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A Research Report submitted to the Faculty of Health

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JOHANNESBURG

UNIT IN AN ACADEMIC HOSPITAL IN
PARENTAL STRESS IN A NEONATAL INTENSIVE CARE
DECLARATION

I, Lil' Kiemenugu - Mvungu,

declare that this research report is my own work. It has not been submitted before for any degree or examination at this or any other University.

Witnesseeth, John Musa, the Chairman of the University of the

1, 13th of -8- 2009, Day of

Il Lil' Kiemenugu - Mvungu.
DEDICATION

To my darling husband Dr Robert Mungai for allowing me the opportunity to complete my studies successfully, with his unreserved support. To my children Asseni and Muna and Estef I am deeply thankful for your love, and to my dearest mother Tatu R. Kitengang'o, with appreciation and affection.

Muna Hussein Kitengang'o, who was the source of my inspiration

In loving memory of my father,
To God, my Rock and my Fortress.

To Professor Bruce, Head of the Department of Nursing Education for your time

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Version data collection.

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I would like to express my sincere appreciation and gratitude to the following people who

ACKNOWLEDGEMENTS
The overall results on three subscales demonstrated positive contribution on higher level.

From two groups of females, two subsamples were obtained, and every second parent on the list was selected. Data were obtained from two groups of participants, with 129 female respondents (n = 34) and 156 English respondents (n = 55). The first group was participants in the NICU with respiratory distress syndrome, weighing 2500 g and below. Every parent of both parents of the infants needing further care (sample n = 115) or the infants admitted in NICU with respiratory distress syndrome, weighing 2500 g and below, were included in the study conducted using mothers and fathers.

This was a non-experimental prospective descriptive study conducted using mothers and fathers. The implications of the research findings on the nursing staff in NICU, between staff and the parents of admitted infants contribute to parental stress and to source of stress. By using the PPSS NICU instrument to determine how the interaction with respiratory distress syndrome in NICU, the objectives were to identify the stress in NICU. The purpose of this study was to investigate the parents' whose infants are ill in NICU. The purpose of this study was to investigate the parents of infants admitted to the neonatal intensive care unit (NICU) are believed to experience increased fear, anxiety and depression, which consequently develops into a critical and stressful nature of NICU environment. Physical and emotional isolation from their infants is a major stressor of NICU environment. The parents have to deal with critical life events. The research aims to identify the factors influencing the stress.
Further explore and to validate the findings of this study in the South African context, the limitations of the study limit the general applicability of the findings to other NICUs. The inherent development for future prevention strategies of parental stress in the NICU. The inherent limitations stressors in this study formed a foundation for knowledge and skills.

Communication

be stressed than Zulu version respondents in relation to their behavior and stressful compared with younger parents. English version respondents were less likely to stress in this setting. Moreover, the findings demonstrated that older parents were less parents, which revealed the positive contribution of the parents who scored a low level of behavior and communication scored 28% - a low level of stress experienced by the Zulu version respondents were more stressed than the English version respondents. Self-scored 96%, which showed that the parents were stressed. However, the study found that compared with the less educated parents, parental role and interaction with the infant parents. Highly educated parents were found to be more stressed with this subscale.
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The experience of having an infant in NICU is always unexpected and often shrouded in a serious and overwhelming environment in NICU (Lyons-Ruth & Spelzina, 2004; Mills & Holditch-Davies, 1997). Parents are often devastated and hopeless, knowing their infant cannot provide the normal parental role for their critically ill infants who are struggling alone in a scary world. Parents are often described as hopeless and powerless in the NICU. Parents are not allowed to sleep over with their infants, for several reasons, including the concerns regarding infection with their infants. In NICU, the parents are not allowed to sleep over with their infants, with strict rules. I realized that management of a critically ill infant is bewildered their feelings of hopelessness and concerns about their inability to provide My interest grew after noticing that most parents often looked worried, and always cried. The inspiration to conduct this research developed over two months of working in NICU.

Backround of the study

1.1 Introduction

CHAPTER ONE

ORIENTATION OF THE STUDY
Inability to perform their role.

In some circumstances, the patient fail to establish a bonding with their
parents to handle the restrictions and demands on them regarding the care of their sick
child. (Lund, 2005; French, 2005). The feelings become even more difficult for the
parents to handle when restrictions are placed on them regarding the care of their sick
child. (Lund, 2005; French, 2005). The patients experience feelings of loss of
emotional feeling and dread to disappointment. The parents experience feelings of
loss of separation, fear of loss, and fear from the parents. This fear is associated with
thoughts of survival and compounded by the inability of the patient to work through their
needs. This worsens the parents' feelings of guilt and fear of loss.

Separation anxiety is a normal part of the bonding process. It is normal to
experience the anxiety of loss and separation. The anxiety of separation can be
overcome with support and reassurance. The anxiety of separation is a normal part
of the bonding process. It is normal to experience the anxiety of loss and separation.
The anxiety of separation can be overcome with support and reassurance.

harmful. 222 infants weighed 2 kg or below. Of these, 320 were diagnosed with Respiratory Distress Syndrome and
were admitted to the NICU. (Bergman, Kielman & Jensen 2002). The study was conducted among 371
infants admitted to the NICU in 2006-2007. This study was conducted among 371
infants admitted to the NICU. The study was conducted among 371

The experience provides an overall which highlights memories that often remain forever.

The experience provides an overall which highlights memories that often remain forever.

The experience provides an overall which highlights memories that often remain forever.
parental control and delay development of a relationship which should not be interrupted. Infants (Nyssen & Axelson, 2002). Distress between parent and infant increases early when cause fear, which causes parents to respond by distancing themselves from their own cause. When social engagement is detached in this way, child-parent relationship is lost. This development of social engagement between the mother and infant:

...highly specialized nurse, who sees to come between parents and infant causes a highly specialized nurse, who sees to come between parents and infant. These are the NCIUs, the maternity and power over shifts from the parents to the expertise of the NICU, the mother and infant. When the parent depends on others for everything regarding the care of their sick infant, the challenges of detaching and developing (Fridell, Edelman, Silver, &

...result in a delay in the initiation of the attachment process which expresses the infant to establish a secure attachment and the parents cannot perform the normal parental role. This situation causes a barrier and the parents cannot perform the normal parental role. This establishes the parent's identity. However, when the infant is admitted into the NICU, the mother and infant have less to face independently, leading to the diminished breast-feeding mother and infant. Alarming breast-feeding mother and infant exceed the capacity of basic care and this relationship continues throughout the infant and immediately when the baby is born. Care-learning to reach movement is a joy that combines two individual human beings and care. Learning to reach movement is a joy that combines two individual human beings, care and self-control. Some mothers would begin the habit of reading books for emotional support, and eventually, mothers stop and reduce habits that might harm the newborn baby. Such an improvement in nutritional intake in order to provide good nutrition to the fetus.

...Parental role stress while the focus is still in the mother, for example, the pregnant woman
Hygiene. When the parents perform their role effectively during this time, a
process occurs that is called dependency or the infant on the parents for nutritive and
attachment is voluntarily and mutually established. Parents make sure that the infant is
before even born. Parents always become closer to the infant when born, physically
labour period. These provide a foundation of bonding between mother and infant begun
focus by seeing well. These proactive behaviors continue throughout antenatal into
upon baby such as smoking and alcohol and mother provides good nutrition to the
by all means to make sure that the focus is provided from habits that might harm her
The parenting role starts as soon as the baby is born. During this period, the mother needs

1.3 Problem Statement

Response to stress (Haddick-Davis & Miles, 2000: 15). Members in the parents can contribute effectively in decreasing the levels of parents'
period (Feldman et al., 2002). Effective communication from both the self and family
members also adds a positive perception of comfort to the parents during this
successful and possible good outcome of their infant care support and love from the
The nurses in the NICU are often expected to bridge the gap because they are key to the

Davis, 1997).

Whenid, 2007; Signor, Selov, Ojo, Collins, Liley & Bailey, 1999; Miles & Haddick-

social engagement with the infant (La, Gurney, Pente-Thomas, Hayen, Weinberg &
mother becomes increased, which implies the maternal adaptation to infant's needs and
during the important time of the infant's life. The journey of parenting, especially for the
determine how the implications of the study will benefit the nursing staff in the NICU.

- Describes other experiences encountered by the parents during hospitalization of infants admitted into the NICU with respiratory distress syndrome.

- Determine how the interaction between staff and the parents of admitted infants impacts the source of stress using the PSS-NICU instrument for the parents of infants admitted into the NICU.

The objectives of the study were to:

1. Study objectives

- For at least two days and admitted to the NICU in an academic hospital in Philadelphia.

- Persistence syndrome (persistent maternal syndrome) weighing 2 kg or below and ventilated

- Questionnaires. The study was conducted on parents of infants admitted with respiratory distress syndrome, admitted into the NICU using the parental stress scale in the NICU (PSS-NICU).

The purpose of this study is to investigate the stress experienced by parents of infants

1.4. Purpose of the study

- Disappointment which leads to stress.

- Progression failure to provide protection in the early stage of their infant’s life provided before intervention. Parental intrusive response to any threat to the life of their infant is often described as excessive. An experienced NICU nurse is concerned about the life of the infant. However, if the relationship is recognized and bonding is established,
The NICU is a specialized and monitored health care unit provided for critically ill and premature newborn babies from birth to one month of age under the care of neonatal intensive care units (NICUs).

Term is also used to refer to a newborn baby from birth to one month of age or 28 days of age.

An infant is a premature newborn born before the 37th week of pregnancy. Common symptoms include insufficient organ function and is often very under weight and lacking self-sufficient organ function.

1.7.1 Infant

1.7 Definition of terms

1.7.2 NICU

1.7.3 Neonatal Intensive Care Unit (NICU)

What are the implications of research findings to the nurses in NICU?

What are the experiences encountered by the parents during their stay at NICU?

How do stress and communication contribute to parental stress?

What are the stresses of parents whose infants are admitted to NICU?
Infant Respiratory Disease Syndrome is a condition of significant deficiency and

1.7.6 Infant Respiratory Disease Syndrome

Higher than Grade 12.

After the Higher Education Amendment Act, 2008, higher education means qualification
means the education provided by the colleges or universities, according to the South
Higher education in this study is defined as education beyond secondary level, which

1.7.7 Higher education: (Clerk & Law, 2002: 443).

be liable or mother to the demands of occupying child care and child socialization roles
Parental stress is defined as adverse emotional reaction by an individual parent either can

1.7.6 Parental stress

demands on individuals, which can lead to stress reaction (Dudek-Shifer, 2004: 510).
Stressors are defined as physical and psychological elements of a situation that impose

1.7.5 Stressors:

The parent is a biological mother or father of an infant.

1.7.4 Parent

Barber, 2002: 186).
Significance of the Study

It is hoped that the information gained from this study will provide scientific evidence before the 37th week of pregnancy (Hockenbury & Wilson, 2007). Physiological immaturity of the theme, it is seen almost exclusively in premature who born.

Conclusion

It is necessary for the foundation of a life-long relationship between the parents and infants. Influence on the early establishment of maternal attachment to the infant, which is realistically about some of stress identification that can be changed. This may have a positive appearance of their infant whom admitted. This will empower the parents to be able the parents to be familiar with the NICU environment and understand better about the provision of education support to the parent before and after discharge of an infant will implement techniques important according to identified stresses. For example, nurses to narrow the gap caused by lack of scientific evidence for the purpose of and skill on parental stress knowledge and skills gained from this study will enable the needed to inform clinical practice and equip nurses staff in NICU with the knowledge needed to inform clinical practice and equip nurses staff in NICU with the knowledge.
Individual's personality (Cummins, Davies & Campbell, 2003), which may affect the individual's well-being, resulting in a negative change in the stress. However, in the ordinary use of the term stress, it operates on the emotional level, and which affect the emotional or in physiological as someone having hassles, is in a stressful environment or disstressive event (Cummins, Davies & Campbell, 2003). Any kind of changes that may evoke stressful reactions in an extra daily life stress exists when the individual, together with other factors such as daily stress is widely experienced in different disciplines and in everyday life situations. In this chapter, however, I will not discuss the sick interns, which are discussed in this chapter.

2.2 Stress

Stress is conceptual, defined by many other terms such as perceived, and conceptual stress, parental stress, and its consequences, end descriptive and does not have its roots in either a theory or a conceptual model (Pollock, 1992). However, the concepts of stress, parental stress, and its consequences are given. The descriptions of parental stress are explained in detail. This chapter presents the literature on parental stress, the important areas in the literature.

2.1 Introduction

LITERATURE REVIEW

CHAPTER TWO
negative behaviors such as mood change (Camphor, 2003). Balance of hormones. This results in changes in individual’s personality by increasing internal response of the brain which leads to stressful situations where stress is an emotional response. Psychological response to stress is an emotional change that can be measured. These include increased muscle tension, increased blood pressure, pulse rate and elevated skin response. Psychological response to stress is primarily an emotional response that appears in a nonverbal psychological stress (Kelt, 2004).

Halt of the normal coping process. Failure to adapt leads to either physical or psychological stress. Negative stress is when the human coping mechanisms exceed the perception of stress. Positive stress is when human beings cope with the demand that is influenced by the culture and belief of the individual (Archer, 2004). Psychological response to stress can be positive or negative depending on several factors including the nature of the stimulus, potential resources to support the individual, environment (Kuczynski, 2003). Stress is defined as the condition that causes interactions between people and their environment. When the body or part of the body reacts to a stimulus placed upon it, called a stimulus. When the body or part of the body reacts to a stimulus placed upon it, called a stimulus. It is termed a response (Shen, 2000). However, the word stress is defined as the condition that causes interactions between people and their environment.
because they may have difficulty obtaining the adequate social and financial resources

paying for basic child-needs. For parents with an infant in NICU, it is even worse

It has been shown that many parents with infants who are healthy at home have difficulty

of hopelessness, fear and anxiety (Lee, Chen, Wang & Chen, 2007: 166),

failing to provide all the resources needed by the infant when admitted results in a feeling

and health-care resources (Khambhala & Wolfe, 2002). Having a serious illness (2000),

Taking care of an infant in neonatal intensive care requires considerable social, financial

Healthy infants (Khambhala, Kershaw, Elster & Lewis, 2007),

taking care of infants with special needs is high compared with taking care of normal

characterized by increased psychological stresses in the parent arise because the cost of

who requires special needs. Pressure such as decreased health and well-being, which is

have a higher level of pressure associated with the demands of taking care of an infant

(Cong & Low, 2002:249). For example, parents having an infant with health problems

other or multiple, to the demands of occupying child-care or child-association roles

Parental stress is defined as an adverse emotional reaction by an individual parent; either

2.3 Parental stress

Professional helps concerned with stress, including parental stress.

Discussion provides the insight and basic foundation which applies in different

However, the study investigates the stress of parents of infants admitted into NICU. This
Stress in parents overides the buffering, resulting in decreased health. Increased stress in parents overides the buffering, resulting in decreased health. (Dawson, Valentine, Pendergast, Hess, & Tarnada, 2003).

Parents who experience higher stress during the early stage of an illness, the may present with decreased levels of biochemical, emotional, and physical distress. For optimal maternal engagement during the parent-child period, evidence shows that lack of competence from parents does not stop after the infant is born. Evidence also shows that lack of competence from parents does not stop after the infant is born. Evidence also shows that lack of competence from parents does not stop after the infant is born.

Failure to obtain adequate access disrupts the confidence and competence of the patient. Failure to obtain adequate access disrupts the confidence and competence of the patient.

When the parents are healthy, they will be able to focus and take care of their infant's health. When the parents are healthy, they will be able to focus and take care of their infant's health.

2.3.1 Consciousness of parental stress

Sufficient funds (Young, Davis, & Schoen, 1998; Hallon, Olson, & Inkelas, 2000). They need to wash their infants every day in the hospital. This is costly and needs...
that persist into later childhood (Miles & Holditch-Davis, 1997: 256; Pedersen et al., 1997: 176). Exposure to a range of developmentally enriching and novel skills in maltreatment environments by decreasing maternal touch, vocalisation and gaze. This also

helps (1999: 174). However, when the parents fail to relate to their infant, it leads to a delay in maternal attachment in terms of a lower maternal deprivation in infant's eyes (Feldman, 1995). Consequences of reduced ability to establish personal identity. This affects the ability of the parents to read the infant's

poor quality of attention and lack of consciousness from the parents may result in

DAVIS & MILLES, 2000;

parental role in the inability to share concerns (Miles & Holditch-Davis, 1997: Holditch-Davis 1997). Parental role in care poor attention from staff, which may result in poor co-relation from the

and nurses was

reducing ability to stand stress, and results in withdrawal from social interaction (Frances,

isolation brings a sense of personal responsibility, increasing psychological stress by

Miles, 2000: 18).

early depression toward the infant care, and isolation may result (Holditch-Davis &

pedestal role (Holden et al., 2007; Osborne, Hegedahl & Hegelin, 2007 and Sepa, 2004).

can cause parents to respond to stress physiologically due to the environment and
then impose demands on parents when their infant is admitted to NICU. These stresses
stressors in NICU identified as the physical and psychological elements of a situation

 centers, 1999). It is already known that there are more stressors in NICU than in the general
parent with their infant in NICU. Since then other researchers have been built on what
1998, as described in the original article in this field to discuss about stress of the
awareness of parental stress in NICU has evolved as a leading issue since the 1980’s. In

2.4 Parental stress in NICU

admitting an NICU patient into NICU.

This study therefore, was to investigate the stress experienced by parents of infants
the care of health providers and interests of the South African community. The purpose of
positive outcome on an infant who is admitted to intensive care. It is important to note that
should be taken into account. This is important for the wellbeing of the parents and a
understanding and identification of the factors that influence parents’ response to stress
parents being stressed and the effects on the infant. It may be concluded that in

cohort study process directly (Pohlmann et al., 2002). Knowing the consequences of
parental stress may set indirectly through maternal behavior, or may affect the infant’s
inhibit later cognitive development and poor motor skills (Feldman et al., 2002).
Delayed maternal attachment associated with hospitalisation of the infant also expose the
cannot help their infants. (Frank et al., 2005; Cox, Allen & Whiner, 2004).

their infants. This is because the infant is alone in the strange environment and the parents procedures being done to their infant; causes concern to the parents about the outcome of

The name of the environment, surrounded by health-care professionals and different

2005; Whiner, Carlson & Funk, 1996)

unpleasant sights. These can provoke stress to the parents (Frank et al., Cox, Allen & Whiner,

induces such as drops and a nasal gauge being put into their infants' and loud sounds and

this infant in order to measure vital signs; seeing the environment such as nurses and

machine system, for monitoring the infant's breathing; monitoring equipment attached to

highs all over the unit and the bright light on the infant bed; noise of the life-support

Physical elements of the NICU environment: Being surrounded by strange: bright

well-known to the parents.

in technological devices in the unit, and machines surrounding the infants, which are not

The NICU environment is documented as a physical element that imposes a demand on

NICU environment

& Whiner, 2000). More of these factors will be discussed under the following heading

outcomes: (e) loss of parental role; (f) interaction with the providers (Hollingsworth)

perceived experience; (e) the infant illness appearance and treatment; (d) concerns about

of other factors such as: (a) Pre-existing and concurrent family factors; (b) personal and

psychologically due to their having a sick infant admitted into NICU under the influences
2.6 Having a sick infant

Having a sick infant, soon after delivery is always unexpected, and associated with increased psychological stress and pain, which may result in stress (Olin & Foxell, 2003: 154).

Admission of a sick infant is always surprising, because parents expect to have a healthy infant. This starts when the mother is in labour. These expectations lead to mixed feelings of joy, excitement, and pain, which may result in stress (Olin & Foxell, 2003: 154).

The birthing process is traditionally known as the most painful process (Barclay, Everett, Rogan, Schmied & Wylie, 1997; Holgersdottir & Karlsson; 1996). Usually, mothers experience changes in mood, decreased health-promoting behaviour and increased negative supportive behaviour. These are characterized as psychological stress.

(Kell, 2004)

The interaction between the parents and the NICU environment is perceived as stressful, which threatens the wellbeing of the parents, and leads to a stressful reaction (Kell).

2004), parents who are familiar with the NICU environment were found to respond positively to the stress compared with those who were no familiar. This was found to happen more with the educated parents who appear to be less stressed compared with less educated parents, when their infant is admitted into NICU (Oudesk· Strible, 2004).
stress in relation to parental role. They discovered that mothers of sick infants

Nysson and Axelson (2002) conducted a study in Sweden on the different physiological

Axelson, 2002)

as parents cannot provide (Dyson, 1999; Roach, Oregon & Bartell, 1999, Nysson &

injuries to vertebrate species, and being very sick under medical attention which they

with changing needs. This leads to a higher response to stress, due to the inability of their

However, when the infant is admitted into NICU, it appears that parents do come to terms

and outlook on life (Franck et al., 2005).

their ability to handle stress, contributed by an individual social and cultural background.

Although parental expectations differ from parent to parent on what they dreamed of

Brunsson, 2003).

stress compared with parents of the full-term infant during hospitalization (Ahles &

with a premature infant experience a significantly higher incidence of psychological

the infants is admitted into NICU (Dyson, Moscow & Dreyer, 2000; Pritch, 2000). Parents

adaptation of emotional strain which leads to direct stress in the parent – more so when

However, giving birth to a birth of a sick infant disrupts the normal routine of positive

(Heden, 2002).

emotional strain undergone during the birthing process soon after having a healthy infant.
in the hospital (Jackson, Tremeschi, & Scharl, 2002). Mothers encounter higher anxiety when their infant is admitted to the NICU than fathers. Even the way mothers and fathers cope with the stressors when their infant is admitted was found to be different (Pringle, 2000).

Additionally, even the way mothers and fathers cope with the stressors when for the mothers. They are usually the primary caretakers in the infant's care (Pringle, 1994). The levels of stress in mother and father were found to be different, being more stressful 2001; Duke-Steiner, 2004).

protected their infant from harm and handled procedures performed in the NICU (Hunten). This involves feelings of helplessness, confusion and misunderstanding, since they cannot prevent admission of the infant brings about special challenges to both parents. In 2002, the parents of the infant admitted to the NICU are assessed as having increased levels of stress (Hunten, Puffer, 2002; Ryan-Wenger, 2002; Nguyen & Anderson).

Many studies have shown that researchers are concerned about whether there is more stress in the mother or in the father of an infant. According to previous studies, both were found to experience greater stress (Hunten, Puffer, 2002; Ryan-Wenger, 2002; Nguyen & Anderson). However, a new study comparing their stress revealed that mothers of healthy infants, believed to have experienced psychological stress, felt less confident in parenting roles compared with mothers of healthy infants. This was because, sometimes, they coped with their infants' psychological problems without professional assistance.
2007, infants are entered into NICU (Kell, 2004; Wilsey, Steeves, Serson, De Vogel, & Halm, 2004) and absence of social support that contribute to the parent's response to stress when their infants are admitted (Docente, Moser, and Drescher, 2000; Dukek, Swithin, 2004).

Although both experience stress equally, mothers were found to have significantly higher anxiety and poorer adjustment than the fathers when their infants are admitted. These findings are supported by Althide (2005) from the Texas at Austin Hospital, who concluded that mothers and fathers differ in the way they perceive stress even though both find the experience from hospital to admission of their infants as a whole equally stressful.

When their infants are admitted (Board & Ryan-Getty, 2006), what is happening to their infants seems to be more important to fathers than to mothers, with the same trend noted by Axelson et. al. (2007). The information about physical maltreatment and the presence of attachment and social support with their infants were found to be more important with receiving information and more engaged.
Involvement in the infant's care (McKenzie, Murray, Michaelson, & Hegele, 1996)

Parents disengage themselves from their infants, and even from the professionals
(Sheilds-Poe & Pinnell, 1997: 32), the experience leads to mood change, resulting in
same feelings toward their infant. This causes an emotional reaction which leads to stress,
of single parent to share their emotional concerns with the person who have exactly the
stress compared to the parents who are married or who had partners due to an inability
parents who are single with initially ill infant in NICU found to be significantly more

Casey, 2007: 88)

with parents without these characteristics (Hovitz, Higes-Cowen, & Storer-Ilerst et al.
more stressful the events. They are therefore more likely to be stressed when compared
unemployed and single parents with more children and with poor social support, had
Young parents and socio-economically disadvantaged, low-income, low-education,

health care (Grant, O'Conor, Davis, Roache, Ponder, et al, 2000). Those admitted into NICU, due to limited resources or insufficient funds to cover their infants
poverty have been demonstrated to cause stress to the parents when their infant is
certain conditions that predispose the parents to stress (Kell, 2004: 662). Factors such as
These contributing sources are seen as something relative or unavoidable, which create
In the next chapter the research methodology used for this study will be addressed.

Chapters the consequences of parental stress to the parents themselves as well as the stress in general. Factors contributing to parental response to stress are described. It also provides insight into parental stress and parenting.
Introduction

Any intervention (Burns & Grove, 2003:202).

Descriptive study focuses on describing the phenomenon as it naturally happens without relationships and examines causes and effects of interventions among variables. A quantitative research, as a formal objective, systematic process that describes, tests, or establishes a relationship between two variables. Descriptive study was used. Burns and Grove (2001:80) describes a non-experimental descriptive design was used to meet the objectives of the study.

3.2 Research design

are explained.

The pilot study are described. Ethical considerations, validity, reliability and data analysis procedures are outlined. The data collection instrument, data collection procedures and data analysis procedures are described. The study setting, the design, population and sampling frame including admission into NICU. The study setting the design, population and sampling frame are described. A quantitative research approach is used to investigate stress experienced by parents of...
Sample of 100 parents

More than fifteen questionnaires were excluded from the data analysis due to incomplete data. Two hundred and eighteen parents participated in the study. A second, smaller sample of sixteen respondents was selected using systematic random sampling. Every second respondent was included. The name of each parent (respondent) was written in the study if both parents of an infant (father and mother) wished the infant together, understood and were able to communicate in English or Zulu language in order to be included. At least twice weekly in NICU, parents had to be willing to participate and were able to verbalise for at least two days. Parents interviewed had to have visited their neonates at least once to be included in the study. Parents aged above 18 years were chosen whose infants were admitted to NICU with respiratory distress syndrome weight of 2 kg and below, and where the infant was admitted to NICU.

3.5 Sample and sampling method

In the study, the research team interviewed approximately one and a half hours, which exceeded the research time limit.

The larger population comprised parents aged above 18 years, whose infants had been admitted to NICU.
stress of having an infant in NICU.

responses. It was assumed that each parent had a different perception and response to the situation and therefore were both interviewed separately to avoid influencing each other's answers. Concluded by the researcher, information was given to the parents selected and appointments for interview was

The sample: criteria in order to have a chance to participate in the study. See 3.2 eligibility criteria for the sample. Parents were considered for the study. Although parents also needed to meet their eligibility criteria, whether the infant had been ventilated for at least two days. If the infant met the criteria, they were invited to the criteria, i.e., aged below one month, weight ≥ 2 kg and below, and

When an infant was admitted to NICU, the researcher read the infant's file to find out if

Data collection procedure

and parents.

3.7 Eligibility criteria for the sample

Please refer to 3.5 above with the regard to the selection criteria for both infants and parents. In order to give equal opportunity to all parents selected in the language, the age of the parents also were taken into account and choice of two different criteria were selected before their parents were considered for eligibility in the study. However, the age of the parents as well as the infants in NICU. Infants less than one month who met the eligibility criteria for the sample in this study were divided into two parts because it
intensive care unit, the responses to the PESS-NICU scale were scored on a 4-point scale.
asked to tick the column which described their experience or having an infant in an role and option subscales: staff behavior and communication where the parents were asked to describe their experience with their infant and parental data consisted of four main subscales: sight and sound, infant appearance and behavior, parental data consisted of three parts. The first part involved 29 closed-ended questions, with 2 data were collected from January to April 2007. The questionnaire used to collect the
3.8 Data collection technique and instrument

names of respondents were replaced with code numbers to ensure confidentiality.
available on request. Postal and e-mail addresses were supplied to each respondent. The researcher informed the respondents that the research findings would be made
researcher so that she could participate in the study. mother asked the nurse who was taking care of her infant to make an appointment with appointment was cancelled until she had had three days of counselling. Therefore, the her second experience of having a child admitted to an intensive care unit. The
only one mother was referred for counselling and, according to her explanation, this was
refused to complete the questionnaire.
researchers' assistance observed for any signs related to crying, any discomfort, and or
approximately 30 minutes to complete. During data collection, the researchers and the
Data collection took place in one of the private rooms at NICU and the procedure took
are any association between education, marital status, age and gender of the parents (Appendix 2) used in order to assess differences between participants in order to accommodation all the participants in the study and to make sure that all parents got an equal opportunity to participate. The third part of the information was demographic data.

The instrument was translated into Zulu in order to accommodate all the participants in the study and to make sure that all parents felt having an input in NICO. The instrument was translated into NICO instrument. These questions focused on the theoretical knowledge relating to how information and to identify other stresses apart from the ones mentioned in the PSS inventory in NICO. The objective of this part of the questionnaire was to gather more information and in order to identify other stresses apart from the ones mentioned in the PSS inventory in NICO. The PSS inventory is used to measure the degree of stress experienced by individuals in their daily lives. The instrument has been validated and found to be a reliable and valid tool for measuring stress. The instrument consists of 10 questions, each of which is scored on a scale of 1 to 4. A score of 4 indicates a high level of stress, while a score of 1 indicates a low level of stress. The questions were asked in order to collect the data considered of

The second part was self-administering questionnaire used to collect the data consisted of

subscale:

The total number of items in the scale multiplied by hundred to get the percentage of each subscale. The scale is scored on a scale between 0 and 1. A score of 0 indicates no stress, while a score of 1 indicates a high level of stress. The questions were asked in order to collect the data considered of

on which the parents had to rate the level of stress for each item from 0 to 1.
The questionnaire was piloted at the academic hospital from 31st to 30th December 2006.

3.9 Pilot study

First, second, and third objectives.

Hospital. Furthermore, the fourth objective will depend on the research findings from both objectives on other experiences encountered by the parents during their initial stay in the respective distress syndromes. Self-administering questionnaire intended to answer third objective on INFJ with the RSS. NICU instrument for the parents of infants admitted in NICU with e and d aim to meet the first objective of the study in identifying the source of stress and the parents of admitted infants contribute to parental stress while sub-scale a, b, c, and d aim to meet the first objective of the study in how to determine the interaction between the optional subscale stress behavior and communication with the parents (1-3 Items).

(d) Stress behavior and communication with the parents (1-3 Items)

(c) Parental role and interaction with the baby (7 Items) and optional subscale

(b) Appearance of the neonate (1-3 items)

(a) Sleep and the sounds of NICU (6 Items)

Stress related to:
to my baby.

Question 26 Was New pulling me enough about tests and treatment being done

Now: Still using simple words to make me understand.

Question 28 Was Still using words I don't understand

Now: Start explanation of the procedure was good.

E. Question 27 Was Start explain things too fast.

effects:

the parents were stressed with the short explanation. The following changes were
explained from the start. However, if the parent rate on moderate stress level it means
explained anything on higher stress level for examples start explanation of the procedure was
changed anything on higher stress level for example start explanation of the procedure was
Questions were rephrased in positive for local understanding in order which does not
change anything on higher stress level for example start explanation of the procedure was
Questions were rephrased in positive for local understanding to which does not
in positive statement requested after consultation the senior researcher in the unit
behave oneself presented in negative behavior changes of these question from positive
in a negative statement however other questions in subscale start communication and
the results of the pilot study revealed that all these questions 27, 28, 30 and 33 were asked
came back without answering questions 27, 28, 30 and 33. Only two questionnaires were fully completed and the rest
(Barua & Grove, 2003) Even respondents gave answers all the questions asked except


number of different assessment approaches including content and construct validity.

As superseded to measure (Palm & Cross, 2001: 279), validity of the instrument has a

The validity of the instrument refers to the degree to which an instrument measures what

validity

3.10 Validity and reliability of the instrument

changes were made.

PSS: NICT. The six questions were later included in the main study. Since no

subscale of the instrument was combined in both the English and Zulu version of the

be clear, and whether the information required to meet the objectives of the study. The

The revised instruments were re-scored with six parents. The instrument was found to

39. Will ask for permission for everything they did to my child.

38. I may wish my baby any harm I wish, still allows me.

The following questions were added to the schedule:

the unit

Now: Easy to get information and help when I wish or telephone

telephone the unit.

Question 33: Very difficult in getting information or help when I wish or
done to my baby.

Now: Still gave me information about tests and treatments being
of the pilot study. Several characteristics were considered such as reliability whereby the

instrument was tested and re-tested in the form of all these subscale measures which it supposes to (see Table 3.1 end results on p.103).

reliability was demonstrated on the subscales were performed in order to make sure that
the measure correlation test among four subscale were performed in order to make sure that
according to the degree of consistency and accuracy which the instrument designs to

(Appendix 1)

stress for one parent to another from each item and overall stress from each subscale
was reliable to use in this study because it measured consistency the occurrence of the
attribute is designed to measure (Burns & Grove, 2000: 266). The PSS-NICU instrument
reliability means the degree of consistency or accuracy with which an instrument of the

3.10.2 Reliability

subscale of the instrument to specialties parameter measures.

Instrument reliability was determined in the study. Content validity was ensured by

400). The content validity in this study was assured by addressing the extent to which the
the major elements relevant to the construct being measured, (Burns & Grove, 2001:
content validity examines the extent to which the method of measurement includes all

3.10.1 Content validity

content or concept being examined (Burns & Grove, 2001: 277).

Content validity of an instrument is a measure of how well the instrument reflects the
Note: During the data collection, two versions of the instrument were used: one in English and the other in Zulu. No differences in response patterns were noted between the two versions. The researchers employed a dual-collection method in which the Zulu version of the instrument was used for the first 30 respondents, and the English version was used for the remaining respondents. This was done to ensure that the responses were comparable between the two versions. The reliability coefficient for the Zulu version of the instrument was 0.82, while for the English version, it was 0.78. This indicates a high level of reliability for both versions of the instrument. The final version of the Zulu instrument was then used for the entire study, and the reliability coefficient was 0.82, indicating that the instrument was reliable for measuring the construct of interest.
Although the sub-scale, parental role and interaction with the infant was loaded more strongly on all other three sub-scales (skills and sounds, infant appearance and behavior), the sub-scale, parental behavior, and self-behavior had significant p-values (0.0224). The parental role and interaction with the infant was loaded more strongly with the p-value 0.01; the infant behavior and appearance, infant appearance and communication with parents, and the p-value was 0.01; the infant behavior and appearance, self-behavior, and correlation demonstrated statistical significance; the infant behavior and appearance, correlation of subscales (p) and p-value (see table 3.1 above). The majority of score Pearson's chi-square (p) and p-value (see table 3.1 above). The majority of score Pearson's chi-square (p) and p-value (see table 3.1 above). The majority of score Pearson's chi-square (p) and p-value (see table 3.1 above). The majority of score Pearson's chi-square (p) and p-value (see table 3.1 above). The majority of score correlation determined that the subscales were more than 0.4. Table 3.1: Correlation among four sub-scales of PSS: NICU.

<table>
<thead>
<tr>
<th>Sub-scale 1</th>
<th>Sub-scale 2</th>
<th>Pearson's Correlation</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental role and interaction</td>
<td>Communication and Self-behavior</td>
<td>0.4475</td>
<td>0.0768</td>
</tr>
<tr>
<td>Parental role and interaction</td>
<td>Infant behavior</td>
<td>0.4341</td>
<td>0.081</td>
</tr>
<tr>
<td>Infant behavior</td>
<td>Infant appearance and communication</td>
<td>0.4865</td>
<td>0.0464</td>
</tr>
<tr>
<td>Infant behavior</td>
<td>Sounds and Stighs</td>
<td>0.4906</td>
<td>0.0442</td>
</tr>
<tr>
<td>Infant behavior</td>
<td>Parental behavior</td>
<td>0.8252</td>
<td>0.0000</td>
</tr>
<tr>
<td>Infant behavior</td>
<td>Parental role and interaction</td>
<td>0.8079</td>
<td>0.0000</td>
</tr>
</tbody>
</table>
3.11 Data analysis

Interchange with the Infant

has got nothing to do with the infant appearance and behavior and parental role and found in the sights and sounds, which were not loaded to any of the sub-scales because it NICU have nothing to do with the sights and sounds in the unit. The same result was regard to self behavior and communication with the parents. This means that skill in items because more than two-thirds of the parents were not expressing stress with behavior was loaded more weakly on sights and sounds and self behavior and communication. Staff two sub-scales (sights and sounds; and self behavior and communication), infant appearance was loaded more strongly on subjects and to meet the standards of any scientific enquiry, certain procedures were in order to ensure the adherence to the ethical issues, to protect the human rights of the

was done utilizing Microsoft Excel, and a statistician was consulted.
Parents had the opportunity to withdraw from the study at any time without
in the study was voluntary without coercion, and there was no risk in responding in the
were detailed in the information sheet: the purpose of the study; the fact that participation
ask questions and understand the research process (Appendix 10). The following points
information sheet were given to the respondents in order to give them the opportunity to
All respondents were provided with essential information verbally and in writing. The
was granted verbally followed by an e-mail (Appendix 5).
lied themselves to take care that the cover letter and the letter (Appendix 8).
Written permission to use research instruments: NICU was requested in writing and
obtained.
(Appendix 7). In addition, verbal consent from the ward manager was requested and
Executive of Johannesburg Hospital (Appendix 6) and permission was granted
permission to conduct the research in the NICU was requested in writing from the Chief
the study was granted (Appendix 5).
the Whiterwatersrand Faculty of Health Sciences for their permission to conduct
The research proposal was presented to the Research Ethics Committee of the University of
University of the Whiterwatersrand was requested and granted (Appendix 4).
Ethical clearance from the Human Research Ethics Committee (Medical) of the

34
the following chapter, the analysis of the data and research findings will be presented. The validity and reliability of instruments used have also been discussed. In this chapter, the methods and procedures for achieving the purposes of the study have been presented. The sampling method of data collection and the instruments have been developed for the study have been presented. Conclusion

To ensure privacy and anonymity, code numbers instead of respondents' names were used on the questionnaires. In this way, no one could know when the parent was interviewed. This method was followed because of the irregular visits of the parents to the intensive care unit. The appointments between researcher and respondent were secretly scheduled, or sometimes arranged telephonically. To ensure confidentiality, questionnaires were given to parents in one of the patient rooms in the unit (Appendix I). The appointments between researcher or researcher (Appendix II) were given to the parents to sign prior to handing the questionnaire. Stress reactions in that day would be referred to a professional counselor. Consent forms were given to those respondents who showed the signs and symptoms of the penality.
demographic data together with the subscales and items in PSS. NCIU were analyzed to
in table form and diagrams. The correlation analysis between the variables in the
end and percentage in each item as well as overall score in each subscale. Data were presented
normal in nature; the descriptive statistics were used to identify frequency distributions
a Microsoft Excel program for analysis. Measurement of collected data was ordinal and
Data obtained from the sample (n=100) was mainly recorded before being entered into

mentioned in the instrument. The objectives of the study guided the study through:
information about other experiences encountered apart from the ones that were
NCU. One open-ended question was brought in for the purpose of gathering in-depth
participants to recount their experiences they had during hospitalization of their infants in
questions, which consisted of 39 items. There were also open-ended questions that asked
Data was gathered using a self-administered questionnaire that incorporated closed-ended

4.2 Approach to data analysis
sections

using descriptive statistics. The approach to the data analysis will be presented in four
associations will be performed. The data generated by the questionnaire will be analyzed.
In this chapter, the findings will be presented according to the response of variables and

Presentation of Findings

Chapter Four
4.3.1 Demographic data

In NICU

Other experiences encountered by the parents during hospitalization of their infant.

Findings of closed-ended questions using the PSS-NICU Instrument.

Association of the relationship between variables.

and two sources for communication.

The demographic data which involved age, marital status, education level, gender.

The findings are broadly grouped and presented as follow:

4.3 Study findings

Significance was set at 0.05.

Selected variables was determined using the Fisher exact test and Chi-square. The level of determine influence on research findings. The significance of the relationship between
The records showed that 90% of all deliveries in 2006-2007 were to mothers below 34 years of age.

This result reflected the trend in the admission books where this study was conducted.

Figure 4.1: Age Range of Respondents (n = 100)

Predominantly, young age below 32 years and no participant was above 43 years of age. The majority of participants (78%) were aged between 33 and 43 years. The majority of the sample, and thirty-two (32%) were aged between 22 and 32 years. Only one of the participants (41%) was aged between 18 and 21 years. The age variable in the literature is associated with stress and therefore important. All one

4.3.1. Age differences of study respondents
4.3.1 Level of education

with spouse may potentially cause an emotional reaction, leading to stress. The inability to share concerns can be associate with parental response to stress. The inability to share concerns according to Shield-Poe and Pinelli (1997: 35), being single and without support from a partner can be associated with parental response to stress.

Figure 4.2 Marital status of the respondent (n = 100)

<table>
<thead>
<tr>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
</tr>
<tr>
<td>30%</td>
</tr>
<tr>
<td>10%</td>
</tr>
<tr>
<td>0%</td>
</tr>
</tbody>
</table>

Number of participants

- Divorced
- Married
- Single
- Together

Single mothers were stressed. Thirty-two percent of parents lived with their partners, 22% were married and only 3% (n = 3) were divorced (see figure 4.2 below). Any relationship between marital stress and stress related to the question was assessed if there was a provided (single, married, divorced, living together). All parents (n = 100) responded parents were asked to give their marital status by placing a tick next to the relevant option.
to stress.

In order to explore the direct outcome of their infants' may influence parent's response tendency of highly educated parents to emphasize themselves with the condition of their

Duck-Scherer (2004) argue that the can influence the parent's response to stress. Duck-Scherer (2004) who found out that the level of education is consistent with those of Duck-Scherer (2004). This result is compared with those higher levels of educated persons (see table below). The result is

of the 19 respondents with the highest education, 16 (84.2%) were stressed parents. Of the 19 respondents with the highest education, 16 (84.2%) were stressed parents. Of the 19 respondents with the highest education, 16 (84.2%) were stressed parents. Of the 19 respondents with the highest education, 16 (84.2%) were stressed parents. Of the 19 respondents with the highest education, 16 (84.2%) were stressed parents. Of the 19 respondents with the highest education, 16 (84.2%) were stressed parents.

In Table 4.1, results generally show a higher level of stress provided by the educated

and none had attained university degree (see Figure 4.3 below).

Figure 4.3 Education status of the respondents (n = 100)

![Education Status Diagram]

and none had attained university degree (see Figure 4.3 below).

Figure 4.3 Education status of the respondents (n = 100)

The results showed that 32% of respondents (n = 32) had completed Grade 12, 19% (n = 19) had completed high school, 14.8% had completed Grade 7, 7% had completed Grade 5, and 1.8% had completed Grade 3. 3% had completed Grade 1 and 4% had no educational status. The majority of the parents (81%) were below higher education (post secondary education and diploma), 14% (n = 14) had completed Grade 7, see parents (n = 32) had completed Grade 12, 19% (n = 19) had completed high school, 14.8% had completed Grade 7, 7% had completed Grade 5, and 1.8% had completed Grade 3. 3% had completed Grade 1 and 4% had no educational status. The majority of the parents (81%) were below higher education (post secondary education and diploma), 14% (n = 14) had completed Grade 7, see parents (n = 32) had completed Grade 12, 19% (n = 19) had completed high school, 14.8% had completed Grade 7, 7% had completed Grade 5, and 1.8% had completed Grade 3. 3% had completed Grade 1 and 4% had no educational status. The majority of the parents (81%) were below higher education (post secondary education and diploma), 14% (n = 14) had completed Grade 7, see parents (n = 32) had completed Grade 12, 19% (n = 19) had completed high school, 14.8% had completed Grade 7, 7% had completed Grade 5, and 1.8% had completed Grade 3. 3% had completed Grade 1 and 4% had no educational status. The majority of the parents (81%) were below higher education (post secondary education and diploma), 14% (n = 14) had completed Grade 7, see parents (n = 32) had completed Grade 12, 19% (n = 19) had completed high school, 14.8% had completed Grade 7, 7% had completed Grade 5, and 1.8% had completed Grade 3. 3% had completed Grade 1 and 4% had no educational status. The majority of the parents (81%) were below higher education (post secondary education and diploma), 14% (n = 14) had completed Grade 7, see parents (n = 32) had completed Grade 12, 19% (n = 19) had completed high school, 14.8% had completed Grade 7, 7% had completed Grade 5, and 1.8% had completed Grade 3. 3% had completed Grade 1 and 4% had no educational status.
In both groups, the participants were asked to indicate their gender by placing the tick
commonly spoken and understood language in Gauteng province (Reger & Party, 1998),
because they could understand and communicate in the Zulu language. Zulu is the most
communicable in English. Thirty percent (30%) of respondents preferred the Zulu version
Severly percent (70%) of the respondents were parents who understood and could
representative of all parents with infants admitted into intensive care.
parents had an equal opportunity to participate in the study and that the questionnaire was
order to accommodate all participants in the study. The purpose was to make sure that all
The questionnaire for this study was constructed in English and translated into Zulu in
4.3.4 Language used in the questionnaires and the gender of the respondents
4.3.2: Association between parents' age and stress regarding built environment and

difference between the subgroups to be insignificant due to sample size. It was difficult for the model to detect a significant
these factors were found to be statistically significant in the model; but some were found
by participants' age, educational level, marital status, and gender of the parent. Some of
factors influence parental response to stress. The factors considered were language used
the multiple logistic regression models were used into this study to determine within

- self behavior and communication
- parental role and interaction of the infant and
- infant appearance and behavior
- signs and sounds

Four sub-scales of PSS: NICU, namely

Cross-tabulations were used to determine relationships between parental stress and the
Investigation using cross-tabulations and multiple logistic regression tests

4.3.2 Relationship between demographic data and subscale of PSS: NICU

Interview care in NICU, 83% of the mothers visited more frequently and for a longer stay.
Sperber (2000), who conducted their research on parents visiting and participation in
observed visiting their infants more frequently than male parents. According to Frank et
38% were male parents. The above findings could be because female parents have been
The results indicate that the majority of the parents (62%) were female parents and
There were no statistically significant associations between different groups of material
sub-scales in PSS: NICE.

4.3.2 Association between parent's marital status and stress regarding the four
between parent's gender and stress regarding the subscale in PSS: NICE.
results in Table 4.1 below, which indicated there is no evidence of an association
appearance, parental role and style behaviour and communication. This is shown by the
male and female seem equally likely to be stressed due to skill and sound, indicates
in PSS: NICE.

4.3.2 Association between parent's gender and stress regarding the four subscales

between in the parents' response to stress. See next discussion in Chapter 5.
below 21 years. This result has an impact on whether skill behaviour and communication
stress with skill behaviour and communication compared with the young parents aged
dominating their older parent's aged from 33-45 years, were twice those likely to be
behaviour and communication. Table 4.1 shows strong evidence on 2 / p = 0.002
Differential association was found to exist between parent's age and the subscale short
to be stressed in these subscales of the parental stress scale mentioned above.
impact, both parents of different ages, whether older or younger, seemed equally likely
and sounds. Higher appearance and behaviour and parental role and interaction with
hyper the age of parents and stress regarding these subscales of parental stressors scale (sight)
Table 4.1 shows that there is no evidence of a statistically differential association between


4.3.2.5 Association between Groups of Respondents and Stress Relative to the Four

See more discussion in Chapter 5.

Perception between the parents on how stress is likely to result (Helman, 2000).

were conducted in two different settings with different social and cultural backgrounds.

sound. Discrimination of these two studies might be attributed to the fact that the studies

in NICU. Parent with higher education found to have more stress with the self and sound

Sibling (2004) the education level found to have strong relation with the self and sound.

were parents of Grade 12 and below (p-value < 0.025). However, according to Duker

level beyond Grade 12 were more stressed with infant appearance and behavior than

appearance and behavior when infants are admitted to the NICU. Parents with education

The study found that there is a strong relationship between education level and infant

significant (p-value = 0.085), and evidence that the level of education of parents can

behavior and communication with the parents. They reveal maternal satisfaction

scores of PSS: NICU (signs and sounds, infant appearance and behavior, and staff).

The results show the correlation between education level and stress regarding these subs.

subscales in PSS: NICU

4.3.2.4 Association between Parents' Education and Stress Regardling the Four

NICU.

behave in the NICU. Both groups experienced stress equally in all subscales in PSS:

laus and stress regarding self and sound, infant appearance, parental role, and staff.
but hindered in understanding the English language. Instead they were parents from different ethnic groups who could understand and Zinc respondents who filled the Zulu version questions were not Zulu by birth some is likely to result because of informed respondents (Lee et al., 2005). Some of the languages are involved in one setting a different perception of parent's response to stress

There is a single observation found by this study, namely that whenever two different

See Table 4.1 below.

Statistically significant values were: p-value = 0.003 and p-value = 0.019, respectively.

behaviour and communication, compared with English-version respondents. The more likely to be successful with parental role and interaction with infants, and short infermies, and shift behaviour and communication. Respondents in the Zulu-version were parental stress of two sub-scales in PSS: NCI); namely parental role and interaction with infants.

The findings revealed different responses between the two groups of respondents to

sub-scales in PSS: NCI.
<table>
<thead>
<tr>
<th>Demographic Information</th>
<th>Overall stress scores regarding subscale in PSS: NICU</th>
<th>Cross-tabulations and multiple logistic regression test regarding stress between the demographic information and subscale in PSS:NICU</th>
<th>Staff behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Participants</strong></td>
<td>Stress Non- Total participants</td>
<td>Infant appearance Parental Role</td>
<td></td>
</tr>
<tr>
<td>Zulu</td>
<td>17 13 N = 30</td>
<td>Pearson chi 2(2) = 2.2242 Pr = 0.629 Fisher's exact = 0.711</td>
<td>Pearson chi 2(1) = 8.8435 Pr = 0.003 Fisher's exact = 0.695</td>
</tr>
<tr>
<td>English</td>
<td>52 18 N = 70</td>
<td>Pearson chi 2(2) = 1.9031 Pr = 0.386 Fisher's exact = 0.695</td>
<td>Pearson chi 2(1) = 6.26 Pr = 0.019 Fisher's exact = 0.0123</td>
</tr>
<tr>
<td><strong>Participants age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 – 21years</td>
<td>25 12 N = 37</td>
<td>Pearson chi 2(2) = 1.4555 Pr = 0.483</td>
<td>Pearson chi 2(2) = 3.1181 Pr = 0.006 Fisher's exact = 0.002</td>
</tr>
<tr>
<td>22 – 32years</td>
<td>28 13 N = 41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33 – 45years</td>
<td>16 6 N = 22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46 – older</td>
<td>0 0 N = 0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>26 12 N = 38</td>
<td>Pearson chi 2(1) = 0.0323 Pr = 0.577</td>
<td>Pearson chi 2(1) = 1.3601 Pr = 0.244 Pr = 0.277</td>
</tr>
<tr>
<td>Female</td>
<td>43 19 N = 62</td>
<td>Pearson chi 2(1) = 2.2720 Pr = 0.123</td>
<td>Pearson chi 2(1) = 1.1807 Pr = 0.312</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>32 10 N = 42</td>
<td>Pearson chi 2(3) = 3.5668 Pr = 0.312 Fisher's exact = 0.731</td>
<td>Pearson chi 2(3) = 3.5668 Pr = 0.312 Fisher's exact = 0.312</td>
</tr>
<tr>
<td>Marriage</td>
<td>15 7 N = 22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divorce</td>
<td>2 0 N = 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stay together</td>
<td>20 14 N = 34</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Education level</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 0 - 7</td>
<td>6 8 N = 14</td>
<td>Pearson chi 2(3) = 0.3357 Pr = 0.096 Fisher's exact = 0.085</td>
<td>Pearson chi 2(3) = 3.1521 Pr = 0.036 Fisher's exact = 0.085</td>
</tr>
<tr>
<td>Grade 8 - 10</td>
<td>25 10 N = 35</td>
<td>Pearson chi 2(3) = 7.382 Pr = 0.0623 Fisher's exact = 0.025</td>
<td>Pearson chi 2(3) = 0.9990 Pr = 0.801 Fisher's exact = 0.085</td>
</tr>
<tr>
<td>Grade 11 - 12</td>
<td>22 10 N = 32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher Education</td>
<td>16 3 N = 19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher degree</td>
<td>0 0 N = 0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Presentation of the findings in Tables 4.2 below.

By the number of items in each sub-scale in order to get the total score of a sub-scale. See PSS: NICU was measured by the addition of the total percentage of items asked, divided by the number of items in Tables 4.2a, b, c and d below. Also, the overall stress in each sub-scale of Table 4-1 in each question was considered not stressed, and 2-3 considered stressed. (see Table 4-1). The frequency and percentage of responses to each question were measured, a score from 0-10.

The findings of the stressors identified by the parents in NICU.

- Sibling behavior and communication
- Parental role and interaction with the infant
- Infant appearance and behavior
- Signs and sounds

This section demonstrates the source of stress using PSS: NICU, as identified by the parents in this study.
Table 4.2a: Score levels of stress regarding items in PSS: NICU - Sight and sound

<table>
<thead>
<tr>
<th>No</th>
<th>Subscales in PSS-NICU</th>
<th>English participants stressed</th>
<th>English participants Non stressed</th>
<th>Zulu participants stressed</th>
<th>Zulu participants Non-Stressed</th>
<th>Total Zulu / English participants Stressed</th>
<th>Total Zulu/English participants Non stressed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$N=N$ - 70</td>
<td>$N=N$ - 70</td>
<td>$N=30$</td>
<td>$N=30$</td>
<td>$N=100$</td>
<td>$N=100$</td>
</tr>
<tr>
<td>1</td>
<td>Sight and sound (Items)</td>
<td>41 58.6%</td>
<td>29 41.1%</td>
<td>13 43.2%</td>
<td>17 56.7%</td>
<td>54 54%</td>
<td>46 46%</td>
</tr>
<tr>
<td>2</td>
<td>The presence of monitors and equipment</td>
<td>35 50%</td>
<td>35 50%</td>
<td>13 43.3%</td>
<td>17 56.7%</td>
<td>46 46%</td>
<td>52 52%</td>
</tr>
<tr>
<td>3</td>
<td>The sudden noises of monitors and alarms</td>
<td>50 82.9%</td>
<td>12 17.1%</td>
<td>20 66.7%</td>
<td>10 33.3%</td>
<td>78 78%</td>
<td>22 22%</td>
</tr>
<tr>
<td>4</td>
<td>The other sick babies in the room</td>
<td>37 52.9%</td>
<td>33 46.1%</td>
<td>12 40%</td>
<td>18 60%</td>
<td>49 49%</td>
<td>51 51%</td>
</tr>
<tr>
<td>5</td>
<td>The larger number of people working in the unit</td>
<td>23 32.9%</td>
<td>47 67.2%</td>
<td>18 60%</td>
<td>12 40%</td>
<td>41 41%</td>
<td>59 59%</td>
</tr>
<tr>
<td>6</td>
<td>Having a machine (respiratory) breathe for my baby</td>
<td>65 92.3%</td>
<td>5 7.7%</td>
<td>30 100%</td>
<td>0 0%</td>
<td>95 95%</td>
<td>5 5%</td>
</tr>
</tbody>
</table>

f: frequency. %: percentage.
Table 4.2b: Score levels of stress regarding items in PSS: NICU - Infant appearance and behaviour.

<table>
<thead>
<tr>
<th>Question</th>
<th>Subscales in PSS: NICU</th>
<th>English participants stressed</th>
<th>English participants Non-stressed</th>
<th>Zulu participants stressed</th>
<th>Zulu participants Non-stressed</th>
<th>Total Zulu / English participants</th>
<th>Total Zulu/English participants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>f N=70</td>
<td>% 100%</td>
<td>f N=70</td>
<td>% 100%</td>
<td>f N=30</td>
<td>% 100%</td>
</tr>
<tr>
<td>7</td>
<td>Tubes and Equipment on or near my baby</td>
<td>46</td>
<td>65.7%</td>
<td>24</td>
<td>4.3%</td>
<td>22</td>
<td>73.3%</td>
</tr>
<tr>
<td>8</td>
<td>Bruises, cuts or incisions on my baby</td>
<td>51</td>
<td>72.9%</td>
<td>19</td>
<td>27.1%</td>
<td>15</td>
<td>50%</td>
</tr>
<tr>
<td>9</td>
<td>The unusual colour of my baby (example looking pale or yellow jaundiced)</td>
<td>43</td>
<td>61.4%</td>
<td>27</td>
<td>38.6%</td>
<td>29</td>
<td>96.7%</td>
</tr>
<tr>
<td>10</td>
<td>My baby's unusual or abnormal breathing patterns</td>
<td>62</td>
<td>88.6%</td>
<td>8</td>
<td>11.4%</td>
<td>30</td>
<td>100%</td>
</tr>
<tr>
<td>11</td>
<td>The small size of baby</td>
<td>47</td>
<td>67.1%</td>
<td>3</td>
<td>32.7%</td>
<td>25</td>
<td>83.3%</td>
</tr>
<tr>
<td>12</td>
<td>The wrinkled appearance of my baby</td>
<td>26</td>
<td>37.1%</td>
<td>44</td>
<td>62.9%</td>
<td>14</td>
<td>46.7%</td>
</tr>
<tr>
<td>13</td>
<td>Seeing needles and tubes put into my baby</td>
<td>42</td>
<td>60%</td>
<td>28</td>
<td>40%</td>
<td>7</td>
<td>23.3%</td>
</tr>
</tbody>
</table>

f: frequency, %: percentage.
Continuing...

Table 4.2b: Score levels of stress regarding items in PSS: NICU - Infant appearance and behaviour.

<table>
<thead>
<tr>
<th>Question</th>
<th>Sub-scales in PSS: NICU</th>
<th>English participants stressed</th>
<th>English participants Non stressed</th>
<th>Zulu participants stressed</th>
<th>Zulu Participants Non-stressed</th>
<th>Total Zulu / English participants Stressed</th>
<th>Total Zulu/English participants Non stressed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>f  N=70 % 100</td>
<td>f  N=70 % 100</td>
<td>f  N=30 % 100</td>
<td>f  N=30 % 100</td>
<td>f  N=100 % 100</td>
<td>f  N=100 % 100</td>
</tr>
<tr>
<td>14</td>
<td>Infant appearance and behaviour</td>
<td>My baby being fed by intravenous lines or nasal gastric tubes</td>
<td>50 71.4% 100</td>
<td>20 28.6% 100</td>
<td>22 73.3% 100</td>
<td>8 26.7% 100</td>
<td>72 72% 100</td>
</tr>
<tr>
<td>15</td>
<td>When my baby seemed to be in pain</td>
<td>50 71.4% 100</td>
<td>20 28.6% 100</td>
<td>20 66.7% 100</td>
<td>10 33.3% 100</td>
<td>54 54% 100</td>
<td>46 46% 100</td>
</tr>
<tr>
<td>16</td>
<td>When my baby looked sad</td>
<td>43 61.4% 100</td>
<td>27 38.6% 100</td>
<td>16 53.3% 100</td>
<td>14 46.7% 100</td>
<td>59 59% 100</td>
<td>41 41% 100</td>
</tr>
<tr>
<td>17</td>
<td>The limbs and appearance of my baby</td>
<td>55 78.6% 100</td>
<td>15 21.4% 100</td>
<td>28 93.3% 100</td>
<td>2 6.7% 100</td>
<td>66 66% 100</td>
<td>34 34% 100</td>
</tr>
<tr>
<td>18</td>
<td>Jerky or restless movements of my baby</td>
<td>45 64.3% 100</td>
<td>25 35.7% 100</td>
<td>13 76.7% 100</td>
<td>7 23.3% 100</td>
<td>68 68% 100</td>
<td>32 32% 100</td>
</tr>
<tr>
<td>19</td>
<td>My baby not being able to cry like other babies</td>
<td>59 84.3% 100</td>
<td>11 15.7% 100</td>
<td>29 96.7% 100</td>
<td>1 3.3% 100</td>
<td>88 88% 100</td>
<td>12 12% 100</td>
</tr>
</tbody>
</table>

f: frequency, %: percentage.
<table>
<thead>
<tr>
<th>Question</th>
<th>Subscale in PSS:NICU</th>
<th>English participants stressed</th>
<th>English participants Non stressed</th>
<th>Zulu participants stressed</th>
<th>Zulu participants Non-Stressed</th>
<th>Total Zulu / English participants Stressed</th>
<th>Total Zulu/English participants non stressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>Parental role and interaction with the infant</td>
<td>f N=70</td>
<td>% 100%</td>
<td>f N=70</td>
<td>% 100%</td>
<td>f N=30</td>
<td>% 100%</td>
</tr>
<tr>
<td>21</td>
<td>Being separated from baby</td>
<td>69</td>
<td>98.6%</td>
<td>1</td>
<td>1.43%</td>
<td>30</td>
<td>100%</td>
</tr>
<tr>
<td>22</td>
<td>Not feeding my baby myself</td>
<td>68</td>
<td>97.1%</td>
<td>2</td>
<td>2.86%</td>
<td>30</td>
<td>100%</td>
</tr>
<tr>
<td>23</td>
<td>Not being able to care for my baby myself (for example: diapering, bathing)</td>
<td>65</td>
<td>92.3%</td>
<td>5</td>
<td>7.14%</td>
<td>30</td>
<td>100%</td>
</tr>
<tr>
<td>24</td>
<td>Not being able to hold my baby when I want to</td>
<td>69</td>
<td>98.6%</td>
<td>1</td>
<td>1.43%</td>
<td>30</td>
<td>100%</td>
</tr>
<tr>
<td>25</td>
<td>Feeling helpless and unable to protect my baby from pain and painful procedures</td>
<td>65</td>
<td>92.9%</td>
<td>5</td>
<td>7.14%</td>
<td>30</td>
<td>100%</td>
</tr>
<tr>
<td>26</td>
<td>Feeling helpless about how to help my baby during this time</td>
<td>65</td>
<td>92.9%</td>
<td>5</td>
<td>7.15%</td>
<td>30</td>
<td>100%</td>
</tr>
</tbody>
</table>

f: frequency, %: percentage.
Table 4.2d: Score levels of stress regarding items in PSS: NICU - Staff behaviour and communication with the parents.

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>English participants stressed</th>
<th>English participants non-stressed</th>
<th>Zulu participants stressed</th>
<th>Zulu participants non-stressed</th>
<th>Zulu / English participants stressed</th>
<th>Total participants stressed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Subscales in PSS:NICU</td>
<td>N=70</td>
<td>100%</td>
<td>N=70</td>
<td>100%</td>
<td>N=30</td>
<td>100%</td>
</tr>
<tr>
<td>27</td>
<td>Staff explanation of the procedure was good</td>
<td>13</td>
<td>18.6%</td>
<td>57</td>
<td>81.4%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>28</td>
<td>Staff use simple words to help me to understand</td>
<td>11</td>
<td>16.7%</td>
<td>59</td>
<td>84.3%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>29</td>
<td>Staff telling me different (conflicting) things about my baby’s condition</td>
<td>14</td>
<td>20%</td>
<td>66</td>
<td>80%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>30</td>
<td>Staff gave me information about tests and treatments being done to my baby</td>
<td>12</td>
<td>17.1%</td>
<td>59</td>
<td>82.9%</td>
<td>6</td>
<td>20%</td>
</tr>
<tr>
<td>31</td>
<td>Staff not talking to me enough</td>
<td>7</td>
<td>10%</td>
<td>63</td>
<td>90%</td>
<td>2</td>
<td>6.7%</td>
</tr>
<tr>
<td>32</td>
<td>Too many different people talking to me</td>
<td>11</td>
<td>15.7%</td>
<td>59</td>
<td>84.3%</td>
<td>9</td>
<td>30%</td>
</tr>
</tbody>
</table>

* N: frequency, %: percentage.
Continuing...

**Table 4.2d: Score levels of stress regarding items in PSS: NICU - Staff behaviour and communication with the parents**

<table>
<thead>
<tr>
<th>No</th>
<th>Question</th>
<th>Subscales in PSS:NICU</th>
<th>English participants</th>
<th>English participants</th>
<th>Zulu participants</th>
<th>Zulu participants</th>
<th>Total Zulu / English participants</th>
<th>Total</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>f</td>
<td>% 100%</td>
<td>f</td>
<td>% 100%</td>
<td>f</td>
<td>% 100%</td>
<td>f</td>
</tr>
<tr>
<td>33</td>
<td>Easy to get information and help when I visit or telephone the unit</td>
<td>17</td>
<td>24.3%</td>
<td>53</td>
<td>75.7%</td>
<td>9</td>
<td>30%</td>
<td>21</td>
<td>70%</td>
</tr>
<tr>
<td>34</td>
<td>Not feeling sure that I will be told about changes in my baby's condition</td>
<td>28</td>
<td>40%</td>
<td>42</td>
<td>60%</td>
<td>22</td>
<td>73.3%</td>
<td>8</td>
<td>26.7%</td>
</tr>
<tr>
<td>35</td>
<td>Staff looking worried about my baby</td>
<td>29</td>
<td>41.3%</td>
<td>41</td>
<td>58.6%</td>
<td>9</td>
<td>30%</td>
<td>21</td>
<td>70%</td>
</tr>
<tr>
<td>36</td>
<td>Staff acting as if they did not want parents around</td>
<td>6</td>
<td>7.1%</td>
<td>66</td>
<td>92.9%</td>
<td>0</td>
<td>0%</td>
<td>30</td>
<td>100%</td>
</tr>
<tr>
<td>37</td>
<td>Staff understood my baby's behaviour and special needs</td>
<td>56</td>
<td>60%</td>
<td>14</td>
<td>20%</td>
<td>25</td>
<td>83.3%</td>
<td>5</td>
<td>16.7%</td>
</tr>
<tr>
<td>38</td>
<td>I may visit my baby any time I wish staff allows me</td>
<td>59</td>
<td>84.3%</td>
<td>11</td>
<td>15.7%</td>
<td>6</td>
<td>20%</td>
<td>24</td>
<td>80%</td>
</tr>
<tr>
<td>39</td>
<td>Staff asked permission for everything to be done to my child</td>
<td>8</td>
<td>11.4%</td>
<td>62</td>
<td>88.6%</td>
<td>12</td>
<td>40%</td>
<td>18</td>
<td>60%</td>
</tr>
</tbody>
</table>

f: frequency, %: percentage.
of stress were consistent with previous studies (Miller & Hulicki-Perkins, 1997). These
findings are similar to other studies (reference) where the items that scored low levels
resulted in overall high level of parental stress in slips and sound. The
inclusion of breathing through a machine scored high level of parental stress. This shows that
the presence of monitors and equipment, sudden noise of monitor alarms and seeing their
numbers of people working in the unit. The scores were 48% (n = 49), 49% (n = 48), 48% (n = 47),
and 41% (n = 41) respectively.

4.2.1. However, the overall response revealed a low level of stress caused by the presence
of monitors and equipment, the sudden noise of monitor alarms and seeing their
scores of stress were 54% (n = 54), 78% (n = 78), 64% (n = 64), and 53% (n = 53)
respectively. See items 1, 3, and 6 in Table 4.2.

4.2.1.1 Identification of sources in NICU
Hodlitch-Davis & Milles, 2000).

The finding is consistent with the studies conducted by Milles & Hodlitch-Davis, 1997.

this subscale compared with 32% (n = 72) who were not stressed, see Table 4.3. This positive response from respondents, 68% (n = 69) of parents were stressed with items in the total score of the subscale of infant appearance and behavior elicited 100% of

Infants not able to cry like other normal babies contributed to parental stress. In pain, when the infant looked and or wept, every movement of their infants and their

lines or nasal passage, while all contributed to parental stress, Furthermore, seeing the infant

pattern; the smell size of their infants, and seeing the infants being fed by an ingenious

parents' mother's unusual colour on their infants' infants' unusual or abnormal breathing

success security needs and equipment on or near their infant. During cues of withdrawal on

68% and 89% respectively (see Table 4.2b). Parents were moderately or extremely

higher levels of stress by scoring 68% 66% 72% 72% 72% 54% 59% 66%.

identified in terms 7.9. 10 11. 11. 12. 13. 14. 15. 16. 17. 18 and 19. Respondents demonstrated

in this category the infant appearance and behavior as the source of parental stress were

Infant appearance and behavior.
Responses to stress (Helman, 2000)

cultural and socio-economic environmental settings, which may influence different parental role and interaction with the infant. This is despite the different geographic,
This finding demonstrates a similar finding to that of Wills et al. (1997) and Helms et al.
The total level of parental stress score on this subscale was 96% (n = 97), see Table 4.2.
this item feeling helpless and unable to protect their infants from pain or painful procedures.
The fact that the parents were not able to feed and care their infants themselves resulted in

Zulu version respondents, who scored between 89% - 99%

were extremely high levels of parental stress experienced by both English and
identified in items 20, 21, 22, 23, 24, 25 and 26 in Table 4.2. This subscale
The subscale of parental role and interaction of the infant as source of parental stress is

Parental role and interaction with the infant

from observing painful procedures to the infant.

were not influenced by the fact that small children the parents
These may mean that some parents were not exposed to any procedure during the
respondents - 23% out of 30% were not stressed seeing needles and baths put in their
42% of English version respondents were not stressed, compared with a majority of Zulu
respondents in item 13. Fifty one percent of all respondents were not stressed 28% out of
There was an interesting difference in stress response between English and Zulu
compared with 72% who were not stressed, (see Table 4.2 below). These findings may

Therefore score in this subscale was a low level of stress. Only 28% were stressed

about their infant’s condition, (see Table 4.2 below). Stress having led many people to think and experience short looking worried

asked permission for everything to be done to their infant. Parents experienced mild

information of help when visiting or experiencing the unit, andappreciated it when staff

as if they did not want parents around. Furthermore it was easy for the parents to get

commenting thinks about their infant’s condition, or not helping to them enough or asking

used simple words to help them understand. Parents did not experience staff telling

stress about to the expressions of the procedure by the self, especially when staff

detail in Table 4.2. Parents were reported either to have experienced no stress, or had

in this subscale, means 27 to 36 and 39 scored low levels of stress as demonstrated in

contribute to the parents’ higher response to stress.

of Milles el al. (1997), who found that all items in staff behavior and communication

(1997), but those items that scored low levels of stress were inconsistent with the findings

items that scored higher levels of stress were consistent with the findings of Milles et al.,

and realized what they would be told about chances in their infant’s medical condition. The

higher levels of stress, Parries felt unsure as to the outcome of their infant’s condition.

interest findings were obtained in this subscale, which scored 50%, 81% and 63% of

Self behaviour and communication with the parents
in detail in chapter 5. The reluctance to elicit the skill may be attributed to the fact that parents resisted the skill being applied in a behaviour therapy session while the infant was still in NICU. These results are consistent with those of Shield-Pole & Fernell (1997) and Duke.

behaviour. became aware of skill behaviour. This would lead to less stress caused by skill consistent thoughts of survival lead to stress (Carter et al., 2005: 190). Therefore they were concerned about their infant's medical condition. This brings feelings of guilt, fear and be enlightened to simple observation in the ward, which established that parents were more
Table 4.3 Overall scores of stress level regarding each sub-scale and scale PSS: NICU

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Subscale</th>
<th>Overall stressed Zulu/English</th>
<th>Overall non Stressed Zulu/English</th>
<th>General overall score in (%) of parents stressed and non-stressed (n = 100)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Zulu</td>
<td>English</td>
<td>Zulu</td>
</tr>
<tr>
<td>1-6</td>
<td>Sights and sounds</td>
<td>18</td>
<td>43</td>
<td>12</td>
</tr>
<tr>
<td>7-19</td>
<td>Infant appearance and behaviour</td>
<td>71</td>
<td>48</td>
<td>9</td>
</tr>
<tr>
<td>20-26</td>
<td>Parental role and interaction with infant</td>
<td>30</td>
<td>66</td>
<td>0</td>
</tr>
<tr>
<td>28-39</td>
<td>Staff behaviour and communication</td>
<td>8</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td>Overall 1-39</td>
<td>Scale PSS: NICU</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
English or Zulu people. Responses were from different ethnic origins who could not communicate in one of these languages.

In limitations of this study in that Zulu and English version respondents were not equivalent respondents (see 4.3.2 above). The resulting findings cannot be regarded conclusively due to experience stress with self behavior and communication compared with Zulu version respondents. However, found that English version respondents were less likely to experience stress, less well, fewer and English version communication more stressful.

This applies to all respondents. Not experience stress or had much experience of stress resulting from self behavior and not stressed with most of the items in self behavior and communication. Parental stress 22% (n = 22), this finding indicates that the majority of the parents, 72%, were not stressful. Only one subscale (skill behavior and communication) showed a low overall level of stress.

Among the four subscales of PSS NICU, the three subscales that showed high overall score demonstrated in Table 4.3.

The overall results of PSS NICU indicated that 6% parents (6%) who were not stressed, as the overall score of stress on the scale PSS: NICU and its subscales.
Parent described. The first time I visited my baby was not the same as the second and third of doing anything possible during the care of their infant which built their confidence. A sense of appreciation was described by the parents as the feeling from some of the staff, my baby believed that my child is in good hands. However, I can't know if the staff will please knowing what to do for her. I decided I have to build faith and trust in staff care and staff in common because I can't have a choice. My baby was very sick and I was very stressed out. Parent said, "If one point I feel like an outsider, I would like to take my child home but...

Infant

Infants. Not being able to sleep with the infant was considered a lack of communication to the feeling outsider described by the parents as the feelings of not being involved with the care of

Expectanting Rhythm

Helplessness

A sense of appreciation

Feeling of being outsider

were in the open-ended question where the parents described other experiences encountered. They experience and feeling encountered by the parents. Four themes were formulated in relation to the infant in NICU. Other experiences encountered by the parents during hospitalization of their
NCU seemed to have less stress compared with the parents who were experienced and had received training in NICU. A study found that parents who had previous experience of having an infant admitted into the NICU are less likely to experience the stress response compared with those who were naïve. This was expressed by parents as the feeling of being confident about the infant care, which they described as being more helpful and they have more experience in both making it easier for parents. One parent explained:

"They were more reassuring and the parental role routine of my brain, they are reassuring compared with the neonatal staff members. I felt that other staff members are more helpful and they have more experience in both."

Parents felt having an infant in the NICU contributed to a lesser response. This was expressed by those parents who had previously had an infant in NICU. Phrases were described by the parents as the feeling of being confident about the infant care, which I found easier for parents. One parent explained:

"I have found it easier to appreciate the job that is done by the staff while I am not around."

Parents also felt that the staff were more familiar with the environment and my baby's condition. So, I have started to appreciate the job that is done by the staff while I am not here. I became more comfortable and familiar with the environment and my baby's condition."

...
Four themes were formulated from open ended question where the parents experienced beliefs were shown to have influenced parental response to stress. Age of the respondent, education level and the use of different versions in the questionnaire. The relationship between some of the variables and responses to stress were presented. The contribution on the interaction between parents and staff

not experience stress, or had mild stress with most of the items. This revealed the positive communication score low levels of parental stress which showed high parental either did communication and parental role and interaction with the infant. Subscale: self behavior, and the majority of the items in the three subscales: sight and sound, infant appearance and the subscores were presented and it was evident that the parents were extremely stressed with the stressors was presented and it was evident that the parents were extremely stressed with in this chapter the results were presented, guided by the objective of study. Identification of

4.4 Condition

72.

shift toward infant care leading to reduce the level of stress (French, C. A & Winter, 2005; Infant and get use to the nurses by open the door of communication between the parents and exposure to the environment and get use to daily activities provided by the nurses to their longer stay of infant in NICU was found to reduce stress to the parents due to every day the start and familiarity to the environment (French & Spencer, 2000). Frequently visiting their infants proved to reduce day-to-day parent stress by being closer to the first time (Dudge-Sinfield, 2004).
done while they are not around. This builds faith towards the staff.

experienced helplessness from some of the staff which lead them to be appreciative job well

outsider due to lack of commitment to their internal contribute to higher stress response.
physically maltreated children they had with the infants even before admission (Frankel et al., 1984). Care givers, and perhaps many feel a greater responsibility for their infants due to extreme support by the discussion presented earlier in this study that female parents are the primary caretakers in the home, more frequently compared to male parents, and the reason might be females and males was similar. Sixty-two percent of female parents were observed to visit females and males was similar. Sixty-two percent of female parents in this study supported the previous studies that suggested that stress exists when having an infant in NICU (Hilditch-Donald, 1997; Hilditch-Donald, 2000). Therefore, the final sample was 100 parents.

5.2 Discussion of the Results

The conclusions of the study are presented.

To be effective of the study, the implications of the study, limitations, recommendations, and following the format of the questionnaire, this chapter discusses the main findings in relation to the previous chapter. The data was analyzed. The results were presented in four sections.

RECOMMENDATION AND CONCLUSION OF THE STUDY

Discussion of the results, implications to the real limitation.
their interviewing illness duration admission may contribute to the different emotions related to Jadad, Brody et al. (2003; 1172). Knowing the possible clinical outcome and complications of tend to emphasize the presence with their frame of condition and behavior (odes). Primarily, behaviors, taken persons of grade 12 and below (p-value = 0.023), Educated parents have a education (education beyond Grade 12) were more stressed, with higher appearance and education (education beyond Grade 12) in response to the education level study found the parents with higher and below, in response to the education level study found the parents with higher 12 and below, in response to the education level study found the parents with higher 12 and below, in response to the education level study found the parents with higher competition to higher levels of stress. Majority of the respondents (80%) had achieved grade characteristics such as education level and age of the parents were found to have a positive interaction of the child’s self behavior and communication.

suspects of PSS: NCI, mainly self and sound, intellectual appearance, parental role, and gender more participants of differently influence the parents’ response to stress in all Stress were not found to be directly related to any of the characteristics such as marital status, groups in relation to the stress response.

No published study investigated the difference between these two respondents. It is difficult to draw conclusions from these findings because of the lack of supporting evidence. The cultural norms when the interview is in NCI may interfere with parental cultural beliefs. It is difficult to project them from the interview (Fiske & De Villiers, 2004). Parent of performing parental role and interaction with the interview their responses of the English version (p-value = 0.003). In some African cultures parents usually perform cultural ritual to the newborns. This study revealed responses in the Zulu version were most likely to be stress with a strong relationship existed between languages used in this study in relation to parental

Spencer, 2003).
The first objective of the research was to identify the stressors which caused parental stress in children with medical conditions. The research also aimed to explore the role of gender and the influence of cultural background on stress levels. The results indicated that cultural background played a significant role in the experience of stress, with parents from different cultural backgrounds reporting different levels of stress.

According to the study, parents from different cultural backgrounds may experience stress differently due to the way messages are received and interpreted. The study found that parents who received stress messages in a way that was culturally sensitive were less likely to experience stress compared to those who received messages in a less culturally appropriate manner.

Wilhmen (1993) suggested that parents need to be encouraged to handle stress in a way that is culturally appropriate. He argued that cultural sensitivity is crucial in the management of stress among parents, as it can help to reduce the negative impact of stress on the family. The study also found that parents who received stress messages in a culturally sensitive manner were less likely to experience stress compared to those who received messages in a less culturally appropriate manner.

In conclusion, the study highlights the importance of cultural sensitivity in the management of stress among parents. It suggests that cultural sensitivity can help to reduce the negative impact of stress on the family and improve the overall well-being of parents.
As it was documented in a previous discussion, the parental role is vital for the parent-child relationship, and the bonding between parent and infant (Johansen et al., 1999; 71). Thus, parents, along with their infants (Regnham, Hellesthal & Steen, 2006; Altunay, Friedman, and Gills et al. 2006; Wha, et al., 2002), alone with their infants (Regnham, Hellesthal & Steen, 2006; Altunay, Friedman, and Gills et al. 2006; Wha, et al., 2002), and being able to protect their infants during this difficult period, as well as being unable to be present, and being stressed by not being able to care for their infants, not being able to feed their infants, being stressed, and not being able to hold their infants, would parents identified the stresses in relation to being separated from their infants, not being able to feed their infants, and being stressed. Although all parents were stressed by items in subscale of parental role and interaction with the infant, the finding correlated strongly with previous published similar studies. Wha, et al. 2006. During this time, the findings found that parental role and interaction with the infant is admitted to normal intensive care unit, and that parental role and interaction with the infant is strongly on the parent role and interaction 96%. It has been shown that parental role and interaction with the infant is significantly perceived and managed because it forms a foundation of knowledge and skills in which to focus in overall findings of the subscales in this study was very important partially for the nursing.
Increased the infant chances to live (Duck-Sherpe, 2005).

Despite the different NICU settings used by the previous and current study but NICU environment still will evoke stress in parents.}[Image 0x0 to 841x587]
wanted about their infant condition. When too many people were talking to them enough, you
decide, the truth. Parents were either not expressing or were mild stress seeing that look
done to their infant, and it was easy for them to get information or help when they are visits or
them to understand, especially when gave them information about risks and treatment being
less stress, as well as explaining the procedure was good and use simple words helping
parental stress. Positive interaction between nurses and parents contributed to

Objectives: two posed the question of how self behaviour and communication continue to

5.22. Self-behaviour and Communication

compared to those who did whereas the procedure (Braithwaite & Bennett, 2007),
partial procedure when performed by staff nurses, less effective versus stress
level of stress by (57%). The restriction of the parents with the infant in NICU to whereas the
level of stress by (57%). The restriction of the parents with the infant in NICU to whereas the

- other factors in the NICU found to influence the parents low level of response to stress

- they infants not able to cry like other normal babies

- jerky movements of their infants and

- a weak appearance of their infants,

- their infants in pain when the infant looked sad

- the infants breathe fed by an intravenous line or nasal gastric tube,

- the small size of their infants,

- infants unusual or abnormal breathing patterns,

- unusual colour on their infants,
Injuries are critically ill, in this case patients become unable to assess their behavior aptly, skill which becomes difficult for the parents to establish openness to the staff while their 2006), and inability of the parents to continue their care for their infants care (Persson, & Persson, (1997). This caused by inability of the parents to have medical condition, Sheldon-Peale & Pincus, (2002), Thompson, Thomlinson, Peden-McAdie, & Thorne (1999). They found that the staff had a simple problem that could be overcome over their inherent the staff could do to deal with their emotion and physical problem they face, especially when the parents to cope with the reality they face and compromise certain behavioral patterns for the infants contribute to higher level of parental response to stress but somehow the feeling of being outsider as it was experienced by the parents towards the provision of care for their infants. In all, there were still lacking care of their infants. Disapprove fear that they are decision-making have impact on their infant care, which the some parents found that it was uneasy to apprise the staff behaviorally (Sheldon-Peale & Pincus, 1997; Duke, & Schifter, 2004). This attributed by the parents entrusting the staff in the parents, found that if they did not want parents around and when the staff asked permission for everything to be done to their infants, lead to develop refusal by the staff as it was experienced by majority of the staff in this study.
Parents

will discuss as follows:

Parents based on the knowledge gained and skills achieved from this study. The implication
and effect of knowledge in the unit to enable nurses to provide comprehensive care to the
infants. The findings observed in this study will assist to develop parental stress intervention
were stress with the child and sound in the unit, infant appearance and infant role to their
inform and look after their parents who were also needs help and support as the result parents
level of stress from the parents the nursing staff were more involved with the care of the
parents nursing care. However the supracle staff behaviour and communication scored low
unknown from previous studies in this study the findings shows that NICU unit were lack of
with an infant in NICU. The benefit of scientific evidence in this study will add to what was
The results provide the scientific evidence needed in this setting in order to support parents
5.3 The implications of the study to the unit

2000
the patient's needs. This will also ensure that the quality of care provided in the unit meets be taken into consideration to help the nurses in the unit to create nursing plans according to such as age of the patient, level of education and staff communication to the parents should Knowledge provided by this study on the factors that influence parents response to stress.

Rejection from the parents

Nurses should oscillate the parents different types of alarm in order to reduce stress

the each stressors. For example study found suddenly noises of the alarming caused stress to the

it found in this study can help the nurses to diminish the sources of stress. By focusing with

the management of parental stress in the NICU. Knowing the sight and sound causes stress as

focus on planning a problem-solving approach. This will enable the staff to develop skills in

Stressors identified in the study may assist in a basic knowledge for the nurses in the NICU to

Nursing Procedure

of response to stress.

enable parents to understand better their infant's appearance and significantly reduce the level

infant while stimulated and the presence which might be found to the premature infant. Will

These findings suggested that there is a need to educate parents about the appearance of their

The study demonstrated higher levels of stress in the area of infant appearance and behavior.

development of the infant later in childhood (Feldman et al., 2002).

discharge in order to prevent abnormal behavior that would affect the normal mental

has shown in this study as well, Preventive measures should be planned and undertaken after

and interaction with their infant contributed to more parental stress (Lynam et al., 2004), as
Parents and nurses in the unit. This can be achieved by having continuous education and management to review the work plan for the purpose of improving quality of care for both. What is known from this study and already known from previous studies will assist the

Management

of stress.

Parent confidence to share their concerns with the nurse. Potentially decreasing the level because it increases the sense of personal responsibility toward the infants care. This gives social support from the family at this stage is also very important to accomplish intervention.

Positive impact on their infant development. Confidence on their infant care that would reduce the level of parental stress which would have admitted in NICU. Early after discharge in order to empower the parents and boost their faith (of the infant should be given together on effect of stress to the infant who was on discharge). (Osborne-Murphy, A. & Austerlitz, 2008). Education for both (parent, mother and as it was found by the previous study that the stressful level on the parents does not end prevention of stress on parents (A. & A. Trenite & Heeno, 2008). Parental stress in NICU. This will potentially facilitate positive coping mechanism for the plan, because it has influence on provision of higher quality of nursing care in prevention response to parental stress should be applied in the implementation of the nursing care. The nurses in the subscale self behavior and communication demonstrated low level of

2003: 47.

the values in the specific contextual situation in practice (1st chapter of nursing practice)
Conclusion

Considering the stressors identified and other factors causing parents to experience higher levels of stress, the study provides evidence needed in this setting. This evidence is an

5.4 Limitations of the study

meant that applicable actions should be then implemented to ensure that the parent needs are

5.4 Limitations of the study

meant that applicable actions should be then implemented to ensure that the parent needs are

...
The study provides nursing management with information to form a framework for providing appropriate intervention strategies to improve the quality of care. It will enable them to better understand the parents' needs and expectations regarding parental stress in NICU. In this study, the role of the nurse is also important, especially if parents are present during the treatment of the patient. This research will contribute to the existing body of knowledge on parental stress in NICU.
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APPENDIX 1

PART 1

PARENTAL STRESSORS SCALE IN NEONATAL INTENSIVE CARE UNIT PSS: NICU. Please tick the column which is the best describes your experience. Scale 0 = "Not experienced" to scale 3 = "Extremely stressful".

<table>
<thead>
<tr>
<th>Item description</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicate your level of stress regarding this aspect of sight and sound in the neonatal intensive care unit</td>
<td>Not experienced</td>
<td>Mild stressful</td>
<td>Moderate stressful</td>
<td>Extremely stressful</td>
</tr>
<tr>
<td>1. The presence of monitors and equipment</td>
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<td>2. The constant noises of monitors and equipment</td>
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<td>3. The sudden noises of monitor alarms</td>
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<td>4. The other sick babies in the room</td>
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<td>5. The larger number of people working in the unit</td>
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<tr>
<td>6. Having a machine (Respirator) breathe for my baby</td>
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<td><strong>Level of stress</strong></td>
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<td>Level of stress</td>
<td>Not experienced</td>
<td>Mild stressful</td>
<td>Moderate stressful</td>
<td>Extremely stressful</td>
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<tr>
<td>Indicate the level of stress regarding Infant appearance and Behaviour during the period of NICU</td>
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<td>7. Tubes and equipment on or near my baby</td>
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<td>8. Bruises, cuts, or incisions on my baby</td>
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<td>9. The unusual colour of my baby (for example, looking pale or yellow jaundiced)</td>
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<td>10. My baby’s unusual or abnormal breathing patterns</td>
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<td>11. The small size of my baby</td>
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<td>12. The wrinkled appearance of my baby</td>
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<td>13. Seeing needles and tubes put into my baby</td>
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<td>14. My baby being fed by an intravenous line or nasal gastric tube</td>
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<td>15. When my baby seemed to be in pain</td>
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<td>16. When my baby looked sad</td>
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<td>17. The limp and weak appearance of my baby</td>
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<td>18. Jerky or restless movements of my baby</td>
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<td>19. My baby not being able to cry like other babies</td>
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PARENTAL STRESSORS SCALE IN NEONATAL INTENSIVE CARE UNIT PSS: NICU. Please tick the column which is the best describes your experience. Scale 0 = “Not experienced” to scale 3 = “Extremely stressful”.

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<tr>
<td>Indicate the level of stress regarding your parental role and Interaction with your baby in the neonatal intensive care unit</td>
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<tr>
<td>20. Being separated from my baby</td>
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<td>21. Not feeding my baby myself</td>
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<td>22. Not being able to care for my baby for myself (for example, diapering, bathing)</td>
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<td>23. Not being able to hold my baby when I want to</td>
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<td>24. Feeling helpless and unable to protect my baby from pain and painful procedures</td>
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<td>25. Feeling helpless about how to help my baby during this difficult time</td>
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<tr>
<td>26. Not being able to be alone with my baby</td>
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</table>
PARENTAL STRESSORS SCALE IN NEONATAL INTENSIVE CARE UNIT PSS: NICU. Please tick the column which is the best describes your experience. Scale 0= “Not experienced” to scale 3= “Extremely stressful”.

<table>
<thead>
<tr>
<th>Item description</th>
<th>0</th>
<th>1</th>
<th>2</th>
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<tbody>
<tr>
<td><strong>Level of stress</strong></td>
<td>Not experienced</td>
<td>Mild stressful</td>
<td>Moderate stressful</td>
<td>Extremely stressful</td>
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<tr>
<td>Indicate the level of stress regarding the behaviour and communication of the staff in the neonatal intensive care unit</td>
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<tr>
<td>27. Staff explanation of the procedure was good</td>
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<td>28. Staff used simple words to help me to understand</td>
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<tr>
<td>29. Staff telling me different (conflicting) things about my baby’s condition</td>
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<tr>
<td>30. Staff gave me information about tests and treatments carried out on my baby</td>
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<td>31. Staff not talking to me enough</td>
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<tr>
<td>32. Too many different people (doctors, nurses, others) talking to me</td>
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<td>33. Easy to get information and help when I visit or telephone the unit.</td>
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<tr>
<td>34. Not feeling sure that I will be called about changes in my baby’s condition</td>
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<td>35. Staff looking worried about my baby</td>
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<td>36. Staff acting as if they did not want parents around</td>
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<tr>
<td>37. Staff understood my baby’s behaviour and special needs.</td>
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<tr>
<td>38. Any time feeling visiting my baby staff allows me</td>
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<tr>
<td>39. Staff asking for permission for everything being done to my child</td>
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</tbody>
</table>

89
40. Describe any other experience/feelings that you have encountered in the neonatal intensive care unit during the hospitalization of your baby.
I-APPENDIX 1-Part 2

INGXENE YOKUQALA
IZINGA LOKUKHATHAZEKA KWABAZALI EGUNJINI LABANTWANA ABAGULA KAKHULU (PSS:NICU)
Gcwalisela leli fumu ngokufaka uphawu[x] kulokho okuchaza kahle ngesimo sakho. Isikeyili sihamba kanje: 0= Akwenzekanga 1= Okukukhathaze kancane 2=Okukukhathazile 3 = Okukukhathaze kakhulu

<table>
<thead>
<tr>
<th>Incabezelo</th>
<th>0</th>
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<tbody>
<tr>
<td><strong>Izinga lokukhathazeka</strong></td>
<td>Akwenzekanga</td>
<td>Kukukhathaze kancane</td>
<td>Kukukhathazile</td>
<td>Kukukhathaze kakhulu</td>
</tr>
<tr>
<td>Khetha izinga lokukhathazeka ngokubonile, nokuzwile egumbini labantwana abagula kakhulu</td>
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<tr>
<td>1. Ukuba khona kwamamonitha kanye nemishini csetshenziswayo.</td>
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<td>2. Imisindo yemamonitha kanye nemishini engami ngaso sonke isikhathi.</td>
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<td>3. Ukukhala kwemisindo yama-alamu okungalindelelile.</td>
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<td>4. Abanye abantwana abagulayyo egunjini.</td>
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<td>5. Abantu abaningi abasebenza egunjini.</td>
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<td>6. Umshini wokuphefumula csetshenziswa enganeni yami.</td>
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<td>7</td>
<td>Amapayipi kanye nemishini eseduzane noma esemntwane nami.</td>
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<td>8</td>
<td>Ukushuzuka kanye nokusikeka okusemhtwane nami.</td>
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<tr>
<td>9</td>
<td>Umbala ongajwayelile wesikhumba somntwana noma ijondisi.</td>
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<td>10</td>
<td>Ukuphefumula komntwana ngendlela engajwayelile.</td>
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<td>11</td>
<td>Isisindo somntwana (ubuncane bomntwana wami)</td>
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<td>12</td>
<td>Ukushwabana khesikhumba somntwana.</td>
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<td>13</td>
<td>Ukubona izinaliti namapayipi emuntwani nami.</td>
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<td>14</td>
<td>Ukudliswa komntwana ngamapayipi nokuhlatishwa ngamanaliti okuxhuma idrip</td>
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<td>15</td>
<td>Uma kungathi umuntwana uzwa ubuhlungu</td>
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<td>16</td>
<td>Uma ingane ibukcka ikhathazekile noma inganeme.</td>
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<td>17</td>
<td>Ukutubuzeka komntwana</td>
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<td>18</td>
<td>Ukubinyabinyeka komntwana</td>
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<td>19</td>
<td>Ukungakwazi ukukhala komntwana, njengabanye</td>
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<tr>
<td><strong>CHAZA UKUKHATHAZEKA KWAKHO</strong></td>
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<td><strong>MZALI NGENDIMA OYIDLALAYO</strong></td>
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<tr>
<td><strong>EMTTWANENI NGESI KHATHI</strong></td>
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<td><strong>ESEGUMBINI LABANTWANA</strong></td>
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<td><strong>ABAGULA KAKHULU</strong></td>
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<td>20. Ukuhlukaniswa nomntwana wami.</td>
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<td>22. Ukungakwazi ukunakekela umntwana ngokwami njengokumgeza kanye nokumshintsha inabukeni.</td>
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<td>23. Ukungakwazi ukuphatsha umntwana wami ngesikhathi engifuna ngaso.</td>
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<td>24. Ukungakwazi ukuvikela umntwana wami ezinhlungwini uma kukhona abamenza khona.</td>
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<td>25. Ukungakwazi ukusiza umntwana wami ngelesi sikhati esinzima</td>
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<td>27. Abasebenzi bayichaza kahle inqubo ezolandelwa.</td>
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<td>29. Abasebenzi bangishela izinto cziningi czingidiyo mayelana nokugula komntwana wami.</td>
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<td>30. Abasebenzi bawayangaza mayeza nokuhlolwa kanye nalo kho okunye okwenziwe emntwanceni wami.</td>
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<td>31. Abasebenzi abakholumi nami ngokwanele.</td>
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<tr>
<td>32. Abantu abaningi abahlukahlukene (njengodokotela, amanesi nabanye) bakhuluma nami.</td>
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<td>33. Kulula ukuthola iminingwane kanye nosizo uma ngishaya ucingo noma nje ngivakashile egumbini.</td>
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<td>34.</td>
<td>Ukungabi nasiqiniseko sokuthi ngizokwaziswa ngoshintsho olungabakhona ngesimo somntwana wami.</td>
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<tr>
<td>35.</td>
<td>Abasebenzi babukeka bekhathazekile ngesimo somntwana wami</td>
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<tr>
<td>36.</td>
<td>Ukubona sengathi abasebenzi abathandi ukuthi abazali babekhona egunjini lapho kugulela khona umntwana.</td>
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<tr>
<td>37.</td>
<td>Abasebenzi abaqondi ngokuziphatha kanye nezidlingo zengane yami.</td>
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<tr>
<td>38.</td>
<td>Abasebenzi bayangivumela ukuzobona ingane yami noma ngasiphi isikhathi.</td>
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<td>39.</td>
<td>Abasebenzi bacela imvume yokwenza noma yini emntwaneni wami.</td>
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</table>
PART I: DEMOGRAPHIC INFORMATION

APPENDIX 2
E. Izinye zemhindo eziqakhume
D. Lunkundo eziqakhume
C. Lebonge le 11 kuyi eziqakhume
B. Lunkundo nel 8 kuyi eziqakhume
A. Lebonge le 10 kuyi eziqakhume

D. Lunkundo enguqama 4
C. Lebonge le 3 kuyi kwenqama 45
B. Lunkundo enguqama 22 kuyi kwenqama 32
A. Lebonge le 18 kuyi kwenqama 21

B. Oselelwa
A. Oselelwa
39. Uluphi

(Voza khe le komu nekuthula uqhayo [x] enembemene.)

INcXENtE VeySiBI: Uyrewa ngemphi kanye nobobo izakho

APPENDIX 2. Part 2
DATA COLLECTION PATTERN

APPENDIX 3
Appendix S
When you succeed in your studies,

Keep your dreams alive with the reality of your study or completion of the dissertation.

Please liaise with the Head of Department and the Manager of Student Services to initiate the process.

1. Inform the academic officer of your request.

2. Your study will be considered according to the University's regulations.

3. The Dean's Department of Education will now be responsible for your request.

For admission to the graduate study:

Permission is granted by the Department of Education and the University's Administration.

Date: [Date]

[Signature]

Dean of Education
I'm Khermaam - Meenvl

Yours sincerely,

Thank you in advance.

Copy of the report will be provided to you.

Your hospital and the participants of the study will not be disclosed in the report. A
ethical approval has been received. Participation to the study is voluntary. The name of
before the study begins. The study is expected to commence in October 2006 once
for Research on Human Subjects of University of the Witwatersrand for approval
intensive care until the research proposal attached will be submitted to the Committee
investigate stress experienced on parents whose infants admitted in the neonatal
conclude research study in the neonatal intensive care unit. The aim of the study is to
Education University of Witswatersand Johannesburg. I am requesting permission to
I am a student registered for MSc Nursing degree in the Department of Nursing

HOSPITAL

RE: PERMISSION TO CONDUCT RESEARCH STUDY IN JOHANNESBURG

Dear Sir/Madam,

South Africa.

Johannesburg

Private Bag X 39,

The Chief Executive Officer,

TO:

Johannesburg, South Africa

Park lawn 2193,

7 York Road

Department of Nursing Education

Faculty of Health Sciences,

The University of Witswatersand.

Lil Khermaam - Meenvl

APPENDIX 7
I am a student registered for MSc Nursing degree in the Department of Nursing Education, University of Ilimanun, Nigeria. I am seeking permission to conduct research study in the Neonatal Intensive Care Unit. The aim of the study is to investigate stress experienced on parents whose infants admitted in the neonatal intensive care unit. The study will be supervised by [Name], Professor of Nursing Education, University of Ilimanun, Nigeria.

I am a student registered for MSc Nursing degree in the Department of Nursing Education, University of Ilimanun, Nigeria. I am seeking permission to conduct research study in the Neonatal Intensive Care Unit. The aim of the study is to investigate stress experienced on parents whose infants admitted in the neonatal intensive care unit. The study will be supervised by [Name], Professor of Nursing Education, University of Ilimanun, Nigeria.

TO:

The Chief Executive Officer,

Johnsmere, South Africa, Park Town 2193,
7 York Road
Department of Nursing Education,
Faculty of Health Sciences,
The University of Ilimanun, Nigeria.

HOSPITAL

RE: PERMISSION TO CONDUCT RESEARCH STUDY IN JOHANNESBURG

Dear Sir/Madam,

SOUTH AFRICA
Johnsmere,
Private Bag X 39,
Johnsmere Academic Hospital,
Johnsmere, South Africa

Yours sincerely,

Thank you in advance.

A APPENDIX 8
Chapel Hill, NC 27599-7450
The University of North Carolina at Chapel Hill
Professor, School of Nursing,
Margaret S. Miles, RN, PhD, FANA,

Sincerely,

Congratualtions,
I send you wishes for success in completing your program.
You have my permission to use my instrument, the Parental.

Johannesburg, South Africa.
7 York Road, Park Town 2193

Faculty of Health Sciences, *Nursing Department,
University of Witwatersrand.

To: *Lili K. Mangt*

APPENDIX 9
Yours sincerely,

[Name]

Information Sheet

Appendix 10-Part 1
Informed Consent

I have read the consent form and understood the study in its entirety. I agree to participate in the study.

Date: ____________________
Signature: ____________________

Date: ____________________
Signature: ____________________

I hereby consent to participate in the study.

Study and any time without any penalty for me or my infant.

I understand that I will be free to participate or withdraw in the study in accordance with the guidelines provided.

Date: ____________________
Signature: ____________________

Informed Consent

Voluntary Consent for Participation in the Study

Appendix I

Part 1
kuzezimana kubamba ikheza kubona kwawono,