Infant wellbeing: A concept analysis

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Dissertation submitted in fulfilment of the requirements for the degree *Magister Curationis* in Professional Nursing at the Potchefstroom Campus of the North-West University

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Desember 2014

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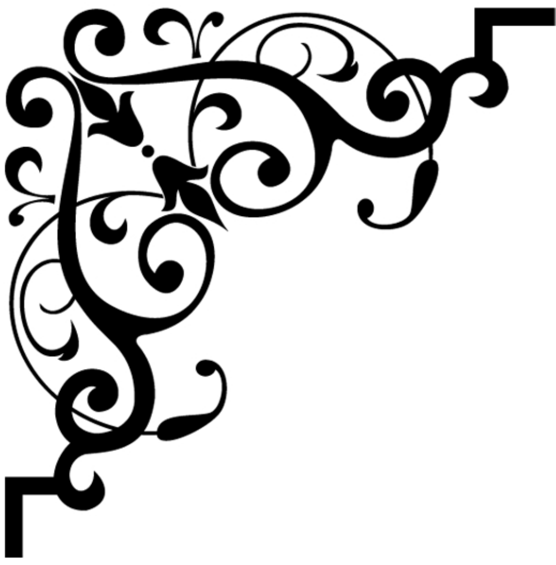
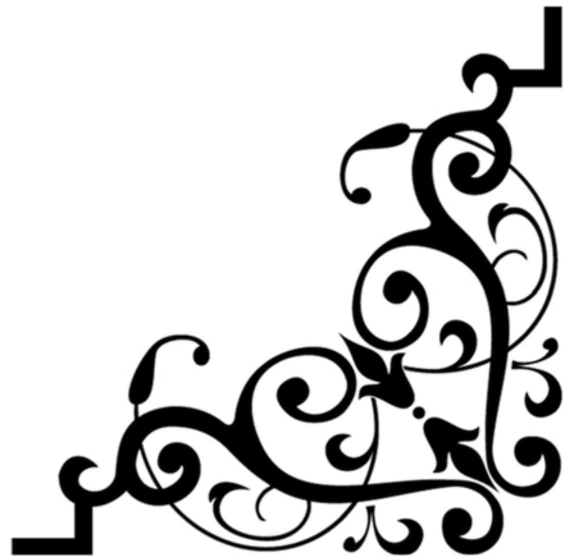
It all starts here ™



And Jesus called a little child unto Him,
and set him in the midst of them, and said,
"Verily I say unto you, except ye be converted, and become as little children, ye shall not enter into the kingdom of heaven. Whosoever therefore shall humble himself as this little child, the same is greatest in the kingdom of heaven. And whoso shall receive one such little child in my name receive Me".

(Mat. 18:2-5)



ACKNOWLEDGEMENTS

Firstly and above all I want to voice my appreciation to Yeshua ha Maschiach (Jesus Christ the Messiah), my Creator and Sustainer for His guiding hand, without Whom I would not have been able to complete this study. Thank You for strengthening me and carrying me through every step of this study.

Then I also would like thank the following people for their constant support, guidance and assistance during this research project:

- My inspiring supervisors, Dr. Welma Lubbe and Dr. Petra Bester. I cannot express my gratitude towards you for all your patience, support, guidance, assistance, for having faith in me and for making this study possible. You have blessed me more than I could have ever imagined.
- My mother, Maria Matthews and foster mom, Dalene Austin, for their prayers and support, for their unending love and for having faith in me and encouraging me all the way.
- My guardians, Aunt Jeanette Brink and late Uncle Wally Brink, for their love, prayers and financial support. Without your input in my life, none of this would ever have realized.
- To my Potchefstroom parents, Aunt Elmarie and Uncle Marius de Vries, for opening your hearts toward me, praying with me and encouraging me through every step of the way.
- My friends, especially Corné Botha and Monique Bekker for always motivating me, praying for me and wiping away the tears when things got tough. Jolandi Blom and Claudine Gorr for sacrificing their sleep and time and helping me to push through the last stretch. No words could ever express my appreciation towards you. May YHVH bless you abundantly!
- Uncle Dani-El and Aunt Karien for the bible school and partly introducing me to Messianic Christianity and helping me understand the Bible better.

- Ronel and Rudolph Pretorius, for all the coffees, chats and prayers, even when you were also going through tough times yourselves.

- My colleagues, especially Sr. Anne-Marie van Wyk and Sr. Petro Steenkamp, for their prayers and for encouraging me to just push through in order to succeed.

- To all the library staff, especially Mrs Anneke Coetzee, for all your guidance and assistance and for always helping me and answering my unending questions.

- To Mrs Petra Gainsford for all the assistance with the technical editing.

- To Prof Lesley Greyvenstein for the language editing.

- To Prof Casper Lessing for assistance with the referencing.

- Last, but not least, thank you to the North-West University for the bursary and for having me as a student.

PREFACE AND DECLARATION

Article format was chosen for this study. The research was conducted and the manuscript written by Eileen Matthews under the supervision of Dr Welma Lubbe and Dr Petra Bester, the co-authors of the article. Dr Welma Lubbe acted as supervisor and Dr Petra Bester as co-supervisor.

The article: "Infant wellbeing: a concept analysis" will be submitted to the *Journal of Advanced Nursing* (*JAN*) which is an academic journal that features scholarly contributions on all aspects of nursing care and nursing education, management and research which have a sound scientific, theoretical or philosophical base. For examination purposes and to ensure easy reading, not all of the author guidelines stipulated in the Journal of Advanced Nursing has been followed. Hence, only for examination purposes, in the article there will be referred to the addendums where applicable and the figures will form part of the main text and no citations for figures will be included. This format will be changed according to the author guidelines when preparing the article for submission and publication.

Permission was obtained from Dr Welma Lubbe and Dr Petra Bester for submission of the manuscript/dissertation for examination.

As yet no permission was obtained from the editor of the journal for copyright.

Dr Welma Lubbe Date:______________

Dr Petra Bester Date:______________

DECLARATION OF HONESTY FROM THE STUDENT

I, Eileen Matthews, student number: 20537999, hereby solemnly declare that all efforts have been made to prevent plagiarism in this study. I declare that the study presents the work carried out by myself and to the best of my knowledge does not contain any materials written by another person except where due reference has been made. I also declare that all the sources used or quoted in this study are acknowledged in the bibliography.

____

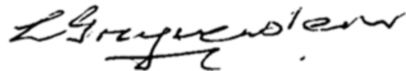
Eileen Matthews

Date:______________

DECLARATION OF LANGUAGE EDITING

ENGLISH LANGUAGE EDITING CERTIFICATION

This is to certify that the English language editing of this dissertation by Ms E M Matthews was done by Prof L A Greyvenstein.



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ABSTRACT

Infant care is an essential part of the healthcare industry and an aspect of healthcare where the multi-disciplinary teams work closely together. Within this collaboration of teams, the term "infant wellbeing" is frequently used. Yet even though wellbeing on its own is a multi-faceted concept, when pertaining to the infant, this concept can become very complex and difficult to understand and apply. Dictionary definitions of wellbeing emphasize a state of being healthy, happy or prosperous. However, despite its common-sense appeal, it was found that the term wellbeing is not a particularly well- defined outcome, especially in reference to the infant.

Despite the fact that scrutiny of the literature indicated that the term "infant wellbeing" is used by different members of the multi-disciplinary team, a clear concise universal definition for healthcare settings and professionals is missing from published literature. In fact, no recorded definition for the concept was to be found.

Consequently, the aim of this study was to develop an operational definition for the concept "infant wellbeing" that can be used congruently between different members of the multi-disciplinary team. This is done by means of a concept analysis as described by Walker and Avant (2014).

The findings revealed that the infant consists of certain dimensions which all play a role in the infant's wellbeing. Equally the infant also functions within a certain system or domain which also affects the wellbeing of the infant. These aspects are discussed in detail.

By having a specific general description of infant wellbeing, nurses and other members of the multi-disciplinary team will have a common understanding of what the concept entails which also assists in the development of standardized language within the healthcare profession.

Keywords: infant wellbeing, concept analysis, nursing, multi-disciplinary team

OPSOMMING

Babasorg is 'n essensiële deel van die gesondheidsorg industrie en 'n aspek van gesondheidsorg waar multi-dissiplinêre spanne nouliks saam werk. In hierdie multi-dissiplinêre span samewerking word daar toenemend verwys na baba welstand. Welstand op sy eie is 'n multi-faset konsep en wanneer dit betrekking het tot die baba, kan die konsep baie kompleks word en moeilik wees om te verstaan en toe te pas. Woordeboek definisies van welstand beklemtoon 'n toestand van gesondheid, geluk en welvaart. Nogtans ongeag die gemeenskaplikheid van die term, was daar gevind dat die term welstand nie 'n duidelik omskryfde uitkoms is nie, veral met betrekking tot die baba.

Ten spyte van die feit dat noukeurige ondersoek van die literatuur daarop gewys het dat die term "baba welstand" deur verskillende lede van die multi-dissiplinêre span gebruik word, ontbreek daar 'n duidelike universiële definisie vir gesondheidsorg instansies en professionele persone, binne die gepubliseerde literatuur. In werklikheid is daar geen opgetekende definisie enigsins gevind wat baba welstand omskryf nie.

Gevolglik is die doel van hierdie studie dan om 'n operasionele definisie vir die konsep "baba welstand" te ontwikkel wat ooreenstemmend tussen verskillende lede van die multi-professionele span gebruik kan word. Dit word gedoen deur middel van 'n konsep analise soos beskryf deur Walker en Avant (2014).

Die bevindinge het getoon dat die baba uit verskeie dimensies bestaan wat elkeen 'n rol speel in die baba se welstand. Die baba funksioneer ook binne 'n sekere sisteem of gebied wat ook baba welstand beïnvloed. Hierdie aspekte word in detail beskryf.

Deur 'n spesifieke algemene omskrywing van baba welstand te hê, sal verpleegkundiges en ander lede van die multi-dissiplinêre span 'n gemene verstandhouding hê van wat die konsep behels, wat daardeur ook bydra tot die ontwikkeling van gestandardiseerde taalgebruik binne die gesondheidsorg professie.

Sleutelwoorde: baba welstand, konsep analise, verpleging, multi-dissiplinêre span

TABLE OF CONTENTS

ACKNOWLEDGEMENTS I

PREFACE AND DECLARATION III

DECLARATION OF HONESTY FROM THE STUDENT IV

DECLARATION OF LANGUAGE EDITING V

ABSTRACT VI

OPSOMMING VII

LIST OF TABLES XI

LIST OF FIGURES XII

LIST OF ABBREVIATIONS XIII

CHAPTER 1: OVERVIEW OF THE STUDY 1

1.1 INTRODUCTION 2

1.2 BACKGROUND AND PROBLEM STATEMENT 2

1.3 RESEARCH QUESTIONS 5

1.4 AIM AND OBJECTIVES 5

1.5 PHILOSOPHICAL FOUNDATION 5

1.6 META-THEORETICAL PERSPECTIVE 6

1.6.1 Man/Human being 7

1.6.2 Environment 7

1.6.3 Health 7

1.6.4 Nursing 8

1.6.5 **Methodological perspectives** ... 11

1.7 RESEARCH METHODOLOGY ... 12

1.7.1 Research design ... 12

1.7.2 Research method ... 13

1.8 MEASURES TO ENSURE RIGOUR ... 18

1.9 ETHICAL CONSIDERATIONS ... 20

1.10 REPORT AND CHAPTER OUTLINE ... 21

1.11 SUMMARY ... 21

CHAPTER 2: LITERATURE REVIEW ... 23

2.1 INTRODUCTION ... 24

2.2 PART A: INFANT AS A SYSTEM ... 25

2.2.1 Physiological dimension of the infant. ... 28

2.2.2 Psychological dimension of the infant ... 28

2.2.3 Socio-cultural dimension of the infant ... 29

2.2.4 Developmental dimension of the infant ... 30

2.2.5 Spiritual dimension of the infant ... 30

2.3 PART B: INFANT WITHIN A SYSTEM ... 32

2.3.1 Infant within the family-system ... 34

2.3.2 Infant within the community-system ... 36

2.3.3 Infant within a specific context / environment ... 36

2.4 SUMMARY ... 37

CHAPTER 3: INFANT WELLBEING: A CONCEPT ANALYSIS 39
CHAPTER 4: EVALUATION OF THE RESEARCH, CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS 79

4.1 INTRODUCTION 80

4.2 EVALUATION OF THE RESEARCH 80

4.3 CONCLUSIONS 80

4.4 LIMITATIONS 81

4.5 RECOMMENDATIONS 81

4.6 SUMMARY 82

4.7 PERSONAL REFLECTIONS BY THE RESEARCHER 82

BIBLIOGRAPHY 83

ANNEXURE A: ALL AVAILABLE DEFINITIONS OF INFANT WELL-BEING 93

ANNEXURE B: CHARACTERISTICS OF INFANT WELLBEING DERIVED FROM AVAILABLE LITERATURE 104

ANNEXURE C: SUMMARY OF THE LITERATURE SEARCH 111

ANNEXURE D: TURNITIN REPORT 117

LIST OF TABLES

Table 2-1: Influence of different family settings/structures on the wellbeing of infants..34

LIST OF FIGURES

Figure 1-1: The Neuman Systems Model (Neuman & Fawcett, 2011:13) 10

Figure 1-2: The eight steps in concept analysis by Walker and Avant (2014:166) 14

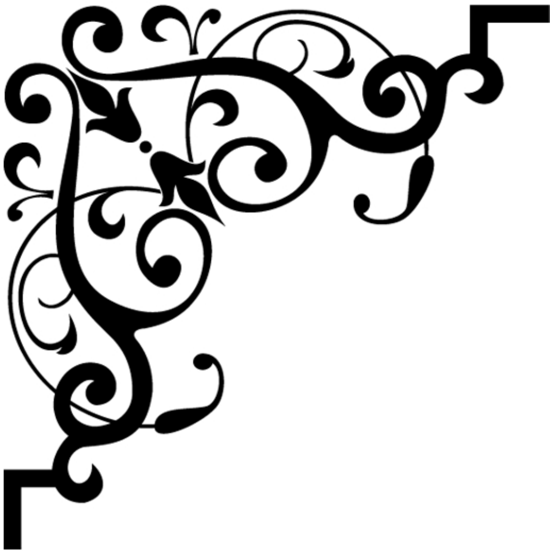
Figure 2-1: The client/client system (Neuman & Fawcett, 2011:15) 27

Figure 2-2: Diagram of the client/infant system variables 32

Figure 2-3: A visual presentation of the infant as a system within a system 38

LIST OF ABBREVIATIONS

CIOMS	-	Council for International Organizations of Medical Sciences
HDACC	-	Health Data Advisory and Co-ordination Committee
MRC	-	Medical Research Council
NAPNAP	-	National Association of Pediatric Nurse Practitioners
NICU	-	Neonatal Intensive Care Unit
NSM	-	Neuman System Model
NWU -	-	North-West University
SAMRC	-	South African Medical Research Council
UNICEF	-	United Nations International Children's Emergency Fund
WHO	-	World Health Organization



CHAPTER 1: OVERVIEW OF THE STUDY

1.1 INTRODUCTION

This study aimed to define the concept “infant wellbeing” by means of a concept analysis as described by Walker and Avant (2014). The process of concept analysis was followed in order to develop a theoretical and an operational definition for infant wellbeing that can be used amongst professional nurses as well as other members of the multi-disciplinary team. This study is positioned within professional nursing as the professional nurse is a critical role player in the multidisciplinary team.

In the following paragraphs the reader will be introduced to the background and problem statement, the research aim and objectives as well as the selected research methodology. Although this research entails minimal ethical risk, ethical considerations are discussed as well as mechanisms to enhance trustworthiness.

1.2 BACKGROUND AND PROBLEM STATEMENT

According to the Countdown to 2015 Decade Report, 8.8 million children die per year before their fifth birthday, of which more than 40% die during their first four weeks of life (World Health Organisation [WHO] & United Nations Children’s Fund [UNICEF], 2010:1). The global infant mortality rate in 2009 was estimated by the HDACC (Health Data Advisory and Co-ordination Committee) to be 40 per 1000 live births and the under-five mortality rate to be 56 per 1000. Moreover, South Africa is considered to be one of five countries in which the children under five mortality rate increased between 1990 and 2008 (WHO & UNICEF, 2010:8-9). Additionally according to the National Perinatal Morbidity and Mortality Committee Report from 2008-2010, there are between 8000 and 9000 early neonatal deaths per year in South Africa alone (Nkwanyana, 2009:11)

In response to the realities of infant mortality, infant care is an essential part of healthcare and in the modern world much advancement has been made in terms of infant care (Haider & Mukherjee, 2010; Wulczyn *et al.*, 2005:3, 4). Infant care is an aspect of healthcare where multi-disciplinary teams are well established (Nottle & Thompson, 1999:181; Wulczyn *et al.*, 2005:3, 4; Zeanah, 1993:x). Funding for the improvement of maternal and child health also increased (WHO & UNICEF, 2010). In order to reduce infant and child mortality, skilled care is required. Similarly, although progress has been made in reducing deaths among children under five, the WHO and

UNICEF (2010:7) declared that the opportunity to improve children's lives has never been greater. Yet more information and further research on infant and child health and wellbeing is needed and is critical to improve the quality of infant and child health services (WHO & UNICEF, 2010:2; Wulczyn *et al.*, 2005:3, 4, 7).

Infant wellbeing is a complex and multi-faceted concept involving the physical, psychological and spiritual aspects of the infant. In order for one to state that the infant is well, certain aspects need to be in place. Aspects such as environmental, bio-social, economic, psychological, and the spiritual or medical state of the infant can influence and determine the infant's state of wellbeing. High/good wellbeing means that, in some sense, the infant's experience is positive, while poor wellbeing is associated with negative happenings.

As stated earlier, infant and child healthcare is a critical issue in public health management (Clark, 2003:83; Haider & Mukherjee, 2010; Wulczyn *et al.*, 2005:3-5) and has become a high priority of many countries. Various research has been conducted within the field of infant and child healthcare in order to advance infant wellbeing (Blake, 2008:224-226; Erickson, 1996:185-186, 188-192, 194-195; Feinberg & Kan, 2008:254, 261; Fletcher, 2009:100; Haider & Mukherjee, 2010; Kean, 1999:215; Liamputtong, 2009:210, 216, 218-221, 223-225; McFarland & Smith, 2011:467-472, 474-479, 483, 486-489; NANAP, 2011:9A; Smith *et al.*, 2012:454; Spence *et al.*, 2011:2623, 2625, 2628; Wulczyn *et al.*, 2005:4).

When referring to child and infant healthcare services, various terms are used (Wulczyn *et al.*, 2005:3-5, 8). "Infancy" (Latin) refers to "unable to speak" (Steinberg *et al.*, 2011:5). Infancy is generally the period from birth until age one year, although the age period varies in the literature (Neff & Spray, 1996:336; Olds *et al.*, 1988:1203; Stright, 2001:4, 184; Steinberg *et al.*, 2011:5; Kniesl & Trigoboff, 2009:77-78; Louw *et al.*, 2005:16; Verklan & Walden, 2004:102). Wellbeing on the other hand is defined as a state of being healthy, happy or prosperous (Heinemann English Dictionary, 1988:1248). Yet wellbeing is also a dynamic, age- and role-sensitive construct (Wulczyn *et al.*, 2005:12). Undeniably, Wulczyn *et al.* (2005:7-8) state that wellbeing is not a particularly well-defined outcome despite its common-sense appeal. Especially pertaining to the infant in which developmental change is rapid and contextual variables are integral (Zeanah, 1993:223), this concept is very complex and needs interpretation and acknowledgement (Wulczyn *et al.*, 2005:9). The combined

term "infant wellbeing" is scarcely recorded. Yet, as indicated in the following paragraph, it is a term that is frequently used within nursing and healthcare. In broad, infant wellbeing refers to the optimal wellness and health of a baby.

The concept 'infant wellbeing' is found in numerous articles and literature from different health disciplines. This literature ranges from medicine in general, paediatrics and midwifery to less formal motherhood books and public magazines (Blake, 2008:224-226; Erickson, 1996:185-186, 188-192, 194-195; Feinberg & Kan, 2008:254, 261; Fletcher, 2009:100; Haider & Mukherjee, 2010; Kean, 1999:215; Liamputtong, 2009:210, 216, 218-221, 223-225; McFarland & Smith, 2011:467-472, 474-479, 483, 486-489**;** NANAP, 2011:9A; Smith *et al.*, 2012:454; Spence *et al.*, 2011:2623, 2625, 2628; Wulczyn *et al.*, 2005:4; Zeanah, 1993:74, 83-84, 485). In this literature the wellbeing of the infant, as well as the importance and the improvement thereof are acknowledged. However, consensus on the definition of the concept infant wellbeing is scarcely recorded. This is also evident by the fact that the first 18 dictionaries, encyclopaedias and thesauri that were consulted rendered no results on a definition for infant wellbeing (please refer to annexure A).

In addition to the incongruence on the meaning of the term infant wellbeing, scrutiny of the literature also revealed that the term infant wellbeing is applied different by members of the multi-disciplinary team (Blake, 2008:224-226; Erickson, 1996:185-186, 188-192, 194-195; Feinberg & Kan, 2008:254, 261; Fletcher, 2009:100; Haider & Mukherjee, 2010; Kean, 1999:215; Liamputtong, 2009:210, 216, 218-221, 223-225; McFarland & Smith, 2011:467-472, 474-479, 483, 486-489; NANAP, 2011:9A; Smith *et al.*, 2012:454; Spence *et al.*, 2011:2623, 2625, 2628; Wulczyn *et al.*, 2005:3, 4; Zeanah, 1993:x, 74, 83-84, 485). Within the nursing profession for example, wellbeing in general can be viewed from a holistic perspective involving the physical, emotional and spiritual aspects of wellbeing in order to facilitate healing (Kniesl & Trigoboff, 2009:69, 872).

From a social work perspective it can be seen as the system outcome of steps/actions taken to ensure safety and permanency by combining welfare services and specialised mental health services (Wulczyn *et al.*, 2005:x, 3-5). In psychology on the other hand, wellbeing can be approached from an infant mental health perspective which is the ability to develop physically, cognitively, and socially in a manner which allows

infants/children to master the primary emotional tasks of early childhood without serious disruption caused by harmful life events (Osofsky & Fitzgerald, 2000:25).

On the whole, it is evident that many factors may influence the wellbeing of an infant which is approached from a multitude of perceptions and/or aspects, such as physical, emotional, environmental and bio-ecological factors (Wulczyn *et al.*, 2005:12). The identified gap that validated this research is the absence of a theoretical and operational definition for infant wellbeing amongst professional nurses as well as other members of the multi-disiplinary team. The concept is used incongruently in various literature types and between members of the multi-disiplinary team which may imply different interpretations thereof and a lack of mutual understanding when members of a multi-disiplibary team communicate about infant wellbeing.

1.3 RESEARCH QUESTIONS

From the background and problem statement, the following research question was formulated: "How can a theoretical and operational definition of the concept infant wellbeing be formulated?"

1.4 AIM AND OBJECTIVES

The aim of this study was to develop a theoretical and operational definition of the concept "infant wellbeing". In order to achieve this, the following objectives needed to be reached:

- to explore and describe the essential attributes of infant wellbeing;
- to determine the antecedents and consequences of infant wellbeing (Aita & Snider, 2003:224); and
- to formulate a theoretical and operational definition(s) of infant wellbeing.

These objectives are in line with the steps of concept analysis as described by Walker and Avant (2005:64); Aita and Snider (2003:224) and Baldwin and Rose (2009:782) and will be discussed later in this chapter.

1.5 PHILOSOPHICAL FOUNDATION

The philosophical foundation refers to the paradigmatic perspective or assumptions of the researcher. Burns and Grove (2009:712) define a paradigm as a particular way of

viewing a phenomenon in the world. A paradigm can thus serve as a lens through which reality is interpreted. Under the philosophical foundation or paradigmatic perspective in this study the researcher declares her meta-theoretical, theoretical and methodological perspectives/ assumptions.

1.6 META-THEORETICAL PERSPECTIVE

The meta-theoretical perspective is the researcher's own personal view/belief about the nature of the existence of human beings and their environments. This perspective influences the researcher's way of thinking and the development of knowledge (Reed *et al.*, 2004:213). The researcher sees the world and life from a Messianic-Christian perspective. Messianic Christianity respects and values the richness of the Jewish culture and religious traditions that do not diminish or contradict Old Covenant Judaism or New Covenant Christianity. Messianic Christians believe that there are very important understandings in the Hebrew old covenant, which include the laws of Moses given by God to His Chosen people, that are fundamental in understanding the vision God had for Christianity (e.g. the upholding of the law through love and understanding the role of the blood sacrifice of Yeshua HaMashiach (Jesus) and seeing the role both play in the end times). Messianic Christians ultimately look at the old covenant's principles to get a fuller idea of their faith and of what God intended it to be.

The aim of Messianic Christianity is to bring glory to YHVH (Lord God), Yeshua HaMashiach (Jesus) and the Ruach HaKodesh (the Holy Spirit) by striving to restore the core principles of the pre-denominational apostolic Churches after gentiles were introduced to the faith. This entails that believers follow the law of Moses as evidence of their love for YHVH and believe that salvation is only obtained through Yeshua HaMashiach (Jesus) and not solemnly by abiding to the law. They attempt to praise YHVH by leading as many people as possible to God and providing information and resources to those who are sincere in seeking the truth from the Scriptures in their original languages and from a non-denominational perspective.

Discussed below follows the researcher's view of a human being, the environment, health and nursing.

1.6.1 Man/Human being

Within this study, the infant is seen as a human being that was uniquely created in the image of God as stated in Genesis 1:26-27 (Bybel, 1933) The infant is a holistic being with spirit, soul and body as evident in 1 Thessalonians 5:23 (Bybel, 1933). The infant as a human being is made up of physical material, the body, which can be seen and touched. He is also made up of immaterial aspects, which are intangible - this includes the soul, spirit, intellect, will, emotions, conscience, and so forth. These immaterial characteristics exist beyond the physical lifespan of the human body and are, therefore, eternal. These aspects make up the whole personality. The soul and spirit are the primary immaterial aspects of humanity, while the body is the physical container that holds them on this earth. According to Psalm 51:5, the infant is also born in sin, but not with sin as the infant cannot yet distinguish between good and evil as stated in Deuteronomy 1:39 (Bybel, 1933). For this reason the researcher also believes that the spirit of the infant is very much in contact with God (YHVH) and as soon as the infant is mature enough to distinguish between good and evil and then chooses to do wrong, then it is sin and the spirit dies and that is why the person has to be born again to reconcile with God.

1.6.2 Environment

The environment is seen as the internal and external environments in which the infant functions. The internal environment includes the psychological, spiritual and physical body of the infant and the external environment includes the physical, socio-cultural and spiritual environments in which the infant develops and with which the infant interacts. The interaction between the internal and external environments determines the health status and thus affects the wellbeing of the infant.

1.6.3 Health

According to the World Health Organization (WHO) (2014:definition), health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity. In addition to the WHO's view of health, Neuman and Fawcett (2011:328) define health as a continuum of wellness to illness, which is dynamic in nature and is constantly subject to change. Optimal wellness or stability indicates that all the needs of the system (in this study referred to as the infant) are met and a reduced state of

wellness is the result of unmet systemic needs. In this study health refers to the physiological, psychological, socio-cultural, developmental and spiritual health of the infant which influences the infant's wellbeing. The infant is in a dynamic state on the continuum between wellness and illness, in varying degrees, at any given point in time (Neuman & Fawcett, 2011:328).

1.6.4 Nursing

According to the WHO (2014), nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings. It includes the promotion of health, the prevention of illness, and the care of ill, disabled and dying people.

Neuman and Fawcett (2011:328) defined nursing as a unique profession concerned with all variables affecting clients/patients in their environment and they state that nursing is a preventative intervention. Reed *et al.* (2004:321), on the other hand view nursing as "*an inherent human process of wellbeing, manifested by complexity and integration in human systems*". In this study, nursing refers to all the actions taken by the nurse, members of the multidisciplinary team, the family or caregivers of the infant as well as the society at large, with regards to improving the wellbeing of the infant and it also refers to a way of thinking and /or handling which positively impacts on infant wellbeing.

1.6.4.1 Theoretical perspective

The theoretical perspective of this research stems from the systems theory. In essence, the systems theory refers to the interrelated function of systems and subsystems to ensure a functional whole. This theory is suitable within the medical and health related fields as it is found that analysis into component parts provides the necessary insight needed to answer certain questions. Allied to this is the general assumption that if the component parts are all in place and functioning well, the system might function well (Coulson *et al.*, 2010:18). Coulson *et al.* (2010:18) also state that much effort is spent in the health sector making amends in and improving the component parts of the health service and the health response to improve delivery and health outcomes.

The human being functioning within society and environment also fits into the systems theory. This scientific paradigm focuses on the relationships between the component

parts, which in turn encourages a holistic perspective of human intelligence and experience. Holden (2005:655) declared that systems thinking has a rich tradition in nursing, dating back from the late nineteen-fifties.

Betty Neuman (1924 to present), a community mental health nurse, developed a ‘systems/stress’ theory of nursing known as the Neuman Systems Model (NSM) (See Figure 1-1 for details) in 1970 (George, 2011: 338-339). The NSM has a philosophical base in wholeness, wellness, client perception and motivation, energy and environmental interaction, and it is predominantly wellness orientated and holistic (George, 2011:341; Neuman & Fawcett, 2011:12). Neuman views the person as a system that comprises core and peripheral physiological, psychological, socio-cultural, developmental and spiritual subsystems (George, 2011:28; Neuman & Fawcett, 2011:13). This system seeks to defend itself against the threats or attacks of external stressors through protective lines of resistance (George, 2011:28; Glennister, 2011:5). Betty Neuman defined a dynamic ‘created environment’ which is intra-, inter- and extra personal. Neuman seeks system stability that is higher or lower than the previous state through an active process of ‘reconstitution’ of the dynamic ‘created environment’ that exists between the internal and external environment (George, 2011:344; Neuman & Fawcett, 2011:19-23). In the former case, this is referred to as ‘negentrophy’, that is progression towards wellness, and in the latter case ‘entrophy’, which is depletion or death (George, 2011:345). Moreover, Neuman also defined the goal of nursing as system stability and wellness (George, 2011:341; Neuman & Fawcett, 2011:25).

When applied to this study, the infant can be seen as a system of interrelated-subsystems that interact with the external environment. This can be placed on a continuum of wellbeing where on the one end the infant is progressing towards optimal wellness/wellbeing (negentrophy) and on the other end there is a depletion of wellness/wellbeing or death of the infant (entrophy) (George, 2011:345; Glennister, 2011:5; Neuman & Fawcett, 2011:23). Thus in order for the infant to move towards optimal wellbeing, certain systems have to be in place.

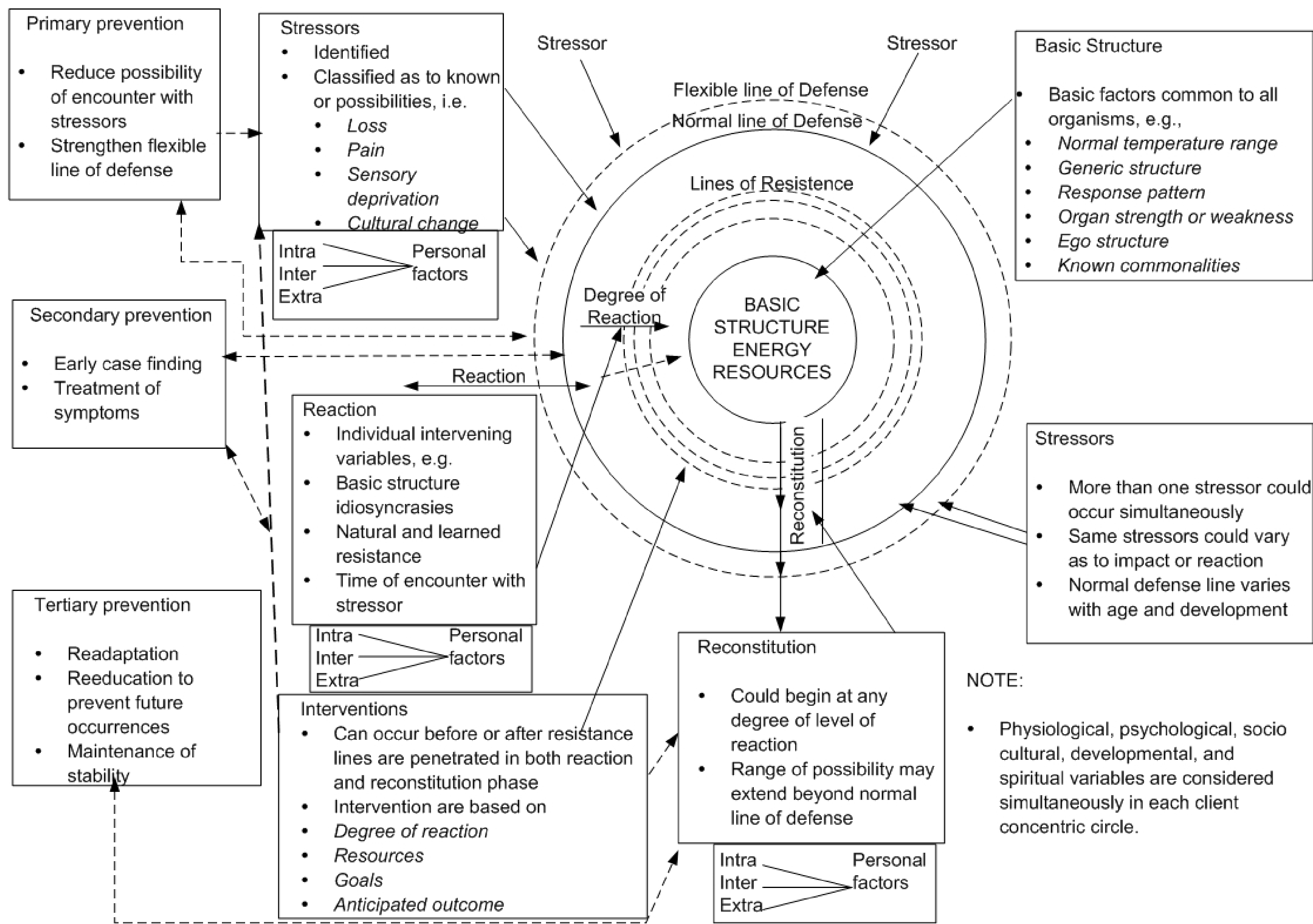


Figure 1-1: The Neuman Systems Model (Neuman & Fawcett, 2011:13)

1.6.5 Methodological perspectives

This study utilises the methods of concept analysis (Walker & Avant, 2014) to analyse "infant wellbeing" using a qualitative, explorative and descriptive design. The use of a concept analysis was found to be the best method of choice as the main purpose of a concept analysis is to examine the structure and function of a concept (Walker & Avant, 2014:163) and it results in a precise operational definition (Walker & Avant, 2014:164). This also increases the validity of the construct by its very nature, thus accurately reflecting its theoretical base (Walker & Avant, 2014:164).

1.6.5.1 Definitions and key concepts

The following concepts are central to this research and briefly defined:

Infant

In this study the infant indicates babies aged 0-1 year and infancy is the neonatal period extending through the first 12 months of life (Olds *et al.*, 1988:1203; Verklan & Walden, 2004:102).

Infant wellbeing

Broadly speaking, infant wellbeing refers to the optimal wellness and health of a baby. Although the researcher provides a broad definition for infant wellbeing, this definition will change when the concept analysis progresses. This initial definition is to ensure a uniform point of departure for the researcher and the reader only.

Concept analysis

A concept is defined by Burns and Grove (2009:126) as a term that abstractly describes and names an object, a phenomenon or an idea, and thus giving it a separate identity or meaning. Furthermore, to analyse something is to examine it critically or to establish the essential features thereof. To analyse is also to divide something into constituent parts and then to examine each element (Heinemann English Dictionary, 1988:36). Concept analysis can, therefore, be seen as a process to carefully examine the structure and function of a concept (Walker & Avant, 2014:163-164).

1.7 RESEARCH METHODOLOGY

The research methodology is divided into a research design and research methods.

1.7.1 Research design

The research design is a blueprint for conducting the study (Burns & Grove, 2009:218). The research design for this study, as already indicated, is theory constructive, qualitative, explorative, descriptive and contextual. This design is suitable for the process followed in a concept analysis.

Concepts are the basic building blocks in theory construction (Walker & Avant, 2014:163) and a concept analysis is the first step in theory construction. According to Botma *et al.* (2010:96), concept definition is guided by theory.

Brink (2006:10-11, 113) conveys that a qualitative research approach concentrates on qualitative aspects such as meaning, experience and understanding. Furthermore, a qualitative inquiry refers to an investigation into phenomena in order to gain a better understanding thereof and the term "qualitative research" implies an interpretive and naturalistic approach where things are studied in their natural settings in an attempt to interpret phenomena or to make sense thereof (Denzin & Lincoln, 2011:3). The research design in this study is qualitative in the fact that the researcher wishes to explore the meaning, and describe and promote understanding of the concept "infant wellbeing". All qualitative studies are bound to a certain context and what we know has meaning only within a certain situation or context (Burns & Grove, 2009:51).

Exploratory research aims to gain more knowledge of phenomena by exploring its full nature while documenting this exploration formally (Burns & Grove, 2009:359). In this study, the main and related concepts are explored through the process of concept identification and concept analysis. An extensive exploration of all available national and international literature sources (Walker & Avant, 2014:167-168) was conducted to describe the main and related concepts and to analyse infant wellbeing.

The purpose of descriptive research is to explore the status of a phenomenon in order to discover new insight about the phenomenon and to provide in-depth feedback on its characteristics (Burns & Grove, 2009:45; Edmonds & Kennedy, 2013:130). In this study, literature searches were conducted to obtain all available national and international

information about main and related concepts of infant wellbeing. Furthermore, an in-depth study was carried out to identify, describe, define and analyse the main concepts. The related concepts were identified and their content analysed by means of a literature review (Walker & Avant, 2014:167-168). The formulation of conclusion statements and relational statements also served as another descriptive intervention in this study.

1.7.2 Research method

The research method refers to the process of concept analysis according to the steps of Walker and Avant (2014) and is outlined below.

To analyse a concept is to examine the concept critically and to divide it into parts and examine each element separately, in order to give the concept a separate identity or meaning. Burns and Grove (2009:127) describe concept analysis as a strategy that identifies a set of characteristics essential to the connotative meaning of a concept. Walker and Avant (2014:163-164) see concept analysis as a formal, linguistic exercise that examines the elements of a concept, its usage and how it is similar to or different from other related words. It is also a way to clarify the meaning of a concept, to refine concepts in a theory that might be ambiguous and to clarify overused or vague concepts used frequently in the nursing (and health) practice (Walker & Avant, 2014:164).

Walker and Avant's (2014:165) concept analysis is a simplified modification of the 1963 Wilsonian method. The original Wilsonian method of concept analysis contained eleven steps that were lessened by Walker and Avant whilst ensuring that the essence of efficient concept analysis remained intact (Walker & Avant, 2014:165). The Walker and Avant approach involves eight sequential steps to be used iteratively as illustrated in Figure 1.2 below. This method was chosen because it is most commonly used in nursing (Hupcey & Penrod, 2005:202), is systematic (Brennan 1997:447-482; Xyrichis & Ream, 2008:233) and user-friendly.

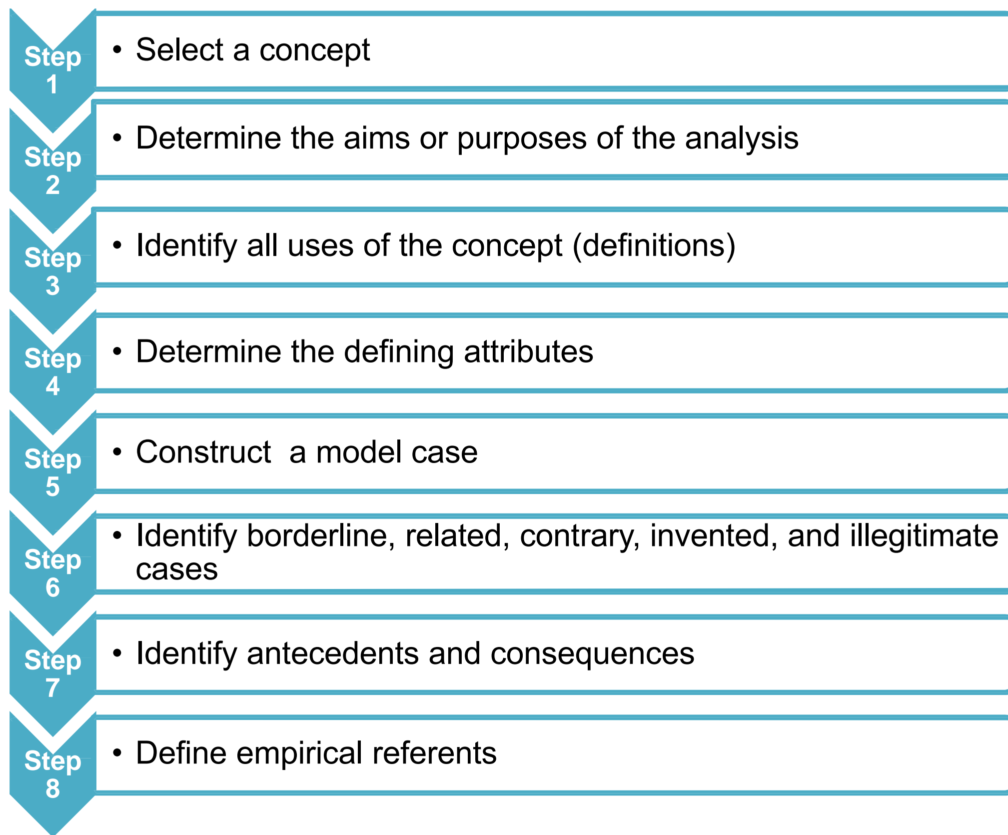


Figure 1-2: The eight steps in concept analysis by Walker and Avant (2014:166)

These steps will be defined briefly below.

Step 1: Selection of the concept

As a professional nurse, the researcher is interested in promoting infant health and wellbeing. During a scoping review of the literature, it was found that the concept "infant wellbeing" was used immensely, but hardly ever was it defined. Walker and Avant (2014:166) state that one should choose a concept in which you are interested, one that is associated with your work and/or one that has always "bothered" you. It is also advised to choose a concept that is important and useful to your research programme or to further theoretical developments in your area of interest (Walker & Avant, 2014:166). Consequently, defining infant wellbeing is also critical to doing the next step in this research to develop an instrument to measure infant wellbeing. However, the process of instrument development is not within the scope of this study.

Step 2: Aims or purposes of the analysis

The purpose of this analysis is to develop a theoretical and operational definition for infant wellbeing in nursing (Walker & Avant, 2014:167).

Step 3: Identify all uses of the concept

In this step of the process, one should use multiple sources of available literature to identify as many uses of the concept as possible (Walker & Avant, 2014:167). In fact, this step will also then describe the population, sample, sampling and sampling size of this study. The study population includes all national and international literature (published or unpublished) on infant wellbeing. The inclusion criteria for this study were all international and national literature on infant wellbeing. No limitation was applied to the timeframe of the studies in order to enhance rigour.

The following exclusion criteria were stipulated in the selection of national and international literature:

- articles in any other language than English or Afrikaans, as the language proficiency of the reviewer is a barrier;
- duplicated studies;
- editorials or letters to the editor; and
- studies referencing but not specific to defining or describing the concept infant wellbeing.

Multiple platforms were used, including dictionaries, encyclopaedias, thesauri, colleagues, electronic databases, catalogues, grey literature and manual searches, to ensure that both published and unpublished research studies were found and to make the search comprehensive. Electronic databases, search engines and internet resources used for this study included EbscoHost, Academic Search Premier, Africa-Wide Information, Cinahl, E-Journals, ERIC, Health Source: Nursing/Academic Ed, MasterFile Premier, Medline, PsycArticles, PsycInfo, SocINDEX, ScienceDirect, World Health Organization, Google, Google Scholar and Scopus. The search was broadened and made to be more comprehensive and inclusive by using a broad combination of keywords and combining different searches. Keywords that were used included: infant

wellbeing; infant well being; infant well-being; infan* OR newborn OR neonat* OR baby OR babies AND wellbeing OR wellbeing OR well being OR wellness AND nurs*; infan* AND well-being; infant well-being AND concept analysis; infant well-being AND definition; infant well-being AND H. Als (H. Als is a researcher and clinician who has focused her life research on the behavioural organization of the newborn infant); infant well-being AND J.D. Osofsky (J.D. Osofsky is a psychologist, psychoanalyst and a professor in paediatrics and psychiatry. She is also editor of the Infant Mental Health Journal and regarded as an expert on infant mental health); infant well being AND H.E. Fitzgerald (one of Fitzgerald's major areas of research includes the study of the infant and family development. He is editor-in-chief of the Infant Mental Health Journal and has published over 500 journal articles, chapters, books, technical reports and peer- reviewed abstracts); infant mental health; infant OR child health; infant OR child healthcare.

After the electronic search was done, manual searching was implemented by scanning the available electronic journals, going through and obtaining more data from the reference lists of relevant studies and content of journals, and reviewing abstracts and other data that are relevant to the research topic. Throughout the data collection process, an audit trail was kept to ensure that all data used could still be extracted and to have an account of the articles included. The sample size was established when data saturation was reached, i.e. when additional sampling provided no new information, only redundancy of previously collected data (Burns & Grove, 2009:361). Data collection stretched from August 2012 to August 2014.

The applicability, specificity and relevance of the searches were determined by the inclusion and exclusion criteria.

Step 4: Determine the defining attributes

Walker and Avant (2014:168) describe this step as the heart of the concept analysis. All the attributes that are most frequently associated with the concept were listed and clustered together into groups. Thus after all the definitions and uses of the concept “infant well-being” had been listed, all the characteristics were highlighted/bolded. These characteristics allowed the researcher/analyst the broadest insight into the concept. The demonstration of the defining characteristics is one of the principle

reasons for the model case (Walker & Avant, 2014:169) which will be discussed in the next step.

Step 5: Construct a model case

A model case is an example of the use of the concept that demonstrates all the defining attributes of the concept (Walker & Avant, 2014:169). Within this study a model case was constructed in order to describe the defining attributes of the concept idealistically.

Step 6: Identify borderline, related, contrary, invented, and illegitimate cases

Additional cases are identified mainly to determine exactly what the defining attributes are and to ensure that all the defining attributes have been discovered (Walker & Avant, 2014:170, 173). Borderline cases are examples of instances where most of the defining attributes are present, but not all of them (Walker & Avant, 2014:170). Related cases are instances where a related concept to the concept currently under study is used, but it does not contain all the defining attributes (Walker & Avant, 2014:171). Contrary cases are clear examples of "not the concept" (Walker & Avant, 2014:172). Invented cases are instances where the concept is taken out of its ordinary context and put into an invented one in order to get a true picture of the critical defining attributes (Walker & Avant, 2014:172). Illegitimate cases refer to cases that give examples of where the concept term is used improperly or out of context. Walker and Avant (2014:172-173) state that it is not always necessary to include invented and/or illegitimate cases when the concept is clear and there is no ambiguity or difficulty in completing the analysis using only the model case and other cases. After construction of all the cases, they are compared to the defining attributes again in order to ensure that no defining attributes were overlooked (Walker & Avant, 2014:173). Once there are no overlapping attributes and no contradictions between the defining attributes and the model case, then only is the analysis complete. Although this step is part of the process of concept analysis, for the purpose of this dissertation, the researcher formulated a model case only and no borderline, related, contrary, invented, and illegitimate cases.

Step 7: Identify antecedents and consequences

This step is helpful in further refining the defining attributes (Walker & Avant, 2014: 173). The antecedents are the events or incidents that must occur prior to the occurrence of the concept (Walker & Avant, 2014:173) – that is the requirements that

need to be present before the defining attributes of infant wellbeing can occur. The consequences conversely, are the outcomes of the concept, and are useful in determining often-neglected ideas, variables, or relationships that may offer profitable new research directions (Walker & Avant, 2014:173-174). Furthermore, a defining attribute cannot be both an antecedent and a consequence at the same time (Walker & Avant, 2014:173).

Step 8: Define empirical referents

The empirical referents are the actual phenomena that demonstrate the occurrence of the concept and describe what the presence of this concept looks like. They are also the means by which one can recognize or measure the defining characteristics or attributes (Walker & Avant, 2014:174). Empirical referents are extremely useful in instrument development and also contribute to both the content and construct validity of any new instrument (Walker & Avant, 2014: 174-175). Instrument development is, however, not in the scope of this study. Hence by defining the empirical referents, the clinician will be able to determine the level of wellbeing in the infant.

1.8 MEASURES TO ENSURE RIGOUR

Rigour is striving for excellence in research through precision, thoroughness and openness in all stages of the research (Burns & Grove, 2009:720) to ensure that the findings of the study are the truth and that bias is reduced. In qualitative research, rigour is referred to as trustworthiness. In several studies, Guba and Lincoln pose that trustworthiness of a study is important to evaluate its worth, and refers to four criteria for establishing trustworthiness in a study including credibility/truth value, applicability/transferability, consistency/dependability and neutrality/confirmability (Creswell & Miller, 2000:126; Krefting, 1991:214-221; Shenton, 2004:63-72; Streubert Speziale & Carpenter, 2003:38; Tobin & Begley, 2004:391-392).

Credibility/truth value is whether the researcher has established confidence in the truth of the findings for the subjects and the context in which the research was undertaken (Krefting, 1991:215). Credibility of this study was improved by using different data sources to collect data from, including dictionaries, thesauri, encyclopaedia, electronic databases, grey literature and text books, and by including the supervisors in all stages of this study. An audit trail was also kept, that is all the

activities undertaken by the researcher over time were recorded in order to illustrate as clearly as possible the evidence and thought processes that led to the conclusions (Streubert Speziale & Carpenter, 2003:38). Additionally, two or more reviewers (review team) are necessary in all steps of the review process to minimise bias and error. These reviewers were selected according to the following criteria: they had to be knowledgeable in infant health in general and/or concept analysis as methodology. These reviewers were identified by the study supervisors as intermediators and were acknowledged for their knowledge of the field and also their experience in reviewing concept analysis. In order to focus the review and prevent the review from being incomplete, a well-defined search strategy and review purpose was used.

Applicability/transferability refers to the generalizability of the inquiry and the degree to which the findings can be applied to other contexts and settings (Creswell & Miller, 2000:128-129; Krefting, 1991:216; Tobin & Begley, 2004:392). In this study background data was provided to establish the context of the study and a detailed description of the phenomena was given to allow comparisons to be made (Shenton, 2004:73). Equally, various keywords were used in the search strategy to ensure comprehensiveness of the findings.

Consistency/dependability is done to determine the trustworthiness of the study and considers whether the findings would be consistent if the study were to be repeated in a similar context (Krefting, 1991:216; Shenton, 2004:73). In this study, consistency was ensured by creating a clear audit trail (Creswell & Miller, 2000:128) and the exact methods of sampling, data analysis and interpretation of the results were described (Krefting, 1991:221).

Neutrality/confirmability is the extent to which the findings of the study are shaped solely by the informants (in this study it would refer to the information received from the different literature) and conditions of the research and not researcher bias, motivation or interest (Krefting, 1991:216; Shenton, 2004:72; Tobin & Begley, 2004:392). Creating a clear audit trail also assists in establishing confirmability (Krefting, 1991:221). To be truly unbiased, studies in any language should be used in the review, but due to feasibility, budget, time constraints and the language ability of the reviewers, only studies reported in English and Afrikaans were used. To overcome this language bias, studies in languages other than English and Afrikaans were documented, but excluded

due to the language barrier. Grey literature, such as dissertations and unpublished studies, were searched to minimise publication bias. However, a threat to validity during the literature search was still that not all literature, with reliable and relevant results, was considered for the review. The most comprehensive source of information was, therefore, sampled, thereby ensuring representativeness of the population. All articles were listed and reasons for exclusion given, which also increases rigour.

1.9 ETHICAL CONSIDERATIONS

According to Burns and Grove (2009:184), ethical research is essential to generate a sound evidence-based practice for nursing. Equally ethical research enables researchers to make progress and discoveries in the fields of medicine and health. The relationship between the researchers and participants are critical and accurate information, trust and respect are the cornerstones. Especially in the health sciences, where human beings are often participants of study, ethical issues are pervasive and complex (De Vos *et al.*, 2011:113). Research where human beings are involved should be conducted in such a way to ensure autonomy, beneficence, non-maleficence and justice, which are the principles of ethical research (Council for International Organizations of Medical Sciences [CIOMS], 2002:17-18; Department of Health, 2006:9; North-West University [NWU], 2010:48; Medical Research Council [MRC], 2013). However this is not applicable within this current study as this study is a concept analysis and no humans were included as participants. Although ethical approval is not required before performing a concept analysis due to the fact that no human beings are involved as participants, (NWU, 2010:59-62) the researcher still committed her to expertise, diligence, honesty and integrity. The study should still be conducted in an ethical and honest way. Honesty was maintained within this study by upholding integrity throughout the research process. An audit trail was kept of all the actions performed by the researcher that can be reviewed by the study supervisors/ reviewers of the research at any time. As plagiarism is a big issue within studies where only literature is used and no human participants, the researcher adhered to the principals of ethical research by using anti-plagiarism software. The researcher acknowledged the North-West University's policy to prevent plagiarism (NWU, 2010:44-48) and declared to adhere to this policy. Credit was also given to authors' viewpoints when necessary and a reference list of all the literature used, both those included and excluded in this study, was provided.

Furthermore, the North-West University is also committed to the ethical conduct of research and subscribes to the values of human dignity, equality, freedom, integrity, tolerance, respect, commitment to excellence, scholarly engagement, academic freedom and justice. As a student at the North-West University, the researcher is committed to the conducting of ethical research and adhered to the code of conduct and ethics supported by the North-West University (NWU, 2010:48-56). This code of conduct and ethics stipulates that the researcher should ensure that data be kept on a secure and password-protected computer and that all data be kept safe for a minimum of six (6) years.

1.10 REPORT AND CHAPTER OUTLINE

This dissertation was done in an article format.

Chapter 1 is an overview of the study.

Chapter 2 is a literature review.

Chapter 3 is an article submitted to the Journal of Advanced Nursing, describing the methodology used in the research and features the theoretical and methodological definitions and the research results. This includes data collection and analysis. The preliminary title of the article is: "Infant wellbeing: a concept analysis.

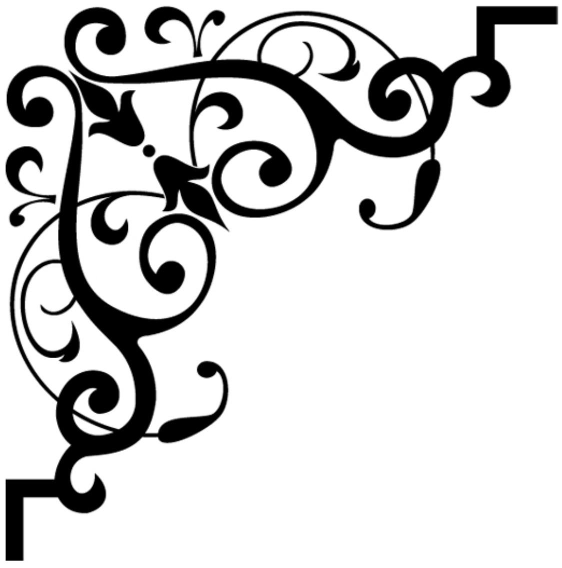
Chapter 4 includes the evaluation of the research, conclusions, recommendations and limitations.

1.11 SUMMARY

As seen evident by the information provided, the term infant wellbeing is used by different members of the multi-disciplinary team. The given literature also shows that there is an essential need towards conceptualization of infant wellbeing. Yet the literature does not give consensus of what this definition entails. Thus in order to ensure optimal infant wellbeing in infants, the obvious starting point would be to give a theoretical and operational definition of infant wellbeing. This is achieved by means of a concept analysis.

Firstly, the analysis was done to clarify the meaning of infant wellbeing. Secondly, the concept of infant wellbeing was analysed to gain more insight into this concept. Thirdly,

increased insight into the concept infant wellbeing is essential towards the provision of an operational definition for infant wellbeing in nursing and healthcare as part of theory construction. Additionally, after exploring the defining attributes, identifying antecedents and consequences, and defining the empirical referents, the analysis can be used in further studies to develop an instrument to measure infant wellbeing. As mentioned earlier, instrument development is, however, not in the scope of this current study.



CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

The aim of this study is to develop a theoretical and an operational definition of the concept "infant wellbeing". In this next chapter, the literature review will give more insight into the topic of this study from a systems theory perspective – more specifically the Neuman System Model.

Infant wellbeing is a complex and multi-faceted concept involving the physical, psychological and spiritual aspects of the infant. The literature reveals that aspects such as environmental, bio-social, economic, psychological, and/or the spiritual or medical state of the infant can influence and determine the infant's state of wellbeing. Moreover the concept 'infant wellbeing' is commonly found in articles and literature from different health discipline (Blake, 2008:224-226; Erickson, 1996:185-186, 188-192, 194-195; Feinberg & Kan, 2008:254, 261; Fletcher, 2009:100; Haider & Mukherjee, 2010; Kean, 1999:215; Liamputtong, 2009:210, 216, 218-221, 223-225; McFarland & Smith, 2011:467-472, 474-479, 483, 486-489; NANAP, 2011:9A; Smith et al., 2012:454; Spence et al., 2011:2623, 2625, 2628; Wulczyn et al., 2005:4; Zeanah, 1993:74, 83-84, 485). However, it is a concept that is rarely defined.

From within the different health professions/disciplines, "infant wellbeing" can also be viewed and interpreted differently. Within the nursing profession for example, infant wellbeing can be viewed from a holistic perspective involving the physical, emotional and spiritual aspects of wellbeing in order to facilitate healing (Kniesl & Trigoboff, 2009:69, 872). In addition nurses are an integral part of healthcare services and play an important role in supporting infant health and wellbeing (National Association of Pediatric Nurse Associates and Practitioners [NANAP], 2011:9A-10A). From a social work perspective it can be seen as the system outcome of steps/actions taken to ensure safety and permanency by combining welfare services and specialised mental health services (Wulczyn *et al.*, 2005:x, 3-5). In psychology on the other hand, infant wellbeing can be approached from an infant mental health perspective which is the ability to develop physically, cognitively, and socially in a manner which allows infants/children to master the primary emotional tasks of early childhood without serious disruption caused by harmful life events (Osofsky & Fitzgerald, 2000:25).

In brief, the Neuman System Model (NSM) provides a comprehensive, flexible, holistic and system based perspective for nursing. It focuses on the response of the client

system to actual or potential environmental stressors and the use of primary, secondary and tertiary nursing prevention intervention for retention, attainment, and maintenance of optimal client system wellness. There are four major concepts discussed within the NSM: the person, the environment, health, and nursing. The person (client system) is a multidimensional being consisting of several lines of defense and resistance in order to protect the basic core structure in the event of a stress response. The environment is defined as the totality of three types of stressors that interact with a person at any given time and has the potential to affect the stability of the system. They are: intrapersonal, which occurs within the person; interpersonal, which occurs between individuals; and extra-personal, which occurs outside the individual. If all the parts of the system are in harmony with the whole, health/wellness is achieved. (Neuman & Fawcett, 2011:3, 12-29, 327-329). The specific components of the NSM and their connections are depicted in Figure 1.1 (see chapter 1).

To summarize this chapter, the infant will firstly be described as a system in part A, which is the different dimensions of the infant. Then in part B, the infant will be described as part of a system, which is the family context, the community context and then a specific environment/context in which the infant is found. The aim will then be to examine how certain aspects pertaining to the infant as a system as well as the infant within a system have an effect on and also predict infant wellbeing.

2.2 PART A: INFANT AS A SYSTEM

The infant as a human being is a total person as a client system and the person is a layered multidimensional being. Equally the infant can be seen as an open system composed of interrelated and interacting variables/subsystems that function harmoniously to maintain system stability in response to external and internal environmental stressors (Neuman & Fawcett, 2011:15-16, 39). These subsystems are physiological, psychological, socio-cultural, developmental and spiritual. These variables can be placed on a continuum of wellbeing where on the one end the infant is progressing towards optimal wellness/wellbeing (referred to as negentrophy) and at the other there is depletion of wellness/wellbeing or death of the infant (referred to as entrophy) (George, 2011:345; Glennister, 2011:5; Neuman & Fawcett, 2011:23). Thus in order for the infant to move towards optimal wellbeing, the subsystems have to be in equilibrium with the total person (Simmons, 1989:157).

In Figure 2.1 (The client/client system), the infant or client/client system is represented by a series of concentric rings or circles surrounding a basic structure. The basic structure has resources to maintain survival (e.g., genetic features, normal temperature, organ strength or weakness, self-image, cognitive potential, age, sex). The concentric rings around the basic structure seen in Figure 2-1 – the flexible and normal lines of defense and the lines of resistance – form the basis of resource protection for the core of the system to preserve client system integrity (Neuman & Fawcett, 2011:16, 17).

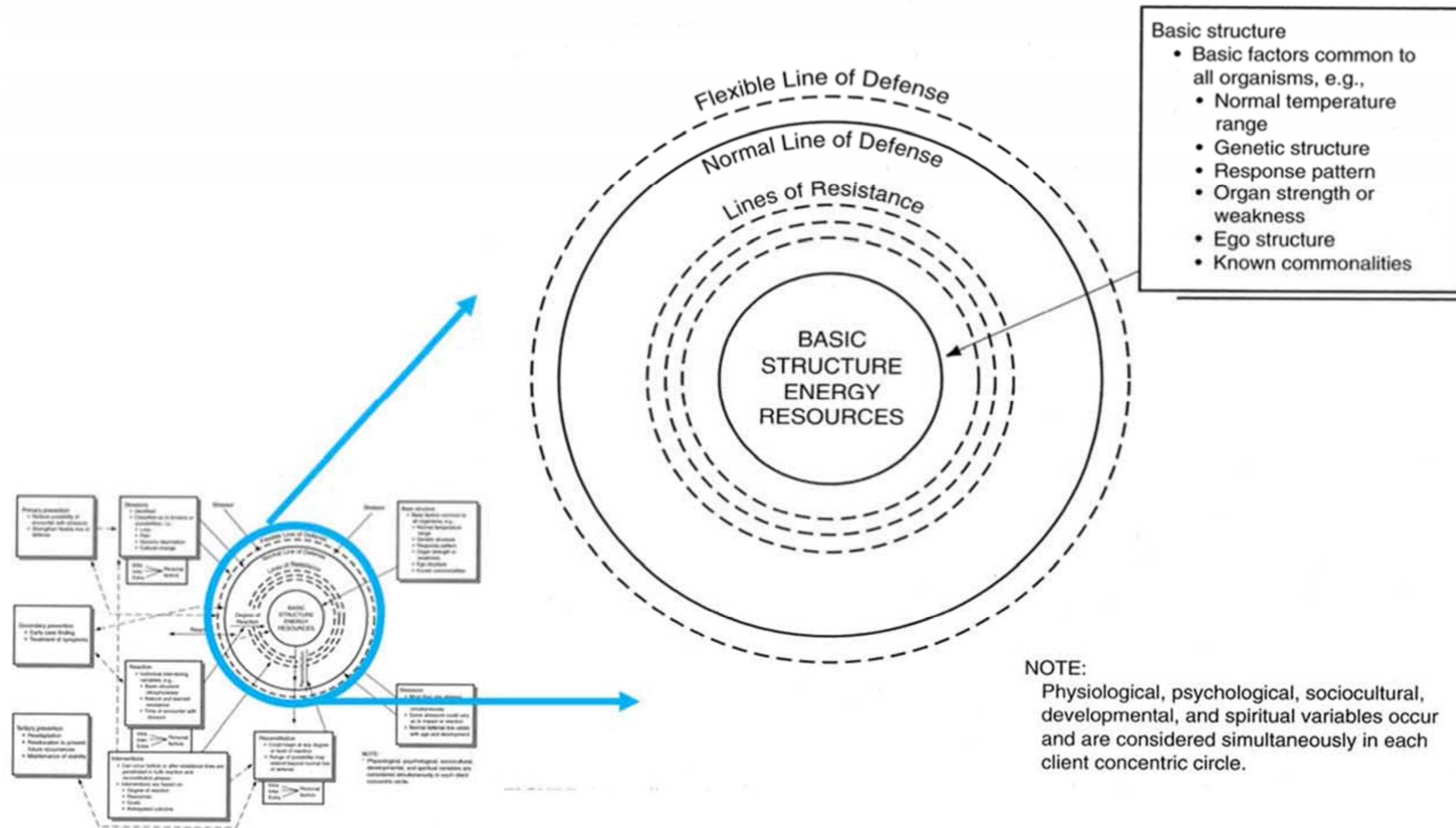


Figure 2-1: The client/client system (Neuman & Fawcett, 2011:15)

2.2.1 Physiological dimension of the infant

The physiological dimension refers to the bodily structure and internal function of the infant (Neuman & Fawcett, 2011:16). This includes physical growth and health, as well as the condition and effectiveness of the organs and the regulatory systems of the body (Neuman & Fawcett, 2011:39; Patterson, 2009:7). It also encompasses the phenomena of motor development and of physical health and illness (Patterson, 2009:7). In the infant, one can look at the anatomical structure, cardio-pulmonary, musculoskeletal, respirator-, neuromuscular, gastro-intestinal, genitory-urinary and integumentary systems respectively (Kenner & McGrath, 2004:382; Louw *et al.*, 2005:153-159). If all these systems are fully developed and functioning in homeostasis, it is safe to assume that a measure of wellbeing can be achieved within the infant.

2.2.2 Psychological dimension of the infant

The psychological dimension refers to the mental processes of the infant and interactive environmental effects, both internally and externally (Neuman & Fawcett, 2011:16). It involves the infant's ability to build/maintain relationships, such as emotional state, cognitive processes, communication skills, coping mechanisms and self-concept (Neuman & Fawcett, 2011:39-40). It also includes cognitive growth (thinking and reasoning skills), emotional growth (changes in emotion, self-concept and interpersonal relationships) and linguistic development (Patterson, 2009:7). According to Eliot (1999:290), our early lives are dominated by emotions more than it will ever be again. Furthermore, Verny and Kelly (1981:171) also mention that the earlier the individual needs of the infant are respected, the more the infant will be helped to develop self-esteem. This can only be achieved when the person caring for the infant empathizes with the infant and sees the world from the infant's perspective. As a result the infant's intellectual and emotional growth is positively influenced, which in turn gives way for positive wellbeing of the infant. According to Verny and Kelly (1981:171), newborn infants' thinking are already well-developed at birth and they are also able to handle abstract ideas, and within a couple of months that infant can master even more sophisticated activities. From about 7 months of age infants start remembering names of objects, even though they cannot yet pronounce them. This is also one of the greatest intellectual breakthroughs made by the infant in the first year of life since language is the currency of all human knowledge, and even a silent grasp of it opens up new realms of learning (Verny & Kelly, 1981:181). Louw *et al.* (2005:152) pose that

of learning (Verny & Kelly, 1981:181). Louw *et al.* (2005:152) pose that infancy is a period of rapid change and also a critical period of psychosocial development. It is believed that the degree of success achieved by the infant depends largely on the opportunities presented to the infant as well as the assistance and leadership received (Louw *et al.*, 2005:152-153; Verny & Kelly, 1981:172). Equally according to Verny and Kelly (1981:169), the mother and father of the infant and the quality of the care they provide, significantly influences the intelligence, language and drives of the infant as well as all the skills needed to master them. How the infant interacts with its environment, is a prediction of psychosocial development. Additionally, the level of activity in the infant is an important indication of the future personality of the infant (Verny & Kelly, 1981:167-168). Furthermore, the bonding between the mother and her infant has a major effect on the behavioural and physiological regulation of both mother and infant (Underdown & Barlow, 2012:17). Verny and Kelly (1981:172) state that besides genetic inheritance, the single most important factor that shapes the depth and breadth of intellect is the quality of parenting. According to Underdown and Barlow (2012:15), there are numerous factors that influence mother-infant bonding, however, they state that babies are born ready to interact socially with their parents. The degree of psychological and cognitive development in the infant ultimately also determines the degree of wellbeing of the infant.

2.2.3 Socio-cultural dimension of the infant

The socio-cultural dimension refers to combined effects of social cultural conditions, and influences on the infant (Neuman & Fawcett, 2011:16). It includes cultural dimensions or attributes such as attitudes, beliefs, lifestyle, habits and ethnicity (Neuman & Fawcett, 2011:40). Zeanah (1993:480) stated that a child's natural development does not unfold in isolation, but is shaped within the context of the family, child care, community and society at large. Hence, the effects of social cultural conditions, and influences on the infant affect the development and, consequently, wellbeing of the infant. Additionally in a study by McFarland and Smith (2010:467), segregation for example was found to have both negative and positive relationships with infant wellbeing. Moreover, the research also found that ethnic enclaves provide educational and employment opportunities as well as social and emotional support that is found to be positively associated with infant wellbeing (McFarland & Smith, 2010:469).

2.2.4 Developmental dimension of the infant

The developmental dimension refers to the age-related development processes and activities of the infant (Neuman & Fawcett, 2011:16). This includes human growth and developmental transitions throughout the life span (Neuman & Fawcett, 2011:40). Kenner and McGrath (2004:373-374) mention the *bio ecological model* of development, which is an important model that influences ones thinking about development. Within this model there are four major components discussed namely *Process*, *Person*, *Context* and *Time*. It is stated that to understand development fully, one should know "how" (Process) the organism (Person) performs a specific skill within a naturalistic setting (Context) and how the behaviour changes with age (Time). Hence, development for one infant does not mean the same for another. Equally, the wellbeing of one infant as measured by development differs from another and there are several factors that might have an influence on the wellbeing of the infant. For example, the developmental outcomes and wellbeing of an infant born at 26 weeks gestation to an alcohol-dependant mother living in poverty with little support networks might differ immensely from an infant born at 26 weeks gestation to a healthy woman who received frequent prenatal care, is married and has a supportive family network. Osofsky and Fitzgerald (2000:4) state that infant development is conceptualized as always embedded within emergent, active systems of relationships. Additionally, according to Balbernie (2002:330), individual development in the infant occurs in a family zone. The extent to which an infant reaches certain domains of development also has a certain measure of effect on the measure/degree of wellbeing in the infant.

2.2.5 Spiritual dimension of the infant

The spiritual dimension refers to the spiritual beliefs and influences (Neuman & Fawcett, 2011:16). This dimension may or may not be acknowledged or developed by the client (infant). The spiritual variable is on a continuum of development - the client may have a complete unawareness of the spiritual variable, deny its presence, or have a conscious and highly developed understanding (Neuman & Fawcett, 2011:17). When seeing the infant as a holistic human being and for care to be truly holistic, the spiritual dimension cannot be excluded (Caldeira & Hall, 2012:1069-1070; Hall, 2006:804; Neuman & Fawcett, 2011:17). Moreover, from a Christian –Messianic perspective and firm believer in the Word of God, the researcher believes that the spiritual dimension of the infant is

already present at conception as written in Psalm 139, Isaiah 49 and Jeremiah 1:5 (Bybel, 1933) and also mentioned by Hall (2006:805). However, the researcher also recognizes the existence of multicultural expressions of faith and belief regarding the infant's spiritual dimension. The terms “spiritual development”, “faith development” and “development of religious understanding” have different meanings, but are often used interchangeably. “Faith development” is the development of a belief in a divinity. The earliest faith is the development of basic trust and hope in the care of others. Undifferentiated/imperceptive faith experience of infancy is built upon secure attachments (Verny & Kelly, 1981:173). A caregiver’s nurturance, protection, and availability provide the basis for the earliest grasp of divine care. Similarly, Caldeira and Hall (2012:1070) state that any care that relates to the dignity and worth of a person will potentially have an impact on their spirit. Newman and Fawcett (2011:17) assume that spiritual development in varying degrees empowers the client system/infant towards wellbeing by positively directing spiritual energy for use first by the mind and then by the body. On the whole it is safe to assume that when infants have a positive experience of how their actions influence their surroundings (Verny & Kelly, 1981:173), the spiritual variable is positively affected, which results in a movement towards optimal system stability (Neuman & Fawcett, 2011:17) and ultimately produces good wellbeing in the infant.

Figure 2-2 illustrates how the client system variables intersect and interact with each other and how together they form an essential part of the basic structure or central core of the individual client system.

Figure 2-2: Diagram of the client/infant system variables
(Adapted from Neuman and Fawcett, 2011:40)

2.3 PART B: INFANT WITHIN A SYSTEM

According to Neuman and Fawcett (2011:14) each client system is unique, a composite of factors and characteristics within a given range of responses contained within a basic structure. Each client/client system has evolved a normal range of responses to the environment that is referred to as a normal line of defense, or usual wellness/stability state. The normal line of defense can be used as a standard from which to measure health deviation. When the flexible line of defense is no longer capable of protecting the client/ client system against an environmental stressor, the stressor breaks through the normal line of defense. The interrelationships of variables determine the nature and degree of system reaction or possible reaction to the stressor.

The client whether in a state of wellness or illness, is a dynamic composite of the inter-relationships of the variables. Wellness is on a continuum of available energy to support the system in an optimal state of system stability. Implicit within each client system are internal resistance factors known as lines of resistance, which function to stabilize and realign the client to the usual wellness state. Primary prevention relates to general knowledge that is applied in client assessment and intervention, in identification and

reduction of possible or actual risk factors. Secondary prevention relates to symptomatology following a reaction to stressors, appropriate ranking of intervention priorities and treatment to reduce their noxious effects. Tertiary prevention relates to adjustive processes taking place as reconstitution begins and maintenance factors move the client back in a circular manner toward primary prevention. The client as a system is in dynamic, constant energy exchange with the environment. (Neuman & Fawcett, 2011:14) This environment can be described as the system of which the infant is a part.

Neuman (Neuman & Fawcett, 2011:19) defines environment as the totality of the internal and external forces which surround a person, and with which they interact at any given time. These forces include the intrapersonal, interpersonal, and extra-personal stressors, which can affect the person's normal line of defense and so can affect the stability of the system. The environment has three components: the internal, which exists within the client system; the external, which exists outside the client system; and the created, which is an environment that is created and developed unconsciously by the client, and is symbolic of system wholeness. Many known, unknown, and universal stressors exist. Each differs in its potential for disturbing a client's usual stability level or normal line of defense. The particular inter-relationships of client variables (as described in section 2.2) at any point in time can affect the degree to which a client is protected by the flexible line of defense against possible reaction to stressors (Neuman & Fawcett, 2011:20-22).

Hack *et al.* (2007:639) mentioned a couple of factors that may affect health status and wellbeing, including quality of health care, cultural and socio-demographic factors, educational enrichment and vocational training, individual personality characteristics, and the ability to compensate by using aids to prevent disability or taking advantage of alternative abilities. According to Zeanah (1993:83), infants' day-in, day-out environmental experiences most strongly predict later wellbeing and competence. Similarly, in a position statement on the paediatric nurse practitioner's role in supporting infant and family wellbeing during the first year of life, it is stated that the nurturing quality of the environments of infants allows them to become emotionally and physically healthy, prepares them for learning, and enables them to develop to their full potential (NAPNAP, 2011:9A). Importantly, it was also found that the parent-infant relationship is one of the most significant environmental factors that influences early brain development (Underdown & Barlow, 2012:19). Furthermore, Erickson

(1996:190) conveys that an infant's cognitive and social development is affected by the mother's age, education level, socio-economic status, and home environment, low birth weight, and mother-infant interactions. Additionally, regarding infant wellbeing, numerous sources have reported on the importance of mother-infant attachment for the wellbeing of the infant (Neff & Spray, 1996:343; Baker & McGrath, 2011:2; Erickson, 1996:186- 195; Fletcher, 2009:96-97; Pickler, 2009: 468). Reyna and Pickler (2009:471) state that attachment encompasses many systems, behavioural, physiological, and biological, that work together to regulate and maintain a social relationship. Next the infant will be described within the family- and community system and within a specific context / environment.

2.3.1 Infant within the family-system

According to Underdown and Barlow (2012:23), the key task of early infancy is the development of emotional and behavioural regulation which is learnt through every day interactions with consistent, sensitive caregivers. On the other hand, research has also shown that where infants are exposed to intimate partner violence in early childhood, they may develop symptoms of post-traumatic stress disorder, which can manifest in eating problems, sleep disturbances, lack of typical responses to adults, later behaviour problems, altered capacity for emotional regulation and loss of previously acquired developmental skills, although this varies according to the extent to which the violence impacts on the parenting relationship, and on the mothers' maternal sensitivity, mental health and stress (Underdown & Barlow, 2012:25; Verny & Kelly,1981:124-125). The following table describes the influence of different family settings on the wellbeing of infants as found in the literature.

Table 2-1: Influence of different family settings/structures on the wellbeing of infants

Adolescent parenthood	Erickson (1996:189-190) reported that babies born to adolescent mothers have been found to be at high risk for multiple physical and psychosocial problems when compared to infants born to older mothers. Additionally numerous studies have reported on the detrimental effects that the young age of parents have on the wellbeing of their infants (Baker & McGrath, 2011; Erickson, 1996)

	Baker and McGrath (2011) mentioned that younger maternal age, lower educational attainment and lower socio-economic status are related to greater maternal use of negative control strategies, higher expectation for the behaviours of their infants and less interaction with their infant, all behaviours that are less correlative in nature and more controlling. Ultimately these relationships are often less synchronous (Baker & McGrath, 2011:4) and negatively impact on infant wellbeing. Most adolescent pregnancies are unplanned, and Chamberlain (1998:216) states that planned parenthood is a practical alternative to assure that every child is wanted and loved.
Single-parent households	According to Neff and Spray (1996:343), mother-infant attachment is the main influence on an infant's sense of wellbeing. They also state that father-infant attachment is also important. Hence, one can conclude that when an infant is raised by either only a mother or only a father, wellbeing is negatively impacted. Feinberg and Kan (2008:253) found that co-parenting plays an important role in family relationships which has a positive influence on the wellbeing of the parents as well as the children.
Adoptive or foster parents	The results of a national study done in the United States by Bramlett *et al.* (2007:S54) suggested that adopted children are more likely than biological children to have special health care needs, current moderate or severe health problems, learning disability, developmental delays or physical impairment, and other mental health difficulties. However, it was found that adopted children are more likely than biological children to have had a preventive medical visit or a combination of preventive medical and dental visits during the previous year, to receive needed mental health care, and to receive care in a medical home; they are more likely to have consistent health insurance coverage, to be read to daily, or to live in neighbourhoods that are supportive, and they are less likely to live in households in which someone

	smokes. Bramlett *et al*. (2007:S59) concludes that many of the outcomes that seem worse for adopted children constitute health problems for the child, whereas most outcomes that seem better for adopted children relate to their access to and use of health care, their family, and neighbourhood environments, and family practices that promote health and wellbeing.
Female-headed households	According to McFarland and Smith (2010:483), female-headed households may present life challenges, both during and after a pregnancy, that are harmful to the infant.

2.3.2 Infant within the community-system

As stated earlier, according to Zeanah (1993:480), a child's natural development does not unfold in isolation, but is shaped within the context of the family, child care, community and society at large. Equally, numerous studies have shown that the infant's later intellectual potential is influenced by early experience (Eliot, 1999:427; Verny & Kelly, 1981:118).

Moreover it was found that communities differ socially, economically and in organizational properties which have profound consequences for the life chances of many individuals and this ultimately influences the wellbeing of the infant (McFarland & Smith, 2010:468). As an example, according to McFarland and Smith (2010:471), in communities where there is a concentration of poverty and a lack of community resources, infant wellbeing might be negatively impacted. They also highlight that this concentration might be due to residential segregation.

In conclusion, it is clear that the community in which an infant is raised, has an influence on the infant's early experience and therefore also the infant's wellbeing.

2.3.3 Infant within a specific context / environment

Roach (2003:531) states that the environment at the time of a newborn's birth and in the days following, can greatly impact the health, development and wellbeing of the baby. Numerous studies have been done regarding the infant in the Neonatal Intensive

Care Unit (NICU) environment for example and have described what the effects of the environment are on the infant. Aspects that might negatively influence the wellbeing of the infant includes components such as the cleanliness and hygiene of the environment or the lack thereof, space, air, temperature, nutrition, light, noise, visual stimulation, odours and overcrowding (Roach, 2003:531).

2.4 SUMMARY

In conclusion as depicted within the literature review, the infant is seen as a holistic being with a dynamic yet stable interrelationship of body, mind and spirit in a constantly changing environment and society (Neuman & Fawcett, 2011:32). Furthermore, it is evident that the wellbeing of the infant is affected and influenced both positively and negatively by various factors. When viewing the infant as a system, it is found that there is an interrelationship of the different variables as a system, which determines the level of wellness/wellbeing of the infant and is also unique to each individual infant (Neuman & Fawcett, 2011:32, 40). These variables change over time and determine how the infant responds to internal and external environmental stressors. Equally the infant as an open system is in interaction and total interface with the environment (Neuman & Fawcett, 2011:23). The infant interacts with the environment by adjusting to it, or as a system, adjusting the environment to itself. Through this process of interaction and adjustment, varying degrees of harmony, stability or balance is formed between the infant and the environment (Neuman & Fawcett, 2011:23). The infant might influence or be influenced by environmental forces either positively or negatively at any given point in time. On the whole, when describing and exploring infant wellbeing from a multidimensional and holistic systemic perspective, the researcher aims to investigate all states of wellbeing – that is wellbeing of the body, mind and spirit of the infant as well as of the environment of which the infant is a part. The following diagram (Figure 2-3) will illustrate how the infant can be seen as a system within a system.

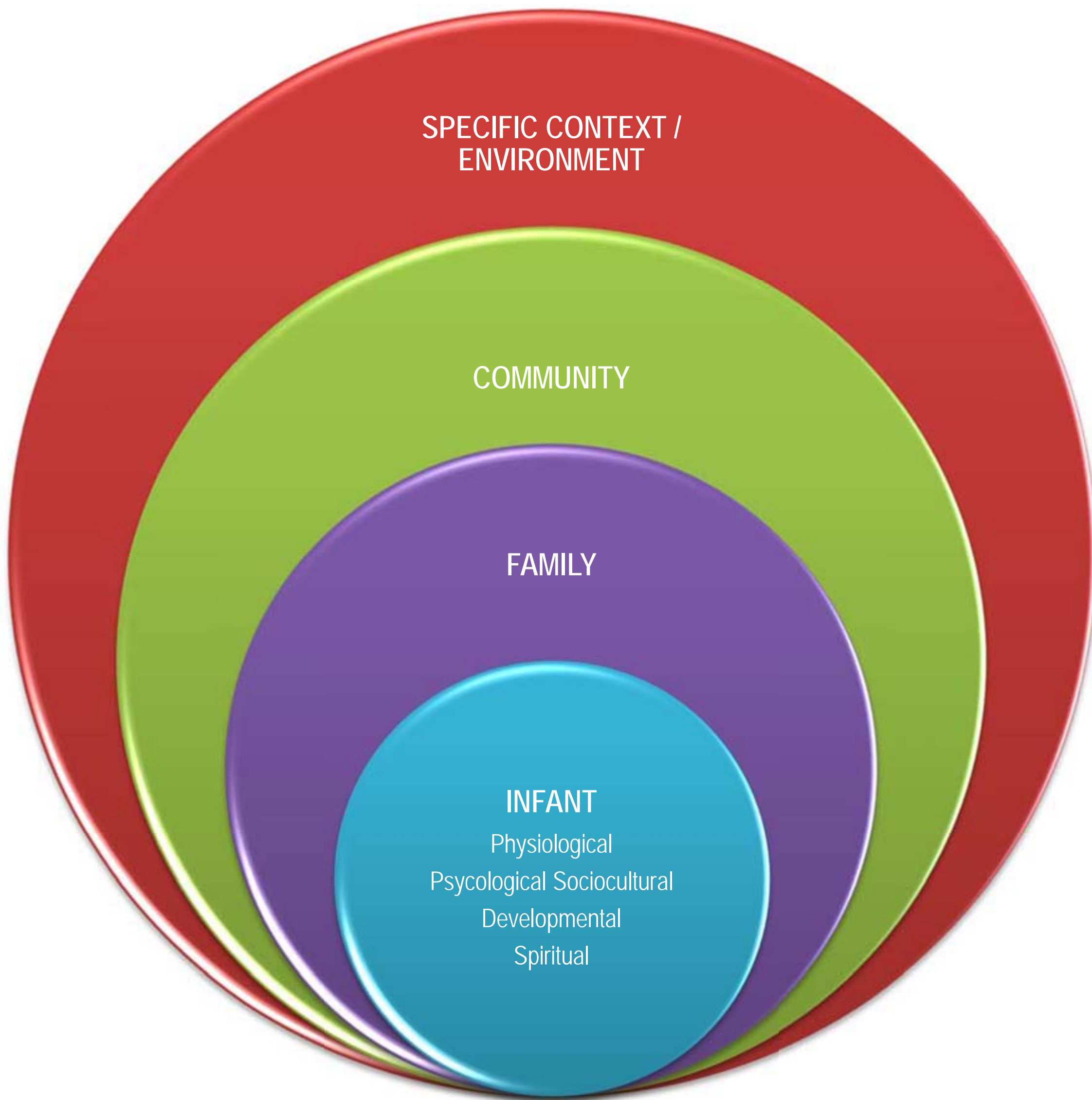
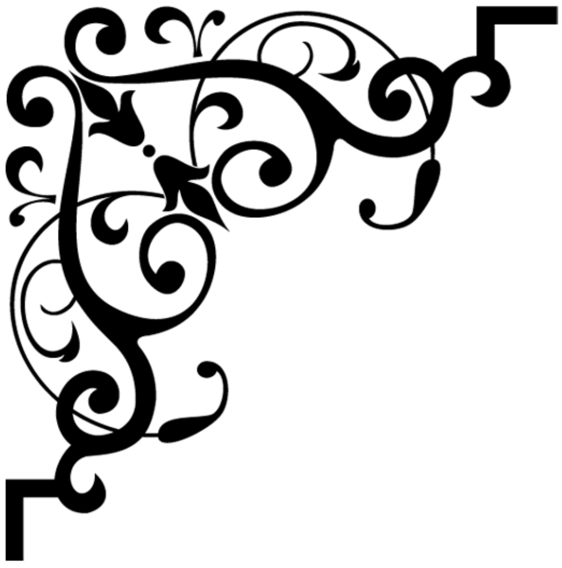


Figure 2-3: A visual presentation of the infant as a system within a system



CHAPTER 3: INFANT WELLBEING: A CONCEPT ANALYSIS

To be submitted to the Journal of Advanced Nursing

JOURNAL OF ADVANCED NURSING: AUTHOR GUIDELINES

Journal of Advanced Nursing

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Edited By: Editor-in-Chief: Roger Watson; Editors: Mark Hayter, Jane Noyes, Lin Perry, Rita Pickler & Brenda Roe

Impact Factor: 1.685

ISI Journal Citation Reports © Ranking: 2013: 18/105 (Nursing (Social Science)); 19/107 (Nursing (Science))

Online ISSN: 1365-2648

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Clearly identify the concept to be analysed. The focus of the analysis initially should be on a relatively abstract concept, and then can be narrowed to a specific health condition (for example, the initial focus could be on functional status, which then could be narrowed to functional status during childbearing or functional status following a stroke or functional status during treatment for cancer).

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Discuss the international relevance of the concept.

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Explain the need for the analysis of the concept. Note that it is not sufficient to indicate that the concept has never been analysed before because the concept may be so trivial that it does not warrant analysis. Identify and provide a brief summary of the concept analysis method used. Adhere to and cite the most recent version of the concept analysis method.

Data Sources
Identify the data bases searched, with inclusive dates of the literature searched for each database, keywords used, and languages included. Do not include when the literature actually was searched. Discuss retrieval of references and handling, including inclusion and exclusion criteria (i.e., how the analysis was conducted, including judgement of quality of papers included in the concept analysis).

RESULTS
Use subheadings appropriate to the concept analysis method used (e.g., attributes, definition, antecedents, consequences).

Identify the conceptual or theoretical context of each definition or discussion of the concept found in the literature.

DISCUSSION
Draw out the theoretical implications of the results. For example, discuss whether the definition of the concepts (including the attributes) reflects a middle-range descriptive theory, or whether the concept definition, along with any identified antecedents and consequences, reflects a middle-range explanatory theory.

Limitations
End with study limitations.

CONCLUSION
Identify real conclusions, not just a summary/repetition of the findings.

Identify recommendations for practice/research/education/management as appropriate, and consistent with limitations.

Include a recommendation for use of one or more nursing conceptual or theoretical frameworks that could guide future research about the concept.

References

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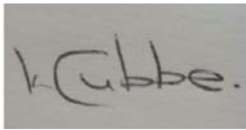

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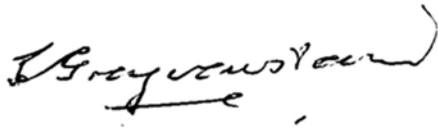

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Title page

Title: Infant wellbeing: a concept analysis

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Conflict of interest statement: No conflict of interest have been declared by the authors.

Funding statement: Funding for tuition fees in the form of bursaries was received from the North–West University, Potchefstroom Campus. The technical editing as well as review of the references were paid for out of the National Research Fund of Dr W. Lubbe.

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Author Contributions: All three the above mentioned and undersigned authors have sufficiently participated in the conception and design of this work, the data analysis and the writing of this article, and take public responsibility for it. They have reviewed the final version of the article and approve it for submission for possible publication.

INFANT WELLBEING: A CONCEPT ANALYSIS

ABSTRACT

Aim: The aim of this study was to report an analysis of the concept "infant wellbeing" and to develop a theoretical and operational definition of the concept by exploring and describing the essential attributes of infant wellbeing and determining the antecedents and consequences thereof.

Background: Infant wellbeing is a complex term and can be examined from a range of perspectives. Equally, the concept "infant wellbeing" is used incongruently in a variety of literature types and between different members of the multi-disciplinary team. Nevertheless, a theoretical and operational definition for infant wellbeing amongst professional nurses as well as other members of the multi-disciplinary team does not exist. Analysis of infant wellbeing is needed to develop standardized language amongst different members of the multi-professional team and to guide policy, practice and research.

Design: This study utilises a concept analysis design.

Data sources: Literature searches were done between 2012 and 2014 from electronic databases, search engines and internet resources as well as dictionaries, thesauri, encyclopaedia and text books. No limitation was applied to the timeframe of the studies in order to enhance rigour. However, only material in Afrikaans and English were included. From the initial search of 4 291 257 documents, 70 (N) resources were selected through the process of elimination according to the search strategy, and after reviewing these resources, 48 (n) were included in this study according to their relevancy to the research topic.

Method: Using Walker and Avant's (2014) method of concept analysis, this article identifies the definitions and uses of the concept "infant wellbeing", exposes its main attributes and introduces a model case representing the acknowledged attributes. The antecedents and consequences of the concept are discussed.

Results: This study provides a theoretical and operational definition for infant wellbeing as well as a model case of and empirical referents for infant wellbeing.

Conclusion: By utilizing the results of this study, it was found that the concept “infant wellbeing” is very challanging to define in a one sentence definition due to its multi-factorial complexity. This study did, however, emphasize how the characteristics and empirical indicators of infant wellbeing contribute to the overall holistic interpretation and idea of what infant wellbeing comprehends, but much further research is needed regarding this topic.

Keywords: infant wellbeing, concept analysis, nursing, multi-disciplinary team

INTRODUCTION

Infant care and the improvement of the quality of care of infants and the wellbeing of infants is an essential part of healthcare (Haider & Mukherjee, 2010; WHO & UNICEF, 2010:2; Wulczyn *et al*., 2005:3, 4, 7) where multi-disciplinary teams are well established (Nottle & Thompson, 1999:181; Wulczyn *et al*., 2005:3, 4; Zeanah, 1993:x). Furthermore, infant wellbeing is a complex and multi-faceted concept involving the physical, psychological and spiritual aspects of the infant. Aspects such as environmental, bio-social, economic, psychological, and the spiritual or medical state of the infant can influence and determine the infant's state of wellbeing. Yet research on the basic conceptual understanding of what the concept "infant wellbeing" represents, as well as a universal definition for infant wellbeing is missing from published literature.

BACKGROUND AND PROBLEM STATEMENT

According to the Countdown to 2015 Decade Report, 8.8 million children die per year before their fifth birthday, of which more than 40% die during their first four weeks of life (World Health Organisation [WHO] & United Nations Children's Fund [UNICEF], 2010:1). The global infant mortality rate in 2009 was estimated by the HDACC (Health Data Advisory and Co-ordination Committee) to be 40 per 1000 live births and the under-five mortality rate to be 56 per 1000. Additionally according to the National Perinatal Morbidity and Mortality Committee Report from 2008-2010, there are between 8000 and 9000 early neonatal deaths per year in South Africa alone (Nkwanyana, 2009:11).

In contrast to the fact that so many young lives are lost, funding for maternal and child health is increasing (WHO & UNICEF, 2010). Nevertheless in order to reduce infant and child mortality, skilled care is required. Similarly, although progress has been made in reducing deaths among children under five, the WHO and UNICEF (2010:7) declared that the opportunity to improve children's lives has never been greater. Yet more information and further research on infant and child health and wellbeing is needed and is critical to improve the quality of infant and child health services (WHO & UNICEF, 2010:2; Wulczyn *et al*., 2005:3, 4, 7).

A variety of research has been conducted within the field of infant – and child healthcare in order to advance infant wellbeing (Blake, 2008:224-226; Erickson, 1996:185-186,

188-192, 194-195; Feinberg & Kan, 2008:254, 261; Fletcher, 2009:100; Haider & Mukherjee, 2010; Kean, 1999:215; Liamputtong, 2009:210, 216, 218-221, 223-225; McFarland & Smith, 2011:467-472, 474-479, 483, 486-489; NANAP, 2011:9A; Smith *et al.*, 2012:454; Spence *et al.*, 2011:2623, 2625, 2628; Wulczyn *et al.*, 2005:4). The concept 'infant wellbeing' is found in numerous articles and literature from different health disciplines. This literature ranges from medicine in general, paediatrics and midwifery to less formal motherhood books and public magazines (Blake, 2008:224-226; Erickson, 1996:185-186, 188-192, 194-195; Feinberg & Kan, 2008:254, 261; Fletcher, 2009:100; Haider & Mukherjee, 2010; Kean, 1999:215; Liamputtong, 2009:210, 216, 218-221, 223-225; McFarland & Smith, 2011:467-472, 474-479, 483, 486-489**;** NANAP, 2011:9A**;** Smith *et al.*, 2012:454; Spence *et al.*, 2011:2623, 2625, 2628; Wulczyn *et al.*, 2005:4; Zeanah, 1993:74, 83-84, 485). In this literature the wellbeing of the infant, as well as the importance and the improvement thereof are acknowledged. However, consensus on the definition of the concept infant wellbeing is scarcely recorded.

When referring to child and infant healthcare services, various terms are used (Wulczyn *et al.*, 2005:3-5, 8). "Infancy" (Latin) refers to "unable to speak" (Steinberg *et al.*, 2011:5). Infancy is generally the period from birth until age one year, although the age period varies according to different literature (Neff & Spray, 1996:336; Olds *et al.*, 1988:1203; Kniesl & Trigoboff, 2009:77-78; Louw *et al.*, 2005:16; Stright, 2001:4, 184; Steinberg *et al.*, 2011:5; Verklan & Walden, 2004:102). Wellbeing on the other hand is defined as a state of being healthy, happy or prosperous (Heinemann English Dictionary, 1988:1248). Yet wellbeing is also a dynamic, age- and role-sensitive construct (Wulczyn *et al.*, 2005:12). Undeniably, Wulczyn *et al.* (2005:7-8) state that wellbeing is not a particularly well-defined outcome despite its common-sense appeal. Especially pertaining to the infant in which developmental change is rapid and contextual variables are integral (Zeanah, 1993:223), this concept is very complex and needs interpretation and acknowledgement (Wulczyn *et al.*, 2005:9). Broadly speaking, infant wellbeing refers to the optimal wellness and health of a baby.

In addition to the incongruence on the meaning of the term infant wellbeing, scrutiny of the literature also reveals that the term infant wellbeing is used by different members of the multi-disciplinary team (Blake, 2008:224-226; Erickson, 1996:185-186, 188-192, 194-195; Feinberg & Kan, 2008:254, 261; Fletcher, 2009:100; Haider & Mukherjee,

2010; Kean, 1999:215; Liamputtong, 2009:210, 216, 218-221, 223-225; McFarland & Smith, 2011:467-472, 474-479, 483, 486-489; NANAP, 2011:9A; Smith *et al.*, 2012:454; Spence *et al.*, 2011:2623, 2625, 2628; Wulczyn *et al.*, 2005:3, 4; Zeanah, 1993:x, 74, 83-84, 485). Within the nursing profession for example, infant wellbeing can be viewed from a holistic perspective involving the physical, emotional and spiritual aspects of wellbeing in order to facilitate healing (Kniesl & Trigoboff, 2009:69, 872). In addition nurses are also an integral part of healthcare services and play an important role in supporting infant health and wellbeing (NANAP, 2011:9A-10A).

From a social work perspective it can be seen as the system outcome of steps/actions taken to ensure safety and permanency by combining welfare services and specialised mental health services (Wulczyn *et al.*, 2005:x, 3-5). In psychology on the other hand, infant wellbeing can be approached from an infant mental health perspective which is the ability to develop physically, cognitively, and socially in a manner which allows infants/children to master the primary emotional tasks of early childhood without serious disruption caused by harmful life events (Osofsky & Fitzgerald, 2000:25).

On the whole, it is evident that many factors may influence infant wellbeing and infant wellbeing can be defined and approached from a multitude of perceptions and/or aspects (Wulczyn *et al.*, 2005:12). However, a theoretical and operational definition for infant wellbeing amongst professional nurses as well as other members of the multi-professional team is absent within the literature. This highlights the need to develop a clear and common understanding of the concept to help enhance validity of future research.

AIM AND OBJECTIVES

The aim of this study was to provide a theoretical and operational definition of the concept “infant wellbeing” that contributes to understanding its use within nursing and healthcare and provides an operational definition for future research in this context. This aim was achieved by firstly exploring and describing the essential attributes of infant wellbeing; then determining the antecedents and consequences of infant wellbeing and finally formulating a theoretical and operational definition(s) of infant wellbeing. These objectives are in line with the steps of concept analysis as described by Walker and Avant (2014:64); Aita and Snider (2003:224) and Baldwin and Rose (2009:782).

RESEARCH METHODS

The research design for this study is theory constructive, qualitative, explorative, descriptive and contextual. This design is suitable for the process followed in a concept analysis as described by Walker and Avant (2014). Data were collected from all available and applicable literature on infant wellbeing until new searches revealed no new information and data saturation was achieved.

The inclusion criteria for this study were all international and national literature on infant wellbeing. No limitation was applied to the timeframe of the studies in order to enhance rigour.

The following exclusion criteria were stipulated in the selection of national and international literature:

- articles in any other language than English or Afrikaans, as the language proficiency of the reviewer is a barrier;
- duplicated studies;
- editorials or letters to the editor; and
- studies referencing but not specific to defining or describing the concept infant wellbeing.

Multiple platforms were used, including dictionaries, encyclopaedias, thesauri, colleagues, electronic databases, catalogues, grey literature and manual searches, to ensure that both published and unpublished research were found and to make the search comprehensive. Electronic databases, search engines and internet resources used for this study included EbscoHost, Academic Search Premier, Africa-Wide Information, Cinahl, E-Journals, ERIC, Health Source: Nursing/Academic Ed, MasterFile Premier, Medline, PsycArticles, PsycInfo, SocINDEX, ScienceDirect, World Health Organization, Google, Google Scholar and Scopus. The search was broadened and made to be more comprehensive and inclusive by using a broad combination of keywords and combining different searches (see Annexure C).

The number of resources collected and reviewed was 70 (N) of which 45 (n) were finally included. All the including data were analysed by means of the steps followed in concept analysis which will be described next.

Concept analysis

Concept analysis is a formal, rigorous process by which an abstract concept is explored, clarified, validated, defined and differentiated from similar concepts to inform theory development and enhance communication (Walker & Avant, 2014:164; Xyrichis & Ream, 2007:232). The method of Walker and Avant (2014), which is a simplified modification of the classic 1963 Wilsonian method, was used as the framework for this concept analysis of infant wellbeing. The Walker and Avant approach involves eight sequential steps to be used iteratively namely: (i) selecting a concept; (ii) determining the aims or purpose of the analysis; (iii) identifying all the uses of the concept; (iv) determining the defining attributes; (v) identifying a model case; (vi) identifying additional cases; (vii) identifying the antecedents and consequences; and (viii) defining the empirical referents (Walker & Avant, 2014). The use of this framework provides both a connotative (theoretical) and denotative (operational) definition that reflects its theoretical base and, by its very nature, has construct validity (Walker & Avant, 2014:314). This method is also most commonly used in nursing (Hupcey & Penrod, 2005:202), is systematic (Brennan 1997:447-482; Xyrichis & Ream, 2008:233) and user-friendly. Therefore, the analysis of infant wellbeing follows this process.

Selecting a concept

As a professional nurse, the researcher is interested in promoting infant health and wellbeing. During a scoping literature review, it was found that the concept “infant wellbeing” was used immensely, but the meaning was hardly ever defined. Walker and Avant (2014:166) state that one should choose a concept in which you are interested, is associated with your work and/or has always “bothered” you. It is also advised to choose a concept that is important and useful to your research programme or to further theoretical developments in your area of interest (Walker & Avant, 2014:166).

Determining the aims or purpose of the analysis

As stated earlier, the purpose of this analysis was to develop a theoretical and operational definition for infant wellbeing in nursing (Walker & Avant, 2014:167).

Identifying all the uses of the concept

Infant wellbeing is a complex and multi-faceted concept involving the physical, psychological and spiritual aspects of the infant. The literature search yielded a vast amount of literature from different disciplines, however consensus on the definition of the concept infant wellbeing was scarcely recorded and the results were very repetitive in nature. In fact, the first 18 dictionaries, encyclopaedias and thesauri that were consulted rendered no results on a definition for infant wellbeing as searched on 13 August 2013 (Cambridge Dictionaries Online; Cambridge Advanced Learner's Dictionary; Dictionary.com; Longman Dictionary of Contemporary English; Merriam Webster Online Dictionary; OneLook Dictionary Search; Online Dictionary; Oxford Dictionaries Online; The free dictionary by Farflex dictionary/thesaurus; Your Dictionary.com; Wikipedia free encyclopaedia).
Table C-1 (see annexure C) presents a summary of the number of resources that were found and used or not used.

After the electronic search, manual searching followed by scanning the available electronic journals, going through and obtaining more data from the reference lists of relevant studies and content of journals, and reviewing abstracts and other data that were relevant to the research topic. Various descriptions of or links with the concept "infant wellbeing" were found and the common characteristics in these definitions were identified and listed. These identified characteristics were then organised using content analysis and condensed through a first and second reduction into units of meaning and construct idea categories.

Determining the defining attributes

Walker and Avant (2014:168) describe this step as the heart of the concept analysis. After all the definitions and uses of the concept "infant wellbeing" have been listed, all the characteristics were highlighted/ bolded and then all the attributes that are most frequently associated with the concept were listed and clustered together into groups (See annexure B). These characteristics allow the researcher/analyst the broadest insight into the concept. These groups of defining attributes are then used to describe theoretical definition of infant wellbeing. A theoretical definition describes the theoretical meaning of a concept. The demonstration of the defining characteristics is also one of the principle reasons for the model case (Walker & Avant, 2014:169).

Identifying the antecedents and consequences

This step is helpful in further refining the defining attributes (Walker & Avant, 2014: 173). The antecedents are the events or incidents that must occur prior to the occurrence of the concept (Walker & Avant, 2014:173) – that is the requirements that need to be present before the defining attributes of infant wellbeing can occur. The consequences conversely, are the outcomes of the concept, and are useful in determining often-neglected ideas, variables, or relationships that may offer profitable new research directions (Walker & Avant, 2014: 173-174). Furthermore, a defining attribute cannot be both an antecedent and a consequence at the same time (Walker & Avant, 2014: 173). Figure 3-1 presents a summary of grouped characteristics categorised into antecedents, processes and consequences.

Through the process of determining the defining attributes and identifying the antecedents and consequences of the concept, it became clear that infant wellbeing could be influenced and also involved the following concept/attribute groups: parental attachment, quality of care giving, relationships, environments, birth experience, emotional/psychological factors, socio-cultural factors, development, prenatal care, and education/ opportunities.

Defined then as a **theoretical definition**, infant wellbeing can be seen as the result of positive parental attachment, high quality of care giving towards the infant and a good relationship between the infant and the caregiver. Other factors such as prenatal care, the infant's birth experience and the development of the infant are also directly linked to infant wellbeing. Additionally the environment in which the infant is raised, including the emotional, psychological and socio-cultural factors and influences on this environment and the opportunities presented to the infant, also determine the infant's wellbeing.

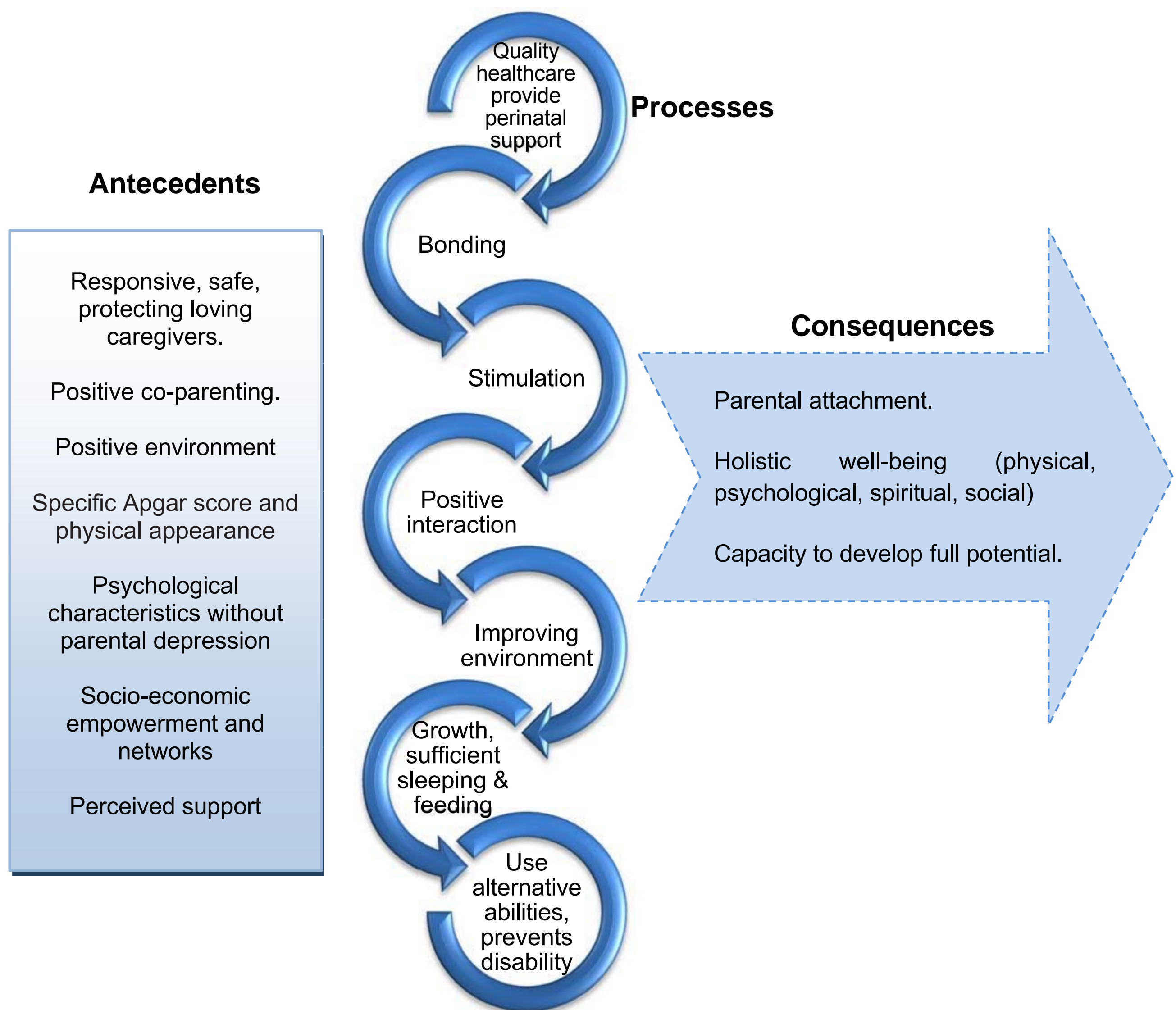

Figure 3-1: Grouped characteristics categorised into antecedents, processes and consequences

Identifying a model case

A model case is described as a paradigmatic example of the use of the concept that demonstrates all the defining attributes of the concept (Walker & Avant, 2014:169).

Model Case

Jane grew up in a home with **loving parents** and a lot of **support**. She went to university and completed her degree in education. In her second year post-graduation when Jane was 24 years old, she met the man of her dreams, Matthew, who was three years older than her and they got **married** two years later. Matthew works for an engineering company, earns a good salary and Mathew and Jane live in a **safe**

residential area in a **supportive community**. (The bolded words demonstrate the following characteristics: *perceived support; socio-economic empowerment and networks;* and *a positive environment*).

Two years after their marriage, the couple **excitingly** (*psychological characteristics without parental* depression) found out that they were expecting their first child. During the pregnancy, Jane went for **frequent ante-natal visits** (*perinatal support provided by quality healthcare*) and Matthew almost always **accompanied** (*perceived support*) her to the gynaecologist. Both Jane and Matthew couldn't wait to meet this new little person and spend hours **talking to him**, **reading stories** and **singing** (*responsive, safe, protecting, loving caregivers, stimulation; positive interaction*) to him while he was still in utero. At 39 weeks gestation, a **healthy baby** boy, Joshua, was born via a normal vaginal delivery with an **Apgar score of 10/10** and **all ten fingers** and **all ten toes**. He had **no gross detectable abnormalities** and a physical examination confirmed a **healthy, normal baby** that was **hemodynamically stable** with **good reflexes** (*specific Apgar score and physical appearance*). Joshua's **parents** were overwhelmed and **so happy** to finally meet him in person (*positive interaction*).

Both Jane and Mathew **loved caring** for and **bonding** (*positive co-parenting; responsive, safe, protecting, loving caregivers; bonding*) with Joshua, while still **making time for each other and their marriage** (*positive co-parenting; positive environment; perceived support; psychological characteristics without parental depression*). As time went by, they **got to know Joshua's rhythms** and **reactions** better and their own **responses** grew more **finely tuned** (*responsive, safe, protecting, loving caregivers; positive interaction; improving environment*). They were **sensitive** and **tuned in** to receive his signals and **responded** to them **promptly** and **appropriately** (*responsive, safe, protecting, loving caregivers; positive co-parenting; parental attachment)*. They always tried to **see things from Joshua's point of view** (*positive interaction*). Although it nearly always seemed that Mathew and Jane gave Joshua everything he wanted, they **made their responses contingent on his wishes** (*positive interaction*). They **respected** Joshua and **spoke** to him and to each other in a **respectful manner** (*bonding; positive interaction; positive environment*). Mathew and Jane were always **responsive**, **enthusiastic**, **communicative** and **generous with their time** and **emotions** towards Joshua (*responsive, safe, protecting, loving caregivers; positive interaction; parental attachment; holistic wellbeing*). Despite this, they were strict as well

and **disciplined** Joshua **moderately**, **appropriately** and **consistently** (*responsive, safe, protecting, loving caregivers; positive interaction; parental attachment; stimulation; improving environment*).

Joshua was **frequently stimulated** through **play** and **relationship** which helped him to achieve his **age-related developmental goals** (*stimulation; positive interaction; use alternative abilities and prevent disability; capacity to develop full potential*), especially important milestones which develop in the first year, such as hearing, talking, receptive language, sitting, standing and other gross motor developments. Additionally all Joshua's **basic needs** in terms of **nutrition**, **protection** and **sufficient sleep** were also fulfilled and he was **raised** in a clean and **safe environment** by **responsive**, **protecting** and **loving caregivers** (*holistic wellbeing; growth, sufficient sleeping and feeding; improving environment; positive environment; responsive, safe, protecting, loving caregivers; capacity to develop full potential*).

This model case represents an ideal example of infant wellbeing and includes all the defining attributes.

Defining the empirical referents

The empirical referents are the actual phenomena that demonstrate the occurrence/existence of the concept and describe what the presence of this concept looks like. They are also the means by which one can recognize or measure the defining characteristics or attributes (Walker & Avant, 2014:174). Empirical referents are extremely useful in instrument development and also contribute to both the content and construct validity of any new instrument (Walker & Avant, 2014: 174-175). Instrument development is, however, not in the scope of this study. By defining the empirical referents, the clinician will be able to determine the level of wellbeing in the infant. The empirical indicators were determined from the ordering and refining of the characteristics of infant wellbeing as shown in Table 3-3.

Table 3-3. Empirical referents of infant wellbeing

Elements of theoretical definition	Empirical referents
Parental attachment	The parents or care givers bond well with the infant. They make good eye contact with the infant, speak to the infant in a loving and respectful manner, respond appropriately to the infant's cues and are fully aware of their infant's emotions, needs and development.
Quality of care giving	The pre- and post-natal care received is efficient in the fact that it is the right care at the right time by the right person. There is positive co-parenting and support and the parents or care givers are responsive, protecting and caring towards the infant.
Relationships	Parents or caregivers have a good relationship with the infant and there is positive interaction between all members involved. They speak to each other in a respectful manner, have control over their emotions and take one another's feelings into consideration. The verbal and non-verbal interaction and response from both caregivers and the infant reflect acceptance and love. The infant feels secure and loved through the relationship with his/her caregivers.
Environments	The infant is raised in a safe, protecting and positive environment and provision is made for sufficient growth, sleep and nutrition. The environment is free of any hazardous particles in the air (such as smoke or toxic gasses) and obstacles and equipment that can harm the baby. There is good sanitation, a clean environment without any pests and/or continuous foul odours and there is no continuing loud noise that can interrupt the baby's sleep or cause stress in the infant.
Birth experience	The infant has a positive birth experience without any injuries or trauma and has a good Apgar score after 5-10minutes. The mother will also be able to express the experience as positive, and bonding between the mother and the infant is quickly initiated after birth.
Emotional/psychological	The parents or care givers are psychologically stable without

factors	parental depression. They are able to honestly express happy emotions, they perceive support and are able to cope with their emotions in everyday life.
Socio-cultural factors	Infants are raised by care givers who are able to provide in their basic needs. The infant grows up in a supportive socio-cultural context. Even if the caregivers of the infant do not have big salaries and live in wealth and riches (this is not a prerequisite for infant wellbeing, but only an example), they should still be able to provide in the infant's needs and the cultural traditions should not pose any harm or prohibit development in the infant.
Development	The infant develops according to his/her age related milestones for instance the infant can lift his/her head to 90° between 3-6 months, sit by him/herself between 6-9 months, start using some words between 9-12 months, etc. Parents stimulate their infants in a positive manner by encouraging development, giving praise to new achieved developmental goals such as talking, sitting, walking, etc. and do not scold infants or verbally brake them down for not being able to do something (such as say "Mamma" or sit by him/herself) immediately.
Prenatal care	The mother receives quality pre- and postnatal healthcare as well as sufficient support. This means that the care the mother receives is efficient, appropriate and given by competent healthcare workers. The mother will also be able to express feelings of perceived support without any extraordinary stress that prevents her from coping normally.
Opportunities	Opportunities are presented to the infant to stimulate learning and development. This can be seen in the fact that parents or caregivers make enthusiastic and determined efforts to motivate and discipline infants and introduce learning even in very early infancy. Parents speak to their infant in a respectful manner, sing to them, play with them and stimulate learning by for example repeating words such as "Say mamma…", handing objects to them and taking it back again, doing baby exercises with them, etc.

RESULTS AND DISCUSSION

The results of this concept analysis presented an operational definition as product. It describes the reference or operational meaning of the concept – it is the set of phenomena, entities, events, characteristics, behaviours or processes which exist in the presence of the concept – and is used to translate the theoretical concepts into observable variables and thus helps in improving the understanding of the concept (Walker & Avant, 2014:164, 174).

The operational definition of infant wellbeing was synthesized from the empirical referents and is defined as follows. *Infant wellbeing is a **complex** concept that extends beyond a state of just being **healthy**, **happy** and **prosperous**. It does however involve an **outcome** of **optimal health** and **wellness** of the baby. When viewed from a **holistic** and **integrated** approach, infant wellbeing refers to the **quality of life** of the infant experienced **physically**, **psychologically** and **spiritually**. **Prenatal factors** and -**care**, the **birth experience** and **outcomes thereof** and the **health** and **wellbeing** of the **people caring for the infant** influence the wellbeing of the infant as well.* For example an infant is born to a mother who used a lot of drugs during her pregnancy, did not have any support and gave birth by herself at home – the wellbeing of this infant will be significantly compromised.

*Moreover the infant's wellbeing is also affected by the **relationship** between the infant and his/her **caregivers** and the **measure of attachment**. The brightest infants seem to come from parents who are **responsive**, **enthusiastic**, **communicative** and **generous with their time** and **emotions** towards their infants.*

*Finally, the **environment** in which the infant is raised, **socio-cultural influences** and the **opportunities** for **learning**, **growth** and **development** presented to the infant, all contribute to the infant's wellbeing.*

It is impossible to define infant wellbeing in a one sentence definition due to its multi-factorial complexity. This study did, however, emphasize how the characteristics and empirical indicators of infant wellbeing contribute to the overall holistic interpretation and idea of what infant wellbeing comprehends, but much further research is needed with regards to understand this concept fully. The concept of infant wellbeing can also not be

generalised to a standard context as there are too many factors that have an influence on the wellbeing of the infant.

In short and supported by relevant literature, infant wellbeing is an extremely complex and multi-facet concept (Wulczyn *et al.*, 2005:7-9) holistically involving the physical, psychological and spiritual aspects of the infant (Aita & Snider, 2003:225; Caldeira & Hall, 2012:1069). The quality of care and support received pre- and postnatally greatly influences the wellbeing of the infant (Baker & McGrath, 2010:4; Erickson, 1996:186-188 Verny & Kelly, 1981:169,173). The birth experience and outcomes also has a tremendous impact on the infant's wellbeing (Reyna & Pickler, 2009:475; Verny & Kelly, 1981:96-116). Equal to this experience, is the influence of the environment and the people within this environment with whom the infant interacts both socially and culturally (Hack *et al.*, 2007:639; McFarland & Smith, 2010:467-488; Roach, 2003:531). Finally, the relationship, attachment and bond between the infant and his/her caregivers ultimately seems to be one of the most important and vital influences on the infant's sense of wellbeing (Atzil *et al.*, 2011:2603; Baker & McGrath, 2011:2-5; Erickson, 1996:186-188, 194-195; Feinberg & Kan, 2008:253; Feldman, 2006:175; Fletcher, 2009:97; Johnson, 2013:17, 20; NAPNAP, 2011:9A-10A; Neff & Spray, 1996:343; Osofsky & Fitzgerald, 2000:4; Pickler, 2009:468; Reyna & Pickler, 2009:475).

CONCLUSION

Numerous studies report on factors influencing infant wellbeing and on ways to improve infant wellbeing. However, there is a lack of clarity regarding this definition when utilized between different members of the multi-disciplinary team. The proposed definition developed in this study offers a broad theoretical understanding of what infant wellbeing represents, and can help reconcile discrepancies between how this concept is understood by nurses, doctors and all other members of the multi-disciplinary team.

In addition due to a professional focus on infant wellbeing – its antecedents, attributes and consequences – nurses and other members of the multi-disciplinary team are in a unique position to serve as leaders and role models in promoting infant wellbeing. Through acquisition of knowledge about the aspects of infant wellbeing, as well as how the infant functions as a system and within a system, nurses can design and implement strategies for behavioural and environmental changes and thereby contribute to the

improvement and maintenance of infant wellbeing. Additionally in the process, a noteworthy contribution to the development of nursing science will be accomplished.

RECOMMENDATIONS

The newly clarified definition of infant wellbeing will potentially increase and facilitate communication in academic as well as clinical settings regarding what infant wellbeing is and how it can be measured or evaluated.

Furthermore, healthcare researchers can use this definition to improve clarity in research, while members of the multi-disciplinary team who have infants in their care, can use the identified antecedents, attributes and consequences to evaluate their practice as well as the wellbeing of the infants they care for. This analysis may also give guidance to nurses and other members of the multi-disciplinary team in developing ways of maintaining and improve the wellbeing of infants. Additionally, this analysis could offer a theoretical frame to guide future work on this concept. Finally, it is evident that further research on this topic is needed to determine the meaning of the concept across different contexts and disciplines in order to uncover optimal ways of fostering infant wellbeing and help improve its existence.

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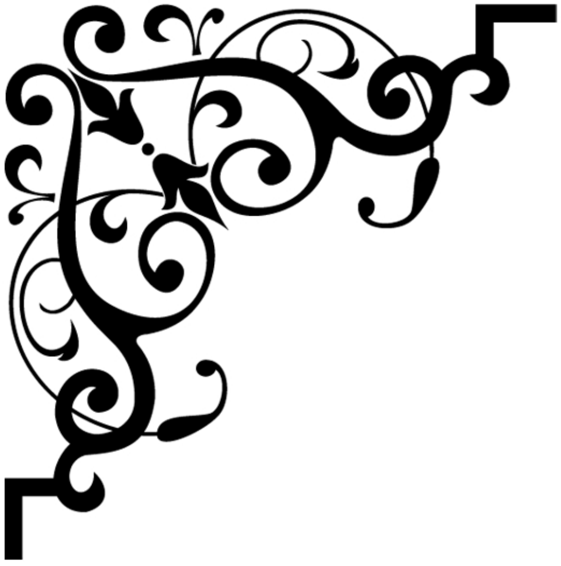

CHAPTER 4: EVALUATION OF THE RESEARCH, CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS

4.1 INTRODUCTION

In this chapter the study is evaluated, final conclusions are made, limitations are identified and recommendations for practice, education and further research are made.

4.2 EVALUATION OF THE RESEARCH

The aim of this study was to develop a theoretical and operational definition of the concept “infant wellbeing” by exploring and describing the essential attributes of infant wellbeing, and determining the antecedents and consequences of infant wellbeing. The chosen method of concept analysis was appropriate in reaching this aim.

Through the process of concept analysis, all applicable literature regarding infant wellbeing was reviewed and all the characteristics of infant wellbeing were listed, organised and reduced to identify the defining attributes and different categories of infant wellbeing. The essential attributes of infant wellbeing were explored and described and various antecedents for and consequences of infant wellbeing were then determined. All these defining characteristics were then used to clarify the meaning of infant wellbeing through the synthesis of a theoretical definition. A model case was described to confirm the defining characteristics of the concept.

Furthermore, empirical referents of the concept were defined in order to determine the existence of infant wellbeing in the real world and in an attempt to demonstrate what infant wellbeing looks like. These referents were described and their interconnectedness with infant wellbeing delineated. Finally all these steps permitted the formulation of an operational definition of infant wellbeing.

4.3 CONCLUSIONS

Clarification of the concept "infant wellbeing" can assist members of the multi-disciplinary team in developing new ways of implementing and improving the wellbeing of infants by firstly setting an example of how to facilitate infant wellbeing and secondly by guiding parents, care-givers and other members of the community (through health education for example) in ways of ensuring that optimal wellbeing of infants is achieved. However, through this analysis and by exploring all the identified antecedents, attributes and consequences of infant wellbeing, the researcher realized that it is an extremely

complex and multi-faceted concept and much more research is needed in order to fully understand and capture the true meaning of what it entails.

4.4 LIMITATIONS

Firstly and most importantly, the fact that this is the first study done attempting to define the concept infant wellbeing, presented numerous difficulties. Available sources on infant wellbeing were limited, and the sources that were available made use of uncharacteristic, ambiguous, vague and mingling definitions of various concepts to define infant wellbeing. This, however, emphasizes the need for this study. Additionally, the fact that only resources published in either English or Afrikaans were used, limits this study in examining all relevant literature on infant wellbeing.

4.5 RECOMMENDATIONS

The results of any concept analysis can be utilized in several ways. Similarly with regards to infant wellbeing, the product of the analysis has various potentials. Firstly by providing an operational definition with a clear theoretical base, the concept is refined and has new meaning in theory, education, research and practice. This provides an understanding of the underlying attributes of the concept which assists in the development of nursing and healthcare language and facilitates communication in academic as well as in clinical settings. Furthermore, the results of the analysis can be used to facilitate instrument development, by constructing items that would reflect the defining attributes of infant wellbeing, based on the empirical referents.

Secondly the analysis can also be used to propose a nursing diagnose, intervention and /or outcome name, by clinically validating the defining attributes of infant wellbeing. By using the empirical referents for the defining attributes and assessing infants for the presence or absence of the attributes of wellbeing, potential diagnosis, intervention activities and outcome criteria could be substantiated which could ultimately improve the quality of life of infants.

Thirdly by linking this concept with other relevant or applicable concepts, useful theories for nursing, education and research, or practice could be provided.

4.6 SUMMARY

In this final chapter, the study was evaluated, final conclusions and recommendations were made and the limitations of the study were stated. The aim of this study was to define infant wellbeing and through the methods and process of concept analysis, exploring and describing the essential attributes of infant wellbeing and determining the antecedents and consequences, as well as empirical referents of infant wellbeing, the objectives stated in this study were achieved and the overall aim of the study was successfully accomplished.

4.7 PERSONAL REFLECTIONS BY THE RESEARCHER

This study had a powerful impact on the researcher, not only creating insight into the concept of infant well-being, but emphasising the awareness that even though there are numerous factors that play a role in infant well-being, one of the overwhelming influences found in the literature was the relationship between the infant and his/her caregivers, bonding and parent-infant synchrony. Notwithstanding the fact that other aspects such as the environment and efficient provision of needs are important aspects influencing the well-being of the infant, it was found that there is a very big connotation between the amount of meaningful time spent with an infant and the infant's intellectual and emotional growth. In other words and interestingly enough, one could say that some of the usual indicators of an infant's outcome and consequent well-being such as the parent's income, educational level and social standing, are far less important than the quality of mothering and parenting the infant receives. Importantly this notion correlates with the researcher's firm belief in the Word of God which states in 1 Corinthians 13 that love abides all things and even though we have all the knowledge and do all the right things, but we do not have love, then our acts are meaningless (Bybel, 1933).

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ANNEXURE A: ALL AVAILABLE DEFINITIONS OF INFANT WELL-BEING

Table A 1: Summary of dictionaries explored

DICTIONARIES			
	Key words used in search		
Source	**"infant wellbeing"**	**"infant well being"**	**"infant well-being"**
Cambridge Dictionaries Online	No results found	No results found	No results found
Cambridge Advanced Learner's Dictionary	No results found	No results found	No results found
Dictionary.com	No results found	No results found	No results found
Longman Dictionary of Contemporary English)	No results found	No results found	No results found
Merriam Webster Online Dictionary	No results found	No results found	No results found
OneLook Dictionary Search	No results found	No results found	No results found
Online Dictionary	No results found	No results found	No results found
Oxford Dictionaries Online	No results found	No results found	No results found
The free dictionary by Farflex dictionary/thesaurus	No results found	No results found	No results found
Your Dictionary.com	No results found	No results found	No results found

Table A 2: Summary of thesauri explored

THESAURI			
Source	**"infant wellbeing"**	**"infant well being"**	**"infant well-being"**
Dictionary.com	No results found	No results found	No results found
Merriam Webster Online Dictionary	No results found	No results found	No results found
Online Dictionary	No results found	No results found	No results found
The free dictionary by Farflex dictionary/thesaurus	No results found	No results found	No results found
Oxford Thesaurus	No results found	No results found	No results found

Table A 3: Summary of encyclopaedia explored

ENCYCLOPEDIAE			
Source	**"infant wellbeing"**	**"infant well being"**	**"infant well-being"**
Mirriam Webster Online Dictionary	No results found	No results found	No results found
Online Dictionary	No results found	No results found	No results found
The free dictionary by Farflex	No results found	No results found	No results found
Wikipedia free encyclopedia	No results found	No results found	No results found

Table A 4: Summary of textbook uses of the concept "infant wellbeing"

NURSING TEXTBOOKS	
Source	**Definition**
Neff & Spray, 1996:343	*"**Mother-infant attachment** is the main influence on an infant's sense of wellbeing; however **father-infant attachment** is also important."*
NON-NURSING TEXTBOOKS (PSYCHOLOGY, SOCIAL WORK, OCCUPATIONAL HEALTH)	
Source	**Definition**
Osofsky & Fitzgerald, 2000:4	*"Infant mental health focuses on the social and emotional wellbeing of infants and their **caregivers** and the various **contexts** within which **care giving** takes place. Infant mental health, therefore, focuses on **relationships**; **infant development** is conceptualized as always embedded within emergent, active systems of **relationships**."*
Zeanah, 1993:83	*"...infants' and toddlers' day-in, day-out **environmental experiences** most strongly predict later wellbeing and competence."*
Zeanah, 1993:361	*"...research provided convergent support for the idea of **improving children's environments** as a means to improve their lives."*
Zeanah, 1993:480	*"A child's **natural development** does not unfold in isolation, but is shaped within the context of the **family, child care, community** and **society** at large."*

Table A 5: Summary of journal article uses of the concept "infant wellbeing"

ARTICLES	
Source	**Definition**
Aita & Snider, 2003:225	"...*the wellbeing of the infant...is not solely related to the **physical aspects** but to the **psychological** and **social aspects of** their **development** as well.*"

ARTICLES	
Source	**Definition**
Atzil *et al.*, 2001:2603	"*Human studies have similarly shown that **maternal synchrony** - the coordination of maternal behavior with infant signals - and **intrusiveness** - the excessive expression of maternal behaviour - describe distinct and stable maternal styles that bear long-term consequences for **infant wellbeing**.*"
Baker & McGrath, 2011:2	"***Maternal–infant synchrony** is vital to the development of the **maternal–infant relationship** and ... the **growth** and **development** of the infant.*"
Baker & McGrath, 2011:4	"*Characteristics that contribute to maternal–infant synchrony include **maternal sensitivity**, r**esponsiveness**, **emotional state**, including **stress** and **depression**, and **support** from significant others.*"
Baker & McGrath, 2011:4	"*The infant contributes to maternal–infant synchrony through temperament, wellbeing such as **prematurity** and maturation of **biological rhythms** such as **sleep-wake cycles**.*"
Baker & McGrath, 2011:4	"***Maternal sensitivity** ... and ... **maternal responsiveness** ... refers to significantly different behaviours that contribute to **maternal–infant synchrony**.*"
Baker & McGrath, 2011:4	"***Sensitivity** and **responsiveness** contribute to early infant **attention skills**, early **vocal reactivity** and infant **perceptual sensitivity**; these are all factors contributing to long-term **growth** and **development**.*"
Baker & McGrath, 2011:4	"*Infant wellbeing is a significant factor in the **synchronous relationship** as demonstrated by premature infants, who are often more irritable and less responsive due to immature **neurological development**...*"
Baker & McGrath,	"*Infant outcomes related to a **synchronous relationship***

ARTICLES	
Source	**Definition**
2011:5	*include **development** of **language**, **self-regulation**, **attachment** and the ability to develop future **social relationships***"
Blake, 2008:224	"*The midwife performs an appraisal of the newborn's health and wellbeing. This consists of recording the **Apgar score**, **head circumference** (including **evaluation of the skull**) and birth **weight**, as well as examining the newborn's **physical appearance**.*"
Erickson, 1996:186	"...***teenage mothers'*** *perception of being supported influences her sense of worth, self-concept, and parental competence, as well as her ability to handle stress and anxiety. These factors, in turn, affect her ability to **attach** to her infant in ways that facilitate infant wellbeing."*
Erickson, 1996:186	*"...**maternal attachment** is prerequisite to the mothers' ability to meet her infant's needs for nurturing and to facilitate her infant's **growth** and **development**..."*
Erickson, 1996:186	"...*unresolved **identity issues** can result in confusion about the mother's role in the mother-infant relationship. Subsequently, the health and wellbeing of the adolescent mother and her infant maybe affected.*"
Erickson, 1996:187-188	"...***adolescents' perceptions of support*** *affect their wellbeing. This in turn may influence their ability to assume the parental role and **attach** to their infants, and, herefore, may affect the infants' wellbeing.*"
Erickson, 1996:188	"...***maternal perceived support*** *may be a prerequisite for healthy **maternal attachment** and ultimately infant wellbeing.*"
Erickson, 1996:189-190	"*Babies born to **adolescent mothers** have been found to be at high risk for multiple physical and psychosocial*

ARTICLES	
Source	**Definition**
	problems when compared to infants born to older mothers..."
Erickson, 1996:190	"*...an infant's cognitive and social development is affected by the* ***mother's age****,* ***education level, socioeconomic status****, and* ***home environment****,* ***low birthweight****, and* ***mother-infant interactions****...*"
Erickson, 1996:190	"*...****maternal social network*** *has been shown to be correlated to infant wellbeing...*"
Erickson, 1996:190	"*...infant* ***weight*** *and* ***cognitive development*** *have been widely used as indicators of* ***infant health****.*"
Erickson, 1996:194	"*If* ***bonding*** *is a prerequisite for* ***attachment****, and bonding potentially begins prenatally, then adolescent mothers need to receive and perceive* ***prenatal support*** *in order to facilitate their sense of self-worth, competence, and personal growth. This, in turn, will help them achieve a healthy, growth-airected attachment to their babies. Clearly, perceived support must continue as adolescents assume responsibility for the care of their infants. Adolescent mothers themselves must be nurtured in order for them to be able to nurture and care for their infants. Without* ***nurturance****, they may develop deficit-type relationships with their infants and therefore jeopardize the infants' wellbeing.*"
Erickson, 1996:195	"*Only if adolescent mothers are cared for and assisted in their own development can they in turn focus on meeting the needs of their infants.*"
Erickson, 1996:195	"*In order to plan optimal interventions to advocate and facilitate mother-infant relationships and infant wellbeing, a better understanding of the correlates and predictors of these relationships must be achieved; (b) these*

ARTICLES	
Source	**Definition**
	relationships need to be interpreted within the context of the philosophy of nursing; (c) nursing interventions can be implemented prenatally to facilitate maternal needs satisfaction and healing, which are necessary for positive postnatal mother-infant ***relationships****; (d) nursing interventions that impact positively on parent-child interactions may be positively related to infant wellbeing; and (e) facilitation of maternal competence,* ***parenting skills****, and adjustment to the mothering role will positively affect maternal feelings toward the infant, which in turn will have a positive effect on parent-infant interactions*."
Feinberg & Kan, 2008:253	"...***coparenting*** *is a potentially malleable intervention target that may influence* ***family relationships*** *as well as parent and child wellbeing*."
Feinberg & Kan, 2008:254	"...***positive coparenting*** *and...improvements in* ***parental adjustment*** *and* ***parent– child relations****—would affect indices of infant wellbeing*."
Feinberg & Kan, 2008:254	"...*infant* ***sleep*** *dysregulation may have negative effects on both children's and parents' wellbeing*..."
Feinberg & Kan, 2008:260	"...***maternal depression and anxiety*** *have been shown to be related to disrupted* ***parent– child relations*** *and to negative child outcomes*..."
Feldman, 2006:175	"*The centrality of* ***parent–infant synchrony*** *for the* ***development*** *of the infant's* ***cognitive****,* ***social– emotional****, and* ***selfregulatory*** *capacities has been well documented*."
Fletcher, 2009:95	"***Maternal depression*** *is recognized as posing a significant risk to the* ***healthy development*** *of infants*."
Fletcher, 2009:96	"***Depressed mothers'****...insensitivity to infant cues and inability to provide effective* ***emotional regulation****, has*

ARTICLES	
Source	**Definition**
	been suggested as an important mechanism in the development of insecure or disorganized ***infant–mother attachment*** *and subsequent reduced social competence and increased behavior disorders*..."
Fletcher, 2009:97	"...*treatments targeting the* ***mother–infant relationship*** *showed an improvement in* ***attachment*** *security and* ***infant cognitive functioning***..."
Fletcher, 2009:97	"***Fathers' depression*** *also has been found to impact on child* ***development*** *both directly and by further reducing children's* ***behavioral competence*** *and* ***emotional wellbeing*** *when the mother is depressed*..."
Hack *et al.*, 2007:639	"*The many factors that may affect health status and wellbeing include* ***quality of health care***, ***cultural*** *and* ***sociodemographic factors***, ***educational enrichment*** *and* ***vocational training***, ***individual personality characteristics***, *and the ability to compensate by using* ***aids to prevent disability*** *or* ***taking advantage of alternative abilities***."
Johnson, 2013:17	"*The* ***quality of the maternal-infant relationship*** *has a significant influence on maternal mental health and infant wellbeing,* ***development***, *and* ***adaptation throughout life.***"
Johnson, 2013:17, 20	"*Poor* ***interactions*** *affect the child's* ***cognitive*** *and* ***socio-emotional development***, ***physical health***, *and* ***personal relationships***."
Johnson, 2013:18	"***Mothers*** *who are* ***depressed*** *or experiencing* ***stress*** *and* ***anxiety*** *are* ***less responsive*** *to infant cues, which* ***negatively influences child development***."
Johnson, 2013:21	"***Close physical contact*** *and* ***lower stress levels*** *allow the mother to become in tuned with her infant's physical*

ARTICLES	
Source	**Definition**
	and emotional needs, significantly contributing to ***positive parenting*** *and* ***physiological****,* ***cognitive****, and* ***social-emotional growth*** *of the child*."
McFarland & Smith, 2010:467	"***Segregation*** *was found to have both negative and positive relationships with infant wellbeing*."
McFarland & Smith, 2010:469	"***Ethnic enclaves*** *provide* ***educational and employment opportunities*** *as well as* ***social and emotional support*** *that is found to be positively associated with infant wellbeing...*"
McFarland & Smith, 2010:470	"*The* ***lack of social, emotional, and organizational resources*** *as well as* ***exposure to social disorder and violence*** *may produce a* ***noxious environment*** *that has detrimental effects on health and wellbeing*."
McFarland & Smith, 2010:471	"***Residential segregation*** *may have a negative association with infant wellbeing for the...reasons...namely the concentration of* ***poverty*** *and* ***lack of community resources***."
McFarland & Smith, 2010:488	"...***segregation*** *can have either a positive or negative relationship with infant wellbeing. The influence of segregation, either positive or negative, will differ by dimension of segregation, measure of infant wellbeing, and race. There are several potential explanations as to why specific types of segregation can produce positive infant wellbeing outcomes. High levels of* ***clustering*** *are shown to increase health through* ***political empowerment*** *among blacks. High levels of* ***isolation*** *may lead to increased and more dense* ***social networks*** *that facilitate in the process of acquiring* ***care****, maintaining healthy* ***eating habits****, and avoiding extremely* ***stressful situations*** *during a* ***women's pregnancy****. ...increased segregation can result in*

ARTICLES	
Source	**Definition**
	increased health outcomes."
NAPNAP, 2011:9A	"*The goal for **infant mental health** is the **optimal growth** and **social-emotional**, **behavioral**, and **cognitive development** of the infant in the context of the unfolding **relationship** between infant and parent*..."
NAPNAP, 2011:9A	"...*the ability of our youngest children to thrive depends on the quality and continuity of their **relationships** with **responsive, loving caregivers***..."
NAPNAP, 2011:9A	"*The nurturing quality of infants' **environments** allows them to become **emotionally** and **physically healthy**, prepares them for learning, and enables them to **develop** to their **full potential***..."
NAPNAP, 2011:9A	"*It is through **nurturing caregivers** that children experience **parental attachment**, **positive parent-child relationships**, and encouragement to develop to the best of their abilities*."
NAPNAP, 2011:10A	"...*the quality of the **relationship** between infant and caregiver...enables trust...that fuels **attachment** to a **safe and protecting caregiver**, which supports infant exploration and learning*..."
Pickler, 2009: 468	"***Mother-infant attachment** has long been thought necessary for almost all aspects of infant wellbeing*."
Reyna & Pickler, 2009:474	"*It is suggested that **maternal behavior** serves a regulatory function for an infant's **biological and emotional organization***."
Reyna & Pickler, 2009:475	"*Infant factors such as **prematurity** and the effects of the **intensive care environment** can impact the infant's **behavior** and influence the dynamics of the **mother-infant dyad***..."

ARTICLES	
Source	**Definition**
Reyna & Pickler, 2009:475	"*The combined effect of maternal and preterm infant characteristics such as **severity of illness**, **infant irritability** and **maternal stress**, **education** and **race** can influence the **quality of the mother-infant interaction**.*"
Reyna & Pickler, 2009:475	"*There is growing evidence that **adverse events around birth** can influence **brain development** and effect outcomes.*"
Reyna & Pickler, 2009:475	"*The consequence of **insecure attachment** and the resulting **stress response** may have implications for **future health and wellbeing**.*"
Roach, 2003/2004:531	"*...**environment** at the time of a newborn's birth and in the days following can greatly impact the health, development and wellbeing of the baby.*"
Roach, 2003/2004:533	"*To promote optimal brain development, healing, physical development, medical stability, growth and wellbeing, neonates need minimal **environmental stimulation** in the immediate postnatal days to reduce the potential for unwanted **stress responses**...*"
Saigal & Tyson, 2008:60	"...**quality of life refers** to the notion of **holistic wellbeing**..."
Spence *et al.*, 2011:2623, 2625	"*...to investigate infant wellbeing as measured by **feeding** and **sleeping**...*"
Taylor & Brown, 1988:197	"*The ability to be **happy** or, at least, **relatively contented**, has been one central criterion of mental health and wellbeing...*"

ANNEXURE B: CHARACTERISTICS OF INFANT WELLBEING DERIVED FROM AVAILABLE LITERATURE

Table B 1: Characteristics of infant wellbeing summarised from listed definitions

Mother-infant attachment	physical aspects	maternal social network
father-infant attachment	psychological	weight
caregivers	social aspects of development	cognitive development
contexts	Apgar score, head circumference evaluation of the skull	infant health
care giving	weight	bonding
relationships	Physical appearance	attachment
infant development	teenage mothers' attach	prenatal support
relationships	maternal attachment	nurturance
environmental experiences	growth and development	relationships
improving children's environments	identity issues	fathers' depression
natural development	adolescents' perceptions of support	development
family	attach	behavioural competence
child care	co-parenting	emotional wellbeing
community and society	family relationships	ethnic enclaves
adolescent mothers	maternal depression and anxiety	educational and employment opportunities
maternal perceived support maternal	parent– child relations	social and emotional support
mother's age	maternal depression	segregation
education level	healthy development	clustering
socioeconomic status	mother–infant relationship attachment	political empowerment
home environment		isolation
low birth weight		social networks
mother-infant interactions		care

positive co-parenting parental adjustment parent– child relations sleep depressed mothers’ emotional regulation infant–mother attachment Segregation residential segregation poverty lack of community resources." relationships responsive, loving caregivers relationship attachment safe and protecting caregiver	infant cognitive functioning. quality of health care cultural socio-demographic factors educational enrichment vocational training individual personality characteristic aids to prevent disability taking advantage of alternative abilities." infant mental health optimal growth social-emotional, behavioural, cognitive development relationship feeding sleeping	eating habits, stressful situations environments emotionally and physically healthy develop full potential environmental stimulation stress responses nurturing caregivers parental attachment positive parent-child relationships environment happy relatively contented, quality of life holistic wellbeing

Table B 2: Characteristics grouped together

• mother-infant attachment • father-infant attachment • teenage mothers’ attach • maternal attachment • attach • attachment, • attachment	• physical aspects • Apgar score • head circumference • evaluation of the skull • weight • physical appearance • growth • optimal growth	• maternal social network • ethnic enclaves • segregation • political empowerment • social networks • cultural and socio-demographic factors

• parental attachment, • infant–mother attachment • attachment • bonding • caregivers • care giving • child care • quality of health care • care • nurturing caregivers • responsive, loving caregivers • safe and protecting caregiver • stimulation • contexts • environmental experiences • improving children's environments • home environment • stressful situations • environments • environmental • environment • mother's age • co-parenting • positive co-parenting • parental adjustment	• weight • infant health • eating habits • physical health • stress responses • low birth weight • sleep • feeding • maternal depression • psychological wellbeing • maternal depression • anxiety • fathers' depression • emotional wellbeing • emotionally • identity issues • individual personality characteristics, happy • relatively contented, infant mental health • depressed mothers' • social and emotional regulation • healthy development • development • develop full potential • infant development • natural development • social aspects of	• education level • socioeconomic status • family • community and society • segregation • residential segregation • poverty • isolation • prenatal support • nurturance • support • clustering • lack of community resources • maternal perceived support maternal • aids to prevent disability • taking advantage of alternative abilities • vocational training • educational enrichment • educational and employment opportunities • adolescents' perceptions of support • adolescent mothers

• Relationships • relationship • positive parent-child relationships • mother–infant relationship • relationships • relationships • mother-infant interactions • parent– child relations • relationships • parent– child relations • family relationships • relationship	development • development • cognitive development • behavioural development	• quality of life • holistic wellbeing • infant cognitive functioning • behavioural competence

Table B 3: Characteristics grouped together

<table>
<tr>
<td>mother-infant attachment
father-infant attachment
teenage mothers' attachment
maternal attachment
attachment
parental attachment
infant–mother attachment
bonding
attachment
caregivers
care giving
child care
quality of health care
care
nurturing caregivers
responsive, loving caregivers
safe and protecting caregiver
stimulation
contexts
environmental experiences
improving children's environments
home environment
stressful situations</td>
<td>physical aspects
Apgar score,
head circumference
evaluation of the skull
weight
physical appearance
growth and
optimal growth
weight
infant health
eating habits
physically healthy
stress responses
low birth weight
sleep
feeding
sleeping
maternal depression
psychological factors
maternal depression
anxiety
fathers' depression
emotional wellbeing
emotionally
identity issues
individual personality characteristics, happy
relatively contented
infant mental health
Depressed mothers
emotional regulation</td>
<td>maternal social network
ethnic enclaves
segregation
political empowerment
social networks
cultural
socio-demographic factors
education level
socioeconomic status
family
community and society
segregation
residential segregation
poverty
social-emotional isolation

prenatal support
nurturance
support
clustering
lack of community resources
maternal perceived support
aids to prevent disability
taking advantage of alternative abilities</td>
</tr>
</table>

environments environmental environment mother's age co-parenting positive co-parenting parental adjustment Relationships positive parent-child relationships mother–infant relationship mother-infant interactions parent– child relations parent– child relations family relationships	social-emotional, social and emotional healthy development development develop full potential infant development natural development social aspects of development development cognitive development behavioural, cognitive development	vocational training educational enrichment educational employment opportunities adolescents' perceptions of support adolescent mothers quality of life holistic wellbeing infant cognitive functioning. behavioural competence
Parental attachment care giving quality of health care stimulation responsive, safe, protecting loving caregivers environmental experiences improving children's environments home environment, stressful situations	Apgar score, evaluation of the skull weight Physical appearance growth stress responses feeding sleeping parental depression emotional wellbeing individual personality characteristics relatively contented, infant mental health	quality of life holistic wellbeing infant cognitive functioning. behavioural competence

positive co-parenting positive relationships interactions	develop full potential	

Table B 4: Grouped characteristics categorised into antecedents, processes and consequences

Antecedents	Process	Consequences
Responsive, safe, protecting loving caregivers. positive co-parenting positive environment Apgar score Physical appearance Psychological characteristics Absence of parental depression Socio-economic empowerment and networks Adolescents perceive support.	bonding quality of health care, stimulation Positive interaction improving children's environments growth perinatal support taking advantage of alternative abilities aids to prevent disability	Parental attachment holistic wellbeing develop full potential

ANNEXURE C: SUMMARY OF THE LITERATURE SEARCH

This summary describes the population, sample, sampling and sampling size of this study. The study population includes all national and international literature (published or unpublished) on infant wellbeing. The inclusion criteria for this study were all international and national literature on infant wellbeing. No limitation was applied to the timeframe of the studies in order to enhance rigour.

The following exclusion criteria are stipulated in the selection of national and international literature:

- articles in any other language than English or Afrikaans, as the language proficiency of the reviewer is a barrier;
- duplicated studies;
- editorials or letters to the editor; and
- studies referencing to but not specific to defining or describing infant wellbeing.

A broad search was conducted in order to obtain all available studies that were pertaining to the research question. Thereafter, filtering was done in order to ensure that all the studies that were selected were relevant. Multiple platforms were used, including dictionaries, encyclopaedias, thesauri, colleagues, electronic databases, catalogues, grey literature and manual searches, to ensure that both published and unpublished research studies were found and to make the search comprehensive. Electronic databases, search engines and internet resources used for this study included EbscoHost, Academic Search Premier, Africa-Wide Information, Cinahl, E-Journals, ERIC, Health Source: Nursing/Academic Ed, MasterFile Premier, Medline, PsycArticles, PsycInfo, SocINDEX, Emerald, JSTOR, Juta, SAePublications, ScienceDirect, World Health Organization, Google, Google Scholar and Scopus. The search was broadened and made to be more comprehensive and inclusive by using a broad combination of keywords and combining different searches. Keywords that were used included: infant wellbeing; infant well being; infant wellbeing; infan* OR newborn OR neonat* OR baby OR babies AND well-being OR wellbeing OR well being OR wellness AND nurs*; infan* AND well-being; infant well-being AND concept analysis; infant well-being AND

definition; infant well-being AND H. Als (H. Als is a researcher and clinician who has focused her life research on the behavioural organization of the newborn infant); infant well-being AND J.D. Osofsky (J.D. Osofsky is a psychologist, psychoanalyst and a professor in paediatrics and psychiatry. She is also editor of the Infant Mental Health Journal); infant well-being AND H.E. Fitzgerald (one of Fitzgerald's major areas of research includes the study of the infant and family development. He is editor-in-chief of the Infant Mental Health Journal and has published over 500 journal articles, chapters, books, technical reports and peer-reviewed abstracts); infant mental health; infant OR child health; infant OR child healthcare.

After the electronic search was done, manual searching was implemented by scanning the available electronic journals, going through and obtaining more data from the reference lists of relevant studies and content of journals, and reviewing abstracts and other data that are relevant to the research topic. Throughout the data collection process, an audit trail was kept to ensure that all data used could still be extracted and to have an account of which articles were used. The sample size was established when data saturation was reached, i.e. when additional sampling provided no new information, only redundancy of previously collected data (Burns & Grove, 2009:361).

The applicability, specificity and relevance of the searches were determined by the including and excluding criteria. Table C-1 presents an outline of the databases and search engines used, the keywords and/or search strategies followed and the number of articles found and eventually selected.

After searching the topic using various keywords, 4 291 257 hits were found. Search strategies were refined and eventually 45 (N=45) studies were selected according to the relevancy of the article titles (this was the first elimination). Sixteen of these studies were duplicates that were found every time using different search strategies and key words and after reading the full texts of the remaining 33 articles, only 12 were found to be relevant and eventually used in this study (this was the second elimination). The reference lists of the selected articles were also reviewed and eventually another 19 articles were found relevant and selected (thus n=31).

Furthermore the North-West University library catalogue and Google books were used to search for books using the keyword “infant wellbeing”. Manual searching and selecting of books were also done by picking books from the shelves that were stored in

certain faculty or discipline related groups such as nursing, neonatology, psychiatry and psychology as well as social sciences. Eventually 25 books (N) were selected and reviewed and 17 (n) of these books were included in the study regarding their relevancy to infant wellbeing.

To conclude, it is clear that 70 resources (45 articles and 25 books) were found on infant wellbeing and eventually only 48 of these were included in this study.

Table C 1: Outline of articles found and used in different databases and search engines

Search engines and Database	Key words and search strategy	Number of articles found	1st elimination	Number of articles selected	2nd elimination	Number articles used
Search eginge: EbscoHOST: Academic Search Premier Africa Wide Information CINAHL with Full Text eBook Collection (EBSCOhost) E-Journals ERIC Health Source: Nursing Edition MasterFILE Premier MEDLINE PsycARTICLES PsycINFO SocINDEX with Full Text	Infant wellbeing	87	Titles of articles explored and weren't applicable	4	Read full text and two weren't relevant	2
	Infant well being	1089	Titles covered three different themes, infant/well/being	-----		-----
	"Infant well being"	93	Titles of articles explored and weren't applicable	10	Read full text and three weren't relevant	7
	Infant well-being	93	Titles of articles explored and weren't applicable	12	Eight studies were duplicates of previous articles found and three were nor relevant after reading the full text	1
	infan* OR newborn OR neonat* OR baby OR babies	3475	Titles covered three different themes, infant/well/being	-----		-----

	AND well-being OR wellbeing OR well being OR wellness AND nurs*					
	Infan* AND well-being	9649	Titles covered three different themes, infant/well/being	-----		-----
	Infant well-being AND concept analysis	58	Titles of articles explored and weren't applicable	2	Read full text and one wasn’t relevant	1
	Infant well-being AND definition	4	None of the four studies were relevant after reading the abstracts	0		0
	Infant well-being AND H.Als	1	This article was found not relevant after reading the full text	0		0
	Infant well-being AND J.D. Osofsky	0				0
	Infant well-being AND H.E. Fitzgerald	0		0		0
	infant mental health	5768	Titles covered three different themes, infant/well/being	0		
	infant OR child health	2056026	Titles covered three different themes, infant/well/being	0		
	infant OR child healthcare	1717664	Titles covered three different themes, infant/well/being	0		
Scopus	Infant well-being	3283	Titles covered three different themes, infant/well/being	0		
	" Infant well-being"	70	Titles of articles explored and weren't applicable	9	Eight studies were duplicates	1

					of previous articles found	
	infan* OR newborn OR neonat* OR baby OR babies AND well-being OR wellbeing OR well being OR wellness AND nurs*	14	Titles of articles explored and ten articles weren't applicable	4	All four articles found were duplicates of previous articles found	0
	Infan* AND well-being	3526	Titles covered three different themes, infant/well/being	-----		-----
	Infant well-being AND concept analysis	50	Titles of articles explored and weren't applicable	3	One article was a duplicate of a previous article found and two were not relevant after reading the full text	0
	Infant well-being AND definition	65	Titles of articles explored and weren't applicable	1	Article was found not relevant after reading the full-text	0
	Infant well-being AND H.Als	0		0		0
	Infant well-being AND J.D. Osofsky	0		0		0
	Infant well-being AND H.E. Fitzgerald	0		0		0
	infant mental health	9762	Titles covered three different themes, infant/well/being	-----		-----

	infant OR child health	459606	Titles covered three different themes, infant/well/being	-----		-----
	infant OR child healthcare	20967	Titles covered three different themes, infant/well/being	-----		-----

ANNEXURE D: TURNITIN REPORT

12/2/2014 Turnitin

preferences

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Dissertation submitted in partial fulfilment **of the requirements for the degree Magister Curationis in Nursing** Education **at the Potchefstroom Campus of the North-West University Supervisor: Dr. W. Lubbe Co-supervisor:** [108]

Dr. P. Bester December 2014

And Jesus called a little child unto Him, and set him in the midst of them, and said, "Verily I say unto you, except ye be converted, and become as little children, ye shall not enter into the kingdom of heaven. Whosoever therefore shall humble himself as this little child, the same is greatest in the kingdom of heaven. And whoso shall receive one such little child in my name receiveth Me". (Mat. **18:2-5)** [22]

I ACKNOWLEDGEMENTS Firstly and above all I want to voice my appreciation to Yeshua ha Maschiach (Jesus Christ the Messiah), my Creator and Sustainer for His guiding hand, without Whom I would not have been able to complete this study. Thank You for strengthening me and carrying me through every step of this study. Then I also

would like thank the following people **for their** constant **support,** guidance and assistance **during** [34]

this research project: ? My inspiring supervisors, Dr. Welma Lubbe and Dr. Petra Bester. I cannot express my gratitude towards you for all your patience, support, guidance, assistance, for having faith in me and for making this study possible. You have blessed me more than I could have ever imagined. ? My mother, Maria Matthews and foster mom, Dalene Austin, for their prayers and support, for their unending love and for having faith in me and encouraging me all the way. ? My guardians, aunt Jeanette Brink and late uncle Wally Brink, for their love, prayers and financial support. Without your input in my life, none of this would ever have realized. ? To my Potchefstroom parents, aunt Elmarie and uncle Marius de Vries, for opening your hearts toward me, praying with me and encouraging me through every step of the way. ? My friends, especially Corné Botha and Monique Bekker for always motivating me, praying for me and wiping away the tears when things got tough. Jolandi Blom and Claudine Gorr for sacrificing their sleep and time and helping me to push through the last stretch. No words could ever express my appreciation towards you. May YHVH bless you abundantly! ? Uncle Dani-Ël

1. 2% match (Internet from 29-Sep-2010)
   http://onlinelibrary.wiley.com
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   Margaret Erickson. "Factors That Influence the Mother-Infant Dyad Relationships and Infant Well-Being", Issues in Mental Health Nursing, 5/1/1996
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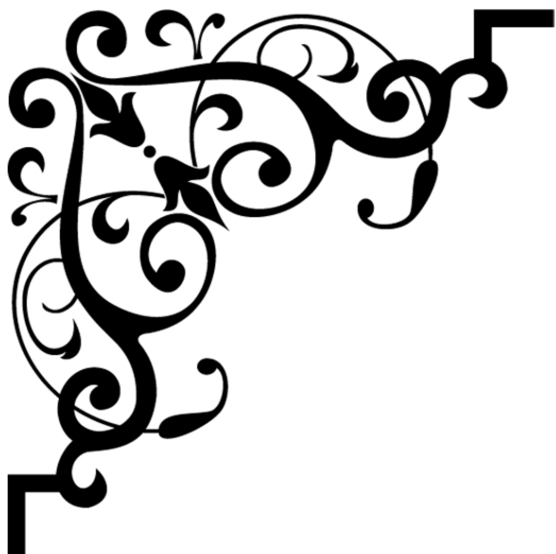

My God is so big and so strong and so mighty, there is nothing my God cannot do, and through Him I can accomplish all things...