KNOWLEDGE AND PERCEPTIONS OF PARENTS AND CAREGIVERS ON THE CAUSES OF DIARRHOEA AMONG CHILDREN UNDER FIVE YEARS LIVING IN THE RURAL AREAS OF THE EASTERN CAPE

by

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DECLARATION

I declare that, KNOWLEDGE AND PERCEPTIONS OF PARENTS AND CAREGIVERS ON THE CAUSES OF DIARRHOEA AMONG CHILDREN UNDER FIVE YEARS LIVING IN THE RURAL AREAS OF THE EASTERN CAPE is my own work and that all the sources I have used or quoted have been indicated and acknowledged by means of complete references and that this work has not been submitted before for any other degree at any other institution.

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DATE  
14 January 2015
ABSTRACT

A qualitative study was conducted to explore and describe the knowledge and perceptions of parents and caregivers on the causes of diarrhoea among children under five years living in the rural areas of the Eastern Cape Province, South Africa. The aim was to assist in correcting the negative perceptions of the causes of under five child diarrhoea through improved educational interventions. Data were collected through individual, semi-structured and face-to-face interviews from seven participants who were parents and caregivers of under-five children presenting with diarrhoea or admitted for the management of diarrhoea at a specific hospital and thematic analysis was done. The findings revealed that the participants had inadequate knowledge and lacked understanding of diarrhoea and its causes. Participants could not mention all the causes and risk factors associated with diarrhoea. Noteworthy is that the participants’ perceived diarrhoea as a serious condition. The study recommends that the implementation of policies regarding public education and health promotion programmes be targeted at educating parents and caregivers.

Key concepts

Caregiver; diarrhoea; knowledge of diarrhoea.
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To my Jesus Christ, my one and only saviour, I give you Honour my Lord, through your mighty power, love and your mercies that endureth forever; I managed to complete this dissertation.

“Bless the Lord O my soul and all that is within me, Bless his Holy name”

Psalm 103

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<tr>
<td>AND</td>
<td>ALFRED NZO DISTRICT</td>
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<tr>
<td>DHIS</td>
<td>DISTRICT HEALTH INFORMATION SYSTEM</td>
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<tr>
<td>DOH</td>
<td>DEPARTMENT OF HEALTH</td>
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<tr>
<td>ECP</td>
<td>EASTERN CAPE PROVINCE</td>
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<td>HIV</td>
<td>HUMAN IMMUNODEFICIENCY VIRUS</td>
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<tr>
<td>IMCI</td>
<td>MANAGEMENT OF CHILDHOOD ILLNESSES.</td>
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<td>MRC</td>
<td>MEDICAL RESEARCH COUNCIL</td>
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<tr>
<td>PGDP</td>
<td>PROVINCIAL GROWTH AND DEVELOPMENT PLAN</td>
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<td>SA</td>
<td>SOUTH AFRICA</td>
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<td>SSA</td>
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<td>UNISA</td>
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CHAPTER 1

ORIENTATION TO THE STUDY

1.1 INTRODUCTION

Diarrhoea is regarded as a major determinant of childhood morbidity and one of the leading causes of death in children under five years of age in the world (World Health Organization (WHO) 2013:5). It is estimated that nine million under five children die annually as a result of diarrhoea (De Wet, Nkwanyama & Van Vuuren 2010; WHO 2008) representing nearly one in five child deaths (Ansari, Ibrahim & Shankar 2011:24; Ikefuna & Ilechukwu 2011:237; Njume & Goduka 2012:3911; United Nations Children Fund (UNICEF) 2011:3-4).

According to the WHO (2013:5), there are more than 700 million episodes of diarrhoea annually among the under five children in developing countries. It is also reported that each under five child in the sub-Saharan Africa has five episodes of diarrhoea per year and an estimated 800,000 die each year from diarrhoea and dehydration (Yilgwan & Okolo 2012:221; Seyal & Hanif 2009:38). The majority of deaths are reported in the rural African communities.

South Africa like any other developing country is faced with a challenge of high diarrhoea-related mortality and morbidity rate among the under five children (UNICEF 2012:6). Basoon (2009:31) reported that diarrhoea is the third biggest cause of death in infants and children younger than five (5) years leading to about 160-200 deaths per day in South Africa. The National Department of Health of South Africa confirmed that diarrhoea has been prioritised as one of the leading diseases among the under five children especially in rural areas and in poor communities of KwaZulu-Natal and Eastern Cape Provinces (Statistics South Africa Census 2011:3).

The reports by the WHO (2011:23) state that substantial progress has been made towards achieving the Millennium Development Goal 4 (MDG4) of reducing the child mortality rate because the global under five mortality rate has dropped from 87 deaths per 1000 live births in 1990 to 51 deaths per 1000 live births in 2011. However, this
reduction is still insufficient to reach the MDG 4 target of a two-thirds reduction of 1990 mortality levels by the year 2015.

1.2 BACKGROUND INFORMATION ABOUT THE RESEARCH PROBLEM

The Eastern Cape Province (ECP) is the second largest province in South Africa after the Northern Cape Province. It is situated along the south east coast of South Africa. According to Statistics South Africa Census (2011:15), the ECP has a population of approximately 6.6 million people, representing about 13% of the South African population. The Census Report (2012/10/03) also indicates that the population in the ECP is predominantly rural and poor with unemployment rate of 37.4%. The province continues to be falling behind in terms of rural and industrial developments. The Eastern Cape provincial annual reports 2010/2011/ and 2011/2012 corroborate the fact that the province lacks major resources. Only 20% of the Eastern Cape rural land has access to safe, clean water and proper sanitation facilities. The remaining 80% access their water from neighbouring dams and rivers, sharing water with animals. In addition, many streams and surface water sources are contaminated because the nearby bushes are used for sanitary purposes (Njume & Goduka 2012:3913).

Alfred Nzo is one of the district municipalities in the ECP with the highest poverty rate of 82.4% (Dlamini 2010:8) and a limited number of people having access to clean water and proper sanitation facilities. In addition some of the people have to travel long distances in order to access basic and specialised health care, schools and other services. According to the Alfred Ndzo district (AND) municipality’s annual reports 2010/2011 and 2011/2012, under five children constitute about 10% of the district population.

The reports further state that diarrhoea has been identified as one of the top three (3) priority childhood illness among the under five children in the district. The statistics show that 1 in 5 children accessing health care suffer from diarrhoea (District Health Information System (DHIS); AND 2010/2011 & 2011/12). In 2008 the number of children admitted with diarrhoea and the number of children dying as a result of diarrhoea increased to an estimated 75% of all deaths of children under five years admitted at Empilisweni Hospital, and 70% of deaths among children admitted at Taylor
Bequest Hospital were due to dehydration as a result of diarrhoeal diseases (Manana 2008:2).

In order to decrease diarrhoea-related morbidity and mortality among children under five years of age, the Eastern Cape provincial department of health and the department of local government (through districts and local municipalities) are providing communities with health education including diarrhoea. This is achieved by means of health promotion and disease prevention activities such as health education programme regarding water purification and oral rehydration solutions. In addition the national departments of human settlement and social development are providing houses with adequate ventilation and food parcels to children in order to improve the nutritional status of children younger than five years of age. The government is also building toilets in rural areas to improve sanitation. These interventions are in line with the millennium development goals and the Eastern Cape’s provincial growth and development plan (PGDP 2004-2014).

1.3 THE RESEARCH PROBLEM

Despite the interventions to decrease diarrhoea-related morbidity and mortality among children under five years of age in the ECP, diarrhoea remains one of the leading causes of morbidity and mortality and the main cause of admissions among the children under five years of age in a specific hospital. There was a need to conduct a study to explore and describe the knowledge and perceptions of parents and caregivers regarding the causes of diarrhoea among children under five years.

1.4 PURPOSE AND OBJECTIVES OF THE STUDY

The purpose of the study was to determine the knowledge and perceptions of parents and caregivers on the causes of diarrhoea among children under the age of five years in the rural areas of Eastern Cape.

1.4.1 Objectives of the study

The objectives of the study were to
• explore the knowledge of parents and caregivers regarding the causes of diarrhoea among children under five years
• describe the perception of the parents and caregivers on the causes of diarrhoea among children under five years

1.4.2 Research questions

The study attempted to answer the following research questions:

• What is the knowledge of parents and caregivers regarding the causes of diarrhoea among children under five years?
• How do parents and caregivers perceive the causes of diarrhoea among children under five years?

1.5 SIGNIFICANCE OF THE STUDY

The findings of this study have potential to contribute to the body of knowledge of the parents’ and caregivers’ knowledge of and perceptions regarding the causes of diarrhoea among under five children living in the rural areas of the ECP. In addition, the findings may provide information of relevance to health service provision by ensuring that health education is targeted at the identified gaps in the knowledge. Accurate perceptions of the causes of diarrhoea in the under five children are important for the proper management at home and subsequent referral for skilled care.

Knowledge of the perceptions of the parents’ and caregivers’ regarding the causes of diarrhoea among children under five years living in the rural areas of the ECP could assist in correcting all negative perceptions of the causes of under five child diarrhoea through improved educational interventions.

1.6 DEFINITIONS OF TERMS

1.6.1 Caregiver

In terms of section 55 (b) of the children’s Act (Act no 38 of 2005), a caregiver is any person other than the parent or legal guardian who cares for a child with implied or
expressed consent of a parent or guardian of the child. In this study, the term caregiver will be used to define any person other than the parent or legal guardian who is taking care of the child/or children younger than five years living in the rural areas of the Eastern Cape.

1.6.2 Child with diarrhoea

A child is defined in the Children’s Act (Act no 38 of 2005) as a person under the age of eighteen (18) years. The term child in this study refers to any person from the age of 1 month-5 years, living in the rural areas of the Eastern Cape, who has been treated for diarrhoea.

1.6.3 Diarrhoea

Diarrhoea is defined as the frequent passage of unformed, loose or watery stools, usually three or more times in 24 hours (Berkow, Beers & Fletcher 2007:419).

1.6.4 Knowledge

Knowledge is defined as specific information about something or the theoretical and practical understanding of a subject (The Free English Online Dictionary 2011). For the purpose of this study, the term knowledge will be used to refer to the information, skills or attitude towards the causes of diarrhoea acquired through experience and learning.

1.6.5 Parent

A parent is defined as any living organism that has produced or generated offspring (Oxford Dictionary 2011:315). For the purpose of this study, the term parent will be used to define any person who has given birth to a child; mother or father, any person who has not given birth to the child but he/she is legally appointed to raise a child under five years.
1.6.6 Perceptions

The Oxford Dictionary (2011:322) defines a perception as an intuitive understanding and insight while Berkow et al (2007:523) define perceptions as organised processes in which an individual selects cues from the environment and draws inferences from these in order to make sense of his or her own experience”. In this study perception will be used to refer to the way in which the causes of diarrhoea are regarded, understood and interpreted by the parents and caregivers of children under five years living in the rural areas of the Eastern Cape, who have been treated for diarrhoea.

1.7 RESEARCH DESIGN AND METHODS

This study was informed and guided by the constructivist paradigm. The constructivist paradigm has its roots in philosophy and the human sciences and it is centred on the way in which human beings make sense of their subjective reality and attach meaning to it (Holloway & Wheeler 2010:25; Hesse-Biber 2010:455). Constructivist paradigm acknowledges the existence of many socially constructed, subjectively-based realities that consist of stories or meanings grounded in natural settings and it is typically associated with qualitative research. In this study subjectivity based realities are knowledge and perceptions of parents and caregivers about diarrhoea and its causes.

1.7.1 The research design

A qualitative descriptive design was used to address the study objectives. Burns and Grove (2013:60) describe qualitative research as a scholarly approach to describe life experiences from the perspective of the persons involved and a way of giving significance to the subjective human experience. In this study, qualitative research was intended to enable the researcher to develop an in-depth understanding of the knowledge and the perceptions of the causes of diarrhoea among parents and caregivers of children under five years.

Qualitative research often has the aim of description and researchers may follow-up with examinations of why the observations exist and what the implications of the findings are (Creswell 2009:173). Qualitative descriptive designs provide an accurate portrayal or account of characteristics of a particular individual, situation, or group
(Babbie & Mouton 2009:75). Details regarding the study design are discussed in chapter 3 of this study.

1.7.2 The research setting

The study was conducted at a hospital in the Alfred Nzo District in the Eastern Cape Province of South Africa. The district is mainly rural, covering Matatiele, Mount Frere, Mount Ayliff, Bizana and Tabankulu.

1.7.3 The research methods

The research methods applied in this study include the description of the study population, sampling procedures followed, related ethical issues as well as data collection and data analysis methods.

1.7.3.1 Population and sample

The target participant population comprised caregivers and parents of under five children presenting with or admitted for the management of diarrhoea at the health care facilities in the Alfred Nzo district of the ECP.

To be included in the study, the participants had to be mothers, fathers or caregivers of the children under the age of five years who presented with or were admitted for the management of diarrhoea at the specific hospital. Another criterion was that they must have signed a consent or assent form for those parents under the age of 18 years.

1.7.3.2 Sampling technique

A non-probability, purposive sampling method was utilised to select willing participants who met the inclusion criteria. Purposive sampling was relevant as it focused on intentionally selecting those individuals who had the potential of presenting a narrative that is rich in meaning that the researcher would be able to learn a great deal about those issues that were central to the study (Green & Thorogood 2009:85).
1.7.3.3 Data collection

Semi-structured, individual interviews were used to collect data from parents and/or caregivers of children under five years presenting with diarrhoea or admitted for the management of diarrhoea at the proposed hospital, using the participants’ preferred language. An interview guide was used as a data gathering instrument written in both English and IsiXhosa. An audiotape was used to record the interviews.

1.7.3.4 Data analysis

Data collection and analysis occurred simultaneously (Polit & Beck 2012:156). Audio recorded interviews were transcribed verbatim and thematic analysis was done. The data analysis for this study is further described in detail in chapter 3.

1.8 MEASURES TO ENHANCE TRUSTWORTHINESS

According to Polit and Beck (2012:202), it is the responsibility of every researcher to ensure that the findings of their study reflect the truth to ensure accurate, non-biased findings that represent the experiences of the population. The four criteria for establishing trustworthiness of qualitative research as suggested by Lincoln and Guba (1985) cited in Creswell (2009:192) was used. They included credibility, dependability, confirmability and transferability. Details regarding the measures taken to ensure the trustworthiness of data are described in chapter 3 of this study.

1.9 ETHICAL CONSIDERATIONS

The researcher obtained permission to conduct the study from Higher Degrees Committee of the University of South Africa (Annexure A). A request was written to conduct the study (Annexures B and C). The permission was granted by the management of the research sites (Annexure C). Voluntary and informed consent, privacy, confidentiality, justice, beneficence and non-maleficence as well as scientific integrity were observed throughout the study (Annexure D). A full description of the stated ethical issues as well as the measures taken to address each of the issues are discussed in chapter 3.
1.10 STRUCTURE OF THE DISSERTATION

The dissertation is organised into five chapters as follows:

Chapter 1: Orientation to the study
Chapter 2: Literature review
Chapter 3: Research design and methods
Chapter 4: Analysis, presentation and description of research findings
Chapter 5: Conclusions and recommendations

1.11 CONCLUSION

This chapter presented an orientation to the study. The background, the purpose and the significance of the study were introduced. Research methodology was also introduced. The next chapter presents the literature review.
CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

A literature review is an organised written presentation of what has been published on a topic by scholars with the purpose of conveying to the readers what is currently known regarding the topic of interest (Burns & Grove 2008:93). In this chapter, the literature review on diarrhoea among children under the age of five years is presented. The purpose of the literature review was to identify and define related concepts to the topic, to increase the depth and widen the knowledge base of developments in the field of study of diarrhoeal diseases among children under the age of five years. It was also done to identify knowledge gaps in literature and to determine the most appropriate methods including the research instrument.

2.2 THE SCOPE OF THE LITERATURE REVIEW

The literature review was guided by the research problem and the research objectives. The researcher looked at various reports and studies conducted on parents’ and caregivers’ knowledge and perceptions on the causes of diarrhoea among children younger than 5 years globally including the country of study, South Africa. A computer-assisted search was conducted using the keywords diarrhoea, children under five years, knowledge of diarrhoea and perceptions about diarrhoea.

2.3 THE LITERATURE REVIEW

The review is structured into five main aspects which are global burden due to diarrhoea, global response to diarrhoea in children under five years, burden caused by diarrhoea among children under five years in South Africa and the country’s response to the burden caused by diarrhoea among children under five years.
The literature review also included studies that have been conducted on the knowledge and perceptions of parents on the causes of diarrhoea among children under five years.

2.3.1 Global burden due to diarrhoea among children younger than five years

Diarrhoea is the frequent passage of unformed, loose, or watery stools, usually three or more times in a 24 hour period (Palombo 2006:717). Acute diarrhoea starts suddenly and may continue for several days. The factors that contribute to persistent diarrhoea in children younger than 5 years include poor nutrition, environmental contamination, inappropriate feeding practices and early weaning from breastfeeding. Complications such as dehydration develop in children younger than five years when the signs and symptoms of diarrhoea are not detected early and treated promptly by parents (Hill, Kirkwood & Karen 2011:110).

According to the WHO (2008:3), early detection, prompt and appropriate health care seeking could reduce childhood deaths by 20%. Oral rehydration solution (ORS) is recommended for the treatment of diarrhoea at home (WHO 2008:2). Hill et al (2011:111) further explain that the success in reducing childhood mortality requires a partnership between health workers and families. The same authors emphasise that all families need to know how to feed their children, how to prevent and to respond to common illnesses (including knowing when to seek care) and to follow treatment advice given to them by the health workers.

According to Hill et al (2011:111-112), every year nearly 11 million children die before reaching their fifth (5th) birthday, and 98% of these deaths were reported in developing countries in 2002 with more than half being due to acute respiratory infection, diarrhoea, measles, malaria and malnutrition.

Diarrhoea is the second most serious cause of mortality in children under five years causing about 30-50% of deaths in developing countries (WHO 2013:6). According to UNICEF (2011:2), diarrhoea causes about 1.5 million under five deaths very year even though it is a preventable disease.

The burden of disease profile in the Nairobi slums showed that, children under the age of five years had more than 4 times higher mortality burden than the rest of the
population with diarrhoeal diseases accounting for about 20% of deaths (Mukiira & Latifat 2012:222).

Diarrhoea is also an important contributor to childhood morbidity and poor growth and development (Hill et al 2011:114). According to the WHO (2013:5), there are more than 700 million episodes of diarrhoea annually among the under five children in developing countries. Reports by other authors indicate that each under five child in the sub-Saharan Africa has five episodes of diarrhoea per year and 800,000 die each year from diarrhoea and dehydration (Yilgwan & Okolo 2012:221; Seyal & Hanif 2009:38). The global burden of disease indicates that diarrhoea will continue to be one of the major contributors to child deaths in 2020 unless significant efforts are made to control them (UNICEF 2008:3).

2.3.2 Global response to diarrhoea among children under five years

The millennium development goals adopted at the United Nations (UN) millennium summit in 2000 are the world’s target for dramatically reducing child mortality by two-thirds (UNICEF 2012:3-5; WHO 2013:6). One hundred and eighty-nine (189) member states adopted the declaration of commitment to child health which reflected a global consensus on a comprehensive framework for effective action to reduce child mortality (United Nations Educational Scientific and Cultural Organisation [UNESCO] 2005:1). All the member states and at least 23 international organisations committed to help achieve the millennium development goals by 2015. Reduction of child mortality is the fourth millennium development goal. Globally, all the countries are striving to achieve millennium development goals (MDGs) to promote child health. In an attempt to improve child health, UNICEF (2012) and the WHO (2008:2) developed the Integrated Management of Childhood Illnesses (IMCI) in the late 1990s.

At the core of this strategy is the integrated case management of the most common childhood problems seen in low- and middle-income countries, including important disease prevention and health promotion elements such as immunisations and nutrition counselling.
In addition preventing fatalities by improving child health through the community is also at the core of the IMCI approach because most child deaths occur at home before reaching health facilities.

Working with governments and communities, UNICEF supports efforts to improve family and community practices based on scientific evidence (UNICEF 2012:6). UNICEF (2012:4) and the WHO (2008:3) advocate for IMCI approach and they offer technical assistance to countries who apply it. In addition UNICEF (2012:4) provides support to departments of health within various governments to improve their health systems, including ensuring that essential drugs, supplies and equipment are available.

The focus of this study is one of the main components of IMCI namely the improvement in the family and community practices. The family and community practices considered important in ensuring survival, reduction of morbidity and the promotion of healthy growth and development for young children include:

- Taking children as scheduled to complete a full course of immunisations before their first birthday.
- Breastfeeding infants exclusively for six months.
- Starting at six months of age to feed children freshly prepared energy food.
- Ensuring that children receive adequate amounts of micronutrients.
- Disposing of faeces, including children’s faeces safely, wash hands after defecation, before preparing meals, and before feeding children.
- Protecting children in malaria endemic areas and by ensuring that they sleep under insecticide-treated bed nets.
- Continuing to feed and to offer more fluids including breast milk to children when they are sick. Give sick children appropriate home treatment.
- Recognising when sick children need treatment outside home and seek care from appropriate providers. Follow health worker’s advice about treatment, follow-up and referral. Promote mental and social development by responding to a child’s needs for care, and through talking, playing and providing a stimulating environment.
- Ensuring that every pregnant woman has adequate antenatal care.
In June 2000, the family and community practices were adopted by UNICEF, the WHO Regional Office for Africa, and other Non-governmental Organisations (NGOs) after a gathering in Durban, South Africa. More than 80 countries have successfully adopted the IMCI into their health systems, and more than 40 countries including South Africa are giving special attention to improving family and community practices as a way of reaching vulnerable children (UNICEF 2012:7). The WHO Plan A of treating the child at home also encourages mothers and caregivers to treat their children with diarrhoea by giving them Oral Rehydration Solution (ORS) and Oral Rehydration Therapy (ORT) and thus it is important to keep assessing their awareness regarding home based management of diarrhoea at frequent intervals to provide feedback for the on-going programmes (WHO 2009:2).

2.3.3 Burden caused by diarrhoeal diseases among children under five years in South Africa

Infant and under five mortality rate is used as a measure of health status and socio-economic development of a country (WHO/UNICEF 2009:4). According ASSA (2009:3), the under five mortality rate had increased progressively between 1997-2003. In 2003, it reached a peak of 74 deaths per 1000 live births but it gradually decreased to 50 per 1000 live births in 2010, and the major cause of death in children aged between 1 to 5 years was mainly infectious diarrhoea. According to Statistics South Africa (2012:22), the incidence of diarrhoeal cases in children under five years increased from 1,1% in 2010 to 1,9% in 2011.

Njume and Goduka (2012:3912) reported that diarrhoea is the second leading cause of death among children younger than five years in the ECP after HIV/AIDS related diseases. According to Njume and Goduka (2012:3912), diarrhoea accounted for 15% of all deaths in this age group in 2009, while HIV/AIDS related diseases were responsible for 27,1% of all deaths. The lower respiratory infections were ranked number 3 accounting for 6, 8% of deaths.

In 2008 a number of districts in the ECP experienced diarrhoeal diseases outbreaks, which mainly affected children under five years. Joe Gqabi (former uKhahlamba), Alfred Nzo, and OR Tambo districts were mostly affected. Seventy-five (75%) of all deaths of
children admitted in Empilisweni and Umlamli Hospitals, and 70% in Taylor Bequest Hospital were due to dehydration as a result of diarrhoea (Manana 2008:6-7).

2.3.4 The South African response to the burden caused by diarrhoeal diseases among children under five years

In July 2009, a programme of action was released by the South African National Department of Health to enable the country to meet the MDGs and to monitor improvements in the health system. Some of the points in the plan as outlined by the Department of Health included:

- Provision of Strategic Leadership and Creation of a Social Compact for better health outcomes. One of the objectives of this priority is to ensure there is unified action across the health sector. Appropriate planning and the involvement of provinces, communities, and their leaders in the health sector were required to meet these objectives.
- Improving the quality of health services. The objective of this priority point is to improve quality in health care through measuring standards against actual practice and filling in the gaps, in order to ensure the delivery of respectful, safe and high quality clinical care with effective support systems.
- Accelerated Implementation of the HIV/AIDS and Sexually Transmitted Infections National Strategic Plan and the increased focus on Tuberculosis (TB) and other communicable diseases.
- Mass mobilisation for the better health for the population.

In addition, the Department of Health introduced a negotiated service delivery agreement (NSDA) in 2010 which aimed at improving the health status of the entire population, and decreasing maternal and child mortality rate is one of the outputs that were identified for the health care sector.

In this charter it is indicated that the child mortality rate must decrease to 20 deaths (or less) per 1,000 live births by 2014.

The MDG country report estimates child mortality rates at 104 per 100,000 (South Africa 2009:2).
As indicated in paragraph 2.3.2, South Africa was one of the countries that adopted IMCI. Health care practitioners in primary health care facilities and the paediatric nurses were trained on IMCI guidelines. This training involves identifying children who have childhood illnesses such as diarrhoea, ARI including asthma, upper respiratory infection (including ear infection), malnutrition, tuberculosis, HIV/AIDS, child abuse and meningitis. Sick children are assessed according to their symptoms and signs, treatment is given if necessary, and the parent/caregiver is counselled and advised on the follow-up of the patient (UNICEF 2012:5).

2.3.5 The knowledge and perceptions of parents/caregivers of the causes of diarrhoea among children under five years

The literature search revealed a number of studies conducted on the parents’ and caregivers’ knowledge of diarrhoea among children under five years. Wambete and Joseph (2010:47) conducted a quantitative descriptive survey on the knowledge and perceptions of Tanzanian mothers and caregivers on childhood diarrhoea and its management. According to the findings of their study, some of the mothers/caregivers described diarrhoea as the normal growth stage; that every child under five years should have diarrhoea in their lifetime.

Other findings of the same study found that about a third of the mothers/caregivers were not aware of any risk factors for diarrhoea (Wambete & Joseph 2010:48-49). Contaminated water, exposure to an unclean environment, poor food hygiene, contaminated breast milk due to sexual intercourse, overheated breast milk, dietary imbalances and curses were some of the causes of diarrhoea mentioned by participants in rural areas of Sierra Leone (McMahon, George, Yumkella & Diaz 2013:3). Other findings in the same study showed that the respondents rarely discussed the role of open defaecation or the importance of hand washing with soap and water in preventing diarrhoea (McMahon et al 2013:8).

In a quantitative study conducted by Mohammed and Saad (2009:103) to determine the mothers’ knowledge of home-based care management of acute diarrhoea among children under five years in an urban slum of India, the findings revealed that, less than half of the mothers knew about ORS and the correct method of preparing it.
The findings of a study done in Mali by Ellis, Winch, Daou, Gilroy and Swedberg (2007:701) discovered that the majority of parents and caregivers knew that ORS could replace lost fluids, but its inability to stop diarrhoea caused them to seek antibiotics and traditional medicines from local markets.

With regard to the health care-seeking behaviour during diarrhoeal illness, the largest number of mothers who took part in Mohammed and Saad (2009:105) study indicated that the health care provider was only consulted after 2 to 3 episodes of diarrhoea or when the condition deteriorated. Other findings in the same study revealed that a small number of parents did not take their children to any health care provider for the treatment of acute diarrhoea; several traditional remedies used in management of diarrhoea were mentioned (Mohammed & Saad 2009:107). Regarding the measures to take when acute episodes of diarrhoea occur, Ellis et al (2007:701) reported that some of the mothers and caregivers admitted to waiting for some time until they felt it necessary to take the children to a health care facility because they managed it domestically using several traditional remedies.

2.4 CONCLUSION

A literature review was conducted to provide insight into the global and national burden of, and the global response to diarrhoea among children younger than five years. The review revealed that diarrhoea will continue to be one of the major contributors to child deaths in 2020 unless significant efforts are made for its early detection, prompt home treatment and appropriate health care seeking measures. The review revealed that the knowledge of the causes of and management of diarrhoea in under five children was adequate in some studies and inadequate in others. Incorrect perceptions of diarrhoea as the normal growth stage that every child under five years should have in their lifetime were identified.

The literature reviewed on parents’ and caregivers’ knowledge and perceptions of diarrhoea among children under the age of five years revealed that qualitative approaches were utilised in most of the studies thereby highlighting the need for more quantitative or mixed methods research approaches to study the parents’ and
caregivers’ knowledge and perceptions of diarrhoea among children under perceptions of nursing among student nurses.

In the following chapter, a description of the research design and methods utilised in the study to achieve the objectives of the study is presented.
CHAPTER 3

RESEARCH DESIGN AND METHODS

3.1 INTRODUCTION

In this chapter, the research design and methods used in this study are presented. The chapter begins with a discussion of the research design followed by a description of the population selected for the study, sampling procedures, the specific methods used for data collection and analysis, trustworthiness as well as related ethical considerations. The research design and methods facilitated the attainment of the following research objectives and questions as stated in chapter 1.

3.1.1 Research objectives

The objectives of the study were to

- describe the knowledge of parents’ and caregivers’ regarding the causes of diarrhoea among children under five years
- describe the perception of the parents and caregivers on the causes of diarrhoea among children under five years

3.1.2 Research questions

The study aimed to answer the following research questions:

- What is the knowledge of parents and caregivers on the causes of diarrhoea among children under five years?
- What is the perception of the parents and caregivers on the causes of diarrhoea among children under five years?
3.2 RESEARCH DESIGN

The study design refers to the overall research approach or strategies that would be taken to obtain answers to questions being studied (Babbie & Mouton 2009:73). Creswell (2009:169) defines a research design as the plan and structure of the investigation intended to obtain answers to research questions. The plan includes an outline of what the investigator intends to do. According to Leedy and Ormrod (2010:34), the aim of a research design is to plan and structure a given research project in such a manner that the eventual validity of the research findings is maximised. Babbie and Mouton (2009:74) distinguish between the research design and research methodology. The same authors explain that, a research design is a plan or a blue print of how the research is to be conducted whilst a research methodology refers to systematic methodological and accurate execution of that design. A qualitative descriptive design was found to be more appropriate for addressing the study objectives.

3.2.1 Qualitative research

Creswell (2009:172) defines qualitative research as an inquiry process of understanding based on a distinct methodological tradition of inquiry that explores a social or human problem, based on building a complex and holistic picture, formed with words, reporting detailed views of informants, and conducted in a natural setting. Burns and Grove (2013:60) describe qualitative research as a scholarly approach to describe life experiences from the perspective of the persons involved and as a way of giving significance to the subjective human experience. According to Brink (2009:123), qualitative research is a method of inquiry employed in many different academic disciplines, traditionally in the social sciences but also in market research and further contexts.

Qualitative researchers aim to gather an in-depth understanding of human behaviour and the reasons that govern such behaviour. They obtain information on human experience, perceptions, motivations, intentions and behaviour and its goal is to develop a rich understanding of a phenomenon as it exists in the real world and as it is constructed by individuals in the context of that world (Polit & Beck 2012:120).
Parahoo (2006:66) further explains that qualitative researchers can only understand experiences and perceptions from the participants’ own perspective, stated in their own words and in the context in which they live and work. Qualitative research involves sustained interaction with the people being studied in their own language, and on their own understanding (Brink 2009:123) and it relies on methods that allow the researcher into the personal world of participants through the use of varied strategies and methods such as interviews and observations (Parahoo 2006:66).

The use of qualitative research in this study was intended to enable the researcher to develop an in-depth understanding of the knowledge and perception of the parents and caregivers on the causes of diarrhoea among children under five years living in the rural areas of the Eastern Cape.

### 3.2.2 Descriptive research

Burns and Grove (2013:61) explain that a descriptive research design in the health care area is a collection of detailed descriptions of existing variables and the use of data to justify and assess current situations and practices in order to make plans for improving health care practices. Description involves identifying and understanding the nature of nursing phenomena and sometimes the relationships among them. Through descriptive research, researchers are able to explore and describe what exists in nursing practice, discover new information, promote understanding of situations, and classify information for use in the discipline (Burns & Grove 2013:61).

According to Brink (2009:124), the aim of descriptive study is to obtain complete and accurate information about a phenomenon through observation, description and classification. Qualitative research often has the aim of description and researchers may follow-up with examinations of why the observations exist and what the implications of the findings are (Creswell 2009:173). Qualitative descriptive research design is an empirical method aimed at describing the informants’ perception and experience of the world and its phenomena (Brink 2009:114).

### 3.3 THE SETTING

The research setting is defined as the environment in which the research is carried out.
This could be a laboratory or a real/natural setting (Burns & Grove 2013:40). This study was conducted at Taylor Bequest Hospital in the Alfred Nzo District in the Eastern Cape Province (ECP). According to District Health Information System (DHIS) 2012/2013 and 2013/2014, the specific hospital treated a high number of children under five years with diarrhoea.

3.4 RESEARCH METHODS

Research methods refer to all the procedures followed by the researcher to collect and analyse data in a study. They include population, sampling, ethical issues, data collection and data analysis (Babbie & Mouton 2009:167).

3.4.1 Population

A population is defined by Burns and Grove (2013:41) as the entire aggregation of persons, set of objects, events, and/or the cases the researcher wants to study. The population comprised the parents and caregivers of the under five children who were presenting with or were admitted for the management of diarrhoea at a specific hospital in Alfred Nzo district. Polit and Beck (2012:126) distinguish between the two types of population, namely the target and accessible population.

The target population refers to the aggregate of cases about which the researcher would like to generalise, while the accessible population is defined as the aggregate of cases that conform to set criteria and are available as subjects for a study (Polit & Beck 2012:127).

The target population consisted of parents and caregivers of under five children who presented with or were admitted for the management of diarrhoea at the health care facilities in Alfred Nzo district, Eastern Cape Province, while the accessible population consisted of the parents and/or caregivers of the children under five years who were presenting with or were admitted for the management of diarrhoea at a specific hospital in the Alfred Nzo district of ECP.
3.4.1.1 **Eligibility criteria**

Eligibility criteria define who should be included or excluded in the population for which the study was designed (Polit & Beck 2012:66).

- **Inclusion criteria**

In order to meet the inclusion criteria, the participants had to be mothers, fathers or caregivers of the children under the age of five years who presented with or were admitted for the management of diarrhoea at Taylor Bequest Hospital. Another criterion was that they must have signed a consent or assent form for those parents under the age of 18 years.

- **Exclusion criteria**

Exclusion criteria define who should not be included in the study (Leedy & Ormrod 2010:132). Mothers, fathers or caregivers of the children under the age of five years who presented with or were admitted for the management of other conditions at the chosen hospital were excluded from the study. Those who met the inclusion criteria but were not willing to participate in the study as well as those who did not give consent were excluded.

3.4.2 **Sample and sampling techniques**

A sample refers to a selected group of the elements or units from a defined population (Brink 2009:137) while sampling is the process of selecting the sample from a population in order to obtain information regarding a phenomenon in a way that represents the population of interest (Brink 2009:133). In this study, each member of the sample is referred to as a participant and the sample consisted of the parents and caregivers of children under five years who presented with or were admitted for the management of diarrhoea at Taylor Bequest Hospital in the Alfred Nzo district, ECP.

A non-probability sampling method was used to select the study participants. It is a sampling method where the samples are gathered in a process that does not give all the individuals in the population equal chances of being selected (Holloway 2005:83).
Brink (2009:135) explains that non-probability sampling uses the judgement of the researcher to select those subjects who know the most about the phenomenon and who are able to articulate and explain nuances to the researcher. The types of non-probability sampling include quota sampling, purposive sampling, snowball sampling and dimensional sampling (Green & Thorogood 2009:85).

For the purpose of meeting the study objectives the researcher used purposive sampling technique to select the participants who met the inclusion criteria and were willing to participate in the study. Purposive sampling was based on the judgement of a researcher regarding subjects or objects that are typical or representative of the phenomenon being studied, or who are especially knowledgeable about the question at issue (Brink 2009:136); and in this instance it was diarrhoea. The parents and the caregivers of children under five years who presented with or were admitted for the management of diarrhoea at a specific hospital were purposively selected from the list of outpatient records and admission records.

The size of the sample in this study was determined by data saturation which is defined by Holloway (2005:77) as that “state where no new data of importance to the study emerge and the various elements of all the themes, concepts, and theories have been accounted for”. The sample size of seven (7) participants was consistent with qualitative research samples which are often small. Green and Thorogood (2009:80) indicate that although qualitative studies use relatively small samples, they yield a rich amount of data; because it is the density and relevance of the experiences that enable the researcher to distil richness, texture and coherence from the data (Holloway 2005:74). Polit and Beck (2012:127) further explain that meaningfulness and insights generated from qualitative studies have more to do with the richness of information from the cases selected, and the analytical qualities of the researcher than with the sample size.

3.4.3 Data collection

Data collection is the precise, systematic gathering of information relevant to the research purpose or the specific objectives and questions of a study (Burns & Grove 2013:59). Planning data collection enables the researcher to anticipate problems that are likely to occur and to explore possible solutions. Brink (2009:148) further explains
that data collection involves the use of instruments or methods for the purpose of collecting data required to conduct the research study.

### 3.4.3.1 Data collection method

Individual, semi-structured and face-to-face interviews were used to collect data from parents and caregivers of under five children presenting with diarrhoea or admitted for the management of diarrhoea at a specific hospital. Semi-structured interviews were conducted more like a normal conversation, but with a purpose to gather information from the participants. The researcher’s role in the semi-structured interviews was structured, whereas the participants’ roles were not (Burns & Grove 2013:103).

### 3.4.3.2 Data collection instrument

An individual interview guide was used to collect data. An interview schedule is a purposefully constructed formal instrument consisting of a set of questions, specifying the wording and order of all questions to be asked from the respondents. The questions are written to guide the interviewer and to enable the research to cover all areas required (Polit & Beck 2012:731). But if the research goal is to be accomplished, the interview questions need to be planned in advance and be well-constructed. The researcher followed the suggestion by Price (2002), cited in Donalek (2005:124) when formulating interview questions suitable to the type of the interview and the kind of information that she wished to obtain. Open-ended questions were used in the interview guide to enable the participants to talk freely about their knowledge and perception of the causes of diarrhoea among the under five children.

The interview questions were written in English and translated into IsiXhosa by a Mount Ayliff high school IsiXhosa teacher who is an expert in IsiXhosa. The interview schedule (Annexure E) was submitted to the study supervisors and changes were made to it based on their feedback.

### 3.4.3.3 Data collection process

The data were collected from the 5th to the 15th March 2014. The researcher ensured that all parents and caregivers who agreed to take part in the interviews were given the
necessary information regarding the purpose of the interview before they signed consent /assent forms. The participants were reminded of their rights to refuse to participate or to revoke their participation without explanation or consequence (Polit & Beck 2012:157). They were also assured of confidentiality and anonymity.

With the permission of the participants, the individual interviews were audio-recorded and field notes were written during the interview in order to capture the original accounts of the participants’ responses and to verify their interpretations by referring back to the original responses. Field notes were written accounts of what the researcher could hear, feel, see, think and experience during the interviewing process (Botma, Greef, Mulaudzi & Wright 2010:122). Each participant’s responses were recorded in the spaces between the questions and at the back of the note sheet. The details that made up the interview context such as reactions, confidence in answering questions, hesitations and the tone of participants were recorded in the notes and they formed part of the data. Each sheet of paper was given a code so that the actual names of the participants were not written to maintain confidentiality.

The interviews were conducted in English and in Xhosa, in a private, quiet and comfortable consultation room at the hospital. The consultation room had adequate light and ventilation which contributed towards a relaxed and informal atmosphere. The interview duration ranged from fifteen (15) to thirty (30) minutes. During the interview, the researcher utilised a variety of communication skills such as attentive listening, clarifying, paraphrasing, and probing to enhance understanding and to guide the participants to elaborate on their responses.

These skills enabled the participants to respond freely to open-ended questions using their own words and their preferred language; giving in-depth information regarding their knowledge and perception of the causes of diarrhea in the under five children.

Data collection continued until saturation was reached after the 7th of the 10 recruited participants had been interviewed. Six participants were interviewed in Xhosa, and only one was interviewed in English.
3.4.5 Data analysis

The data in qualitative research is non-numerical, usually in the form of written words, videotapes, audiotapes and photographs. Analysis of data in qualitative studies therefore involves an examination of words rather than numbers, as is done in quantitative studies (Brink 2009:186). In qualitative research, data collection and data analysis usually occur simultaneously rather than after the data has been collected as in quantitative studies (Polit & Beck 2012:56). The search for important themes and concepts begins from the moment data collection gets underway (Polit & Beck 2012:57-58). Brink (2009:189) points out that, qualitative data is frequently massive in the form of words, thus making analysis extremely time consuming. The researcher used thematic analysis which is a search across a set of interview data to find repeated patterns of meaning. It involved identifying, analysing and reporting patterns or themes within data (Polit & Beck 2012:805). The process of data analysis went through the steps which must be followed in order to produce a thematic analysis (Polit & Beck 2012:83). The steps include transcribing data, reading and re-reading, coding and developing themes.

- Transcription of interviews

The audio recordings of individual interviews were transcribed verbatim by the researcher self.

- Reading and re-reading

The transcribed data and the notes made during the interview were then read and re-read twice times to familiarise the researcher with data and to get a sense of the whole in search for meaningful segments or units. The audio recordings of interviews were listened to in order to verify and to ensure the accuracy of the transcription. While reading the transcripts, notes were made of the researcher’s thoughts, observations and reflections that occurred.

- Coding

Coding refers to the process of examining and organising the information contained in each interview and the whole dataset into meaningful and analytically relevant units.
The researcher selectively highlighted and pulled out statements or phrases that seemed essential to the study (Polit & Beck 2012:92). Coding was done manually and the data was converted into smaller, more manageable units that could easily be retrieved and reviewed. Different sections of data were identified by means of codes based on the meanings that were attributed to them. The codes identified features of the data that the researcher considered pertinent to the research question and they were added to phrases, lines, sentences and paragraphs. The coding process required the researcher to move forward and back through the transcripts, drawing on in-depth knowledge connected with the study. This resulted in refinement of some of the meanings of the codes and re-coding previously coded transcripts.

- Creating categories and building themes

Categories were created by the linking of codes. The categories created in this study were illustrated by means of relevant quotes from the interviews. The themes were identified from within each section of the transcript. A theme is defined by Polit and Beck (2012:93-94) as an abstract entity that brings meaning and identity to a current experience and its variant manifestations. It captures and unifies the nature or basis of the experience into meaningful whole.

By developing themes, the researcher managed to discover commonalities and variants across participants, she then grouped together commonalities.

The final part of the research was putting the themes together in order to describe the “whole”. Once the themes had been identified they became the object of reflection and interpretation through follow-up interviews with participants (Polit & Beck 2012:569). The main features of the themes from the data and confirmed by the research participants were produced as tables with evidence from the interview and quotations which, the researcher felt, best captured the essence of the person's thoughts, perceptions and their knowledge of the causes of diarrhea among the under five children.

In summary the researcher coded and analyzed the data by grouping similar ideas into categories and themes, and elaborated on the data by breaking it down into smaller areas under the heading of sub-themes (Polit & Beck 2012:579). The researcher then
interpreted the data. The researcher suspended her presuppositions and judgments in order to focus on what was actually presented in the transcript data by means of bracketing. Once the data had been interpreted, the next step was to determine how these categories would be presented to give meaning of the collected data.

3.5 TRUSTWORTHINESS OF THE STUDY

Polit and Beck (2012:144) suggested the following four criteria for developing the trustworthiness of a qualitative inquiry: credibility, dependability, confirmability, and transferability. These four criteria for trustworthiness were used to ensure trustworthiness in this study.

3.5.1 Credibility

Credibility was achieved by the extent that the research methods engender confidence in the truth of the data and in the researcher’s interpretations of the data (Burns & Grove 2013:195). Lincoln and Guba (1985) cited in Creswell (2009:192) and in Lietz, Langer and Furman (2006:444) argue that ensuring credibility is one of the most important factors in establishing trustworthiness. The researcher followed these steps in promoting confidence in her study:

Member check. The researcher did “on the spot check” and at the end of an interview session, the researcher read out to each participant what she had gathered to ensure that it is accurate and that their words match what they actually intended.

Tactics to help ensure honesty in informants when contributing to data. The researcher gave each participant an opportunity to refuse to participate and to withdraw with the study at any time, she also emphasised to the participants that they will still going to be treated in the same fair way whether they wish to discontinue with the study. This procedure ensured that the data collection sessions involved only those who were genuinely willing to take part and were prepared to offer data freely.

Thick description of the data. The researcher kept a detailed description of the environment where the study was conducted, the participants’ expressions when being asked questions and when answering, and the whole steps that the study followed so
as to convey the actual situations and the contexts that surround them, to also allow the academics, the reader of the final account and the peers to determine the extent to which the overall findings are true.

3.5.2 Transferability

Transferability is the extent to which the findings of a qualitative study can be used by other populations (Polit & Beck 2012:35). To enable the reader to judge transferability, the researcher provided in-depth discussions of the data obtained, data analysis, and interpretation of research findings in this study.

3.5.3 Dependability

Dependability is a further criterion listed by Polit and Beck (2012:35) and it employs techniques to show that, if the work were repeated, in the same context, with the same methods and with the same participants, similar results would be obtained. Lincoln and Guba (1985) cited in Creswell (2009:192) stress the close tie between credibility and dependability, arguing that, in practice, a demonstration of the former goes some distance in ensuring the latter. The researcher reported the processes the study followed in detail, to enable repeatability of the study. The researcher explained in detail the research design and its implementation, describing what was planned and executed, the operational detail of data gathering, explaining in detail what was done in the field.

3.5.4 Confirmability

Confirmability refers to the guarantee or an assurance that the findings, conclusions and recommendations are supported by the data, and that there is internal agreement between the investigator’s interpretation and the actual evidence. This criterion is concerned with establishing that the data represent the information, participants, provided and that the interpretation of those data are not figments of the inquirer’s imagination (Brink 2009:119). In order to enhance confirmability in this study, the researcher sought confirmation from the informants that her interpretations were truly a reflection of their responses through member checking on the spot and at the end of each interview session.
The researcher developed an audit trail, which according to Lincoln and Guba (1985) cited in Creswell (2009:192) is a transparent description of the research steps taken from the start of the research project to the development and reporting of findings. The researcher kept all the raw data, including written field notes, recorded interviews, interview scripts, data reduction and analysis products; that is, summaries where the themes and codes were developed from the raw data; as well as data reconstruction and synthesis products (including structure of categories, themes, findings and conclusions of the study, as well as a final report).

3.6 ETHICAL CONSIDERATIONS

Failure to consider ethical issues undermines the scientific process and may lead to many unfortunate and problematic consequences (Brink 2009:38). To conduct research in an ethical manner means that the nurse researcher must carry out the research competently, manage resources honestly, acknowledge fairly those who contributed guidance or assistance, communicate results accurately, and consider the consequences of the research for society (Brink 2009:38).

Ethical clearance to conduct the study was obtained from the Higher Degrees Committee of the Department of Health Studies, University of South Africa (UNISA) (Annexure A). The Chief Executive Officer/Hospital Manager of the hospital gave permission for the study to be conducted in this institution (Annexure C). The researcher was also granted permission to conduct the study by the Alfred Nzo Health District Manager (Annexure C).

The researcher followed the following principles as stated in Brink (2009:39):

- Autonomy: All the participants agreed voluntarily to participate in the study and the researcher explained to them that they had a right to withdraw anytime with the study and that they would not be discriminated for if they discontinued with the study. Privacy and confidentiality: The study was conducted in a private consulting room at the proposed hospital, and all data gathered was stored in a computer and a password was created to prevent unauthorised access to maintain confidentiality.
• Anonymity: The researcher provided each participant with a note sheet with a code name to maintain anonymity.

• Informed consent: The researcher read out the informed consent to those participants who could not read and asked those who could read it out. The participants were asked to sign (Annexure D).

• The researcher read out the informed consent to those participants who could not read and asked those who could read it out. The participants were asked to sign (Annexure D).

• Principle of Beneficence and Maleficence: The researcher explained to the participants that there would be no compensated for participating in the study.

• Scientific honesty: The researcher maintained scientific integrity throughout the study. The research reflected truth; the researcher recorded every detail of the interview steps. The researcher did not intentionally or unintentionally manipulate data by all means. The researcher avoided plagiarism throughout the study.

3.7 CONCLUSION

The research design, research population, methodology for data collection and how data was analysed were described in this chapter. The research findings and interpretation will be discussed in chapter 4.
CHAPTER 4

DATA ANALYSIS, PRESENTATION AND DESCRIPTION OF RESEARCH FINDINGS

4.1 INTRODUCTION

The focus of this chapter is the analysis, presentation and description of the findings of the study. The data collection and analysis presented in this chapter occurred according to the research methods described in chapter 3. This chapter begins with data management and presentation followed by data analysis and the findings of the study.

The purpose of the study was to determine the knowledge and perceptions of parents and caregivers on the causes of diarrhoea among the children under five years living in the rural areas of the Eastern Cape. The objectives of the study were to explore the knowledge of parents and caregivers regarding the causes of diarrhoea among children under five years living in the rural areas of the ECP; and describe the perceptions of the parents and caregivers on the causes of diarrhoea among children under five years living in the rural areas of the ECP.

4.2 DATA MANAGEMENT AND DATA ANALYSIS

When embarking on data analysis in qualitative research, it is crucial that, the collected data is well managed and efficiently organised (Brink 2009:184-185). Data management and data analysis stipulate how qualitative data will be transcribed, coded and organised.

4.2.1 Data presentation and management

The verbatim transcriptions of interview data from the audio-recordings, notes made during the interviews and the researcher’s reflection on the data after the interviews provided a record of the raw data. The data collected were stored electronically as
audio recordings to use as a form of backup and MS word files for transcriptions and notes.

4.2.2 Data analysis

Data from individual interviews were analysed using thematic analysis which is a search across a data set to find repeated patterns of meaning. It involves identifying, analysing and reporting patterns or themes within data (Polit & Beck 2012:745). Because in qualitative research data collection and data analysis usually occur simultaneously, the search for important themes and concepts began from the moment data collection got underway. The process of data analysis occurred according to the steps described in chapter 3 which included:

- **Transcription of interviews**

  The audio recordings of interviews were listened to and the individual interviews were transcribed verbatim.

- **Reading and re-reading**

  The transcribed data and the notes made during the interview were then read and re-read several times to gain understanding of both the interview and the contextual data and to get a sense of the whole in search for meaningful segments or units. The audio recordings of interviews were listened to in order to verify and to ensure the accuracy of the transcription. While reading the transcripts, notes were made of any thoughts, observations and reflections that occurred.

- **Coding**

  Different sections of data were identified by means of codes based on the meanings that were attributed to them. The codes identified features of the data that the researcher considered pertinent to the research questions and objectives and they were added to phrases, lines, sentences and paragraphs.
• **Categories and themes**

Categories were created by the linking of codes and the categories created in this study were illustrated by means of relevant quotes from the interviews.

• **Analysis and interpretation**

A qualitative data analysis is a circular (reiterative) process of describing, classifying and connecting data so that they can be incorporated into a number of different classes and categories, each of which is descriptive of a particular main theme.

### 4.3 RESEARCH FINDINGS

The researcher collected the interview data using the interview guide. The participants had to respond to various questions in the interview guide. Data were collected until data saturation was reached after seven participants had been interviewed.

#### 4.3.1 Sample characteristics

Data was collected from five parents and two caregivers of children younger than five years who presented with, or were admitted for the management of diarrhoea at the selected hospital. The participants were approached by the researcher while waiting in the designated waiting areas at the outpatient department as well as those that were admitted in paediatric ward of the hospital. All the participants were 18 years and over and they were all females.

#### 4.3.2 Themes

From the thematic analysis of individual interview data, the following two themes emerged:
4.3.2.1 **Knowledge and understanding of the causes of diarrhoea among under five children**

The first theme that emerged was knowledge and understanding of the causes of diarrhoea among under five children. Within the theme, one category emerged and the subcategories were as shown in table 4.1

<table>
<thead>
<tr>
<th>Theme</th>
<th>Categories</th>
<th>Sub-categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge and understanding of the causes of diarrhoea among under five children</td>
<td>Limited knowledge and understanding of the causes of diarrhoea</td>
<td>Correct but inadequate information (4.3.2.1.1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Incorrect information (4.3.2.1.2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Uncertainty about the correct measurements and methods regarding the home preparation of ORS. (4.3.2.1.3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lack of knowledge (4.3.2.1.4)</td>
</tr>
</tbody>
</table>

4.3.2.1.1 **Correct but inadequate information**

The participants demonstrated inadequate understanding and knowledge of diarrhoea and its causative factors. With regard to the understanding of the term diarrhoea, most of the respondents gave only one characteristic of diarrhoea (passing of watery stools) while one participant answered the question by giving the cause of diarrhoea instead of defining it. The sample responses were as follows:

Participant DD2: “When a child has diarrhoea, she passes watery stools.”

Participant DD3: “It is when the child passes watery stools at times with mucous.”

Participant DD4 & DD5: “When the child passes watery stools.”

Participant DD7: “It is when you have drunk unclean water.”
Diarrhoea is a condition that is characterised by passing loose and watery stool for 3 times or more, and it usually lasts for 24 hours or more (Hill et al 2011:5; Porter & Kaplan 2009:171). None of the participants referred to the frequency and duration of diarrhoea in their description.

Regarding the causes of diarrhoea among children under five years old, 5 of the 7 participants mentioned unclean water as a cause of diarrhoea. Two (2) participants mentioned unclean water and not washing hands after defecation as causes of diarrhoea among children under five years old.

Another cause that was mentioned by one participant was poor environmental hygiene (“filthy place”). The sample responses were:

Participant DD1: “Unclean water, not washing hands after defecation.”

Participant DD2: “When you stay in a filthy place.”

Participant DD3: “Unclean water, I am not aware of other causes.”

Participant DD4: “I think it’s caused by unclean water.”

Participant DD6: “when the child drinks unclean water eehhh ... (pause) eh (smiling) I don’t know.”

Participant DD7: “It is when you have drunk unclean water and not washing hands after defecation.”

Diarrhoea in children younger than five years is caused by infection as a result of a variety of bacterial, viral and parasitic organisms spread by water contaminated with human or animal faeces. Other causes include malnutrition, poor personal hygiene causing person-to-person infection, food prepared in unhygienic conditions, environmental contamination, inappropriate feeding practices and early weaning from breastfeeding (Cooke, Nel & Cotton 2013:84; Hill et al 2011:5; Karambu, Matiru, Kiptoo & Oundo 2013:16). The participants in this study mentioned only 3 causes of diarrhoea among children younger than five years.
There was no mention of infection, poor nutrition, early weaning from breastfeeding and inappropriate feeding methods by the participants.

With regard to the management of diarrhoea at home, some of the study participants mentioned correct but inadequate interventions apparent in the following sample responses:

Participant DD1: “Water and salt, take the child to hospital.”

Participant DD3: I give her a mixture (ORS), observe the child first, if she does not get better, I then take the child to hospital.”

Participant DD5: “I give her a mixture. I pour water in a bottle then add 6 teaspoons of sugar and a ¼ teaspoon of salt.”

All the participants who mentioned the use of oral rehydration solution did not specify that the water used to make the solution should be clean from a safe source or boiled and cooled. Some of the participants did not mention the ingredients of the solution, how much ORS should be given and the frequency of administering the solution to the children.

The participants who stated that they would take the child to the clinic indicated that they would take them to the clinic after about two days (Participant DD1 & DD2) and after three days (Participant DD4).

The information given by the participants regarding home management of diarrhoea was inadequate because it did not include the following important aspects of home management as suggested in literature:

- To avoid dehydration, a child with diarrhoea should be given extra fluids and oral rehydration solution made with six level teaspoons of sugar and ½ level teaspoon of salt or eight teaspoons of sugar and one teaspoon of salt dissolved in one litre of clean water from a safe source or boiled and then cooled. The child should be encouraged to drink as much as possible to prevent or delay the onset of dehydration on the way to the health facility.
- A child under the age of two years needs at least ¼ to ½ of a large cup of the ORS drink after each watery stool while a child aged 2 years or older needs at least ½ to one whole large (250 millilitre) cup of the ORS drink after each watery stool. Observe the signs of dehydration. Continuous provision of nutritious food is essential and breastfeeding of infants and young children should continue.

- Within a day of a child developing acute diarrhoea, parents and caregivers should take the child to the clinic or hospital (Cooke, Nel & Cotton 2013:84; Hill et al 2011:5; Karambu, Matiru, Kiptoo & Oundo 2013:16).

### 4.3.2.1.2 Incorrect information

Some of the participants gave incorrect information about the causes of diarrhoea and the management of diarrhoea at home. With regard to the causes of diarrhoea in children younger than five years, one participant said “It occurs when the child is teething; every child needs to have diarrhoea as proof that they are growing” (Participant DD5).

The following were the sample responses regarding incorrect information about home management of diarrhoea:

- Participant DD2: “I give glucose water, I add 8 or 10 teaspoons of sugar, I don’t know.”

- Participant DD4 “Mixture of 8 teaspoons of sugar and half teaspoon of salt in water.”

### 4.3.2.1.3 Uncertainty about the correct measurements and methods regarding the home preparation of Oral Rehydration Solution

The findings indicate that, the participants had knowledge about home oral rehydration, but there was one participant who was not sure about the correct measurements and methods of preparation; apparent in the sample response:

- DD2: “Pour water and add, but I am not sure whether its 6 or 8 teaspoons of sugar or ½ teaspoon of salt.”
4.3.2.1.4 Lack of knowledge about the causes of diarrhoea

Three participants verbalised lack of knowledge regarding diarrhoea and its causes. Some of the sample responses illustrating this finding include:

Participant DD1: “I do not know what it is (diarrhoea).”

Participant DD3: “Unclean water, I am not aware of other causes.”

Participant DD6: “When the child drinks unclean water eeehh … (pause) eh (smiling) I don’t know.”

Several studies were conducted on the causes and management (including the use and mixing of ORT) of diarrhoea among children under five years old. Groenewegen, Kaseje, Otengah, Othero and (2008:142) conducted a quantitative study on the causes and home management of diarrhoea among under five children in a rural community in Kenya. The findings of that study are supported by the findings of this study, that teething is one of the causes of diarrhoea. Other causes of diarrhoea that were identified by Groenewegen et al (2008:142) included formula feeding and lack of breastfeeding.

A study on the potential risk factors in children with acute of diarrhoea admitted to a short stay in an urban South African hospital provided a description of the profile of children admitted with diarrhoea. According to the findings of that study, the largest number of children admitted with acute diarrhoea was on formula only, followed by those on mixed feeding and a small number on breastfeeding (Cooke et al 2013:84).

It is of concern that the participants of this study did not mention formula feeding as one of the risk factors and causes of diarrhoea and breastfeeding as important in the prevention of morbidity and mortality from diarrhoea in infants. There is adequate evidence from literature on the beneficial effects of breast-feeding in preventing morbidity and mortality from diarrhoea in infants (Lamberti, Walker, Noiman, Victora & Black 2011:S26; Sellen 2007:123).
With regard to the home and pre-hospital management of diarrhoea, the finding that all the participants who took part in this study indicated that they gave ORS before seeking help from the health care practitioners was encouraging.

According the 2009 WHO/UNICEF Report, 42% of children worldwide received ORS. Recent studies show that a higher percent of parents and caregivers (80% and more) give ORS before seeking aid from the health care professionals (Cooke et al 2013:84)

Even though they knew the ingredients of ORS, some of the participants gave incorrect information regarding the measurements of salt and sugar while others were unsure of the measurements of salt and sugar used in the solution. In addition, all the participants did not specify that the water used to make the solution should be clean from a safe source or boiled and cooled. These findings concur with those of other studies including a study on pre-hospital management of children with acute diarrhoea admitted to a short stay ward in an urban South African hospital found that most caregivers knew that ORS should be given but the measurements of ingredients were incorrect (Cooke et al 2013:86); and a study on the knowledge of Indian mothers regarding oral rehydration solution by Mohammed, Shah and Khalique (2009:137-142) found that only 29, 8% of participants knew about the correct methods of preparation.

Oral rehydration solution is recommended for the treatment of diarrhoea at home WHO 2008:2). It is a sodium and glucose solution which is prepared by diluting eight teaspoons of sugar and one teaspoon of salt or one sachet of ORS in one litre of safe and the best available drinking water and stored safely. The risks associated with incorrect mixing of ORS include hyponatremia and salt poisoning (Cooke et al 2013:86) and using water from an unsafe source that is not disinfected or boiled may result in infection.

The findings revealed that the participants in this study did not know the amount (how much ORS should be given) and the frequency of administering the solution to the children. To avoid dehydration, increased fluids should be given as soon as possible. It is important to administer the solution in small amounts at regular intervals on a continuous basis.
Hill et al (2011:23) explain that the success in reducing childhood mortality requires a partnership between health workers and families.

The same authors emphasise that all families need to know how to feed their children, how to prevent and to respond to common illnesses and to follow treatment advice given to them by the health workers.

4.3.2.2 Theme 2: Perceptions/views on the causes of diarrhoea among children under five years old

Within theme 2, the categories and the subcategories that emerged were as shown in table 4.2.

Table 4.2 Theme 2: Perceptions/views on the causes of diarrhoea

<table>
<thead>
<tr>
<th>Theme</th>
<th>Categories</th>
<th>Sub-categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceptions/views on the causes of diarrhoea among children under five years old</td>
<td>Positive perceptions</td>
<td>Knowledge and understanding of the seriousness of diarrhoea in children under five years (4.3.2.2.1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Delay in seeking health care (4.3.2.2.2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diarrhoea perceived as a normal part of growth and development of all children (4.3.2.2.3)</td>
</tr>
</tbody>
</table>

4.3.2.2.1 Knowledge and understanding of the seriousness of diarrhoea in children under five years

The participants were asked if they considered diarrhoea in children under five years a serious condition and the findings show that all the participants perceived it correctly as a serious condition, evidenced by their knowledge and understanding of the seriousness of the complications of diarrhoea. The sample responses were:

Participant DD1: “Yes, the child can pass stools watery stools continuously until she loses energy.”
Participant DD2: “As I have mentioned before the child may lose energy, get sunken eyes and they even die.”

Participant DD3: “Oh yes it is dangerous, a child can die.”

Participant DD4: “Yes it is dangerous, a child loses energy loses weight and she can die.”

Participant DD6: “lose energy, stops playing and interact with others (other children).”

4.3.2.2.2 Delay in seeking health care

When asked: “When do you take your child to the clinic if she has diarrhoea?” the participants responded as follows:

Participant DD1: “I usually wait for few days, usually 2 days.”

Participant DD2: “I take them to the clinic after about 2 days.”

Participant DD4: “I observe her first, if she does not get better, I take her to the clinic after 3 days.”

Participant DD5: “I take them after … eeh, let me say, after 3 days.”

Participant DD6: “Uhhmmm (thinking) I take them after 2 days.”

Participant DD7: “I usually take them after a day.”

The responses given by the parents and caregivers indicated that some were not sure when to take their children to the clinic when they have diarrhoea while others delayed in taking the children to the clinic. The literature on home and pre-hospital management of childhood diarrhoea suggests that parents and caregivers should take the child to the clinic or hospital within a day of a child developing acute diarrhoea (Cooke et al 2013:84; Hill et al 2011:5; Karambu et al .2013:16).
It was noteworthy that the parents’ and caregivers’ positive perception of diarrhoea as a serious condition (4.3.2.2.1) did not result in appropriate health seeking behaviour. The findings in this study have some similarities with the studies conducted by Wambete and Joseph (2010:1-9) on knowledge and perception of Tanzanian mothers and caregivers on childhood diarrhoea and its management and Cooke et al (2013:84) study on pre-hospital management and risk factors of childhood diarrhoea in an urban South African hospital. In both studies, a delay in seeking health care from a primary care facility or clinic was identified.

According to the WHO (2008:3), early detection, prompt and appropriate health care seeking could reduce childhood deaths by 20%.

Hill et al (2011:23) further explain that the success in reducing childhood mortality requires a partnership between health workers and families.

The same authors emphasise that all families need to know how to prevent and to respond to common illnesses (including knowing when to seek care) and to follow treatment advice given to them by the health workers.

**4.3.2.2.3 Diarrhoea perceived as a normal part of growth and development of all children**

One participant stated that:

(DD5): “It (diarrhoea) occurs when the child is teething, and every child needs to have diarrhoea as proof that they are growing up.”

The negative perception of diarrhoea is a normal part of growth and development affects health-seeking behaviour and may result in a delay in seeking aid.

**4.4 SUMMARY OF THE FINDINGS**

The findings showed that the participants had inadequate knowledge of the causes of diarrhoea among children under five years of age. The causes of diarrhoea in children younger than five years include infection, contaminated water, malnutrition, poor
personal hygiene, food prepared in unhygienic conditions, inappropriate feeding practices and early weaning from breastfeeding (Cooke et al 2013:84; Hill et al 2011:5; Karambu et al 2013:16). The participants in this study mentioned only 3 causes of diarrhoea among children younger than 5 years. There was no mention of infection, poor nutrition, early weaning from breastfeeding and inappropriate feeding methods by the participants. The findings also showed that participants had inadequate understanding of home management of diarrhoea including the mixing of ORS.

Positive and negative perceptions of the causes of diarrhoea were identified among the parents and caregivers of children who presented with or admitted for the management of diarrhoea at a selected hospital in the rural areas of the Eastern Cape Province.

According to the findings of the study, the parents’ and caregivers’ positive perception of diarrhoea as a serious condition was not congruent with their heath seeking behaviours. The negative perception of diarrhoea is a normal part of growth and development in children seem to have affected the participants’ health-seeking behaviour; resulting in a delay in seeking aid.

Reflecting back on the interviews, I believe that all participants gave honest responses to the questions asked during the interviews. They showed confidence in answering the questions and they talked freely as they answered open-ended questions in the language they preferred.

4.5 CONCLUSION

In this chapter, a description of the analysis and findings of the study were presented. The next chapter presents the discussion of the findings, limitations of the study, implications for future research, recommendations and a summary and conclusion of the study.
CHAPTER 5

RECOMMENDATIONS AND CONCLUSION

5.1 INTRODUCTION

The purpose of this chapter is to present the conclusions and recommendations based on the findings of the study presented in the previous chapter. The limitations of the study and reflections on the research process are also included in this chapter.

5.2 RESEARCH DESIGN AND METHODS

The purpose of the study was to determine the knowledge and perceptions of parents and caregivers on the causes of diarrhoea among children under the age 5 years living in the rural areas of the Eastern Cape. The objectives of the study were to explore the knowledge of parents and caregivers regarding the causes of diarrhoea among children under five years and describe the perceptions of the parents and caregivers of the causes of diarrhoea among children under five years.

A qualitative descriptive design was used to address the study objectives and to enable the researcher to develop an in-depth understanding of the knowledge and perception of the parents and caregivers on the causes of diarrhoea among children under five years living in the rural areas of the Eastern Cape. Data were collected by means of semi-structured, individual interviews.

An interview guide, written in both English and IsiXhosa was used to gather data from a purposively selected sample of five parents and two caregivers of children under five years presenting with diarrhoea or admitted at the facility for the management of diarrhoea at one hospital in the Alfred Nzo District in the Eastern Cape Province of South Africa.

In order to meet the inclusion criteria, the participants had to be mothers, fathers or caregivers of the children under the age of five years who presented with or were
admitted for the management of diarrhoea at the selected hospital. Another criterion was that they must have signed a consent or assent form for those parents under the age of 18 years. Data were analysed by means of thematic analysis.

5.3 SUMMARY AND THE INTERPRETATION OF THE RESEARCH FINDINGS

The findings of the study are based on the research objectives and their summary is presented in the paragraphs that follow.

5.3.1 Parents’ and caregivers’ knowledge of the causes of diarrhoea among children under five years living in the rural areas of the Eastern Cape

The first interview question assessed the participants’ basic understanding of diarrhoea. According to the findings of the study, most of the participants gave only one characteristic of diarrhoea, namely passing of watery stools. A participant answered the question by giving the cause of diarrhoea instead of defining while another participant indicated that she did not know what diarrhoea is. None of the participants mentioned key characteristics of diarrhoea, namely the frequency (passing loose and watery stool for three times or more) and its duration (it usually lasts for 24 hours or more). The conclusion drawn is that the participants demonstrated inadequate and lack of understanding of diarrhoea.

The second question explored the parents’ and caregivers’ knowledge of the causes of diarrhoea among children under five years. Of the seven participants, five mentioned unclean water as a cause of diarrhoea. Two participants mentioned unclean water and not washing hands after defecation as causes of diarrhoea among children under five years old. Another cause that was mentioned by one participant was related to poor sanitation as described as a “filthy place”.

The findings revealed incorrect causes of diarrhoea. The causes of diarrhoea in children younger than 5 years include infection, contaminated water, malnutrition, poor personal hygiene, food prepared in unhygienic conditions, inappropriate feeding practices and early weaning from breastfeeding (Cooke, Nel & Cotton 2013:84; Hill et
al 2011:5; Karambu, Matiru, Kiptoo & Oundo 2013:16). The conclusion drawn from these findings was that the participants demonstrated limited and lack of knowledge of the causes of diarrhoea among children younger than five years because only three causes of diarrhoea were mentioned by participants. There was no mention of infection, poor nutrition, early weaning from breastfeeding and inappropriate feeding methods by the participants.

It is of concern that all participants of this study did not mention formula feeding as one of the associated risk factors for diarrhoea and breastfeeding as important in the prevention of morbidity and mortality from diarrhoea in infants.

5.3.2 Parents’ and caregivers’ perceptions of the causes of diarrhoea among children under five years living in the rural areas of the Eastern Cape

During the interview, the participants were asked if they viewed diarrhoea in children as a serious condition. The findings show that all the participants perceived it correctly as a serious condition, evidenced by their knowledge and understanding of the seriousness of the complications of diarrhoea. The findings indicated that all the participants who took part in this study indicated that they gave ORS before seeking help from the health care practitioners was encouraging.

Even though the participants knew the ingredients of ORS, some of the participants gave incorrect information regarding the measurements of salt and sugar while others were unsure of the measurements of salt and sugar used in the solution.

In addition, all the participants did not specify that the water used to make the solution should be clean from a safe source or boiled and cooled.

This finding was concerning that all participants in this study did not know the amount (how much ORS should be given) and the frequency of administering the solution to the children.

The responses given by the parents and caregivers showed that some were not sure when to take their children to the clinic when they have diarrhoea while others delayed in taking the children to the clinic. None of the participants stated that they took their
child to the clinic or hospital within a day of a child developing acute diarrhoea as suggested in literature (Cooke, Nel & Cotton 2013:84; Hill et al 2011:5; Karambu, Matiru, Kiptoo & Oundo 2013:16). It was noteworthy that the parents’ and caregivers’ positive perception of diarrhoea as a serious condition among children under five years did not result in knowledge of its home management and appropriate health seeking behaviour. The findings of the study showed that some of the parents’ and caregivers’ perceptions of the causes of diarrhoea were positive while others were negative.

5.4 CONTRIBUTIONS OF THE STUDY

The findings of this study may contributed to the body of knowledge of the parents’ and caregivers’ knowledge of and perceptions regarding the causes of diarrhoea among under five children living in the rural areas of the ECP. The knowledge generated through this study regarding the parents’ and caregivers’ knowledge and perceptions regarding the causes of diarrhoea among under five children are important for correcting all negative perceptions of the causes of under five child diarrhoea through improved educational interventions. The findings of the study have also provided information of relevance to health service provision by ensuring that health education is targeted at the identified gaps in the knowledge.

5.5 RECOMMENDATIONS

Based on the findings of the study, it is recommended that the implementation of policies regarding public education and health promotion programmes targeted at educating parents and caregivers on childhood illnesses such as diarrhoea should be reviewed and strengthened. The programmes should include the causes of diarrhoea, the provision of pre-hospital and home management of diarrhoea among the under five children and when to seek medical assistance.

The reasons for failure of the positive perception of diarrhoea as a serious condition to translate into appropriate health care seeking behaviour are not clear. Further studies to explore this finding are suggested. In addition, research on the impact of health education programmes on the knowledge and perception of parents and caregivers on the causes of diarrhoea among children under five years is recommended.
5.6 LIMITATIONS OF THE STUDY

Even though the qualitative approach used in this study provided richness and depth of understanding of the parents’ and caregivers’ knowledge of and perceptions regarding the causes of diarrhoea among under five children living in the rural areas of the ECP, it lacked generalisability of the findings because of the sample size. The goal was not to generalise findings but to provide a rich, contextualised understanding of the parents’ and caregivers’ knowledge of and perceptions regarding the causes of diarrhoea among under five children living in the rural areas of the ECP (Polit & Beck 2012:489). The description of the research method, design, procedures, population and setting in this study served as thick description of and detailed information needed to support the transferability of results by allowing the readers to decide whether or not the findings might be transferable to other settings.

5.7 CONCLUDING REMARKS

This chapter presented a summary of the findings of the study, the conclusions reached on the basis of the research findings as well as the recommendations made for improvements of health information giving to parents and caregivers regarding the causes of diarrhoea among the under five children living in the rural areas of the ECP. The millennium goal of reducing child mortality by two-thirds in 2015 will be achieved through extensive health education, strengthened IMCI and involving the parents and caregivers in early detection and proper management of diarrhoea at home as well as seeking health care within one hour of acute diarrhoea.
LIST OF SOURCES


ANNEXURE A

ETHICAL CLEARANCE CERTIFICATE
Annexure A: Ethical clearance certificate

UNIVERSITY OF SOUTH AFRICA
Health Studies Higher Degrees Committee
College of Human Sciences
ETHICAL CLEARANCE CERTIFICATE

HSHDC/160/2013

Date: 6 March 2013
Student No: 3676-486-8

Project Title: Knowledge and perception of parents and caregivers on causes of diarrhoea among children under 5 years in the rural areas of Eastern Cape.

Researcher: Cenge Ziyanda

Degree: Masters in Public Health

Supervisor: Mrs ME Chauke
Qualification: MA in Health Studies
Joint Supervisor: Dr MC Matlakala
Code: DIS4986

DECISION OF COMMITTEE

Approved ✓ Conditionally Approved

Prof L Roets
CHAIRPERSON: HEALTH STUDIES HIGHER DEGREES COMMITTEE

Prof MM Moleki
ACTING ACADEMIC CHAIRPERSON: DEPARTMENT OF HEALTH STUDIES

PLEASE QUOTE THE PROJECT NUMBER IN ALL ENQUIRES
ANNEXURE B

LETTER REQUESTING PERMISSION TO CONDUCT THE STUDY
Annexure B: Letter requesting permission to conduct the study

NO. 2A Henderson place
Kokstad
4700
20/04/2012

The Supervisor / Clinic head
Maluti health centre
Masilal

Dear sir/madam

RE: REQUEST TO CONDUCT RESEARCH IN YOUR INSTITUTION.

My name is Ziyanda Cenge. I am a qualified physiotherapist practising at Taylor Bequest hospital in Matatiele. I am currently studying towards a Master’s degree in public health at the University of South Africa (UNISA), and my student number is 36764868.

The title of my research is KNOWLEDGE AND PERCEPTIONS OF PARENTS AND CAREGIVERS ON THE CAUSES OF DIARRHOEA AMONG CHILDREN UNDER FIVE YEARS LIVING IN THE RURAL AREAS OF THE EASTERN CAPE.

I am requesting your authority to conduct this research in your institution. The research will include interviewing some of the parents and caregivers with children who have got diarrhoea and/or who had had diarrhoea in the past two years and are attending the clinic for this or any other medical condition. The parents will also be asked to complete the questionnaires with the same questions asked on the interviews to verify whether their responses will remain the same. The interviews will only take up to 30 minutes per client and will be done whilst the clients are waiting to be attended to. They will be also asked to complete the questionnaire after the interviews.

The name of the institution will be kept confidential throughout the research and the names of the participants will be kept anonymous.

The institution will not be compensated for, but at the end of the research, the institution will be thanked for, and the researcher will inform you of the outcome of the research.

Thanking you in advance with this regard

Ziyanda Cenge
0822146714
ANNEXURE C

LETTER REQUESTING PERMISSION AND APPROVAL FROM THE MANAGEMENT OF THE RESEARCH SITES TO CONDUCT THE STUDY
Annexure C: Letter requesting permission and approval from the management of the research sites to conduct the study

Province of the EASTERN CAPE HEALTH

ALFRED NZO DISTRICT TAYLOR BEQUEST Hospital
P.O.Box 106, Makhanda 6230 South Africa
Telephone: 0429 727 3187 ext. 4536
Facsimile: 0429 727 4181
E-mail Address: Malagisi.Thlabala@impilo.easterncape.gov.za

19 August 2013

The Alfred Nzo District Manager

PERMISSION TO CONDUCT RESEARCH AT TAYLOR BEQUEST HOSPITAL (TBH) IN ALFRED NZO.

Good day madam

One of my officials who is a physiotherapist is studying towards a Master’s Degree in Public Health with the University of South Africa. She is now doing her dissertation on the knowledge and perception of parents and caregivers on the causes of diarrhea among children under five years living in the rural areas of the Eastern Cape. She is now requesting permission to conduct her study at my institution (TBH) which is in our district.

I as the Hospital Manager at Taylor Bequest Hospital do not object to this request.

Yours in service

[Signature]

Hospital Manager

On condition that all the principles as related to the research are adhered to and that the report will finally be tabled into the hospital management for improvement of health outcomes. The best wishes to the researcher. [2013/04/03]
ANNEXURE D

INFORMED CONSENT
Annexure D: Informed consent

NO 2A Henderson Place
Kokstad
4700
20 April 2012

Dear sir/madam

My name is Ziyanda Cenge. I am working at Taylor Bequest hospital in Matatiele as a physiotherapist. I am currently studying towards a Master’s degree in public health at the University of South Africa (UNISA). This year is the year that I am doing my research and my research is on the factors that are contributing to diarrhoea amongst the children under 5 years living in the rural areas of the Eastern Cape. This research aims at exploring, describing these factors and also explaining why we still have cases of diarrhoea despite the known causes. This study will include parents/caregivers of the children under-5 years who have diarrhoea and/or those who had diarrhoea in the last 2 years.

I am therefore requesting that you be one of the participants in this study as your child has diarrhoea, or had diarrhoea in the last 2 years. The researcher will ask you a few questions in the form of an interview (one on one with the researcher), and you will be asked to complete a questionnaire with the same questions this will be to ensure that your responses from the interview and questionnaire is the same. It is quite crucial that you provide honest information as the results of this study rely solely on the information you will be providing. You will not be compensated for during the study, but you will be provided with the feedback/outcome of the study.

The results/outcome of the study will be forwarded/communicated to the authorities in all the relevant sectors, that is Department of water affairs, Department of health, and Local government departments (relevant municipalities), to assist these departments with the necessary information that will allow them to assess their positions towards achieving the set national targets. The outcome of this study will also be communicated to the institutions where the study was conducted.

Your name will remain anonymous throughout the study, (your response will not be identified with your name) and the name of the institution will be kept confidential. The interviews will not take more than 30 minutes of your time. You will be asked to sign a consent form as a proof that you understand what the research entails, and the role you will play, and that you are giving the permission to participate in the study. This will be signed before you participate in the study.

Please feel free to contact me anytime you have something you need clarity on. Thank you for your cooperation with this regard.

........................................

Ziyanda Cenge.
0822146714
Student number: 36764868
INFORMED CONSENT
I………………………………………………………………………………………,
Mother\father\carer of my child ..............................................................residing
at................................................................................................................. Give
permission to participate in the research titled, KNOWLEDGE AND PERCEPTIONS OF
PARENTS AND CAREGIVERS ON THE CAUSES OF DIARRHOEA AMONG
CHILDREN UNDER FIVE YEARS LIVING IN THE RURAL AREAS OF THE
EASTERN CAPE, which is being conducted by Ziyanda Cenge.

I understand all the procedures the research will undergo and I also understand that I will not
be compensated for.

I also do understand that it is quite important that I give an honest answer to all the
questions that will be asked as this may affect the outcome of the study.

Signed at..................................................on this .....................................day
of......................................................

Witness.................................................................
ISICELO SOKUBA UBE YINXAYENYE KWISIFUNDO ESITHI: IZINTO EZINCEDISANA NOKUBAKHONA KWESIFO SOTYATYAZO EBANTWANENI ABENIMINYAKA EMIHLANU NANGAPHANTSISI ABAHLALALI EZILALINI ZASE MPUMAKOLONI.

Mhlekazi/Dadewethu obekekileyo

Igama lam ndingu Ziyanda Cenge, ndisebenza esibedlele sase Taylor Bequest e Matatiele njengephysiotherapist. Ndifunda izifundo eziphakamileyo kwiduniversity yase Mzantsi Africa (UNISA). Lo simi kuwo unyaka , ngunyaka wam wokwenza izifundo zokufunda banzi(research). Ndifunda banzi ngezinto ezincedisana nokubakho kwetfiso zotyatyazo ebantweneni abeniminyaka emihlanu nangaphantsi abahlala ezilalini zase Mpumako koloni. Ndifuna ukwazi banzi ngezinto, kwaye kutheni lenito shlala sisiva ukuba abantwana abaneminyaka emihlanu nangaphantsi basahlalela sesisifo sotyatyazo nangona zisaziwa nje ezinye ezinto ezizangange esisifo?

Oluwazi banzi luzofuna abazali kunye nabantu abahlala nabagcina ababantwana baneminyaka emihlanu nangaphantsi abaneminyaka emihlanu nangaphantsi abanzo sotyatyazo nangona abahlala ezilalini zase MpuMakoloni. Ndifuna uk wazi banzi, kwaye kutheni lenito shlala sisiva ukuba abantwana abaneminyaka emihlanu nangaphantsi basahlalela sesisifo sotyatyazo nangona zisaziwa nje ezinye ezinto ezibanga esisifo?


Eziziphumo kananalo zizokusiwa eziklinikini ezithi nazo zavuma ukuthatha inxaxheba kwesifundo. Ndiyaqinisekisa ukuba igama lakho ngekhe nakhaya laziswe nakakhusana, neempendulo zako ngekhe zidandelazisezakhe, namagama eeklinikini ezinazo zithi zayiinxalienye kwesifundo naxalo ngekhe abenhengeze.

Unganditsalelela umnxeba kulenombolo naninini na xa kukho into ofuna ukucaciswelwa kuyo. 0822146714.

Enkosi
Ozithobileyo

……………………………………………………………………………………………………

Ziyanda Cenge
0822146714
Student number 36764868
ISIVUMO SOKUVUMA UKUBA YINXAYENYE NESIFUNDA.

Mna ..............................................ongumama \tata \mgcini mntwana
ongu...........................................sihlala e........................................Ndiyavuma
ukuthatha inxaxheba kwisifundo esithi ezincedisana nokubakho kwesisifo sotyayazo
kubantwana abeniminyaka emihlanu nangaphantsi abahlala ezilalini zasempumakoloni
esenziwa ngu Ziyanda Cenge.
Ndiyayazi kwaye ndiyayiqonda imigaqo esisifundo esizakuyithatha kwaye ndiyayiqonda into
yokuba andizukuhlawulwa nganto. Ndiyayiqonda futhi into yokuba kubalulekile okukuba
iimpendulo zam zinyaniseke njengokuba ubuxoki bungaziphazamisa iziphumo sesifundo.

Isayinwee........................................ngale
mini..............................................yenyanga
ka..............................................nonyaka
ka..............................................
ANNEXURE E

INTERVIEW SCHEDULE
Annexure E: Interview schedule

Thank you for agreeing to participate in this interview. My name is Ziyanda Cenge and I would like to talk to about your views, your understanding and interpretation the causes of diarrhoea. The interview should take about fifteen (15) minutes. Even though I will be writing as you speak, I cannot write fast enough that is why I am requesting your permission to record this interview because I do not want to miss any of your comments. I also kindly request that you speak up so that I do not miss your important responses.

All your responses will be kept confidential and remember that you do not have to talk about anything you are uncomfortable with, and that you may end this interview at any time. Are there any questions regarding what I have just explained to you? Are you willing to participate in this interview then?

Interview questions

- What do you understand about the term diarrhoea?
- What do you think are the causes of diarrhoea?
- Do you consider diarrhoea a serious condition in children under five years?
- What are the complications that may arise from when a child has suffered from diarrhoea?
- Is there anything you can do at home to stop diarrhoea?
- What do you do at home when your child has diarrhoea?
- When do you take your child to the clinic if she or he’s got diarrhoea?
- How far is your clinic from your homestead?

Thank you once again for your participation.
ANNEXURE F

TRANSLATOR’S CREDENTIALS
Annexure F: Translator’s credentials
Annexure G: Interview transcripts

The interview transcripts for this study have been kept safe by the researcher to maintain confidentiality and privacy as explained in the dissertation. They are available from the researcher should a need to view arise.