Married ☐
   ii. Single ☐

4. **Do you have children? If yes, please specify the number of children you have.**

   _____

5. **Qualifications [Please tick only one]**

   Basic Qualifications:

   Certificate
   Diploma ☐
   Bachelor's Degree

   Advanced Qualifications:

   Advance Diploma
   Bachelor's Degree ☐
   Masters

   Others (specify) _____

6. **Rank: (Please tick only ONE)**

Staff Nurse/Midwife	☐
Senior Staff Nurse/Midwife	☐
NO/MO	☐
SNO/SMO	☐
PNO/PMO	☐
Enrolled Nurse	☐
Community Health Nurse	☐

Others (Specify) _____

7. **What is your area of expertise?**

Nursing	☐
Midwifery	☐
Ophthalmic Nursing	☐
Pediatric Nursing	☐
Orthopedic Nursing	☐
Burns and Plastic	☐
Theatre Nursing	☐
Renal Nursing	☐

8. **Which Department/Unit do you work in now?**

Medical	☐
Surgical	☐
Pediatric	☐
Obstetrics and Gynecology	☐
Public Health	☐
Others (Specify)	☐

9. **How long have you been in your years of service?**

1 – 5 years	☐
5 – 5 years	☐
5 – 10 years	☐
10 years and above	☐

10. **Trainings on Leadership.**

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Have you had any training on leadership? Yes ☐ No ☐

Are you aware if your Nurse Manager has had any training on leadership? Yes ☐ No ☐

11. **How long have you worked with your immediate Nurse Manager**

1 – 2years ☐
3 – 5years ☐
5 – 10years ☐
10 – 15years ☐
15years and above ☐

12. **How long has your Nurse Manager been in this leadership position?**

Less than one year ☐
1 year ☐
2 – 3 years ☐
3 – 5 years ☐
5 – 8 years ☐
8 – 10 years ☐
10 – 15years ☐
15years and above ☐

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SECTION B: PSYCHOSOCIAL LEADERSHIP QUESTIONNAIRE

[illegible] the Nurse Manager represents [illegible]
The table gives [illegible] Nurse Manager [illegible]
[illegible] Nurse Manager [illegible]
[illegible] wrong [illegible]
[illegible] Please [illegible]

No.	STATEMENTS	[illegible]
	Leadership Behaviours	
	Directive Leadership Behaviour	
1.	The Nurse Manager [illegible]	
2.	The Nurse Manager informs [illegible]	
3.	The Nurse Manager [illegible]	
4.	The Nurse Manager explains [illegible]	
5.	The Nurse Manager [illegible]	
	Supportive Leadership Behaviour	
1.	The Nurse Manager [illegible]	
2.	The Nurse Manager [illegible]	
3.	The Nurse Manager [illegible]	
4.	The Nurse Manager helps [illegible]	
5.	The Nurse Manager behaves [illegible]	
	Participative Leadership Behaviour	
1.	The Nurse Manager [illegible]	
2.	The Nurse Manager [illegible]	
3.	The Nurse Manager [illegible]	
4.	The Nurse Manager [illegible]	
5.	The Nurse Manager [illegible]	

NMIMR [illegible]
[illegible] Date: February 2018

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COLLEGE OF HEALTH SCIENCES, UNIVERSITY OF GHANA, LEGON

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Appendix C: Introductory Letter

UNIVERSITY OF GHANA
DEPARTMENT OF RESEARCH, EDUCATION AND ADMINISTRATION
SCHOOL OF NURSING

Ref. No.: SONMF.11 November 30, 2018

The Commander
37 Military Hospital
Accra

Dear Sir/Madam,

INTRODUCTORY LETTER

I write to introduce to you Miriam Ijeoma Emegha, MSc. Year 1 student of the School of Nursing and Midwifery, University of Ghana, Legon.

As part of the MSc. programme, she is conducting a research on **"Leadership Behaviours of Nurse Managers as Perceived by Nurses in the 37 Military Hospital, Accra".**

I would be grateful if you could kindly offer her the necessary assistance.

Thank you.

Yours faithfully,

Dr. Adelaide M. Ansah Ofei
Head, Department of Research, Education and Administration

Appendix D: Ethical Clearance

Institutional Review Board
37 Military Hospital
Neghelli Barracks
ACCRA

Tel. 0302 769667
Email:irbmilhosp@gmail.com

3 January 2019

ETHICAL CLEARANCE

37MH-IRB IPN/275/2018

On 22nd January 2019 the 37 Military Hospital (37MH) Institutional Review Board (IRB) at a Board Meeting reviewed and approved your protocol

TITLE OF PROTOCOL: Leadership Behaviors of Nurse Managers as Perceived by Nurses in 37 Military Hospital Accra

PRINCIPAL INVESTIGATOR: Emegha Ijeoma Miriam

Please note that a final review report must be submitted to the Board at the completion of the study.

Please report all serious adverse events related to this study to 37MH IRB within seven (7) days verbally and fourteen (14) days in writing.

This certificate is valid until 21st January 2020.

DR EDWARD ASUMANU
(37MH-IRB, Vice Chairman)

37 MILITARY HOSPITAL
INSTITUTIONAL REVIEW BOARD
DATE.....

Cc Brig Gen MA Yeboah-Agyapong
Commander, 37 Military Hospital

Appendix E: Ethical Clearance

NOGUCHI MEMORIAL INSTITUTE FOR MEDICAL RESEARCH
Established 1979A Constituent of the College of Health Sciences
University of Ghana
INSTITUTIONAL REVIEW BOARD

9th January, 2019

ETHICAL CLEARANCE

FEDERALWIDE ASSURANCE FWA 00001824 **IRB 00001276**

NMIMR-IRB CPN 045/18-19 **IORG 0000908**

On 9th January 2019, the Noguchi Memorial Institute for Medical Research (NMIMR) Institutional Review Board (IRB) at a full board meeting reviewed and approved your protocol titled:

TITLE OF PROTOCOL : **Leadership behaviors of nurse managers as perceived by nurses in the 37 Military Hospital Accra**

PRINCIPAL INVESTIGATOR : **Emeagba Ijeoma Miriam, MSc Cand.**

Please note that a final review report must be submitted to the Board at the completion of the study. Your research records may be audited at any time during or after the implementation.

Any modification of this research project must be submitted to the IRB for review and approval prior to implementation.

Please report all serious adverse events related to this study to NMIMR-IRB within seven days verbally and fourteen days in writing.

This certificate is valid till 8th January, 2020. You are to submit annual reports for continuing review.

Signature of Chair .....

Mrs. Chris Dadzie
(NMIMR – IRB, Chair)