

**PARENTS' PERCEPTION OF NURSING SUPPORT IN
NEONATAL INTENSIVE CARE UNITS IN PRIVATE
HOSPITALS IN THE WESTERN CAPE**

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A mini-thesis submitted in fulfilment of the requirements for a degree of master in advanced midwifery in the department of nursing, Faculty of Community and Health Sciences, University of the Western Cape.



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Date: November, 2018

CONTENTS	
ABSTRACT	vi
KEYWORDS	vii
ABBREVIATIONS	vii
LIST OF FIGURES	viii
LIST OF TABLES	viii
LIST OF APPENDICES	ix
DECLARATION	x
ACKNOWLEDGEMENTS	xi

1. CHAPTER ONE	1
INTRODUCTION	1
1.1 Introduction	1
1.2 Background	2
1.3 Motivation of the study	4
1.4 Problem statement	5
1.5 Statement of the research problem	5
1.6 Research aim and objectives	6
1.6.1 Aim	6
1.6.2 Objectives	6
1.7 Significance of the study	6
1.8 Operational definitions	6
1.9 Research design and methodology	8
1.10 Data analysis	8
1.11 Ethics	8
1.12 Summary	9
1.13 Chapter overview	9
2. CHAPTER TWO	11
LITERATURE REVIEW	11

2.1	Introduction	11
2.2	Parents' perception of support given by nurses	11
2.3	Information giving and communication support by nurses	12
2.3.1	Impact of information support from nurses	13
2.4	Emotionally supportive behaviors of nurses	15
2.5	Care given support by nurses	16
2.6	Parental esteem support giving by nurses	18
2.7	Summary	18
3.	CHAPTER THREE	20
	RESEARCH DESIGN AND METHODOLOGY	20
3.1	Introduction	20
3.2	Research setting	20
3.3	Research Paradigm: Positivism	21
3.4	Research approach	21
3.5	Deductive approach	21
3.6	Research design	22
3.6.1	Descriptive research design	22
3.7	The cases	22
3.7.1	Hospital A	23
3.7.2	Hospital B	24
3.7.3	Hospital C	25
3.8	Sampling techniques	25
3.8.1	Population	25
3.8.2	Sampling technique	26
3.8.3	Sample	26
3.8.4	Inclusion criteria	26
3.8.5	Exclusion criteria	26
3.9	Data collection	27
3.9.1	Data collection instrument	27

3.9.2	Construct of questionnaire	27
3.9.3	Validity of NPST	28
3.9.4	Reliability of NPST	29
3.10	Data collection process	29
3.11	Data Analysis	30
3.12	Ethical principles	31
3.13	Summary	33
4.	CHAPTER FOUR	34
	RESULTS AND RESEARCH FINDINGS	34
4.1	Introduction	34
4.2	Section One: Demographics of respondents	34
4.2.1	Distribution of parents	34
4.2.2	Respondents' age	35
4.2.3	Education level of respondents	35
4.2.4	Employment status	36
4.2.5	Marital status of respondents	37
4.2.6	Distribution of ethnicity	37
4.2.7	Distribution of respondents across hospitals	38
4.3	Section Two: Parents' perception of nursing support in NICU	39
4.4	Parents' perception of information giving and communication by nurses	39
4.5	Parents' perception of emotionally supportive behaviours by nurses	40
4.6	Parents' perception of care given support of nurses	41
4.7	Parents' perception of parental esteem support or appraisal support	42
4.8	Total nurse parent support mean score	42
4.9	Parents perception of nursing support by hospital	43
4.10	Association between demographic variables and mean support score	43
4.11	Association between hospitals and mean support score	43
4.12	Association age and mean support score	44
4.13	Association between educational level and mean support score	44
4.14	Association between employment status and mean support score	45
4.15	Association between marital status and mean support score	45

4.16	Association between ethnicity and mean support score	45
4.17	Summary	46
5.	CHAPTER FIVE	47
	DISCUSSION OF THE FINDINGS	47
5.1	Introduction	47
5.2	Overall perception of nurse parent support	47
5.3	Parents' perception of information giving and communication by nurses	48
5.4	Parents' perception of emotionally supportive behaviours by nurses	49
5.5	Parents' perception of care given support by nurses	49
5.6	Parents' perception of esteem support	50
5.7	Summary	51
6.	CHAPTER SIX	52
	CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS	52
6.1	Introduction	52
6.2	Key findings	52
6.3	Limitations	53
6.4	Recommendations for nursing institutions	54
6.5	Recommendations for future research	55
6.6	Conclusion	55
7.	LIST OF REFERENCES	56
8.	APPENDICES	63



ABSTRACT

Parents undergo negative experiences that include parental anxiety, depression, and posttraumatic stress when their new-born babies are hospitalised in neonatal intensive care unit. During this stressful period, parents need assistance from staff in order to cope.

A quantitative, descriptive survey design was used to describe parents' perception of nursing support during their baby's admission in neonatal intensive care units (NICU) at three selected private hospitals in the city of Cape Town in the Western Cape Province. A structured existing 21- item Likert type questionnaire, the Nurse-Parent Support Tool (NPST) was used to collect data from an all-inclusive sample of 85 parents with a response rate of 78.8% (n=67). The purpose of the questionnaire was to determine their perception of information giving and communication by nurses; emotionally supportive behaviours by nurses; care given support or instrumental support and to identify parents' perception of esteem or appraisal support while in the NICU environment. The data was analysed using Statistical Package for Social Sciences (SPSS) version 24.

The findings of this study suggested that the overall mean score for parents' perception of nursing support was high 4.6 (± 0.5) out of a possible of 5. There was no significant difference in the overall mean perceived support score between the different facilities. No significant differences were found in terms of all the demographics characteristics with regard to perceptions of the support that was received, thus indicating that there was no relationship between the demographic variables and perception of support. The findings suggested that though high parental support was reported, the area of involving parents in the care of their babies i.e. letting them decide whether to stay or leave during procedures need improvement.

KEYWORDS

Care given support

Communication giving support

Emotional support

Esteem support Information

giving Neonatal intensive

care unit Parents

Prematurity

ABBREVIATIONS

ENA: Enrolled Nursing Assistant

EN: Enrolled Nurse

HIV: Human Immunodeficiency Virus

NICU: Neonatal Intensive Care Unit

NPST: Nurse-Parent Support Tool

RN: Registered Nurse

RSA: Republic of South Africa

SPSS: Statistical Package for Social Sciences

WHO: World Health Organisation



LIST OF FIGURES

- Figure 4.1 Gender of respondents
- Figure 4.2 Educational level of respondents
- Figure 4.3 Employment status of the respondents
- Figure 4.4 Marital status of the respondents
- Figure 4.5 Ethnicity of the respondents
- Figure 4.6 Hospitals of respondents

LIST OF TABLES

- Table 3.1 Nurse Parent Support scoring key
- Table 3.2 Validity of the NPST
- Figure 4.1 Gender of respondents
- Figure 4.2 Educational level of respondents
- Figure 4.3 Employment status of the respondents
- Figure 4.4 Marital status of the respondents
- Figure 4.5 Ethnicity of the respondents
- Figure 4.6 Hospitals of respondents
- Table 4.7 Overall mean score of parents' perception of nursing support by hospital
- Table 4.8 Association between hospitals and mean support score
- Table 4.9 Association age and mean support score
- Table 4.10 Association between educational level and mean support score
- Table 4.11 Association between employment status and mean support score

Table 4.12 Association between marital status and mean support score

Table 4.13 Association between ethnicity and mean support score

LIST OF APPENDICES

Appendix A: NPST questionnaire

Appendix B: Ethics approval from the Biomedical Research Committee of the University of the Western Cape

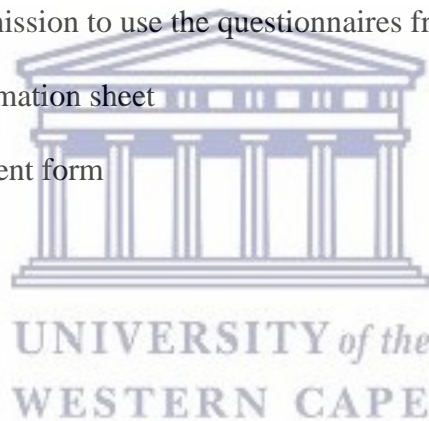
Appendix C: Permission to conduct the study from Netcare Research Committee

Appendix D: Permission letter from CEOs of the three individual hospitals

Appendix E: Permission to use the questionnaires from the authors

Appendix F: Information sheet

Appendix G: Consent form

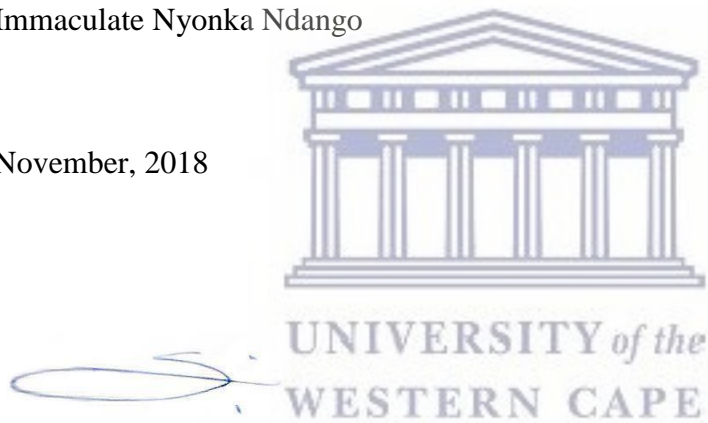


DECLARATION

I declare that the study, “*Parents’ perception of nursing support in neonatalintensive care units in private hospitals in the Western Cape,*” is my original work, that it has not been submitted for any degree or examination at any other university. All the sources I have used, or quoted, have been indicated and acknowledged by complete references.

Immaculate Nyonka Ndango

November, 2018



Signed

ACKNOWLEDGEMENTS

I give thanks to God for seeing me through this degree programme.

I give special thanks to my supervisor, Dr P. Martin for her patience, support and advice throughout the research study, your advice made me to successfully complete this degree programme.

I say a very big thank you to all the academics facilitating the master's programme in advance midwifery and other academic members who contributed to my progress all through this period of study. My friends Rita Abiodun, thanks for the support.

I would like to express my sincere appreciation to my dearest husband, Advocate Solomon Mbulle, and my lovely daughters, Ashley, Noela and Michaela for being there for me always, their constant love and support throughout this journey.

I say a big thank you to my sister in USA Jossy Mosessle and her wonderful husband Mr Frank Mossel for all their support and encouragement.

To the editor, Whafieka Martin, for editing my thesis.

Finally, to the rest of my family members and in-laws, colleagues and friends, I pray may the almighty God bless you all. This journey would not have been completed without your support, motivation and show of love, care, understanding and the confidence in my ability to finish well.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

The birth process of a baby is naturally a stressful period for parents as there may be fears about the delivery and its associating complications for example abnormal presentation of the foetus, preeclampsia, prolonged labour which put the woman and baby at risk of severe complication includes infection, postpartum haemorrhage, cord prolapsed, and caesarean section (Melnyk, Crean, Feinstein, & Fairbanks, 2008).

The admission of a new-born to a neonatal intensive care unit (NICU) causes emotional stress for the parents and hence complicates the baby's bonding process (Wigert, Blom, & Bry, 2014). Admission of premature or sick babies to the NICU could pose emotional and practical challenges for parents, for instance frustration, guilt, shock, sadness and anger that their child is suffering from a serious medical condition (Turan, Başbakkal, & Özbek, 2008) and practical challenges such as separation of the babies from parents also increases strain on the infant-parent relationship (Cockcroft, 2012). These parents must not only adjust to the unforeseen complications of their baby's birth, but also to the highly technical environment of the NICU (Hutchinson, Spillett, & Cronin, 2012). The challenges that the technical environment include unfamiliar medical machines and devices, constant alarms, flashing lights, strange noises, strict visitation hours, hectic interactions with medical staff and distressed families (Prouhet, Gregory, Russell, & Yaeger, 2018). In the United States of America, an analysis of maternal age showed an increase in the amount of women with chronic health illnesses with medically indicating preterm birth, which is more common among women with hypertension, diabetes, drug dependence, mental disorders, cardiovascular disease, renal disease, diseases of the thyroid and anaemia (Prouhet et al., 2018). Maternal comorbidities of the reproductive system are associated with spontaneous preterm birth. Existing medical conditions require certain medications which may impact on the baby's birth outcomes. The use of oral steroids for instance, to treat asthma is associated with preterm birth, low birth weight and transient tachypnoea (Myers et al., 2015).

To deal with these challenges, parents need support from nursing staff to gain knowledge about their baby's condition, the necessary treatment measures and the hospital's rituals and rules (Wigert et al., 2014). Moreover, they need information on best practices to meet their baby's needs and should be afforded an opportunity to provide care for their babies (Myers et al., 2015). Parents need acknowledgement of their important responsibility as parents, as well as positive reinforcement about parenting.

Nursing support for parents of hospitalized children can be conceptualized as providing supportive communication and on-going information, helping parents maintain their parental role by encouragement, positive feedback and appraisal, giving emotional support, and providing expert nursing care to the child (Miles, Carlson, & Brunssen, 1999). Emotional and social support may also be elicited from the nurses who are involved in the day to day management of their babies. Kowalski et al. (2006) state that parents recognised the nurse as the person who spent most of their time explaining the baby's condition, the best source of information and the person who informed them about important changes in their baby's condition. Effective NICU staff interaction with parents is well accepted nursing support to assist parents of seriously ill, hospitalized preterm babies (Butt, McGrath, Samra, & Gupta, 2013).

1.2 Background

Globally, 4 million babies are born each year and 11 300 babies die on the day of birth annually (Zupan & Aahman, 2005). According to the World Health Organization (WHO), annually a total of 2.9 million babies die in their first month of birth (WHO, 2017). Most of these deaths occur as a result of premature birth and complications sustained during birth such as prolonged labour, preeclampsia (PE) and infection (WHO, 2014). In 2010, 3 999 386 babies were born in the United State of America, of which 3.0% were born with a major congenital abnormalities (Martin et al., 2011). In 2013, 309 489 babies were born in Australia (Health & Welfare, 2015). Approximately, 400 000 of these babies were admitted to special care nurseries, of which 21 000 were born prematurely whilst others had congenital abnormalities, breathing difficulties or injuries resulting from birth and infections

(Laws, Grayson, & Sullivan, 2006). In Africa, approximately 1 million babies were stillbirth of which at least 300 000 died during labour (Neonatal WHO, (2006). A further 1.16 million babies are reported to die in the first month of which half die on the first day after birth. A further 3.3 million children die before they reach their fifth birthday (WHO, 2006). In South Africa (SA), 1.1 million babies are born every year of which about 300 000 are born to HIV positive mothers (UNICEF, 2006). Neonatal death accounts for approximately 40% of deaths in children under the age of five years in SA, with the admission of 2400 premature babies to NICU annually (Neonatal WHO, 2006). Small and preterm babies have a much greater risk of dying and many babies die because of lack of simple care such as warmth, feeding, hygiene, and early treatment of infection. Fifteen per cent (15%) of babies born in South Africa are low-birth weight, weighing less than 2500 grams. In South Africa, the human immunodeficiency virus (HIV) is found in one of every four people; as a result, more premature babies are born in this group of mothers (WHO & UNICEF, 2014). Other major causes of new born death are infection, pneumonia and meningitis (WHO & UNICEF, 2014). Before the inception of NICUs, the birth weight of a neonate was less than 1400 grams (usually about 30 weeks gestation) and rarely survived. However, the neonatology and NICUs have greatly increased this survival rate of very low-birth-weight babies and extremely premature babies (WHO & UNICEF, 2014). Today, babies with a weight of 500 grams at 26 weeks of the gestation period have a greater chance of survival (Seaton, King, Manktelow, Draper, & Field, 2012).

NICUs were originally created in the 1960s to care for critically ill new-born babies, but has since turned into a technological space that provides a multitude of healthcare services for new-born babies (Thon, 2013). The medical progress brought about by the establishment of NICU has contributed to a 90% survival rate for premature babies (Thon, 2013).

Care in the NICU is provided for both preterm and full term babies with medical problems, and this unit is usually directed by neonatologists, and staffed by nurse's practitioners, pharmacists, physician assistants, resident physicians, respiratory therapists, and dieticians (Turner, Chur-Hansen, & Winefield, 2014). Neonatal nurses are advanced practice nurses who provide care for premature babies and sick

new-born's in the intensive care units (ICU), emergency rooms, delivery rooms, and special clinics (Turner et al., 2014).

Admission to NICU has many advantages for the premature baby. Premature babies are unable to maintain body temperature, often have excessive weight loss and unstable vital signs and respiratory distress syndrome which often present in babies with immature lungs (Ionio et al., 2018). These conditions can cause long-term neurological problems if left untreated (Ionio et al., 2018). NICUs provide the necessary treatments and is especially advantageous to babies with conditions such as hypoglycaemia, sepsis and perinatal depression (Heidari, Hasanpour, & Fooladi, 2013).

Though admission of the baby to NICU has its benefits, it also results in separation between the baby and their parents and can be source of stress as well (Turner et al., 2014). Babies have a natural propensity and sensitivity to respond and react to the surrounding environment, which often influences the nature of interaction between mother and baby (Heidari et al., 2013). Admission to the NICU limits the baby's opportunities of exposure to activities which are typical of a healthy new-born, such as the ability to suck on his or her hand for self-soothing, causing the baby to experience feelings of shock, fear and anxiety (Vergara & Bigsby, 2004). Parents on the other hand, may experience feelings of guilt and helplessness during this period of separation (Vergara & Bigsby, 2004). Environmental factors such as sound, noise, light, bed and family space greatly impact the comfort level of the baby (Vergara & Bigsby, 2004). Furthermore, modern NICUs rely heavily on neonatal monitoring equipment such as incubators, apparatus for respiratory support and advanced monitoring devices, which may hinder parents from seeing and physically interacting with their baby (Lantz & Ottosson, 2013).

1.3 Motivation of the study

The researcher is a professional nurse who has been working at a NICU for the last five years. During this time, she has observed that the NICU environment is stressful to the parents. Anecdotal evidence suggests that parents believe that the admission of the baby to the NICU means death and often fear that their baby is going to die. This is further perpetuated if it is their first encounter with the NICU

and the sight of their babies attached to monitors is alarming. During this period, the nursing staff provides care to the neonatal whilst parents are anxiously watching and expecting the staff to update them about their baby's health.

1.4 Problem statement

Global statistics allude to the high rates of deaths in preterm infants annually (Neonatal WHO, 2006). However, the establishment of NICUs has seen an increased survival rate of preterm and ill babies (Neonatal WHO, 2006). When preterm or seriously ill new-born babies require special care they are hospitalized in NICU for a long period of time causes the family to be isolated from their babies and changes their hope in to anxiety (Neonatal WHO, 2006). The NICU is a specialized unit in which highly specialized staff provide medical treatment and nursing care to the babies admitted to the NICU (Gooding et al., 2011). Parents regularly stay in the unit for extended periods of time to be close to their new-born. The unfamiliar NICU environment, changes in the expected parental role and communication with the healthcare professionals are potential sources of stress to parents (Vigod, Villegas, Dennis, & Ross, 2010). During this period, parents are at risk of developing depression or post-traumatic stress disorder that will impair parent-infant relationship and affect the baby development (Feeley et al., 2011). Parents may feel highly stressed when their baby is in distress during medical procedures and treatments as they may observe irregular breathing patterns, medical equipment and devices attached to the baby (Feeley et al., 2011). Other factors that contributed to parental stressors are parent–infant relation such as separation, a sense of not being able to help the baby and not being able to protect the baby during painful procedures (Vigod et al., 2010).

1.5 Statement of the research problem

In order to alleviate some of the stressors parents experience in NICU, counselling is provided by a social worker to parents in order to provide family centered support (Heidari et al., 2013). Support for parents during this critical period is imperative hence the researcher would like to determine parents' perception of nursing support during their baby's admission period at the NICU in selected private hospitals in

city of Cape Town (Western Cape Province, South Africa).

1.6 Research aim and objectives

1.6.1 Aim

The aim of this study is to investigate parents' perception of nursing support during their baby's stay at the NICU at selected private hospitals in Cape Town (Western Cape Province).

1.6.2 Objectives

The following objectives are outlined in order to achieve the aim of the study.

- i. To determine parents' perception of information giving and communication by nurses;
- ii. To determine parents' perception of emotionally supportive behaviours by nurses when their baby is admitted to NICU;
- iii. To determine parents' perception of care given support or instrumental support given by nurses when their babies are admitted in NICU; and
- iv. To identify parents' perception of parental esteem support or appraisal support while in NICU environment.

1.7 Significance of the study

This study sheds light on some of the challenges parents face when their babies are admitted to the NICU and will further highlight the type of support made available to them by nurses during this critical period. This study will recommend possible solutions to problems identified. The findings of the study may assist nursing education institutions to orientate studied towards better training for the neonatal nurse. Lastly, findings from the study may assist policymakers to develop policies that render support to parents of babies during their admission at the NICU.

1.8 Operational definitions

To facilitate a better understanding of this study, the following terms are defined below.

Appraisal support or parental esteem support refers to the support provided to parents by the nurses in terms of encouragement. Nurses enhance the confidence of parents by encouraging parents to spend time with their baby and visiting more often. In this study, appraisal or parental support includes educating parents on how to care for their baby and provide parents with an opportunity to learn how to manage their baby (Miles et al., 1999).

Communication support refers to supportive communication to parents through the provision of clear information about the baby's sickness, treatment, development and care. Communication support also includes information relating to parental rights and responsibilities during the baby's period of hospitalisation (Mok & Leung, 2006). In this study, communication support refers to the provision of understandable information to parents by professional nurses about any changes in their baby's condition.

Emotional support refers to expressions of empathy, love, trust and care to parents and includes listening, exhibiting caring behaviors and showing concern to parents in order to help them cope with the baby's condition (Mok & Leung, 2006). Other forms of emotional support also include the provision of a social worker to parents that have a critical sick baby and for parents who are not coping with the situation. In this study, emotional support refers to the display of empathy, love and caring by nurses which includes listening to the parents.

Information support refers to giving advice, suggestions and information from one person to another (Al-Akour, Gharaibeh, & Al-Sallal, 2013). In this study, information support means updating the parents about their baby's illness and the provision of detailed information on treatments, procedures and/or interventions that are carried out on their child during hospitalization.

Instrumental support or caring given support refers to the tangible aid, physical and psychological nursing care provided to the sick baby (Turan et al., 2008). In

this study, instrumental support refers to the tangible aid and services responding to the baby's needs promptly.

Nursing support refers to the assistance provided by nurses to parents during a child's hospitalisation and is a vital component of nursing practice which could either be emotional, information giving and communication, care given, and parental esteem support (Miles et al., 1999; Melo, Ferreira, Lima, & Mello, 2014). In this study, nursing support refers to the assistance provided by nurses to parents during their baby's stay in hospital.

Baby/ies refer to these are extremely young child especially infants (Webster, 2006). In this study, baby/ies refers to a child born between 23 weeks to term.

1.9 Research design and methodology

A quantitative approach using a descriptive survey design was used to achieve the aim of this study. A detailed description of the methodology used in this study is described in Chapter 3.

1.10 Data analysis

The statistical package for the social sciences (SPSS) computer programme version 24 was used in the analysis of the data with the assistance of a statistician. Descriptive statistics were calculated and presented in percentages. A detailed description of the data analysis is provided in Chapter three (Chapter 3, see Section 3.9.).

1.11 Ethics

Ethics clearance for this study was obtained from the Bio Medical Research Committee at the University of the Western Cape (Appendix B). Permission to conduct the study was sought and obtained from the research committees of the selected hospitals' (Appendix C). The researcher also requested and received permission from the CEOs of the three individual hospitals (Appendix D).

1.12 Summary

In this chapter, the background of the study was provided to contextualise the study. In addition, the problem statement, aim and objectives of the study, and the research questions were presented. The significance of the study, operational definitions, and a brief overview of the research methodology, as well as an overview of the ethics of the study are also provided.

1.13 Chapter overview

The researcher introduced the background of the study, problem statement, aim and objectives of the study, significance of the study and operational definitions. The rest of the chapters in this study are as follows:

Chapter 2 is a review of relevant literature which focused on different support needs of parents in NICUs.

Chapter 3 provides a detailed description of the research methodology used in this study and includes the research approach, research design as well as the population, sample and sampling methods. The data collection instrument, namely the NPST, reliability and validity of instrument, data collection process, data analysis and ethics are also discussed.

Chapter 4 presents the findings of the study.

Chapter 5 provides a detailed discussion of the findings of the study. The findings are embedded in empirical literature.

Chapter 6 is the concluding chapter and summary of the study and is guided by the major findings of study. The limitations and recommendations for further research are also outlined in this chapter.

The next chapter comprises the literature review of relevant on information giving support, communication support, emotional support, care given support, parental

esteem and parental support.



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CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

A literature review is defined as a “search of the available literature and a critical evaluation of what has been published on a topic in the given subject or chosen area of interest” (Blaxter, 2010: 120). In order to source relevant information, literature was accessed from a range of databases which included EBSCOhost, MEDLINE, CINAHL, PubMed and published books. A complete academic search from the library of the University of the Western Cape was also conducted to find secondary sources. Key search words for this study included *neonatal intensive care unit OR critical care unit, nurses, parents OR relatives support OR social support OR emotional support OR appraisal support, premature baby OR child OR critical ill neonate*. The literature search commenced in May 2016 and ended in August 2018. In reviewing the literature, most of the articles found were dated and studies on parents’ perception of nursing support in South Africa were limited. The purpose of the literature review is to explore existing information about nurses’ support of parents who have baby’s admitted to NICU, and is presented in the following format:

- i. Parents’ perception of support given by nurses;
- ii. Information giving and communication support by nurses;
- iii. Impacts of information support from nurses;
- iv. Emotionally supportive behaviors by nurses;
- v. Care given support by nurses; and
- vi. Parental esteem support giving by nurses.

2.2 Parents’ perception of support given by nurses

Support is giving of assistance or encouragement to someone in need, whereas nursing support is the holistic assistance or care provided by a nurse to patients (Shimizu, & Mori, 2018: 1589). Nursing support is crucial to the families of babies admitted to the NICU, to ease the pain and stress experienced during the

hospitalisation period (Shimizu et al., 2018). Nursing support for parents of a hospitalized baby can be conceptualized as providing supportive communication and on-going information, helping parents maintain their parental role by encouragement, positive feedback and appraisal, giving emotional support, and providing expert nursing care to the baby (Holtzman, DeClerck, Turcotte, Lisi, & Woodworth, 2017). A study conducted by Lam, Spence and Halliday (2007) in Australia among mothers alluded to the central role that nurses play in providing care to sick babies. Nurses can alleviate parental stress by establishing a caring relationship, sharing knowledge and information, paying attention, supporting parents psychologically and physically, involving parents in decision-making through participation in care given of their baby (Ncube, Barlow, & Mayers, 2016). A study conducted by Ncube et al. (2016) on the experiences of mothers' and their connection with their preterm babies in the NICU reported that support from staff, other mothers in the NICU and family members enabled them to overcome their fear and develop an emotional connection with their babies (Ncube et al., 2016). Several studies have alluded to parents' recognition of nurses as a source of support because they provide care to babies twenty-four hours per day (Aftyka et al., 2017; Holtzman et al., 2017; Lilo, Shaw, Corcoran, Storfer-Isser, & Horwitz, 2016; Ncube et al., 2016; Al-Akour et al., 2013). Nurses are also seen as the best source of information and the person who communicates important changes in their baby's condition (Aftyka et al., 2017; Holtzman et al., 2017; Lilo, Shaw, Corcoran, Storfer-Isser, & Horwitz, 2016; Ncube et al., 2016; Al-Akour et al., 2013).

2.3 Information giving and communication support by nurses

Communication refers the conveyance or sharing of information between people (Wigert et al., 2014). Communication between NICU staff and parents is an especially important part of support offered to parents to reduce stress to facilitate better interaction with their baby during the period of hospitalization (De Rouck & Lays, 2009). More specifically, information giving and communication support refers to the provision of detailed information on procedures or interventions to parents about their baby's health (Al-Akour et al., 2013). Parents need communication support and information about their baby's health such as medical

information and strategies on how to best handle the stress of the situation (De Rouck & Leys, 2009). This information may need to be repeated to parents as they often do not receive enough time to absorb the material they were presented with originally (Broedsgaard & Wagner, 2005).

Previous studies have shown that the NICU staff do not always meet parents' needs and may not always experience communication problems in the manner that parents do (Kuo et al., 2012; Mok & Leung, 2006). However, Kowalski et al. (2006) state that parents identified the nurse as the person who spent the most important time explaining the baby's condition, the best source of information and the person who updated them about important changes in their baby's condition. This implies that the nurses' understanding of a baby's physical condition and the baby's level of tolerance of physical contact is crucial to the parents' behaviour.

2.3.1 Impact of information support from nurses

A study conducted in Iran which aims to determine the viewpoints of mothers of premature babies and the importance and amount of support received from nurses, reported that nurses provided adequate information support to parents (Zavalgard, Leili, Asl, & Shafipour, 2017). Findings from the study showed that information support relieves anxiety and postpartum depression in mother of premature babies (Zavalgard et al., 2017). Parents in the study view that the information they received from nurses about their baby's state of health and treatment measures made them aware of what was being planned for their babies. Mok and Leung (2006) reported that parents expressed their satisfaction with the information provided to them and considered it as the most important domain of support. Parents also expressed that they felt more in control of the situation and were able to cope better due to the information (Mok & Leung, 2006).

A study conducted in Botswana NICU about the experiences of mothers regarding care of their hospitalised preterm infants in a neonatal unit in a public hospital in Gaborone (Botswana) reported that positive interactions with the healthcare workers (HCWs), particularly nurses, created a sense of facilitated communication. Participants in the study felt reassured when the staff answered their questions and provided adequate explanations (Ncube et al., 2016).

Parents should be clearly informed of procedures and tests performed on their

babies in order to help them cope with the job of providing care for their babies. Effective and supportive communication from the health professionals in the NICU is vital for the mother's well-being and for the baby's progress. This is not always an easy task as nurses tend to direct their energy and focus towards taking care of the vulnerable babies (Fegran, Helseth, & Fagermoen, 2008). New mothers especially need information and need to be practically guided by nurses on how to provide care to their new babies, in order to develop confidence in their ability to provide care (Fegran et al., 2008). Regular communication with parents of preterm babies gives mothers and parents the ability to become partners in providing care and decision-making. Furthermore, information and knowledge allow mothers to fulfil their roles responsibly, increases self-confidence, engenders a sense of control of the situation and creates a feeling of being connected to the baby (Zavalgard et al., 2017). Despite the devastating nature of such information in critical situations, not knowing about their baby's condition is very distressful to parents, when such information is withheld from them (Ncube et al., 2016).

Orzalesi and Aite (2011) reported on parent-staff communication to assist mothers and babies bonding and nursing support received in the NICU. The study showed that all mothers agreed the constant provision of information from nurses who provided updates about the baby's health condition, facilitated a better understanding of their baby's health needs. As a result, mothers were able to cope better which ease their anxiety (Orzalesi & Aite, 2011).

The information and communication given to parents, particularly the mother, plays a vital role in supporting the mother in order to create a relationship with her newborn (Al-Akour et al., 2013; Wigert et al., 2014). However, Brett, Staniszezwska, Newburn, Jones and Taylor (2011) recommended preparing parents for the neonatal unit through the neonatal tour, and good communication throughout the infant admission phase and after discharge home. Similarly, Weiss, Goldlust and Vaucher (2010) further recommended that targeted parental intervention will improve parent satisfaction with the quality and quantity of communication provided by the health workers.

A study conducted in Saudi Arabia among parents who have babies in NICU reported that the majority of parents had difficulties receiving sufficient information

from nurses at the NICU and that most parents found the information difficult to understand (Magliyah & Razzak, 2015). A study conducted on racial differences in parental satisfaction with NICU nursing care showed that “black” parents reported more negative experiences compared to “white” parents (Martin, D'Agostino, Passarella, & Lorch, 2016). The study also reported that “black” parents expressed a need for compassionate and respectful communication (Martin et al., 2016).

2.4 Emotionally supportive behaviors of nurses

Emotionally supportive behaviours refer to the ability to understand another person’s situation (Wigert et al., 2014). It is based on empathy and being emotionally responsive to the other person’s needs without judgment or criticism (Wigert et al., 2014). Responding with empathy and compassion makes healthcare meaningful, but may require energy beyond the professional role and capacity of healthcare staff (Turner et al., 2014). Emotionally supportive behaviours are strategies that can be used to show empathy while nurturing nurse-parent relationships which could be a form of communication. Uchino, Carlisle, Birmingham and Vaughn (2011) reported that conversations with nurses often took the form of emotional support during stressful situations and leads to esteem-building. These conversations often convey a sense of validation and understanding, and empathy to mothers in the NICU.

However, admitting a baby to a neonatal intensive care unit (NICU) causes emotional stress for the parents and hence complicates the parent–infant bonding process. Furthermore, as a result of the premature birth, mothers do not have as much time to develop the intrauterine mother-infant attachment, which likely impacts on their relationship with their baby and causes emotional stress for the parents (Fegran et al., 2008). Parents’ emotional reactions to the NICU environment include disappointment, guilt, sadness, depression, anger, fear, anxiety and grief, caused by seeing the babies in the NICU. The emotional challenges parents are faced with during this stressful period emphasizes the value of emotional support such as esteem-building, validation and understanding (Uchino et al., 2011). Good communication between parents and NICU staff is therefore essential to reduce emotional stress. Studies showed that nurses in NICU have a large and complex

clinical role as emotional supporters for parents in the unit (Turner et al., 2014; Sikorova & Kucova, 2012). Also, Wigert et al. (2014) confirmed that calm conversations about the condition of the baby was reassuring to parents and provided them with an opportunity for emotional relief.

NICU staff should be reminded of their unique position to help parents handle their emotional difficulties (Ncube et al., 2016). Calciolari and Montiroso (2011) highlight that the emotional needs of mothers may exceed the practical information provided to them by nurses and a more emotionally-centred approach and support may address this need. Abbasi and Mehdizadeh (2017) further recommend designing a supportive intervention which provides informational, emotional and esteem support for parents of children and babies admitted to NICUs.

2.5 Care given support by nurses

Care given support incorporates the quality of care provided to the baby. It also includes the care provided to parents of children admitted to the hospital. Integrating care for the baby and the parents may be challenging for nurses in the NICU environment (Abbasi & Mehdizadeh, 2017). Nurses are responsible for the care of the premature baby, but are also required to nurture the mother-infant attachment and provide support to parents as collaborators in their baby's care (Valizadeh, Zamanzadeh, Akbarbegloo, & Sayadi, 2012).

According to Marfurt-Russenberger et al. (2016), nurses are aware that care given support is an important part of their roles as nurses and that they provide it frequently to the family of the patient. Aftyka et al. (2017) reported on care given support and measured it using the items from the Nurse-Parent Support Tool (NPST). The study showed that care given support was rated the highest by the parents (Aftyka et al., 2017). This result is consistent with findings from Zavalgard et al. (2017) who reported that care given support was ranked highest in terms of support received by mothers and that it was considered the most important domain. The high rate of care given support can be explained by the fact that education of nurses is focused to a great extent on caring behaviours (Aftyka et al., 2017). Similarly, an integrative review on parent satisfaction with care provided in the NICU reported that the majority of parents were highly satisfied with the care they

received in the NICU (Butt et al., 2013).

There is an increase strain that is placed on the infant-parent relationship during the early separation of the baby from both parents upon admission to the NICU. Most mothers often fear that their baby may have complications related to their future growth and development and blame themselves for the birth of an unhealthy baby (Velmurugan & Ravi, 2016). It is important that the NICU promote parent-infant attachment by providing opportunity for the parents to bond with and take part in care of their babies (Lonio et al 2016).

Sikorova and Kucova (2012) conducted a study among 147 mothers of babies hospitalized in NICU in Ostrava. The study reported that the highest level of stress was concerns about the care given to their babies as the parents are unable to help the babies. Intensive Care Units (ICUs) for the new-born babies have to be orientated around family-centred care and should be sensitive to factors that may be a source of stress to parents.

Similarly, other studies have pointed out that parental stress experienced during the baby's admission in NICU is as a result of uncertainty of care given to the babies, thinking about this is very stressful for parents and may cause emotional crisis (Velmurugan & Ravi 2016; Alkozei, McMahon, & Lahav, 2014). Nurses are in a unique position to help parents, as they provide care not only to the sick baby but also to the stressed parents. Miles et al. (1999) found that the highest source of satisfaction for mothers was the care they received from the health-care team. Appropriate care given support can also promote positive parent–infant interaction throughout the course of hospitalization. Nurses who engage with mothers are good carers and share their observations with the mother. They also talk about the baby with the mother and involve them in their baby's care. This allow the mother and babies to feel cared for (Valizadeh et al., 2012).

Supportive actions, which include giving empowering and consistent information, are important in helping mothers to develop care-giving actions for the babies, which in turn facilitate attachment which may include the development of good parent-staff relationships, open visiting to babies, breastfeeding support and regular updates of the baby's progress (Aagaard & Hall, 2008).

2.6 Parental esteem support giving by nurses

Parental esteem support is defined as “enhancing, reinforcing and supporting the parental role with the baby”. Studies have also shown that parents need to feel that they are being respected and to have a sense of control and involvement in care of their babies (Butt et al., 2013; Zavalgard et al., 2017). According to Russell et al. (2014), parents of NICU babies who have received information and are involved in making decisions relating to their babies, feel more empowered and in control of their babies’ situation. Thus, it is important to give them positive reinforcement at every contribution they make to their baby’s care (Russell et al., 2014).

A qualitative study in the United Kingdom conducted among parents in the NICU reported that the majority of parents mentioned receiving reassurance, encouragement and praise from staff as a beneficial experience in the NICU. They appreciated nurses’ efforts to find the positive in a situation and build parents’ confidence during low moments (Russell et al., 2014).

Similarly, Ionio et al. (2018) notes that mothers of premature and critically ill babies confirm their appreciation of nurses who encouraged them in caring for their babies and shared information with them during their baby’s hospitalization. However, these mothers became frustrated if nurses did not allow them to play an active role of partnering and caring of their babies. A Swedish study among twenty-five (25) mothers of babies admitted to the NICU, confirmed that mothers felt that nurses supported and empowered them to provide care to their babies (Flacking et al 2006). This study highlighted the fact that nurses who were supportive and non-judgmental were able to develop trustful staff-parent relationships.

On the other hand, Ncube et al. (2016) reported that respondents had felt that they were not respected by the staff through what and how they talked to them which made them feel offended and upset. Parents are likely to feel more assured in the competency of the medical team when they ask questions regarding their baby and the information is passed on to them correctly (Cockcroft, 2012).

2.7 Summary

A baby’s admission to the NICUs may cause anxiety, depression and stress to parents, leading to a change in the parental role, which adversely affects the early

bonding process. Furthermore, maternal sensitivity to the baby's cues and intimate interactions between the mother and baby may be hindered during this period. Supportive interactions are therefore necessary and involve accessibility to the baby, ability to concentrate on the baby's cues, recognition of organised and disorganised behaviours and the effect of the surrounding environment on the baby (Browne & Talmi, 2005). In this respect, nurses have the capacity to increase parental self-esteem and confidence during their time in the NICU with their newborn by encouraging them to visit as well as educating them how to care for their babies (Turan et al.; 2008).

The chapter provided an overview of the different means and types of support parents received in the NICU and provided literature on parents' perception of emotionally supportive care given by neonatal nurses, care given support, parental esteem support and information giving or communication support. The following chapter (3) outlines the research design and methodology used for the study.



CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

According to Walliman and Walliman (2011), research is defined as a systematic process that involves finding out things that are unknown. Mertens (2014) describes research methodology as the “philosophical framework within which the research is conducted or the foundation upon which the research is based.” Research methodology should have the ability to successfully attain the objectives of the research and be applicable to similar researches (Creswell & Clark, 2017).

Research is initiated in the definition of the research problem, followed by the formulation of research questions and objectives, in order to select the best possible methodology to address the questions and reach the aims. The research design describes the general plan used to answer the research questions by connecting the data to the conclusion.

This chapter provides a discussion of the research setting, research approach, research design, population and sampling, sample, sample size and inclusion and exclusion criteria of the study. The instrument used for data collection, validity and reliability of the instrument, data collection process, the data analysis procedures, as well as the ethics considered are also described in this chapter.

3.2 Research setting

The research setting refers to the actual place where data is collected for a study (Brink, Van der Walt, & Van Rensburg 2012). The research setting for this study was conducted at three (3) private hospitals in the Western Cape Province (South Africa). The three hospitals are administered by a hospital group and were selected as they represent the biggest private hospitals in the Western Cape Province (South Africa). These hospitals are national and international referral hospitals for seriously ill new-born and preterm babies. In addition, critically ill babies requiring mechanical ventilation support and intensive care as a result of congenital and developmental health problems are admitted into the NICU.

3.3 Research Paradigm: Positivism

Positivism is a philosophy based on the view that “factual” knowledge is obtained through observation (the senses) including measurement and can be described from an objective point of view, independent from the phenomena under study (Babbie, 2015). The role of the positivist researcher is restricted to data collection and the objective interpretation of the data only. The phenomena should therefore be isolated, where observations are repeatable and the research findings are observable and quantifiable (Fine, 2018). Positivism depends on quantifiable observations that guide the researcher towards statistical analysis. It has been noted that positivism has a discrete, observable elements and events that interact in an observable, determined and regular manner (Babbie, 2015). Furthermore, the positivist approach does not leave room for human interest and usually uses a deductive approach (Fine, 2018).

3.4 Research approach

A quantitative research was adopted for this study that follows the positivist paradigm. Quantitative research is a formal, objective, systematic process in which numerical data are utilized to acquire information about the world (Grove, Burns, & Gray, 2013). A quantitative research approach was selected for this study because the researcher wanted to gather information to support or contradict the available evidence regarding parents’ perception of support in NICUs. A quantitative research approach allowed the researcher to collect data through the use of an existing structure questionnaire. The collected data was represented numerically and mathematically analysed using different types of statistical analysis methods (Muijs, 2010). Deductive reasoning was used in the analysis of the data.

3.5 Deductive approach

The deductive approach is juxtaposed to the inductive one and involves the development of hypothesis based on an existing theory, followed by the design of a research strategy to prove or disprove that theory (Creswell & Clark, 2017). It is best explained as starting with the conclusion and then using the evidence to support

or reject the predetermined conclusion. Ormston, Spencer, Barnard and Snape (2014) view that deductive is reasoning from the “particular to the general” and starts with an expected pattern that is tested against observations, as opposed to induction which begins with observations and evidence, and then attempts to identify a pattern within them.

3.6 Research design

The research design refers to the logical sequence that links the data to the research question. The design forms the frame work of the study and directs the planning and implementation (Grove et al., 2013). For this study, a descriptive design was used.

3.6.1 Descriptive research design

Descriptive research design is a scientific method which involves observing and describing the behaviour of a subject without influencing it in any way (Creswell & Clark, 2017). This study used the descriptive design to gather information from the participants about the support they received from nurses when their babies were admitted in the NICUs. This was done by administering a questionnaire with the intention of summarising quantitative data through statistical analysis and generating results. Descriptive statistics was used to summarise and describe data. Descriptive statistics helps to convert and reduce large amounts of data into an organised whole that makes it possible for the readers of the research report to make sense of it (Polit & Beck, 2013).

3.7 The cases

The study recruited participants from three (3) private hospitals in the Western Cape Province (South Africa). The cornerstone of the hospital group is the core which has as its vision “value of care”. The hospital group owns and operates fifty-three (53) private hospitals across the nine provinces of South Africa comprising full-service, acute-care, high-tech hospitals, neonatal intensive care and same-day surgical units. These fifty-three hospitals comprise more than 8713 registered beds, 128 specialised medical units in addition to 87 retail pharmacies. Facilities are

staffed by more than 11 000 skilled nurses and supported by approximately 2 486 medical specialists. The standard and quality of care and services are on par with the best hospitals in the world and collectively they represent the most modern and sophisticated medical facilities in South Africa.

Six of these hospitals are situated in Cape Town in the Western Cape Province (South Africa) and four of the hospitals have a NICU. Whilst all the hospitals with NICUs were selected for participation in this study, the researcher was granted permission to collect data at three of the hospitals only (see Appendix C). The three hospitals are situated in the northern suburbs in Cape Town (Western Cape Province, South Africa) as is shown in Figure 1. For the purpose of this study, the hospitals are identified as Hospital A, Hospital B and Hospital C.



Figure 1 Geographical location of hospital in Cape Town, Western Cape

3.7.1 Hospital A

Hospital A is situated in Northern Suburbs of the Cape Town Metropole area and has a NICU with a bed capacity of six, where a total of eight babies are admitted monthly. Most of these babies are premature babies born at 23 up to 37 weeks of gestation. Very few of the babies who were born full-term were admitted to the NICU for respiratory distress, respiratory failure, hydrocephalic, Hypoxic Ischemic Encephalopathy, spinal bifida, sepsis, meconium aspiration, and Pulmonary hypertension. Staff composition consists of ten registered nurses (RN), seven RNs with five to sixteen years of experience in the NICU and three RNs with NICU specialization. Shifts are run at two RNs for each shift. The two RNs who run the

entire shift are charged with providing care for critically sick babies who are on the neonatal ventilation with inhaled nitric oxide, Teicothem, electrophysiological monitoring devices.

The duties of the RN is to allocate staffs, check the emergency trolley, ensure correct administration of oral and intravenous (IV) medications to the babies and report any abnormal changes in the baby's condition to the doctor in charge. In addition, the NICU has two enrolled nurses (ENs) with ten years of NICU experience. Their tasks include looking after babies who present more stable conditions on are on hot humidifier high flow oxygen. Two enrolled nursing auxiliaries (ENAs) is also part of the NICU with one ENA with seven years of experience in NICU and the second with fifteen years NICU experience. The duties of the ENAs include looking after growing premature babies who are on room air and on full feeds.

3.7.2 Hospital B

Hospital B is situated in the Northern Suburbs of the Cape Town area. The NICU at Hospital B has a bed capacity of twenty-four (24). A total of twenty (20) babies are admitted monthly, babies that are admitted are both premature from 23 weeks gestation up to 36 weeks and admitted as well as full term babies with medical conditions such as respiratory distress, hydrocephalic, hypoxic Ischemic Encephalopathy, and spinal bifida, meconium aspiration, neonatal jaundice, exchange transfusion and sepsis.

The staff composition of Hospital B consists of eighteen (18) RNs, ten of who have five to ten years NICU experience and eight with NICU specialization. Shifts are run at four RNs per shift. The RN runs the entire shift, looking after critically sick babies on following devises: ventilation, Teicothem, electrophysiological monitoring, the shift leader allocate staff, check the emergency trolley, ensure that the babies got all their medication, report to the doctor of any abnormal changes in the babies condition, take telephonic orders from the doctor. In addition, the unit has six (6) ENs with two to eight years NICU experience. The duties of the ENs include looking after babies who are more stable on hot humidifier high flow oxygen. The four (4) ENAs with five years' experience in NICU are charged with

looking after growing premature babies on room air and on full feeds. Nurses employed at various nursing agencies are also contracted to supplement shortage of nurses.

3.7.3 Hospital C

Hospital C is situated in Northern Suburbs of Cape Town, with an NICU with a bed capacity of eight (8). A total of eight babies are admitted monthly. Most of these babies are premature babies born at 26 up to 37 weeks' gestation and few of these babies are born term and admitted for conditions such as respiratory distress, hydrocephalic, hypoxic ischemic encephalopathy, meconium aspiration, neonatal jaundice and sepsis.

Staff composition at Hospital C consists of ten (10) RNs with NICU specialization. Shifts are managed by two RNs for each shift and are charged with looking after critically sick babies on the following devices: ventilation, Teicotherm, electrophysiological monitoring, whole body cooling during their shift. The RNs allocate staffs, check the emergency trolley, ensure that the babies got all their medication and report to the doctor of any abnormal changes in the baby's condition. Two ENs with ten years NICU experience are charged with looking after babies that are more stable on hot humidifier high flow oxygen and one ENA with experience in NICU looks after growing premature babies on full feeds.

3.8 Sampling techniques

This section presents the population, sampling technique, sample as well as the inclusion and exclusion criteria for the study. The population of the study were all the parents who had babies admitted in a NICU in selected private hospitals. At the time of the survey there were a total of 85 parents who had a baby admitted in NICU and 85 questionnaires were handed out to all the parents. A total of 67 questionnaires were completed yielding a response rate of 78.8%. The remaining participants declined or were unable to follow-up.

3.8.1 Population

A population is a set of entities in which all the measurements of interest to the

practitioner or researcher are presented (Denscombe, 2014). The population of this study is drawn from all parents (including mother and father) with babies admitted to the NICUs in the selected private hospitals. A total of sixty-seven (67) parents were present at the hospital during the time of data collection (October 2017–December 2017).

3.8.2 Sampling technique

Sampling is the process of choosing a portion of the population (people, event, and behaviour) to present the entire population (Polit & Beck 2013). In this study, inclusive sampling was used because there were only thirty-six (36) babies admitted over a one-month period. The parents of the babies were invited to participate in the study and data was collected over a period of two and a half months (October–December 2017).

3.8.3 Sample

A sample is a small portion of the population that is selected for a particular study. Grove et al. (2013: 42) defined a sample as, “a segment of the population that is chosen to participate in a particular research study”. The sample for this study was recruited from the three private hospitals and included a total of sixty-seven (67) participants. Hospital A provided 29 parents, Hospital B provided 21 and Hospital C provided 17 parents. The sample included parents who visited their babies in the NICU from the months of October 2017 to December 2017.

3.8.4 Inclusion criteria

Inclusion criteria are characteristics that prospective participants must possess if they are to be considered for inclusion in a particular study. The inclusion criteria for this study were limited to parents of babies who are twenty-three weeks old to full term and who are admitted to the NICUs.

3.8.5 Exclusion criteria

Exclusion criteria refer to a set of characteristics that disqualify prospective subjects from inclusion and participation in the study. The exclusion criteria for this study

were parents of babies who are under twenty-three (23) weeks because they are considered as miscarriage.

3.9 Data collection

Data collection is defined as the process of gathering of information to address a research problem (Polit & Beck, 2013). In quantitative research studies, data collection involves the generation of numerical data to address the research objectives (Grove et al., 2013). The data collection instrument, validity and reliability of the instruments and the data collection process are discussed in this section.

3.9.1 Data collection instrument

The data collection instrument is a tool utilised to collect data in a study (Bromley, Mikesell, Jones, & Khodyakov, 2015). The instrument employed in this study was an existing structured questionnaire, the Nurse-Parent Support Tool (NPST), adapted from Miles, Brunssen and Carlson (1999). A structured questionnaire is an instrument that consists of a set of standardized questions which are used to gather information from participants (Bromley et al., 2015). The NPST was developed to assess the type of nursing support that parents received during the hospitalisation of their babies (Miles et al., 1999). Permission to use the questionnaires for this study was obtained from the authors (see Appendix E).

3.9.2 Construct of questionnaire

The existing questionnaire comprised Section A and Section B. Section A has six (6) items relating to demographic information of the participants and Section B comprised a 21-item, 5-point Likert scale tool NPST (Appendix A). The Likert scale is an attitudinal scale and contains responses for each item, ranging from (1) being “almost never”, (2) being “not very often”, (3) being “some of the time”, (4) being “most of the time” and (5) being “almost always” (Miles et al., 1999).

3.9.2.1 Section A

Section A of the NPST included the age, education level, employment status,

marital status and ethnicity of the parent/s. Only one item is related to the child/baby and required the gestational age of child. The participants were expected to select a response from the options provided or fill in the appropriate response in the space provided. The questionnaire required between 10–15 minutes to be completed.

3.9.2.2 Section B

Section B of the NPST is divided into four subscales (Miles et al., 1999). Subscale 1 has 4 items which assess information giving and communication support; Subscale 2 has 5 items that assess emotional Support; Subscale 3 has 5 items which assess care given support and

Subscale 4 has 5 items that assesses parental esteem support. Table 3.1 depicts the nurse-parent support key. Higher scores in each subscale depict a greater amount of support provided by the nursing staff. The perception of parents was reported as either “low”, “moderate” or “high” as seen in the Table 3.1 below. A similar study by Valizadeh et al., (2012) conducted in Iran among mothers and nurses on the importance and availability of nursing support for mothers in NICU also used the NPST developed by Miles, Carlson and Brunssen in 1999.

Table 3.1 Nurse Parent Support scoring key

Level of Support	Subscale 1 Information giving and communication support	Subscale 2 Emotional support	Subscale 3 Appraisal support	Subscale 4 Instrumental support
<i>Low</i>	1	1	1	1
<i>Moderate</i>	2-3	2-3	2-3	2-3
<i>High</i>	4-5	4-5	4-5	4-5

3.9.3 Validity of NPST

Validity is defined as the accuracy at which an instrument measures what it is supposed to measure (Bolarinwa, 2015). Face and content validity were used to obtain validity of the instrument used in this study. Content validity is how well the instrument represents all components of the variable to be measured (Bolarinwa, 2015). Content validity was ensured by logically linking items of the tool (NPST) with the objectives of this study (Table 3.2). Face validity is examining items of a

research tool to establish the degree of coverage of areas under study (Bernard, 2017). Face validity was ensured by consulting the research supervisor and experts in Neonatal nursing. The NPST is a validated tool which has been used in numerous studies (Aftyka et al., 2017; Al-Akour et al., 2013; Russell et al., 2014; Valizadeh et al., 2012; Wigert et al., 2014). Strong factorial validity was demonstrated in diverse populations.

Table 3.2 Validity of the NPST

Objectives of the study	Item
1. To determine parents' perception of information giving and communication by nurses.	1-4
2. To determine parents' perception of emotionally supportive behaviours by nurses when their babies is admitted to NICU	5-9
3. To determine parents' perception of care given support given by nurses when their babies are admitted in NICU.	10-17
4. To identify parents perception of esteem support while in NICU environment	18-21

3.9.4 Reliability of NPST

Reliability is the consistency with which an instrument measures the target attribute (Polit & Beck, 2013). The reliability of a questionnaire means the dependability with which the participants comprehend, deduce and answer all the questions in the tool (Grove et al., 2013). The NPST has been used in various studies where it has shown an internal consistency of Cronbach's alpha coefficient of 0.95 which indicates that it is a highly reliable instrument for measuring nurse-parent support (Al-Akour et al., 2013; Sikorova & Kucova, 2012; Mok & Leung, 2006).

3.10 Data collection process

The data collection process refers to the gathering and measuring of information on targeted variables in an established systematic fashion in order to answer relevant questions and evaluate outcomes (Grove et al., 2013). Data was collected after ethics approval was obtained from the Biomedical Research Ethics Committee of the University of the Western Cape (Appendix B). Permission was also obtained from the Netcare Research Committee (Appendix C) to conduct the study at the selected hospitals. Permission was not granted for the fourth hospital.

On receipt of the permission letters, the researcher contacted the unit managers of the three NICUs via telephone to set an appointment/s to explain the purpose of study and clarify any queries. During these visits, the unit managers informed the researcher as the ideal time to start to the data collection. The data collection period started on 1 October 2017 and was concluded on 10 December 2017. Data was collected after visiting times at the three selected hospitals. At the time of the survey there were a total of 85 parents who had a baby admitted in NICU and 85 questionnaires were handed out to all the parents. A total of 67 questionnaires were completed the remaining participants declined/were unavailable to follow-up.

Before data collection began, the researcher addressed the parents and explained the aim and purpose of the study. The information sheet was disseminated to the participants and questions on the questionnaire were clarified. Verbal consent was obtained after a brief and thorough explanation of the purpose and aim of the study. The researcher also informed participants of their voluntary participation in the study and of their right to withdraw from the study at any given time. Participants were assured of confidentiality and their anonymity in the study. Before commencement, consent forms were distributed and completed, whereas the remaining participants were unable to participate, after which the questionnaire were given to participants after visiting times in the NICU. The nursing staff assisted with handing out of the questionnaires. A sealed box was placed at the nurses' station so that the questionnaires could be returned anonymously. The researcher conducted several follow-up visits to the hospital at the visiting time to recruit more participants and to remind the remaining participants to complete and return the questionnaires to the researcher. A few of the participants declined whilst some were unavailable to follow-up.

3.11 Data Analysis

Data analysis refers to the systematic organisation and synthesis of research data (Polit & Beck, 2013). The purpose of data analysis is to reduce, organise and give meaning to data (Grove et al., 2013). In this study, data was captured on receiving the questionnaires from the participants. A check was conducted by the researcher to determine whether all the questionnaires were legible and complete. Each

completed questionnaire was numbered for easy comparison against the original questionnaire during the data cleaning process. A code book was developed wherein data was captured using the Statistical Package for Social Sciences (SPSS) version 24. Data cleaning was done by checking for errors and by searching for values that did not fall within the range of possible values of the variables. After the capturing of the data, the researcher consulted a peer who had experience in quantitative data analysis for assistance. In this study descriptive analysis techniques were used and included the mean and standard deviation.

Data was analysed using appropriate descriptive statistics, frequencies and percentages of demographic variables and age was grouped into two groups (younger parents and older parents). Mean and standard deviation, mean support score of the scale was also calculated and association was tested using Non-parametric Kruskal-Wallis and Mann–Whitney U-test.

3.12 Ethical principles

Ethics approval to conduct this study was obtained from the Biomedical Research Ethics Committee of the University of the Western Cape (South Africa). Permission was also obtained from the Netcare Research Committee. The research adhered to all ethical principles which are discussed below.

The principle of respect to person means that participants are treated as autonomous agents. This was adhered to as all participants were informed of their right to refuse participation without any penalties and were asked to sign a Consent Form (Appendix G), which gave them the choice of refusing participation. The participants were also given an Information Sheet (Appendix F) pertaining to the study, including its type, purpose and the benefits of the study in English.

The principle of beneficence imposes responsibility on the researcher to minimise harm and maximize benefits (Polit & Beck, 2013). All research carries risk hence minimal risk was anticipated during this study. The researcher arranged with a counsellor prior to data collection should any respondent feel the need to seek the service. The name of the hospitals was not identified in the study to avoid causing

harm or reputational damage to the hospital. No participant reported feeling traumatised during or after completing the questionnaire.

The principle of justice involves the participant's right to fair treatment and privacy (Polit & Beck, 2013). The researcher selected the participants for the study with fairness as outlined by Denzin and Giardina (2016) by selecting all the parents in the selected NICU to participate in the study and treating all participants equally. The researcher respected all agreements made with the participants, such as the right to withdraw from the study at any point without being explanation or penalty. The researcher respected the right to privacy of the participants by making sure that their personal information was not divulged to any person. The participant's names did not appear on the questionnaires.

The right to privacy of all participants was assured and respected throughout the study. The participants had the right to determine the degree to which their information was shared or withheld (Denzin & Giardina, 2016). All the participants' information was held in strict confidence and they could decide the extent to which their information should be shared.

The anonymity and confidentiality of participants were ensured by not adding any personal information that would identify the participants. LaRossa and Bennett (2018) stated that anonymity refers to the act of keeping the identity of the participant a secret and is the most secure means of protecting confidentiality. To ensure that the name of the participants will not include in the questionnaire and the participants will be encouraged to fill the questionnaire separately. Questionnaires will be stored in a sealed box in a locked cupboard for five years, where after they will be destroyed. The result of the study will be communicated and published in an accredited peer review journal. Information obtained during this study will be shared with all participants in the study.

Informed consent refers to the participants' having adequate information about the research study, understanding that information and having the ability to consent or

decline participation (Polit & Beck, 2013). The researcher ensured that participants were informed about the research study, by informing them before about the study and questions from the participants clarified. All participants signed the consent forms prior to participating in the study (Appendix F and Appendix G).

3.13 Summary

This chapter presented the research methods and strategies used in this study. A descriptive quantitative method was selected as the most appropriate for the purpose and nature of the study. The study used an all-inclusive sampling technique and recruited a total of sixty-seven (67) participants. The researcher used the existing structured questionnaire, the NPST, adapted from Miles et al. (1999) for the collection of data which is presented and interpreted in the next chapter. The validity and reliability of the NPST was also discussed as well as the data collection procedure. All ethical principles were explained and adhered to in the study.



CHAPTER FOUR

RESULTS AND RESEARCH FINDINGS

4.1 Introduction

This chapter presents the research findings of the analysed data that was collected from the respondents. Results of this study are presented in two sections that measure the parents' perception of nursing support. Section One describes the sample realization and the demographical information of the respondents. Section Two describes the main outcome of the study and is arranged according to the objectives of the study, which are listed below.

- i. To determine parents' perception of information giving and communication by nurses;
- ii. To determine parents' perception of emotionally supportive behaviours by nurses when their baby is admitted to NICU;
- iii. To determine parents' perception of care given support or instrumental support given by nurses when their babies are admitted in NICU; and
- iv. To identify parents' perception of parental esteem support or appraisal support while in NICU environment.

The aim of this study was to describe parents' perception of nursing support during their baby's stay at the NICU at selected private hospitals in Cape Town (see Section 1.6.1).

4.2 Section One: Demographics of respondents

This section reports on the distribution of parents who completed the questionnaire, gender of the respondents, age, educational level, employment status, marital status, ethnicity and distribution of hospital. Descriptive statistics in the form of frequency tables and pie charts were used to describe the sample.

4.2.1 Distribution of parents

The following figure (4.1) shows the gender distribution of the respondents in the study.

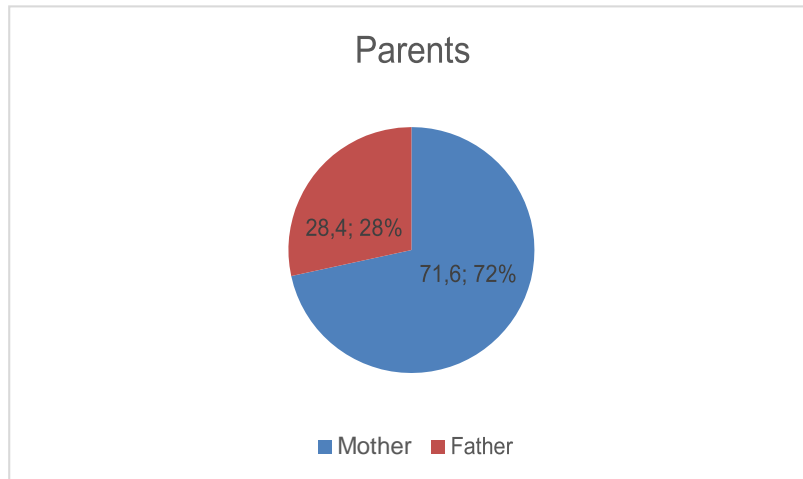


Figure 4.1 Gender of respondents

Figure 4.1 shows that almost three-quarters (71.6% n=48) of respondents were female and over a quarter (28.4% n=19) were male. This may be indicative of the fact that generally mothers will have maternity leave and will be available to visit during the visiting hours.

4.2.2 Respondents' age

Table 4.1 depicts the respondents' mean age and shows that the age of the respondents at the time of data collection ranged from 23–43 years with a mean age of 32 years.

Table 4.1 Respondents' mean age

Age of the parent M(SD)	32.4(±5.1) years
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4.2.3 Education level of respondents

Figure 4.2 shows the education level of the respondents.

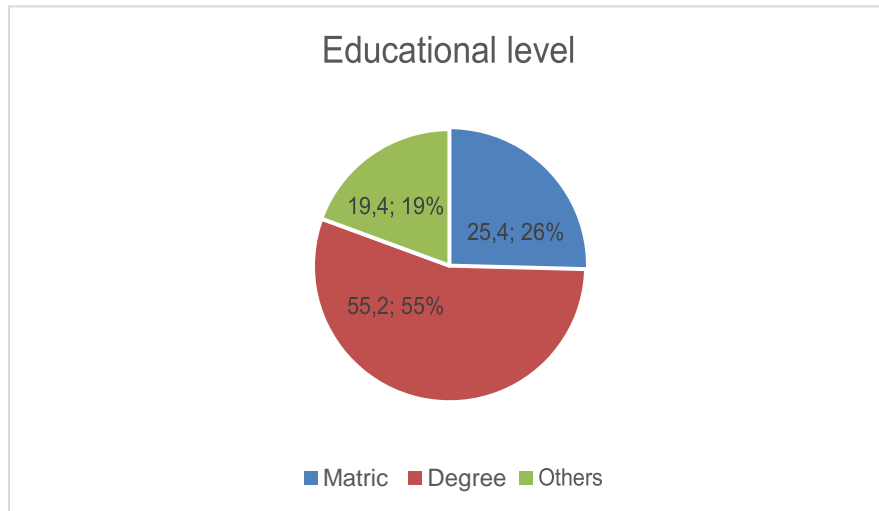


Figure 4.2 Educational levels of respondents

Figure 4.2 shows the education level of respondents. More than half (55.2% n=37) of respondents completed a degree, followed by a quarter (25.4%) who had completed matric and a smaller percentage (19%) who had completed “other” qualifications.

4.2.4 Employment status

Figure 4.3 indicates the employment status of respondents.

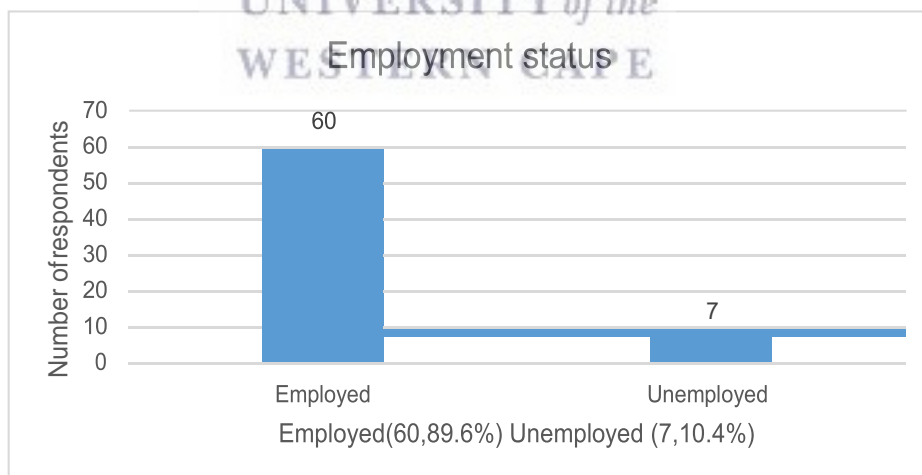


Figure 4.3 Employment status of the respondents

Figure 4.3 shows that the majority (89.6% n=60) of respondents are employed while the remainder (10.4% n=7) of respondents are unemployed.

4.2.5 Marital status of respondents

The following figure (Figure 4.4) reports the marital status of the respondents.

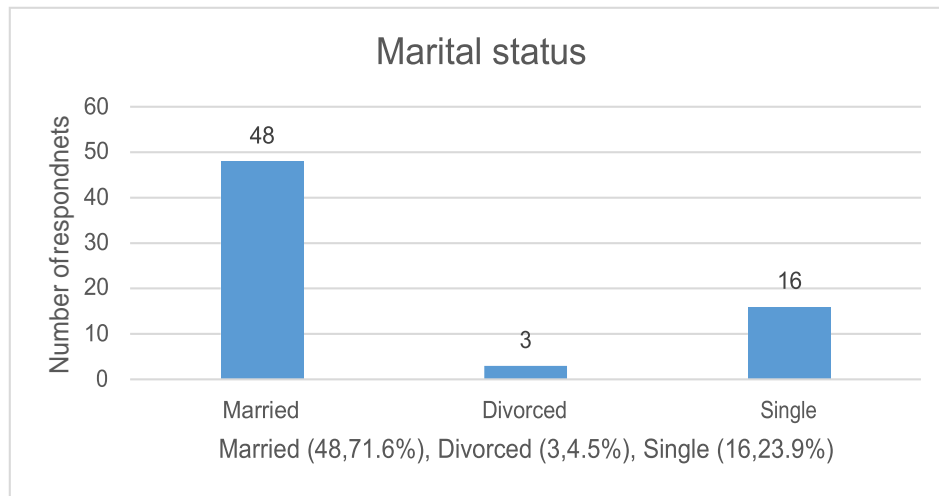


Figure 4.4 Marital status of the respondents

Results show that almost three-quarters (71.6% n=48) of respondents were married, followed by sixteen respondents (23.9% n=16) who indicated being single status parents and only three parents (4.5% n=3) who were divorced (Figure 4.4).

4.2.6 Distribution of ethnicity

Figure 4.5 shows the ethnicity of respondents. Results indicate that more than half of the respondents were of “coloured” ethnicity (55.2% n=37), followed by eighteen respondents (26.9% n=18) who were of “black” origin and twelve (17.9% n=12) who indicated “white” ethnicity.

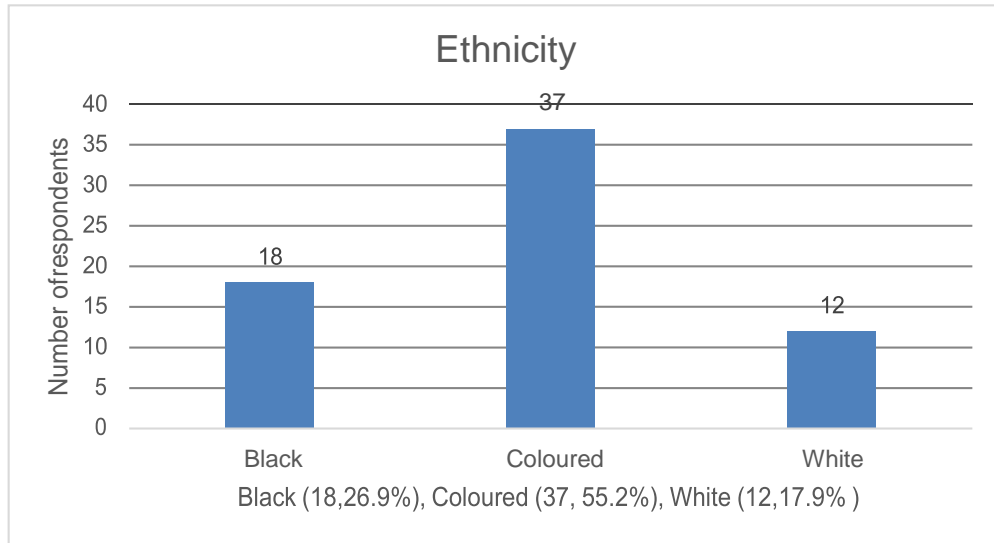


Figure 4.5 Ethnicity of the respondents

4.2.7 Distribution of respondents across hospitals

Figure 4.6 shows the distribution of respondents across the selected three hospitals.

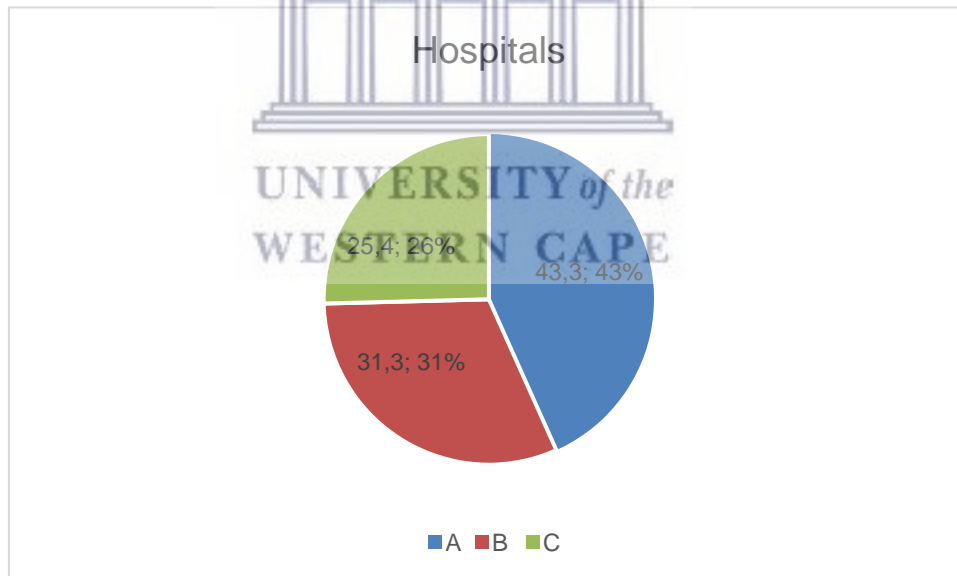


Figure 4.6 Hospitals of respondents

Three private hospitals were included in the study (Section 3.7). Respondents from Hospital A represented the majority (43.3% n=29), followed by respondents from Hospital B who represented almost a third (31.3% n=21) of the population, whereas hospital C had the least respondents (25.4% n=17).

4.3 Section Two: Parents' perception of nursing support in NICU

Parents' perception of nursing support was measured using several constructs based on the Nurse-Parent Support Tool (NPST) scale developed by Miles et al. (1999). Four major perceptions of supports were measured namely information giving support, emotional support, care given support and parental esteem support. The items comprising the tool are grouped into four subscales; with scores on the tool ranging from (1) being "almost never" to (5) being "almost always". The subscales are (1) information giving and communication support (four items); (2) emotional support (five items); (3) care given support (seven items); and (4) parental esteem support (five items).

4.4 Parents' perception of information giving and communication by nurses

This section is relevant to the first objective of the study and covers perception of parents regarding the information giving support from nurses. Table 4.2 depicts the results of the information giving support as determined by respondents. The purpose of this section was to determine the type of information support given to parents by nurses.

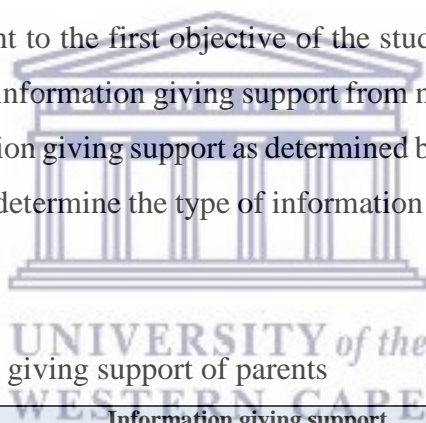


Table 4.2 Information giving support of parents

Information giving support					
	Items	N	Minimum	Maximum	M(SD)
1	Helped me understand what is being done to my child (for example: tests, treatments, medicines, etc.).	67	1	5	4.8(±0.4)
2	Told me about changes/improvements in my child's condition.	67	1	5	4.7(±0.6)
3	Encouraged me to ask questions about my child.	67	1	5	4.6(±0.7)
4	Helped me know the names and roles of the staff caring for my child.	67	1	5	4.6(±0.8)

Table 4.2 shows the information giving support and was measured by the respondent's agreement as the type of information provided to them. The purpose of Item (1) was to determine if nurses provided parents with information about tests, treatments and medicines of the baby. Item (2) sought to establish if parents were adequately informed about the changes and/or improvements in their child's condition. The purpose of Item (3) was to determine if nurses encouraged parents to ask questions about their child and Item (4) tried to determine if nurses assisted parents with getting to know the names and roles of the staff caring for their child.

All the items for information giving support were well rated with “nurses helped me to understand what is being done to my child” having the highest mean information giving support 4.8(±0.4). This was followed closely by “the nurses told me about changes/improvements in my child’s condition 4.7(±0.6). Item three (3), “encouraged me to ask questions about my child” had a mean score of 4.6(±0.7), followed by item (4) “helped me know the names and roles of the staff caring for my child 4.6(±0.8).

4.5 Parents’ perception of emotionally supportive behaviours by nurses

This section is relevant to the second objective of the study and covers perception of parents regarding the emotionally supportive behaviours by nurses. Table 4.3 below illustrates the results of emotional support of respondents as determined by the NPST.

Table 4.3 Emotional supportive behaviours of nurses

Emotional support					
	<i>Items</i>	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>M(SD)</i>
5	Were optimistic about my child	67	1	5	4.8(±0.6)
6	Responded to my worries or concerns	67	1	5	4.7(±0.7)
7	Helped me talk about my feelings, worries, or concerns	67	1	5	4.6(±0.7)
8	Let me know I am doing a good job in helping my child	67	1	5	4.5(±0.9)
9	Showed concern about my well-being (for example, sleeping, eating, etc.)	67	1	5	4.5(±0.8)

Table 4.3 shows respondents perception of emotional support received from nurses. Item (5) sought to establish if nurses were optimistic about their child and Item (6) tried to establish if nurses responded to respondents’ worries or concerns. The purpose of Item (7) was to determine if nurses helped or encouraged respondents to talk about their feelings, worries, or concerns. Item (8) sought to establish if nurses informed parents if they were doing a good job in helping their child and Item (9) tried to establish if nurses showed concern about the well-being of the parents (for example, sleeping, eating, etc.).

All the items for emotional support were highly rated with “nurses were optimistic about my child” having the highest mean emotional support 4.8(±0.6), followed closely by “nurse responded to my worries or concerns 4.7(±0.7) with the least perceived emotional support received been nurses showed concern about my well-

being 4.5(\pm 0.8) (Table 4.3).

4.6 Parents' perception of care given support of nurses

This section is relevant to the third objective of the research which sought to determine parents' perception of care given support or instrumental support given by nurses when their babies are admitted in NICU. Table 4.4 illustrates the results of care given support of respondents as determined by the nurse parents support subscale.

Table 4.4 Care given support of nurses

Care given support					
	<i>Items</i>	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>M(SD)</i>
10	Responded to my child's needs in a timely fashion	67	1	5	4.9(\pm 0.5)
11	Gave good care to my child.	67	1	5	4.8(\pm 0.6)
12	Were sensitive to my child's special needs.	67	1	5	4.8(\pm 0.6)
13	Allowed me to be involved in my child's care whenever possible.	67	1	5	4.8(\pm 0.6)
14	Taught me how to give care to my child.	67	1	5	4.6(\pm 0.9)
15	Helped me know how to comfort my child during or after procedures.	67	1	5	4.3(\pm 1.1)
16	Included me in discussions when decisions were made about my child's care	67	1	5	4.2(\pm 1.2)

Table 4.4 shows how respondents feel about the care given support received from nurses. Item (10) sought to establish whether parents felt nurses responded to the child's needs in a timely fashion and Item (11) sought to establish if parents felt that nurses gave good care to their child. Item (12) sought to establish if parents perceived nurses to be sensitive to the child's special needs, whereas Item (13) tried to determine if parents felt that nurses allowed them to be involved in the child's care whenever possible. Item (14) sought to establish if parents felt that nurses taught them how to give care to their child. Item (15) sought to determine parents' views on whether nurses helped them know how to comfort their child during or after procedures. The purpose of Item (16) was to establish if parents felt that nurses included them in discussions when decisions were made about their child's care. All the items for care given support were highly rated with "nurses responded to my child's needs in a timely fashion" having the highest mean care given support 4.9(\pm 0.5), with the least perceived care given support being "nurses included me in discussions when decisions were made about my child's care" 4.2(\pm 1.2).

4.7 Parents' perception of parental esteem support or appraisal support

This section is relevant to the fourth objective of the study which sought to identify parents' perception of parental esteem support or appraisal support while in the NICU environment. Table 4.5 shows the results of the parental esteem support of nurse parents support subscale.

Table 4.5 Parental esteem support or appraisal support

Parental esteem support					
	<i>Items</i>	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>M(SD)</i>
17	Showed that they like my child.	67	1	5	4.8(±0.6)
18	Made me feel important as the parent.	67	1	5	4.7(±0.8)
19	Answered my questions satisfactorily or find someone who could	67	1	5	4.7(±0.6)
20	Helped me understand my child's behaviour and reactions	67	1	5	4.5(±0.9)
21	Let me decide whether to stay or leave during medical procedures	67	1	5	3.7(±1.5)

Parental esteem support was measured by respondent's agreement to the items in Table 4.5. Item (17) sought to establish whether parents felt that nurses showed that they liked their child whereas Item (18) aimed to establish if parents felt that nurses made them feel important as the parent. Item (19) sought to establish if parents felt that nurses answered their questions satisfactorily or if they found someone who could help them. The aim of Item (20) was to establish if parents felt that nurses helped them to understand their child's behaviour and reactions. The aim of Item (21) was to establish whether parents felt nurses provided them with the option to stay or leave during medical procedures.

Almost all the items for parental esteem support were highly rated with "nurses showed that they like my child" having the highest perceived mean parental esteem support 4.8(±0.6). The least perceived mean parental esteem support been nurses "let me decide whether to stay or leave during medical procedures" 3.7(±1.5).

4.8 Total nurse parent support mean score

The overall mean score for parents' perception of nursing support was 4.6 (±0.5) out of a possible of 5 as depicted in Table 4.6.

Table 4.6 Total nurse parent support mean score

<i>Items</i>	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>M(SD)</i>
Total Nurse parent support mean score	67	2.7	5.0	4.6(±0.5)

4.9 Parents perception of nursing support by hospital

Table 4.7 shows the overall mean score of parents' perception of nursing support by hospital. No further analysis was conducted since there was no significant difference in the overall mean perceived support score for each of the three NICU in the different hospitals.

Table 4.7 Overall mean score of parents' perception of nursing support by hospital

<i>Hospital</i>	<i>N</i>	<i>M(SD)</i>
Hospital A	29	4.7(0.3)
Hospital B	21	4.5(0.5)
Hospital C	17	4.6(0.4)
Total	67	4.6(0.4)

4.10 Association between demographic variables and mean support score

Association between the demographic variables and mean perceived support were tested using Non-parametric Mann-Whitney (*U*) Test and Kruskal-Wallis Test (*H*). No significant differences were found in terms of all the demographical characteristics with regard to perceptions of the support that was received, thus indicating that there was no relationship between the demographic variables and the mean perceived support received by the parents at the NICU.

4.11 Association between hospitals and mean support score

Table 4.8 Association between hospitals and mean support score

<i>Hospital</i>	<i>N</i>	<i>M (sd)</i>	<i>Test</i>	<i>p-value</i>
A	29	4.7(0.3)	H= 3.9	.144
B	21	4.5(0.5)		
C	17	4.6(0.4)		

Association between demographic variables and mean perceived support score were tested using

non-parametric Kruskal-Wallis test. Significant at $p < .05$ two tailed

Association between the different hospital and mean perceived support were tested using Non-parametric Kruskal-Wallis test (*H*), no significant difference was found between the hospitals and the perceptions of the support that was received, thus indicating that there was no relationship between the hospital and the mean perceived support received by the parents at the NICU (Table 4.8).

4.12 Association age and mean support score

Table 4.9 Association age and mean support score

Age group of parents	N	M (sd)	Test	p-value
Younger parents (<30)	27	4.6(0.4)	U=506	.657
Older parents(30 and above)	40	4.6(0.5)		

Association between demographic variables and mean perceived support score were tested using non-parametric Mann-Whitney (U) Test Significant at $p < .05$ two tailed

Association between the age in groups and mean perceived support were tested using Non-parametric Kruskal-Wallis test (*H*). No significant difference was found between the ages and the perceptions of the support that was received, thus indicating that there was no relationship between age and the mean perceived support received by the parents at the NICU (Table 4.9).

4.13 Association between educational level and mean support score

Table 4.10 Association between educational level and mean support score

Educational level	N	M (sd)	Test	p-value
Matric	17	4.6(0.4)	H=0.9	.644
Degree	37	4.6(0.5)		
Others	13	4.7(0.3)		

Association between demographic variables and mean perceived support score were tested using non-parametric Kruskal-Wallis test. Significant at $p < .05$ two tailed

Association between the different educational level and mean perceived support were tested using Non-parametric Kruskal-Wallis test (*H*), No significant difference was found educational level and the perceptions of the support that was

received, thus indicating that there was no relationship between educational level and the mean perceived support received by the parents at the NICU.

4.14 Association between employment status and mean support score

Table 4.11 Association between employment status and mean support score

<i>Employment status</i>	<i>N</i>	<i>M (sd)</i>	<i>Test</i>	<i>p-value</i>
Employed	60	4.6(0.5)	H= 0.2	.703
Unemployed	7	4.7(0.4)		

Association between demographic variables and mean perceived support score were tested using non-parametric Kruskal-Wallis test. Significant at $p < .05$ two tailed

Association between the employment status and mean perceived support were tested using Non-parametric Kruskal-Wallis test (H), No significant difference was found between employment status and the perceptions of the support that was received, thus indicating that there was no relationship between employment status and the mean perceived support received by the parents at the NICU.

4.15 Association between marital status and mean support score

Table 4.12 Association between marital status and mean support score

<i>Marital status</i>	<i>N</i>	<i>M (sd)</i>	<i>Test</i>	<i>p-value</i>
Married	48	4.6(0.4)	H= 4.4	.113
Divorced	3	5.1(0.1)		
Single	16	4.5(0.5)		

Association between demographic variables and mean perceived support score were tested using non-parametric Kruskal-Wallis test. Significant at $p < .05$ two tailed

Association between the marital status and mean perceived support were tested using Non-parametric Kruskal-Wallis test (H), no significant difference was found between marital status and the perceptions of the support that was received, thus indicating that there was no relationship between marital status and the mean perceived support received by the parents at the NICU.

4.16 Association between ethnicity and mean support score

Table 4.13 Association between ethnicity and mean support score

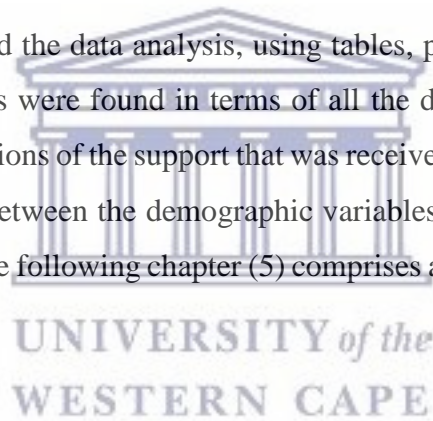
<i>Ethnicity</i>	<i>N</i>	<i>M (sd)</i>	<i>Test</i>	<i>p-value</i>
Black	18	4.6(0.4)	H= 0.1	.935
Coloured	37	4.6(0.5)		
White	12	4.6(0.5)		

Association between demographic variables and mean perceived support score were tested using non-parametric Kruskal-Wallis test. Significant at $p < .05$ two tailed

Association between ethnicity and mean perceived support were tested using Non-parametric Kruskal-Wallis test (*H*), no significant difference was found between ethnicity and the perceptions of the support that was received, thus indicating that there was no relationship between ethnicity and the mean perceived support received by the parents at the NICU.

4.17 Summary

This chapter discussed the data analysis, using tables, percentages and graphs, No significant differences were found in terms of all the demographic characteristics with regard to perceptions of the support that was received, thus indicating that there was no relationship between the demographic variables and perception of support (Tables 4.9–4.13). The following chapter (5) comprises a discussion of the findings.



CHAPTER FIVE

DISCUSSION OF THE FINDINGS

5.1 Introduction

This chapter discusses the results in the context of published literature. In the process of describing parents' perception of nursing support during their baby's stay in a neonatal intensive care unit (NICU) at selected private hospitals in Cape Town, the study sought to determine the information giving support, emotional support, care given support and parental esteem support of parents. This chapter will present and discuss the findings based and empirical literature will be used to place the findings in the context of the broader research on parents' perception of nursing support. This chapter is organised according to objectives.

- i. To determine parents' perception of information giving and communication by nurses;
- ii. To determine parents' perception of emotionally supportive behaviours by nurses when their baby is admitted to NICU;
- iii. To determine parents' perception of care given support or instrumental support given by nurses when their babies are admitted in NICU; and
- iv. To identify parents' perception of parental esteem support or appraisal support while in NICU environment.

5.2 Overall perception of nurse parent support

Nursing support is crucial to mothers in NICU to relieve stress experience during hospitalisation of their babies (Al-Akour et al., 2013). The parents of premature infants in this study indicated a high level of support as a high level of support was available to them during their baby's hospitalization, as evidenced by the fact that the mean scores of all of the items were above the midpoint on the scale. Similar results were found for Sikorova and Kucova (2012) who conducted a study on the needs of mothers to new-borns hospitalised in NICUs in the Czech Republic which reported a high level of nursing support. Similarly, an integrative review conducted by Butt et al. (2013) on parent satisfaction with care provided in the NICU reported

that majority of parents were highly satisfied with the level of support they received in NICU. This finding is in contrast with a study conducted in Poland on support provided by nurses to parents of hospitalized children which reported an unsatisfactory level of support given to the parents (Aftyka et al., 2017).

The level of nursing support reported in this study is higher than Mok and Leung (2006) that reported in previous studies from China on nurses as providers of support for mothers of premature babies. Sanjari et al. (2009) conducted a quantitative study conducted in Iran which aimed to determine nurses' support for parents of hospitalized children also reported a high level of support.

The high perception of nursing support as perceived by the mothers in this study can be explained within two views that nurses' knowledge and perception of the concept of mother's support is good and that the nurses not only focus on medical interventions but they pay detailed attention to the provision of holistic care. In addition, it is also important to support the father-baby bond and supporting co-parenting between the mother and the father because it has been found to benefit the health of the baby through improved weight gain and oxygen saturation and enhanced rates of breastfeeding (Fisher et al., 2018).

5.3 Parents' perception of information giving and communication by nurses

The availability of information and communication is a key factor in parents' perception of healthcare staff support (Brett et al., 2011; Weiss et al., 2010). It is important to consistently inform parents about their baby's condition, treatment plan, procedures, tests and prognosis as it creates a sense of awareness in them. Parents who are duly informed about their baby are more likely to actively participate in taking care of their baby and adapt to the stressful environment of the NICU (Velmurugan & Ravi, 2016; Al-Akour et al., 2013). Furthermore, information giving and good communication has been found to lower parent stress scores in NICU (Velmurugan & Ravi, 2016). Therefore, an improvement of staff skills of giving information and good communication will help decrease parent stress and therewith likely promote better parent-baby interaction in the NICU (Hasanpour, Alavi, Azizi, Als, & Armanian, 2017).

Findings from this study show that parents who have a child admitted to the NICU

revealed a high perception of information giving and communication support received from nurses. All the items for information giving support were well rated with “nurses helped me to understand what is being done to their child” having the highest mean information giving support. In contrast, Mok & Leung (2006) reported that that all mothers rated all nursing support items as important but reported the least support in the information giving and communication domains.

5.4 Parents’ perception of emotionally supportive behaviours by nurses

Parents of babies admitted to neonatal units experience an strenuous emotional journey which includes feeling of helplessness, fright, unhappiness, guilt and anger (Hunt et al., 2018) which requires emotional support that includes listening; exhibiting caring behaviour and being concerned in ways that help parents cope with the baby’s illness and other aspects of their lives. Our study reveals that parents felt that staff exhibited emotionally supportive behaviours when they made themselves available to them and showed compassion. This finding is consistent with previous international studies conducted in United Kingdom, California, Sweden that demonstrated the importance of emotionally supportive behaviour parents receive in NICU (Orzalesi & Aite, 2011; Weiss et al., 2010; Wigert et al., 2014). However, dissimilar results were reported by Lilo et al. (2016) in a study conducted in the United States of America who reported that mothers had more negative comments about emotional support they received from nurses during their stay in the NICU.

Responding with empathy and compassion makes healthcare meaningful, but may require energy beyond the professional role of healthcare staff (Martine, 2011). In maintaining the emotional supportive behaviour of these nurses reported in this study, there is a need of advance training for nurses and the minimization of work-related obstacles like overload of work to be able to support the role of the neonatal nurse in providing continuous emotional supportive behaviour to clients (Turner et al., 2014).

5.5 Parents’ perception of care given support by nurses

Findings from this study reveal that care given support received was high among

parents. Parents indicated that nurses responded to their child's needs in a timely fashion, followed by nurses gave good care to their child. However, some parents felt that the nurses did not give adequate support by not involving them when decisions were made about their child. This item had the least mean value of care given support received.

Parents' participation in decision-making concerning their child's care is an important part of good communication (Hawthorne & Killen, 2006). According to Wigert et al. (2014), parents in the NICU experience a sense of powerlessness and handle this stressful situation by seeking to participate in decision-making concerning their child. However, they were not always granted the opportunity to be a part of the decision-making process. Magliyah and Razzak (2015) report similar findings in a qualitative study conducted in Saudi Arabia on supporting parents at NICUs. Results from the study show that insufficient information regarding treatment and decision-making about the child in the NICU caused parents considerable stress. Similarly, Aftyka et al. (2017) also conducted a study on the support provided by nurses to parents of hospitalized children in Poland reported a high (4.08 sd 0.77) care given support.

Studies concerning parents' participation regarding decisions about their child's care and treatment at the NICU often frame this in the context of ethics that nurses have a special ethical responsibility to maintain (Turner et al., 2014; Daboval & Shidler, 2014; Martinsen, 2011) because, in a very vulnerable emotional situation for the parents, they have the power to decide how much involvement parents should have in their child's care (Wigert et al., 2014). However, communicative ethics proposes rules to ensure the unfettered, open and honest participation of each actor in the decision-making process to reach a consensus (Daboval & Shidler, 2014). Parents like to consider themselves to be part of the social environment of the care team in the NICU by being an active participant in decision made regarding their babies' health (Lyndon, Jacobson, Fagan, Wisner, & Franck, 2014).

5.6 Parents' perception of esteem support

According to the findings of this study, parents' perception of esteem support received while in NICU was highly rated. They agreed that the nurses showed that

they like their child being rated the highest while perceiving that the nurse did not let them decide whether to stay or leave during medical procedures and this was rated lower. Mothers presence during procedure can help alleviate their sense of a lack of control over the situation. This finding corroborate with a study from Poland on support provided by nurses to parents of hospitalized children which reported that respondents rated esteem support provided by the nurses the highest (Aftyka et al., 2017).

Contrasting findings were drawn by authors Lilo et al. (2016) that on overall, the mothers experienced more negative than positive experiences with respect to esteem support received.

High rate of instrumental support can be explained by the fact that education of young nurses is focused to a great extent on holistic care. Recognizing that parents are important contributors to quality care of their children, it is important to include the parents at every stage in their children's care and even hospitals are increasingly emphasizing family centred care fosters parent engagement and satisfaction with care (Cockcroft, 2012). Williams et al., (2018) also suggested that there is a need for staff training on awareness, communication, empathy, and other behaviours that might improve parental experiences in NICU.

5.7 Summary

Based on the objectives that were set, this study found that the parental support that nurses rendered was generally high in areas of information giving, emotional, care given and parental esteem which was similar to what was reported in other international studies. However, low rating was noted in an item of the parental esteem which is "letting them decide whether to stay or leave during medical procedures".

Families should be included in care of their babies as this promotes parental esteem. The next chapter presents the conclusions of the research findings, limitation and outlines recommendations from the study.

CHAPTER SIX

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

6.1 Introduction

Parents undergo negative experiences that include parental anxiety, depression, and posttraumatic stress when their new-born babies is hospitalised in neonatal intensive care unit (Feeley et al., 2011). At this crucial time, parental supports are essential for parents to cope with the NICU environment and improve the quality of care babies receive in the NICU. In this regard, nursing support is crucial to the family of babies admitted to the NICU, in order to ease and relieve pain and stress experience during hospitalisation of their children (Zavalgard et al., 2017). In this context, the study has illustrated the following key findings.

6.2 Key findings

The study set out to describe parents' perception of nursing support during their baby's stay in the NICUs at selected private hospitals in the Cape Town area. The study was guided by the objectives of the study.

The first objective of the study was to determine parents' perception of information giving and communication by nurses. Parents' perception of the information giving and communication support received from nurses was high. This is reflective of parents believing that nurses helped them to understand what was being done to their child. Also, nurses informed them about any changes and/or improvements in the condition of the baby and encouraged them to ask questions about their baby. Nurses also familiarised parents with the names and roles of the staff providing care to the child.

The second objective was to determine parents' perception of emotionally supportive behaviours by nurses when their babies are admitted to the NICU. The study found that the overall perception of emotional support by parents was high because nurses were optimistic about their child, responded to their worries and/or concerns, helped them to talk about their feelings, worries and informed them when

they were doing a good job in helping the child. Furthermore, parents reported that nurses showed concern about their wellbeing as well.

The third objective was to determine parents' perception of care given support given by nurses when their babies are admitted in NICU. This study found that care given support received by the mothers was also high because the mothers believed that the nurses responded to their child's needs in a timely fashion, gave good care to their child, were sensitive to their child's special needs, allowed them to be involved in their child's care whenever possible, taught them how to give care to their child, helped them know how to comfort their child during or after procedures and nurses include them in discussions when decisions were made about their child's care.

The final objective set out to identify parents' perception of parental esteem support while in NICU environment. This was also rated to be high based on the parents' perception that the nurses showed that they like my child, made me feel important as the parent, answered my questions satisfactorily or find someone who could help me understand my child's behaviour and reactions. However, parent reported low support in the area of letting them decide whether to stay or leave during medical procedures

No association was found between the demographic variables and the items of support.

6.3 Limitations

The study has several limitations.

Sample bias: There are three examples of sample bias present in this study. The first limitation is the fact that data was drawn from only one type of private selected hospital while the assumption is that all private hospitals have similar NICU contexts. A sample of one private hospital limits the generalisations that can be made from the data gathered and the conclusions reached in the study. This researcher therefore recommends that further studies should be conducted in other hospitals, if an overall perspective of NICU support is to be achieved. More so, the number of respondents was low for inferential analysis and it is recommended that

this analysis is repeated with bigger samples in a future study.

Response bias: Based on the fact that the data were self-reported, there is the possibility that some respondents may have given a socially acceptable response. This possible bias may have resulted in an over-reporting of support received (Polit & Beck, 2012). Further, only six fathers responded to the questionnaire

Instrument/Measurement bias: the instrument/tool used in this study was intended to measure overall support but was used in this study to measure each item of support separately, which could have affected the reliability of the findings. Though this is seen as a limitation, the overall responses infer that there is a high perception of support received by parents.

Quantitative method: Another limitation is that the study being only a mini-thesis used only a quantitative method that involved the use of a questionnaire to get participants' responses based on a specific set of options. Mixed methods of research which involve both qualitative and quantitative methods are recommended for future research.

Articles: In addition, the majority of the articles found were dated. It is anticipated that the findings of this study will provide this reference point for future researchers.

6.4 Recommendations for nursing institutions

The role of the neonatal nurse in providing support is complex and requires a high level of ongoing support and education for staff. Based on this study, the following recommendations are made to better support parents whose babies are admitted in NICU.

- Appropriate, on-going and timely in support for parents whose babies are in NICU must be made available in group and individual formats.
- It is recommended that nurses receive specific skill training for the establishment of effective family centered support. It is important that

nurses continue to develop their knowledge about types of support with the parents, especially in providing support for the parent role.

- Knowledge of the perceived support received by mothers can facilitate the development of intervention strategies primarily in relation to the parents.
- Staff should select a plan which includes support to parents by the NICU staff in all areas described. At the same time there is a need to adapt to the individuality of each family

6.5 Recommendations for future research

- After a critical analysis of the study, further on-going research is needed to gain a better understanding of nurse's perspectives of the support they give to parents of babies in NICU and to increase the amount of recent literature that currently exists on support for these parents, particularly in South Africa.
- Further, instruments that measure each of the support items separately need to be developed

6.6 Recommendations for policy development

- Integration and implementation of family-centred support is recommended in the policy, especially in the area of letting parents decide whether to stay or leave during medical procedures.
- Rules and regulations of the NICU, should be re-examined with family comfort in mind in addition to the clinical care of the infant policies.

6.7 Conclusion

The study investigated parents' perception of nursing support during their babies' stay in the neonatal intensive care unit (NICU) at three selected private hospitals in Cape Town. The findings suggest that though high parental support was reported, the area of involving parents in the care of their babies and letting them decide whether to stay or leave during procedures need improvement.

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2. APPENDICES

APPENDIX A: Nurse Parent Support Tool

The Nurse Parent Support Tool

SECTION A: DEMOGRAPHIC DETAILS

Please tick (✓) or fill the as appropriate answer in the space provided.

1. Age of the parentsin years
2. Education level Matric () degree() other ()
3. Gestational age of child:(please specify)
4. Employment status. Employed() Unemployed () other()
5. Marital status. Married() Divorced () Single ()
6. Ethnicity. Black () Coloured () White () Other ()

SECTION B: We are interested in learning your views about how much the nursing staff caring for your child have been supportive to you during your child's hospitalization.

For each question below, please circle the response that best indicates how often the nurses have helped you during this hospital admission.

The nursing staff at this hospital, in general, have

	Items	Always	Almost the Time	Most of the Time	Some of often	Not very often	Almost Never
1	Helped me talk about my feelings, worries, or concerns.	5	4	3	2	1	

2	Helped me understand what is being done to my child (for example: tests, treatments, medicines, etc.).	5	4	3	2	1
3	Taught me how to give care to my child.	5	4	3	2	1
4	Made me feel important as the parent.	5	4	3	2	1
5	Let me decide whether to stay or leave during medical procedures	5	4	3	2	1
6	Answered my questions satisfactorily or find someone who could	5	4	3	2	1
7	Told me about changes/improvements in my child's condition.	5	4	3	2	1
8	Included me in discussions when decisions were made about my child's care	5	4	3	2	1
9	Helped me understand my child's behavior and reactions.	5	4	3	2	1
10	Helped me know how to comfort my child during or after procedures.	5	4	3	2	1
11	Let me know I am doing a good job in helping my child.	5	4	3	2	1
12	Responded to my worries or concerns.	5	4	3	2	1
13	Showed concern about my well-being (for example, sleeping, eating, etc).	5	4	3	2	1
14	Helped me know the names and roles of the staff caring for my child.	5	4	3	2	1
15	Gave good care to my child.	5	4	3	2	1
16	Encouraged me to ask questions about my child.	5	4	3	2	1
17	Were sensitive to my child's special needs.	5	4	3	2	1
18	Allowed me to be involved in my child's care whenever possible.	5	4	3	2	1
19	Showed that they like my child.	5	4	3	2	1

20	Responded to my child's needs in a timely fashion.	5	4	3	2	1
21	Were optimistic about my child.	5	4	3	2	1



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APPENDIX B: Ethics approval from the Biomedical Research Committee UWC

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25 January 2017

Reference Number:

BM17/1/3

Project Title: Parents perception of nursing support in
neonatal intensive care units in private hospitals
in the Western Cape.

Approval Period: 15 December 2016 – 15 December 2017

I hereby certify that the Biomedical Science Research Ethics Committee of the University of the Western Cape approved the scientific methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval. Please remember to submit a progress report in good time for annual renewal.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics
Committee Officer
University of the
Western Cape

**APPENDIX C: Permission to conduct the study from the Netcare Research
Committee**

Faculty of Community and
Health Sciences,
School of Nursing,
Private Bag X17,
Bellville, 7535,
South Africa.
Tel: +27617378520
E-mail:
2748717@myuwc.ac.za
Date: 2/02/2017

Netcare hospitals Western Cape,
South Africa.



Re: Permission to collect data

I hereby request for your permission to collect data for my thesis from the Netcare hospitals NICU nursing. I am currently a registered Master's student with student number 2748717 in the Department of Nursing at University of the Western Cape.

As part of the requirement to complete this program, I will be conducting a study titled "Parents perception of nursing support in neonatal intensive care units in private hospitals in the Western Cape"

I attach with this letter my research proposal and ethics approval letter from the senate research committee. Your assistance will be highly appreciated.

Sincerely,

NDANGO.IN

APPENDIX D: Permission letter from CEOs of the three individual hospitals

Instructions: Please copy content onto hospital letter head

LETTER CONFIRMING KNOWLEDGE OF NON-CLINICAL FOCUS RESEARCH TO BE CONDUCTED IN THIS NETCARE FACILITY

Dear Immaculate Ndanga Ngwenya (Name of applicant)

Re Parental Perception of nursing support in neonatal intensive care unit in private hospital in Cape Town (Title of research)

We hereby confirm knowledge of the above named research application to be made to the Netcare Research and Development Department to the research application for Netcare Christian Barnard Memorial Hospital, subject to the following:

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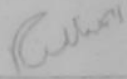
- i) That the researcher will obtain written consent prior to receipt of FINAL APPROVAL from the Academic Board of Netcare (Research Committee)
- ii) That the researcher will notify the Academic Board of Netcare (Research Committee) of the proposed date of commencement of the project in writing.
- iii) A copy of the research report will be provided to Netcare once it is finally approved by the tertiary institution, or once complete.
- iv) Netcare has the right to implement any Best Practice recommendations from the research.
- v) That the Hospital Management reserves the right to withdraw the approval for research at any time during the process, should the

Page 15 of 20
SOP: Application for approval of research
Version 1

research prove to be detrimental to the subjects / Welfare or should
the researcher not comply with the conditions of approval

We wish you success in your research.

Yours faithfully



Signed by Hospital Management

8/5/17

Date

Nursing Manager

(Specify designation)



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Lowlye Rothman Street, Goodwood, 7460
 P.O. Box 12581, Goodwood, 7463
 Tel: +27 (0) 21 590 4444
 Fax: +27 (0) 21 595 2304
 www.netcare.co.za

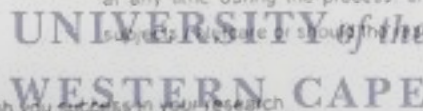
**LETTER CONFIRMING KNOWLEDGE OF NON-CLINICAL FOCUS RESEARCH TO BE CONDUCTED
 IN THIS NETCARE FACILITY**

Dear Immaculate

Re: Parents perception of nursing support in neonatal intensive care units in private hospitals
 in the Western Cape.

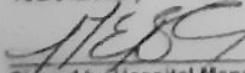
We hereby confirm knowledge of the above named research application to be made to the Netcare
 Research Committee and in principle agree to the research application for
 Netcare N1 City Hospital, subject to the following:

- i) That the research may not commence prior to receipt of FINAL APPROVAL from the Academic Board of Netcare (Research Committee)
- ii) That the researcher will notify the Academic Board of Netcare (Research Committee) of the proposed date of commencement of the project, in writing
- iii) A copy of the research report will be provided to Netcare once it is finally approved by the tertiary institution or once complete
- iv) Netcare has the right to implement any Best Practice recommendations from the research
- v) That the Hospital Management reserves the right to withdraw the approval for research at any time during the process, should the research prove to be detrimental to the subjects, Netcare or should the researcher not comply with the conditions of approval



We wish you success in your research

Yours faithfully


 Signed by Hospital Management

10/3/17
 Date

AM J. H. H.
 (Specify designation)

Netcare Hospitals (Pty) Ltd T/A Netcare N1 City Hospital
 Directors: J du Plessis, R H Friedland, K N Gilsen, C Grindell, N Philippson
 Company Secretary: I. Bagwandeen
 Reg No. 1986/00659/107



Tel: +27 (0) 21 900 6000
Fax: +27 (0) 21 900 6006
53 Van Riebeeck Road, Kuils River, 7580, South Africa
P.O. Box 1200, Kuils River, 7579, South Africa
www.netcare.co.za

09 May 2017

NYONKA IMMACULATE Ndango <2748717@uwc.ac.za>
Student Number: 2748717 - UWC

Dear Immaculate Ndango,

LETTER CONFIRMING KNOWLEDGE OF NON-TRIAL RESEARCH TO BE CONDUCTED IN THIS NETCARE FACILITY: *Parents perception of nursing support in Neonatal Intensive Care units in Private Hospitals in the Western Cape*

We hereby confirm knowledge of the above-named research application to be made to the Netcare Research Operations Committee and in principle agree to the research application for Netcare Kuils River Hospital, subject to the following:

1. That the data collected will be submitted to the University of FINAL APPROVAL from the Netcare Research Operations Committee.
2. A copy of the research report will be provided to the Netcare Research Operations Committee once it is finally approved by the tertiary institution and completed.
3. Netcare has the right to discontinue any data collected from the research.
4. That the Hospital/Site/Division Management reserves the right to withdraw the approval for research at any time during the course of the research if it is deemed to be detrimental to the subjects / Netcare or should the researcher not comply with the conditions of approval.

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We wish you success in your research.

Yours faithfully,

SIGNED BY HOSPITAL/SITE/DIVISION MANAGEMENT
C STEPHANUS
NURSING MANAGER

DATE: 09 May 2017

Netcare Hospitals (Pty) Ltd T/A Netcare Kuils River Hospital
Directors: J du Plessis, R H Friedland, K N Gibson, C Grindell, N Philipson
Company Secretary: L Dajwanden
Reg. No. 1998/008591/07

APPENDIX E: Permission to use the questionnaires from the authors

Permission to Use Research Instrument

From: Margaret S. Miles, RN, PhD, FAAN
Carrington Hall, CB 7460
School of Nursing
University of North Carolina
Chapel Hill, NC 27599-7460
mmiles.unicon@mhs.unc.edu

RE: Use of Nurse Parent Support Tool (NPST)

You are free to download and use the NPST for your research. However, the instrument is copyrighted (c) Margaret S. Miles. It may not be duplicated or copied without first submitting to Dr. Miles a request for the permission to do so. Requests for any changes or alterations should be submitted to Dr. Miles.

By filling in the information below, you are accepting the terms and conditions of the permission use below and you are hereby given permission:

- * to copy or refer to the NPST for use in your research. The permission is valid only for the study named below.

The author agrees to provide the following:

- * an abstract of the findings or copy of the results of your study when completed
- * copies of the NPST for use in your research. The permission to make

When using the NPST, please refer to the tool manual which is on this web page: <http://www.uwc.ac.za/npst>. The Nurse Parent Support Tool: A replication instrument manual.

I agree to the above conditions for using the NPST.

Name: Inmaculate Ntlangu
Address: c 205 Palm Springs
Wynelands Street / Brooklyn Cape Town
Phone Number: 0184161985
E-mail address: inmaculate@uwc.ac.za
Institution: University of Western Cape - Cape Town South Africa
Title of Research Project: Parents perception of nurses support in NICU
Signature: [Signature] Date: 6th Sep 2016

Please keep a copy in your files before mailing. For students, signing this form and mailing it to me should serve as permission to use this tool for your research report, thesis or dissertation.



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Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959 2271 Fax: 27 21-959 2274

E-mail: 2748717@myuwc.ac.za

INFORMATION SHEET

Title: Parents perception of nursing support in neonatal intensive care units in private hospitals in the Western Cape.

What is this study about?

This is a research project being conducted by Immaculate Ndango at the University of the Western Cape. We are inviting you to participate in this research project because you are parents of babies who are admitted to neonatal intensive care units in private hospitals in the Western Cape. The purpose of this research project is to describe your perception of the nursing support that you receive from nurses whilst your baby is admitted to neonatal care unit.

What will I be asked to do if I agree to participate?

You will be asked to complete a questionnaire that will take 20 minutes of your time after visiting time in the reception area and have it returned in a closed envelope that will be provided.

Would my participation in this study be kept confidential?

The researchers undertake to protect your identity and the nature of your contribution. To ensure your anonymity, the surveys are anonymous and will not contain information that may personally identify you.

- 1) Your name will not be included on the surveys and other collected data;
- 2) A code will be placed on the survey and other collected data;
- 3) Through the use of an identification key, the researcher will be able to link your survey to your identity; and password protected computer files will be used.
- 4) Only the researcher will have access to the identification key.

What are the risks of this research?

All human being interactions and talking about self or others carry some amount of risks. We will nevertheless minimise such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of

your participation in this study. Referral will be made to a counsellor who has been prearranged by the researcher for further assistance or intervention.

What are the benefits of this research?

This research is not designed to help you personally, but the results may help the investigator learn more about your perception of nursing support in neonatal intensive care unit. It is hoped that the information gained may assist the provision of support to other parents in your situation in the future.

Do I have to be in this research and may I stop participating at any time?

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

What if I have questions?

This research is being conducted by Immaculate Ndango from the School of Nursing at the University of the Western Cape. If you have any questions about the research study itself, please contact Immaculate Ndango at: School of Nursing, University of the Western Cape.

Phone number: 0784151935,

E-mail: 2748717@myuwc.ac.za

Dr S Arunachallam

Head of Department: School of Nursing

University of the Western Cape

Private Bag X17

Bellville 7535

sarunachallam@uwc.ac.za

Prof José Frantz

Dean of the Faculty of Community and Health Sciences

University of the Western Cape

Private Bag X17

Bellville 7535

chs-deansoffice@uwc.ac.za

This research has been approved by the University of the Western Cape's Research Ethics Committee. (REFERENCE NUMBER: *to be inserted on receipt thereof from the applicable Research Ethics Committee*)



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APPENDIX G: Consent form



UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21-959 2271, Fax: 27 21-959 2274

E-mail: 2748717@myuwc.ac.za

CONSENT FORM

Title of Research Project: **Parents perception of nursing support in neonatal intensive care units in private hospitals in the Western Cape.**

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

Participant's name:.....

Participant's signature:.....

Date:.....



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