The stress, coping and parenting experiences of mothers who gave birth by unplanned Caesarean section

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M.Sc. (Clinical Psychology)

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No one can whistle a symphony.

It takes a whole orchestra to play it.

~ H.E. Luccock

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• This article is submitted in article format as described in rules A14.4.2, A13.7.3, A13.7.4, and A17.7.5 of the North-West University.

• The three manuscripts comprising the thesis will be submitted for review to the following Journals:
  o Manuscript 1 will be submitted to Anxiety, Stress and Coping
  o Manuscript 2 will be submitted to The Journal of Psychology in Africa
  o Manuscript 3 will be submitted to The Journal of Peri-Natal Education

• The referencing style and editorial approach for this thesis is in line with the prescriptions of the Publication Manual (6th Edition) of the American Psychological Association (APA), except where specific Journal style or format requirements differ from those of the APA.

• Attached, please find a letter signed by the co-author authorizing the use of these articles for the purpose of submission for a Ph.D. degree.
STATEMENT

I, Samantha Lynne van Reenen, declare that the thesis (article format) hereby submitted by me for the degree Philosophiae Doctor in Psychology at the North-West University is my own independent work, based on my personal study and/or research. I have acknowledged all material and sources used in its preparation, whether they be books, articles, reports, lecture notes, or any other kind of document, electronic or personal communication. I also certify that this assignment/report has not previously been submitted for assessment at any other unit/university/faculty, and that I have not copied in part or whole or otherwise plagiarized the work of other students and/or persons.

__________________________

S. L. van Reenen
LETTER OF CONSENT

Permission Statement to Submit Articles for Degree Purposes

I, the promoter, hereby declare that the input and effort of Samantha van Reenen in writing this thesis is of sufficient scope to be a reflection of research done by her on this topic. Furthermore, as the co-author I hereby grant permission that she may submit the following manuscripts for examination purposes in accordance with the requirements for the degree Philosophiae Doctor in Psychology:

1. The stress responses experienced by a group of mothers who gave birth by unplanned Caesarean section.

2. The influence of an unplanned Caesarean section on initial mother-infant bonding: Mothers’ subjective experiences.

3. Mothers’ coping with an unplanned Caesarean section.

__________________________

Prof. E. van Rensburg
The stress, coping and parenting experiences of mothers who gave birth by unplanned Caesarean section

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MANUSCRIPT FOR EXAMINATION PURPOSES
SUMMARY

**Keywords**: subjective perceptions; childbirth experience; unplanned Caesarean section; adjustment; phenomenological research

Pregnancy and childbirth are important life experiences in a woman’s psychosocial and psychological development. For many women, vaginal birth is still considered an integral part of being a woman and becoming a mother. Furthermore, it is thought to promote maternal well-being through helping women to match their expectations to experiences. For these women, a failed natural birth can be a psychological, psychosocial, and existential challenge that can result in significant and far-reaching consequences for their psychological well-being.

Research, especially recent research, on the experiences of women who most wanted to, but were unable to deliver their babies naturally is relatively rare. This is surprising given the potential implications of these experiences on a mother’s emotional well-being, as well as for her feelings towards her new baby. Nevertheless, literature on the topic presents a coherent perspective on the problem and indicates that these women experience difficulties in adapting to not being able to fulfill their dream of delivering their baby naturally. There is no existing research on the subjective experiences of South African women who
delivered their babies by unplanned Caesarean section. This study therefore aimed to contribute to knowledge that may fill this gap to some extent.

Through purposeful sampling, ten mothers who had wanted to deliver their babies naturally, but had not been able to for whatever reason, were selected as the study sample. Various aspects of their birth experiences were explored in in-depth phenomenological interviews. This allowed the researcher to probe certain aspects offered by participants in order to understand and explore their contributions in as much depth as possible. A semi-structured, open-ended approach allowed for the exploration of relevant opinions, perceptions, feelings, and comments in relation to the women’s unplanned Caesarean experiences. The transcribed data was synthesized within a framework of phenomenological theory, where women’s experiences were analyzed and explored in an attempt to understand how participants made sense of their experiences.

The different aspects of women’s experiences were explored in three sub-studies. The results are reported in three manuscripts/articles.

Research suggests that post-partum adjustment difficulties are influenced by the potentially virulent stress reactions generated in response to a perceived birth trauma. The objective of the first article was to explore women’s labour and birthing accounts with specific regard to the subsequent stress responses experienced. The stress responses experienced by the women in this study both
prior to, and during the Caesarean section were predominantly anxiety-based. This was distinguished from the post-partum period, where women described having experienced more depressive symptoms. Post-traumatic stress responses are associated with negative perceptions of the birth, self and infant. The experience of adverse emotional consequences during the post-partum period can undermine a woman’s ability to successfully adapt to her role as a mother, meet the needs of her infant, and cope with post-partum challenges.

The second article highlighted the possible impact of women’s unexpected and potentially traumatic childbirth experiences on initial mother-infant bonding. The unplanned Caesarean sections left mothers feeling detached from the birthing process and disconnected from their infants. Passivity, initial separation, and delayed physical contact further compromised mother-infant interaction. Post-partum physical complications and emotional disturbances have important implications for a woman’s perceptions of herself as a mother and her ability to provide for her infant, her self-esteem, and feelings of relatedness with her baby. Adverse responses to a traumatic birth experience could therefore influence the establishment of a maternal role identity, the formation of balanced maternal attachment representations, the caregiving system, and ultimately initial mother-infant bonding.

In the third article, women’s experiences were contextualized in relevant coping resources and strategies. The processes occurring during a traumatic birth
experience, such as during an unplanned Caesarean section, could be influenced by perceived strengths when coping with the stress related to the incident. The mothers in this study described several factors and coping strategies that they perceived to have been effective in reducing the impact of their traumatic birth experiences. These included active coping strategies, problem-focused coping strategies, and emotion-focused coping strategies. Coping strategies could result in reassessment of the birth process, and be associated with a more positive, acceptable and memorable experience.

This study contributes to nursing, midwifery and psychological literature, by adding to the professional understanding of the emotional consequences of surgical delivery on South African childbearing women. This exploration therefore has important implications for preventative measures, therapeutic intervention, and professional guidance. However, the restricted sample may limit the generalizability of results. Further investigation of the experiences of a larger, more biographically and culturally diverse population could be instrumental in the development of knowledge and understanding in this field of study.
OPSOMMING

**Sleutelwoorde:** subjektiewe persepsies; kindergeboorteondervinding; onbeplande keisersnee; aanpassing; fenomenologiese navorsing

Swangerskap en geboorte skenk is belangrike lewenservarings in ‘n vrou se psigososiale en sielkundige ontwikkeling. Vir baie vroue is vaginale geboorte steeds onlosmaklik deel van vrouwees en om ‘n moeder te word. Dit word ook beskou as ‘n proses wat moederlike welstand bevorder deur vroue te help om hulle verwagtinge met hulle ervarings te versoen. Vir sulke vroue kan ‘n onsuksesvolle natuurlike geboorte ‘n sielkundige, psigososiale en eksistensiële uitdaging wees wat beduidende en verreikende gevolge vir hulle sielkundige welstand kan inhou.

Daar is betreklik min resente navorsing oor die ervarings van vroue wat baie graag op natuurlike wyse aan hulle babas geboorte wou skenk, maar dit nie kon doen nie. Dit is verrassend in die lig van die uiteenlopende implikasies van dié ervarings vir die moeder se emosionele welstand en vir haar gevoelens jeens haar nuwe baba. Die literatuur oor die onderwerp bied wel ‘n samehangende perspektief op die probleem en dui daarop dat dié vroue aanpassingsprobleme het omdat hulle droom van natuurlike kindergeboorte nie verwesenlik is nie. Daar is geen bestaande navorsing oor die subjektiewe ervarings van Suid-Afrikaanse vroue wat hulle babas deur ‘n onbeplande keisersnee gekry het nie. Hierdie
studie se doelstelling was dus om kennis toe te voeg wat dié leemte tot 'n mate kan vul.

'n Groep van tien moeders wat natuurlik geboorte wou skenk aan hulle babas maar dit om verskillende redes nie kon doen nie, is deur doelgerigte steekproefneming as die ondersoekgroep gekies. Verskillende aspekte van hulle geboorte-ervarings is ondersoek in diepgaande fenomenologiese onderhoude wat die navorser in staat gestel het om sekere aspekte wat deelnemers geopenbaar het, verder te belig en hulle bydraes in soveel diepte moontlik te begryp en te bekyk. 'n Semigestureerde, oop benadering het dit moontlik gemaak om relevante menings, persepsies, gevoelens en kommentaar oor die vroue se onbeplande keisersnee-ondervindings te ontgin. Die getranskribeerde data is gesintetiseer binne 'n raamwerk van fenomenologiese teorie, waarin die vroue se ervarings ontleed en ontgin is in 'n poging om te verstaan hoe deelnemers sin van hulle ervarings gemaak het.

Die verskillende aspekte van vroue se ervarings is in drie substudies ondersoek. Die resultate word in drie manuskripte of artikels uiteengesit.

Navorsing dui daarop dat postpartum-aanpassingsprobleme beïnvloed word deur die potensieel hewige stresreaksies wat weens die waargenome trauma ontstaan. Die doelwit van die eerste artikel was om vroue se beskrywings van hulle kraam-en-geboorteeproses te ontleed, met spesifieke verwysing na die
daaropvolgende stresreaksies wat beleef is. Die stresreaksies wat die vroue in dié studie voor en tydens die keisersnee beleef het, was hoofsaaklik angsgebaseer. Dit is onderskei van die postpartumtydperk, toe die vroue volgens hulle meer simptome van depressie beleef het. Posttraumatiese stresreaksies word in verband gebring met negatiewe persepsies van die geboorte, self en die kind. Die belewenis van negatiewe emosionele gevolge tydens die postpartumtydperk kan ’n vrou se vermoë ondermyn om met welslae aan te pas by haar rol as moeder, in haar baba se behoeftes te voorsien en postpartumuitdagings te hanteer.

Die tweede artikel se kollig was op die moontlike effek van vroue se onverwagte en potensieel traumatiese kindergeboorte-ervarings op die aanvanklike moeder-baba-binding. Die onbeplande keisersneegeboortes het die moeders onbetrokke en afgesonderd van die geboorteproses en afsydig jeens hulle babas laat voel. Die interaksie tussen moeder en kind is verder belemmer deur passiwiteit, aanvanklike skeiding en uitgestelde fisiese kontak. Postpartum fisiese komplikasies en emosionele problematiek het belangrike implikasies vir ’n vrou se persepsies van haarself as ’n moeder en haar vermoë om haar baba te versorg, haar eiewaarde en gevoelens van verwantskap met haar baba. Negatiewe reaksies op ’n traumatiese geboorte-ervaring kan dus ’n invloed hê op die vestiging van ’n moederrol-identiteit, die vorming van gebalanceerde gehegtheidsrepresentasies, die sorgstelsel en uiteindelijk aanvanklike moeder-baba-binding.
In die derde artikel is vroue se ervarings in konteks gebring met relevante hulpbronne en strategieë vir hantering. Die prosesse wat tydens ’n traumatiese geboorte-ondervinding soos ’n onbeplande keisersnee plaasvind, kan beïnvloed word deur waargenome sterk punte in die hantering van die stres wat met die gebeurtenis verband hou. Die moeders wat aan die studie deelgeneem het, het verskeie faktore en hanteringstrategieë beskryf wat volgens hulle gehelp het om die effek van hulle traumatiese geboorte-ondervindings te verminder. Dit het aktiewe, probleemgefokusde en emosiegefokusde hanteringstrategieë ingesluit. Hanteringstrategieë kan lei tot herassessering van die geboorteproses en in verband gebring word met ’n meer positiewe, aanvaarbare en gedenkwaardige ervaring.

Die studie dra by tot die literatuur oor verpleegkunde, verloskunde en sielkunde deurdat dit bydra tot professionele insig in die emosionele gevolge van chirurgiese verlossing vir Suid-Afrikaanse vroue van vrugbare ouderdom. Hierdie ondersoek het dus belangrike implikasies vir voorkomende maatreëls, terapeutiese intervensie en professionele leiding. Die beperkte steekproef kan egter die veralgemeenbaarheid van die uitslae beperk. Verdere ondersoeke na die ervarings van ’n groter en biografies en kultureel meer diverse populasie kan meewerk om kennis en insig op dié studieveld te ontwikkel.
The stress, coping and parenting experiences of mothers who gave birth by unplanned Caesarean section

SECTION 1: INTRODUCTION AND PROBLEM STATEMENT

“Birth is not only about making babies.

Birth is also about making mothers…

Strong, competent, capable mothers,

who trust themselves and know their inner strength”

~ Barbara Katz Rothman ~

1.1. Introduction

This study focuses on the subjective experiences and perceptions of a group of South African women who had delivered their babies by unplanned Caesarean section. Women’s experiences was explored in relation to the nature of subsequent stress responses that were experienced; how they perceived their experiences to have impacted on initial mother-infant bonding; and how women coped with their unexpected labour and birth experiences.

This first section provides a general introduction to the current study. A rationale for the enquiry into women’s unplanned Caesarean birth experiences is given. This deals with current literature on the topic, the prevalence of unplanned Caesarean sections in South Africa, as well the inadequacy of available information on South African women’s experiences. The research paradigm that informed this study’s methodology is then identified and detailed. Lastly, the aims and objectives of this study are outlined.
1.2. Literature review

Pregnancy is an important life experience in a woman’s psychosocial and psychological development (Bryanton, Gagnon, Hatem & Johnston, 2009; Hall & Taylor, 2004). Childbirth is viewed as a journey, shared between mother and baby (Fenwick, Gamble & Hauck, 2007). The memory and experience of it, vivid and intense, will stay with a woman throughout her life (Lothian, 2000; Nystedt, Hogberg & Lundman, 2008). Despite medical advances, many women still hold strong views about the importance of actively participating and working with their bodies to achieve a vaginal birth (Roux & van Rensburg, 2011).

Women consider vaginal birth to enhance the health and well-being of the mother, promote maternal-infant connection and bonding, and ease the transition to motherhood (Fenwick et al., 2007; Parratt, 2002). Furthermore, vaginal birth is still considered to promote maternal well-being through helping women to match their expectations to experiences (Chrisler & Johnston-Robledo, 2002). This affects a woman’s sense of self-reliance, as well as her confidence in her capacity and intrinsic power, and has important implications for how women feel about themselves after the birth and on how they interact with their baby in the family environment (Fenwick et al., 2007).

Despite the fact that many women would prefer to deliver their babies by natural birth, many births culminate in a Caesarean delivery for any of several reasons, including health reasons and complications during birth (Kealy, Small & Liamputtong, 2010). Ryding, Wijma and Wijma (1998) point out that despite consistently advancing understandings in nursing, obstetrics and gynecology, midwifery, and psychology, a failed natural birth is still a psychological and existential challenge for some women. In some instances, this can have significant and far-
reaching consequences for their psychological well-being (Fenwick et al., 2007; Porreco & Thorp, 1996; Ryding et al., 1998).

1.2.1. Unplanned Caesarean-related stress responses

For women who desire to deliver their babies naturally, a birth culminating in an unplanned Caesarean section may colour and complicate their labour and birth experiences (Fenwick et al., 2007; Nystedt et al., 2008). Existing literature on the topic has described an unplanned Caesarean section to be a distressing, difficult and disappointing experience for some women (Roux & van Rensburg, 2011); one that has the potential to confront mothers with considerable adjustment difficulties (Ryding, Wiren, Johansson, Ceder & Dahlstrom, 2004). Berg and Dahlberg (1998) reiterate research that suggests that Caesarean-delivered women feel less positively about childbirth than women who delivered their babies vaginally. Darvill, Skirton and Farrand (2008) explain that a disruption of the expected natural continuity between pregnancy, delivery and motherhood can be both negative and traumatic. Thus, when anticipations differ from reality, perceptions and feelings in relation to unmet expectations may then have the potential for producing adverse emotional consequences (Baston, Rijnders, Green & Buitendijk, 2008; Gibbons & Thompson, 2001; Hauck, Fenwick, Downie & Butt, 2007) and potentially virulent stress reactions (Gamble & Creedy, 2005; Olde, van der Hart, Kleber & van Son, 2006).

In the past six decades the term stress has enjoyed increasing popularity in the health and behavioural sciences. The popularity of the stress concept stems largely from the work of Hans Selye, an endocrinologist (Krohne, 2002). Selye (1956) introduced the notion of stress-related illness in terms of the general adaptation syndrome (GAS), suggesting that stress is a non-specific response of the
body to any demand made upon it. This response-based approach views stress as a dependent variable (i.e. a response to disturbing or threatening stimuli), with the focus being on the outcomes or consequences rather than on the nature of stress itself (Cox & Griffiths, 2010; O’Driscoll, Cooper & Dewe, 2001). In this approach, stress is defined in terms of an individual’s physiological response to environmental/situational forces (Vakola & Nikolaou, 2005). The response-based perspective of stress is still dominant in the biomedical science field, but not in psychology (Schwarzer & Schulz, 2003). This is largely because Selye disregarded the role of emotions and cognitions by focusing solely on physiological reactions in animals and humans (Schwarzer & Taubert, 2002).

Deviating from Selye’s work and stimulated by their interest in what happens when a person experiences ‘change’ in life circumstances, Holmes and Rahe (1967) and Masuda and Holmes (1967) proposed a stimulus-based theory of stress. Coined the ‘engineering model’, the stimulus approach treats life changes or life events as external/environmental stressors to which a person responds. Therefore, unlike the response-based model, stress is the independent variable in research (Cox & Griffiths, 2010; O’Driscoll et al., 2001). The primary theoretical proposition was based on the premise that (a) life changes are normative and that each life change results in the same readjustment demands for all persons, (b) change is stressful regardless of the desirability of the event to the person, and (c) there is a common threshold of readjustment or adaption demands beyond which illness results (Naseem & Khalid, 2012).

Both the response and stimulus definitions are set conceptually within a relatively simple stimulus-response paradigm. It is now recognised that they largely ignore individual differences, as well as perceptual and cognitive processes that
might underpin the stress experience (O'Driscoll et al., 2001; Schwarzer & Taubert, 2002).

Contemporary models of stress are psychological in that they either implicitly or explicitly recognize the role played by psychological factors, such as perception, cognition and emotion (Lazarus, 2006). These elements are understood to influence how an individual recognizes, experiences, and responds to stressful situations (Cox & Griffiths, 2010).

The two psychological theories identified here, interactional (structural) and transactional (process), vary in their emphasis of the stressful situation and how active the individual is understood to be in determining the overall situation and its outcomes. Interactional theories are focused on the architecture of the situations that give rise to the experience of stress and place less emphasis on the processes involved (Cox & Griffiths, 2010). Transactional theories, by comparison, are concerned with processes of cognitive appraisal and therefore ascribe a more active role to the individual in determining the outcomes (Laubmeier, Zakowski & Bair, 2004). Arguably reflecting a greater input from clinical and social psychology, transactional models of stress therefore conceive of stress not as a mere stimulus or response, but rather as a dynamic process that occurs as an individual interacts with their environment (Cox & Griffiths, 2010; Kuczynski & Parkin, 2007; Lazarus & Folkman, 1987).

Transactional models of stress are founded on the common observation that although some events are intrinsically stressful, individuals respond to stressful events in several different ways (Fruzzetti & Worrall, 2010). Given the many interrelated levels of psychological and physiological functioning, there is no reason to suppose that stress will be expressed in only one way or at only one of these
levels (Wheaton, 2009). Transactional views therefore place emphasis on the role of subjective perceptions of the environment, and acknowledge the possible impact of individual difference factors (Cox, Griffiths & Rial-Gonzalez, 2000; Fruzzetti & Worrall, 2010).

Within the context of the transactional stress process, stressors refer to the problems, hardships or threats that challenge the adaptive capacities of individuals, and comprise both external stimuli and the perceptual processes of the individual (Cohen, Kessler & Gordon, 1995). According to the American Psychiatric Association (2000), a traumatic event (stressor) happens suddenly and unexpectedly, threatens one’s sense of control, and disrupts one’s beliefs, values and basic assumptions. This type of event is acknowledged as psychologically distressing; one that has the potential to overcome a person’s normal ability to cope. This definition may well apply to what some women experience during an unexpected labour and birth process, such as an unplanned Caesarean section (Darvill et al., 2008; Olde et al., 2006).

When women learn that they are going to have a Caesarean section, their feelings of confidence and security quickly change to ones of stress, fear and anxiety (Berg & Dahlberg, 1998; Ryding et al., 1998). A fear of injuries that their baby might sustain, fear for their own lives, and fear of not waking up from the general anaesthesia (Ryding et al., 1998) may cause women to experience increased traumatic stress responses. These reactions may include panic, shock, dissociation, and feelings of being overwhelmed and of giving up (Ayers, 2007; Yokote, 2008). Thus, the physical risk present in a Caesarean section, together with the angst of the situation, has been acknowledged to set up a dynamic and transactional effect of
potential physiological and psychological stress responses in women during the actual birth process (Fenwick, Holloway & Alexander, 2009).

Subsequent to the birth, intrusive thoughts, images and memories related to the birth may generate nervous tension (Alder, Stadlmayr, Tschudin & Bitzer, 2006; Ryding et al., 1998). Studies suggest that post-traumatic stress is a much more common psychological response to an unanticipated Caesarean section than expected (Soet, Brack & Dilorio, 2003). Literature has also controversially linked obstetric factors, including delivery-related complications such as an emergency Caesarean section, with post-partum depression (Lobel & DeLuca, 2007; Robertson, Grace, Wallington & Stewart, 2004; Torkan, Parsay, Lamieian, Kazemnezhad & Montazery, 2007). Potential risk factors of a negative birth experience include disruption of birth plans, dissatisfaction with the birth process, unmet expectations, low self-esteem, and poor social support (Benoit, Parker & Zeanah, 1997; Creedy, Shochet & Horsfall, 2000). Furthermore, the risk of a traumatic stress reaction increases when women’s perceptions of an emergency Caesarean include disappointment, sadness, anger, and guilt (Boyce & Todd, 1992; Good Mojab, 2009).

In terms of transactional theory, outcomes of a traumatic and distressing birth experience have therefore been identified as the physical, behavioural, and psychological products of this dynamic process and include such diverse responses as acute traumatic stress reactions (Alder et al., 2006; Ayers, 2007; Ryding, Wijma & Wijma, 2000), post-partum ‘baby blues’ or depressive mood disturbances (Lobel & DeLuca, 2007; Noriko, Mequmi, Hanako & Yasuko, 2007; Robertson et al., 2004), grief (Nystedt et al., 2008; Olde et al., 2006; Ryding et al., 2000), or some combination of these.
1.2.2. Attachment and bonding

Childbirth and the transition to motherhood are special experiences that make a mother uniquely capable of caring for her child (Fenwick et al., 2007). However, the experience of birth by unplanned Caesarean section places women at risk of having a negative or even a traumatic delivery experience (Gamble & Creedy, 2009; Roux & van Rensburg, 2011). In these instances, complicated labour with unplanned operative delivery has been described as potentially having a negative influence on the transition to motherhood (Herishanu-Gilutz, Shahar, Schattner, Kofman & Holcberg, 2009; Nelson, 2003; Olin & Faxelid, 2003) by hindering a mother’s ability to bond with her baby (Carter et al., 2005).

Attachment theory (Bowlby, 1969, 1973, 1980, 1982) has profoundly influenced research and theorizing about the nature of human relationships across the life span. Attachment is defined as an enduring emotional bond that one person has with another (Ainsworth, Blehar, Waters & Wall, 1978). Attachment theory specifically emphasizes the importance of the emotional connection (attachment) between the infant and a primary care-giver (usually the mother) (Bowlby, 1969).

According to attachment theory, a child seeks proximity and contact with somebody better able to cope with the environment, and to maximize physical and psychological protection and security (Zeanah, Berlin & Boris, 2011). This is known as the attachment behavioural system (Cassidy & Shaver, 2008). The caregiving system then refers to the sensitivity of the caregiver to the infant’s cues, as well as the provision of protection, comfort and care (George & Solomon 2008). There is little dispute in attachment theory that attachment security is dependent on variations in caregiving behaviours. For example, maternal sensitivity has consistently been associated with secure maternal-infant attachment. Brockington (2004) argues that
the development of this attachment relationship between an infant and its caregiver is the most significant process after birth and, according to Bowlby (1969), is of crucial importance for the child’s development.

Attachment-related interactions are understood to influence a child’s mental representations of the self and others (Steele et al., 2009). These "internal working models" (Bowlby, 1969) function as scripts or templates, which influence future expectations about the self and others (Porter, 2003). Furthermore, they lay the foundation of one’s ability to relate intimately with others in subsequent relationships, and have long-term consequences for shaping personality and organizing behavior (Bretherton & Munholland, 1999; Pietromonaco & Feldman Barrett, 2000).

Klaus and Kennell (1976), American paediatricians, were the first authors to focus on the mother’s perspective of the attachment relationship. Where attachment refers to the tie from the infant to his/her caregiver, Klaus and Kennell referred to the unique tie extending from the mother to the infant as bonding (Klaus, Kennell & Klaus, 1995). According to Feldman, Weller, Leckman, Kuint and Eidelman (2003), bonding is an unparalleled experience in a mother’s life, involving the formation of a selective and enduring bond with her infant. This encompasses the mental, emotional, and behavioural changes that come with the forming of the parental tie to her child (Feldman et al., 2003).

The maternal bonding process is understood to be a parallel process to that of the attachment system (Altaweli & Roberts, 2010). Similar to the attachment behavioral system, the caregiving system, and indeed the bonding process, is activated when the parent senses potential danger for the child, including separation (Roberson, 2006). Furthermore, comparable to the attachment process where an infant feels a sense of pleasure and contentedness when its caregiver is in close
proximity, the caregiver feels a certain sense of satisfaction from being able to protect the child (Ngai, Chan & Holroyd, 2011). Once the system is activated, certain patterns of caregiving and bonding behaviors emerge.

The acts of holding, rocking, singing, feeding, gazing, kissing, and other nurturing behaviours involved in caring for infants are highlighted as bonding experiences (Carter et al., 2005; Kennell & McGrath, 2005; Klaus & Kennell, 1976; Sadock & Sadock, 2007). Furthermore, factors crucial to bonding include time spent together, face-to-face interactions, eye contact, physical proximity, touch, and other primary sensory experiences such as smell, sound, and taste (Carter et al., 2005). Such bonding behaviours, together with an infant’s response to the caregiving patterns, are understood to influence a woman’s subjective experience of her infant (Seligman & Harrison, 2012). These perceptions and experiences that a mother has of her infant can then influence the development of specific infant-related internal working models (Benoit et al., 1997; Feldman, 2007). Maternal infant-related internal working models are understood to be attachment-related cognitions that a mother develops in relation to her infant (maternal attachment representations), which influence attachment-related emotions, thoughts and behaviours (Fonagy, Steele & Steele, 1991).

Although attachment representations and behaviours are most important early in life, Bowlby (1988) claimed they are active over the entire life span. According to bonding theory, there is a crucial sensitive period in the first few hours and days after birth (Altaweli & Roberts, 2010). The post-partum period reflects a time when a mother’s working models of attachment are particularly malleable, and the caregiving system and bonding process are understood to be a heightened experience of
maternal-infant attachment patterning (Feldman et al., 2003; Tomlinson, Cooper & Murray, 2005).

A traumatic labour and birth experience, such as an unplanned Caesarean section, may interrupt the maternal representation process that takes place in the post-partum period (Borghini et al., 2006; Korja et al., 2010). Bonding theorists propose that disruptions in the birthing processes, together with affected maternal states of mind, may influence the degree of sensitivity in caregiving behaviour (Klaus & Kennell, 1976; Raval et al., 2001). In the context of birth by unplanned Caesarean section, negative perceptions of the delivery may lower women’s self-esteem and many women consider themselves incompetent after a failed vaginal delivery (Roux & van Rensburg, 2011). This could leave some women experiencing a sense of failure, and may cause a sense of distrust in their personal abilities as childbearing women and mothers (Berg & Dahlberg, 1998; Boyce & Todd, 1992; Lobel & DeLuca, 2007). Additionally, as she strives to incorporate their undesired delivery experiences into her self-concept, a woman may experience difficulties in trying to form an identity as a mother (Berg & Dahlberg, 1998; Weiss, Fawcett & Aber, 2009). Mothers may have more ambiguous feelings toward their babies (Yokote, 2008), exhibit poorer parenting behaviours (Lobel & DeLuca, 2007), experience guilt (Berg & Dahlberg, 1998), and feel detached from their infants (Ryding et al., 1998).

In such a vulnerable situation, a mother’s unresolved traumatic birth experience and the quality of her post-partum psychological experience may therefore be related with disorganized maternal bonding behaviours (Pianta, Marvin, Britner & Borowitz, 1996).
1.2.3. Coping strategies

The link between adverse or stressful life events and psychological and physical health has been well established, with many studies reporting that stressful life events precipitate ill health and psychological dysfunction (Beasley, Thompson & Davidson, 2003; Park, 2010). However, transactional models of stress, in viewing stress as a relationship (‘transaction’) between individuals and their environment, have encouraged the exploration of potential intervening factors in this dynamic transaction (Lazarus, 2006). Psychological research has turned to coping and the ways in which coping can moderate, if not mediate, the effects of stress on health and well-being (Cox & Ferguson, 1991; Dewe, Leiter & Cox, 2000; Schumacher, Dodd & Paul, 2012).

Transactional views place emphasis on the role of subjective perceptions of the environment, and are more likely to acknowledge the possible impact of individual difference factors (Mark & Smith, 2008). In transactional models of stress and coping, appraisal is then defined as the cognitive evaluative process which leads individuals to perceive a given situation in different ways. The process of appraisal, in turn, determines the coping actions or strategy employed by these individuals to deal with the situation (Lazarus & Folkman, 1984; Meurs & Perrewé, 2011; Solomon, Mikulincer & Benbenishty, 2011).

Folkman and Lazarus (1980, p. 223) defined coping as ‘the cognitive and behavioral efforts made to master, tolerate, or reduce external and internal demands and conflicts among them’. This definition proposes that (a) coping actions are not classified according to their effects, but according to certain characteristics of the coping process, (b) this process encompasses behavioral as well as cognitive reactions in the individual, (c) in most cases, coping consists of different single acts
and is organized sequentially, forming a coping episode (in this sense, coping is often characterized by the simultaneous occurrence of different action sequences and, hence, an interconnection of coping episodes), and (d) coping actions can be distinguished by their focus on different elements of a stressful encounter (Lazarus & Folkman 1984).

Folkman and Lazarus’ (1980) concept of coping implies that a complex, dynamic, and intentional process takes place, involving an interaction between the individual and the environment, and comprising episodes of evaluation and re-evaluation (Drapeau, Samson & Saint-Jacques, 1999). The process is a conscious one, differentiating it from defence mechanisms and reflexes (Carpenter, 1992).

In the literature, coping has often mistakenly been equated with the concept of resilience. Although both coping and resilience focus on responses to stress, these concepts are distinct. Resilience refers to an adaptive outcome in response to a crisis or some other form of stress (Snyder & Dinoff, 1999). That is, resilience emphasizes the bounce back or successful adaptation that occurs and frequently results in development beyond the original position (Windle, 2011). Coping, on the other hand, refers to psychological and/or behavioral responses that diminish the physical, emotional, and psychological effects of (or improve the possibility of a positive outcome under) stressful life events (Snyder & Dinoff, 1999).

The concept of resilience has received increased attention over recent years from researchers studying why some individuals in populations experiencing adversity do not succumb to those difficult circumstances (Carver, 1998; Steinhardt & Dolbier, 2008). The positive nature of resilience, and the success and growth it can facilitate, suggests the presence of a positive relationship between resilience and well-being (Olsson, Bond, Burns, Vella-Brodrick & Sawyer, 2003; Ong, Bergeman,
Bisconti & Wallace, 2006). Well-being is frequently identified as a positive outcome of challenge appraisals, which are influenced by the use of effective coping strategies (Lazarus, Kanner & Folkman, 1980; Skinner & Brewer, 2002). Through the use of adaptive coping trajectories, resiliency, and indeed psychological wellbeing, can therefore be enhanced (Luthar, Cicchetti & Becker, 2000).

Many attempts have been made to reduce the universe of possible coping responses to a parsimonious set of coping dimensions. A widely used framework that classifies coping responses according to their function is the problem-focused/emotion-focused coping dichotomy proposed by Lazarus and Folkman (1984). This model proposes that coping strategies attempt to change the person–environment realities behind negative emotions or stress (problem-focused coping) (Krohne, 2002). Problem-focused strategies therefore aim to find a solution to the situation, either by changing aspects of the person, the environment or the relationship between the two (Suls & Martin, 2005). This category includes problem-solving strategies, direct action, and seeking out information on the situation (Cox & Griffiths, 1995; Folkman & Lazarus, 1980). Alternatively, coping strategies may relate to internal elements and try to reduce a negative emotional state, or change the appraisal of the demanding situation (emotion-focused coping) (Krohne, 2002). Emotion-focused strategies aim to deal with the emotions associated with the difficult situation, and include distraction, avoidance and a search for emotional support (Drapeau et al., 1999).

An additional distinction often made in the coping literature is between active and avoidant coping strategies. Active coping strategies are either behavioural or psychological responses designed to change the nature of the stressor itself or how one thinks about it, whereas avoidant coping strategies lead people into activities or
mental states that keep them from directly addressing stressful events (Taylor & Seeman, 1999). Generally speaking, active coping strategies, whether behavioural or emotional, are thought to be better ways to deal with stressful events, and avoidant coping strategies appear to be a psychological risk factor or marker for adverse responses to stressful life events (Taylor & Armor, 1996).

In an attempt to consolidate the multitude of theories differentiating coping strategies, Carver, Scheier and Weintraub (1989) presented a typology in which they grouped these strategies into three general categories: active coping, acceptance and positive reinterpretation, and avoidance coping. Active coping refers to strategies that are directed at problem-solving, and entail taking direct action to confront the stressor and reduce its effects (Carver et al., 1989). Acceptance and positive reinterpretation refer to acceptance of a stressor as real and unavoidable, as well as attempts to focus on the positive aspects of a situation (Updegraff & Taylor, 2000). Avoidance coping refers to primarily emotion-focused strategies, which may reduce the distress associated with a stressful event by denial or withdrawal from the situation, without reducing the noxious aspects of the situation itself (Endler & Parker, 1999).

Different strategies of coping are used by individuals in stressful situations, and distinct kinds of coping seem to be employed together. However, not all coping strategies are appropriate and useful across all situations. According to Lazarus and Folkman (1987), whether a coping process may have favorable or unfavorable results depends on who uses a coping strategy, when it is used, under which circumstances, and with regard to which types of adaptational outcomes. Presumably, choosing coping strategies that fit the appraised controllability of a situation will produce better outcomes than choosing unfitting strategies (Folkman &
The experience of an unplanned Caesarean section has been identified in the literature as potentially stressful experience, and many women have reported adverse emotional outcomes as a function of this process (Garthus-Niegel, von Soest, Vollrath & Eberhard-Gran, 2012; Roux & van Rensburg, 2010). However, the processes occurring during a traumatic birth experience could be influenced by perceived strengths when coping with the stress related to the incident (Singer et al., 2010). Furthermore, coping strategies may moderate the impact of women's stressful labour experiences, and effect more positive appraisal outcomes (Aldwin & Werner, 2007). Coping strategies could thus result in reassessment of the birth process, and be associated with a more positive, acceptable and memorable experience (Escott, Slade, Spiby & Fraser, 2005).

1.3. Prevalence of unplanned Caesarean sections

Research suggests that Caesarean deliveries have increased substantially in recent years. No distinction could be found between elective versus planned Caesarean sections, however with more than 1.3 million Caesareans performed annually in the United States of America, the number of babies delivered by Caesarean section increased from 20.7% in 1996 to 31.1% in 2006 (Hamilton, Martin & Ventura, 2007).

Recent international statistics (Organisation for Economic Cooperation and Development, 2011) reflect the rates of Caesarean section deliveries in 34 countries. Of the countries included, Caesarean section rates were found to be lowest in the Netherlands (14% of births) and highest in Turkey (42.7% of births). Other countries
included France (20.0% of births), the United States of America (32.3% of births), and Australia (30.8% of births).

In South Africa, the rate of Caesarean deliveries differs significantly in government versus private hospital facilities (Rothberg & McLeod, 2005). Moreover, more affluent and middle-class families have medical aid cover and make use of private hospitals, whereas people who are unable to afford medical aid are dependent on the services of state hospitals (Matshidze, Richter, Ellison, Levin & McIntyre, 1998). Thus, the rate of Caesarean delivery also differs amongst different population groups. In a retrospective clinical survey, Tshibangu, De Jongh, De Villiers, Du Toit and Shah (2002) compared the number of deliveries done by Caesarean section in the private sector with those in public hospitals in South Africa. They found a Caesarean section rate of 57% at six private hospitals over a three-year study period, compared with a Caesarean section rate of 28% in 20 public hospitals. More recently, Fokazi (2011) compared claims made to leading medical aid schemes in South Africa with reports by government hospitals. He found that Caesarean sections account for as many as 72% of deliveries in the private sector, compared with around 18% in the public sector.

Given the alarming statistics of Caesarean sections performed in South Africa’s private sector, the exploration of the impact of Caesarean deliveries on these women’s well-being becomes significant (Roux & van Rensburg, 2011).

1.4. South African literature

There is no existing research on South African women’s experiences of birth by unplanned Caesarean section. Specifically, no research has been done to determine how South African women experience and respond to the stress of an
unplanned caesarean section; how they perceive their birth experience to have impacted on the mother-child relationship; or how they cope with their experience of an unplanned caesarean section.

1.5. The research paradigm

All research is explicitly and implicitly placed within a particular paradigm. By definition, paradigms are specific theories, frameworks and methodologies that influence the manner in which the data are collected and interpreted (Creswell, 1994). Essentially, paradigms are the frame of reference and the magnifying glass through which phenomena are explored, explained and understood.

The qualitative research paradigm emphasizes the exploration of subjective experiences, perspectives and meanings (Polkinghorne, 1995; Strauss & Corbin, 1998), and is therefore particularly well-suited to the present study’s epistemological frame of reference.

1.5.1. Qualitative research

Qualitative research methods emanate from several disciplines, including anthropology, sociology, history, literature and psychology (Merriam, 2009). *Qualitative research* is a broad umbrella term for research methodologies that arrive at their findings through description and interpretation, rather than through the use of statistical procedures or quantification (Fossey, Harvey, McDermott & Davidson, 2002). Qualitative research is conducted in natural settings, with the goal being to understand the perspective of the research participant in the context of their everyday life (Holloway & Wheeler, 2009; Silverman, 2009). This is in contrast to scientific (empirico-analytical) methods, which focus more on counting and
classifying features and constructing statistical models to explain what is observed. Such methods rely on deductive logic, objectivity, reductionism and quantification of data in order to refute propositions, confirm probabilistic causal laws, and make generalizations about the nature of phenomena (Fossey et al., 2002).

Qualitative research focuses chiefly on three areas: language as a means to explore processes of communication and patterns of interaction within particular social groups; description of subjective meanings attributed to situations and actions; and theory-building through discovering patterns and connections in qualitative data (Fossey et al., 2002). Qualitative researchers attempt to deal with people as “singular events” and strive to engage with the participants naturally and empathetically in real life situations (Myers, 2000). Furthermore, qualitative researchers are interested in how people experience events and make sense of the world around them (Willig, 2001). Whatever the focus, qualitative research is concerned with describing social contexts; privileging lay knowledge; and exploring the subjective meaning and experience dimensions of humans’ lives and social contexts (Fossey et al., 2002).

Qualitative methods involve the systematic collection, organization, analyzing, and interpretation of narrative data (Malterud, 2001). Approaches utilize a wide variety of methods when conducting research (Ponterotto, 2002). Qualitative data is collected within the context of their natural occurrences, permitting any variables that naturally influence the data to operate without any interference. The qualitative researcher focuses on the perspective of the insider, talking to and/or observing subjects who have experienced first-hand activities or procedures under scrutiny (Ponterotto, 2002). Original data is therefore comprised of ‘naive’ descriptions obtained through open-ended questions and dialogue (Moustakas, 1994).
Qualitative methodologies then allow for significant analyses of the real, unique and ever-evolving world of human phenomena (Willig, 2001). It allows for the study of a person’s deepest thoughts, feelings, opinions, and attitudes, all of which are not possible through quantitative empirical study (Rallis & Rossman, 2011).

1.5.2. A phenomenological approach

The term “qualitative research” indicates that an approach concentrates on qualities of human behaviour, i.e. on the qualitative aspects as opposed to the quantitative measurable aspects of human behaviour (Mouton, 1985). This places the current research within the definition of a qualitative approach to research. However, the objective of this study was not only to describe women’s experiences of an unplanned Caesarean section, but to further develop a comprehensive understanding of women’s experiences through the interpretation and association of meaning with these experiences.

Within qualitative research, phenomenology explores the ways in which individuals construct personal meaning of phenomena (Mertens, 2009). Edmund Husserl (1859-1938), a German philosopher and arguably the fountainhead of phenomenology in the twentieth century (Vandenberg, 1997), rejected the behaviouristic belief that objects in the external world exist independently and that information about objects is reliable (Groenewald, 2004). He argued that people can be certain about how things appear in, or present themselves to, their consciousness (Eagleton, 1983; Fouche, 1993). To arrive at certainty, anything outside immediate experience must be ignored, and in this way the external world is reduced to the contents of personal consciousness. Realities are thus treated as pure ‘phenomena’ and the only absolute data from where to begin (Groenewald, 2004). Husserl named

The **life-world** – Husserl’s (1970) *Lebenswelt* – is a key concept and focus of investigation for phenomenology (Sadala & Adorno, 2003). It can be defined as the world that is lived and experienced - a world “that appears meaningfully to consciousness in its qualitative, flowing given-ness; not an objective world ‘out there’, but a humanly relational world” (Todres, Galvin & Dahlberg, 2006, p.55). The researcher’s project is, in the infamous words of Husserl (1970), to ‘return to the things themselves’. The ‘things’ here refer to the world of experience as lived. “To return to the things themselves is to return to that world which precedes knowledge, of which knowledge always speaks” (Merleau-Ponty, 1962).

In the life-world, a person’s consciousness is always directed at something in or about the world. Consciousness is always consciousness of something. When we are conscious of something (the ‘object’), we are in relation to it and it means something to us. In this way, the subject (the individual) and object are joined together in mutual co-constitution. This important phenomenological concept is called **intentionality** and is a key focus for research (Moustakas, 1994; Relph, 1970; Smith, 2002).

In phenomenological research the researcher’s aim is to explicate this intentionality. That is, phenomenological researchers explore the directedness of participants’ consciousness (what they are experiencing and how) (Laverty, 2003). In other words, the focus is on the intentional relationship between the person and the meanings of the things they’re focusing on and experiencing (Finlay & Evans, 2009).

Phenomenology asks, “What is this kind of experience like?”, “What does the experience mean?”, “How does the lived world present itself?” The challenge for
phenomenological researchers is two-fold: to help participants express their world as directly as possible, and to explicate these dimensions such that the lived world – the life world - is revealed (Lopez & Willis, 2004; Spinelli, 2005).

The two main phenomenological approaches include descriptive (eidetic) phenomenology and interpretive (hermeneutic) phenomenology (Cohen & Omery, 1994).

Husserl’s (1970) philosophical ideas about how science should be conducted gave rise to the descriptive phenomenological approach. The descriptive phenomenological researcher starts with concrete descriptions of lived experiences and proceeds by reflectively analysing these descriptions (Laverty, 2003). Such researchers stay close to what is given to them in all its richness and complexity, and aim to provide a rich and textured description of the lived experience (Finlay & Evans, 2009). The method allows the researcher to keep the “voice” of the participants in the research without abstracting their viewpoint out through analysis. As such, the subjective-psychological perspective of the participant is provided (Giorgi & Giorgi, 2003).

Interpretive phenomenology, building on the philosophies and premises of descriptive phenomenology, has emerged from the work of hermeneutic philosophers (including a student of Husserl, Martin Heidegger (1889 – 1976)). Spiegelberg (1982) has identified hermeneutics as a process and method for bringing out and making manifest what is normally hidden in human experience and human relations. In relation to the study of human experience, hermeneutics goes beyond mere description of core concepts and essences to look for meanings embedded in common life practices (Lopez & Willis, 2004). These meanings are not always apparent to the participants but can be gleaned from the narratives produced
by them.

The empirical and interpretive phenomenologist returns to descriptions of the lived experience, which provides the basis for a reflective structural analysis to portray the essence of the experience. The researcher then describes the structure of the experience based on reflection and subsequent interpretation of the research participant’s story (Moustakas, 1994). “The meaning of phenomenological description as a method lies in interpretation,” says Heidegger (1962, p. 37). The researchers in this study aimed to explore in detail how participants made sense of their labour and birth experiences, with the intention of understanding the meaning held within these experiences. Simultaneously, the researchers aimed to interpret how themes of meaning are structured. Such an approach places this study firmly within the interpretive phenomenological perspective.

1.6. The research question

In phenomenology, the research question is not formulated around a specific theoretical perspective, nor is it asked in order to test a particular viewpoint (De Vos & Van Zyl, 1998). Rather, the phenomenon is explored in order to allow women to talk for themselves. The research question can therefore be described as an “atheoretical”, exploratory enquiry of the experience of an unplanned Caesarean section, from women’s perspective.

The questions asked in this study were as follows:

1. What, if any, stress responses were experienced by a group of South African women who delivered their babies by unplanned Caesarean section?
2. For a group of South African mothers, what was the subjectively perceived influence/impact of an unplanned Caesarean section on initial mother-infant bonding?

3. How did a group of South African mothers cope with their experiences of delivering their babies by unplanned Caesarean section?

The purpose of the study was therefore to:

1. Determine the nature of the stress responses experienced by a group of South African women who had delivered their babies by unplanned Caesarean section.

2. Understand the subjectively perceived influence/impact of an unplanned Caesarean section on initial mother-infant bonding.

3. Determine how a group of South African women coped with their experiences of an unplanned Caesarean section.

1.7. Basic hypothesis

Phenomenological studies are not driven by hypothesis, but rather by a desire to explicate a given phenomenon. Thus, the nature of this study required that no hypothesis be stated in order to rid the research of any preconceived ideas (Smith & Osborn, 2003). Instead, the researcher suspends his/her existing worldview in order to learn about the socially constructed worldview of others (Ponterotto, 2002). Certain themes were expected to unfold from the responses given by the participants, allowing insight into the experiences of mothers to develop.
1.8. **Aim of this study**

This research project was borne of, and propelled by, a goal to add to the professional understanding of the emotional consequences of unexpected surgical delivery on childbearing women. This study therefore aimed to develop a comprehensive and insightful understanding of the factors relevant to women’s experiences of birth by unplanned Caesarean section. Specifically, the objective was to explore and describe the nature of the stress responses experienced by mothers consequent to their unplanned Caesarean birth experiences; mothers’ ensuing parenting and bonding experiences; and mothers’ subsequent coping strategies.

1.9. **Outline of the manuscript**

Section 1 begins with a general introduction to the phenomenon of delivery by unplanned Caesarean section. The motivation behind the current study was highlighted, together with the aims and objectives.

In Section 2, Article 1 is presented, titled: *The stress responses experienced by a group of mothers who gave birth by unplanned Caesareans section*. The aim of this article is to explore and understand the stress reactions experienced by mothers after they had delivered their babies by unplanned Caesarean section.

Article 2 is presented is Section 3, titled: *The influence of an unplanned Caesarean section on initial mother-infant bonding: Mothers’ subjective perceptions*. This article explores the possible effects of an unplanned Caesarean section on initial mother-infant bonding and attachment processes.

In section 4, Article 3 is presented, titled: *Mothers’ coping with an unplanned Caesarean section*. The aim of this article is to highlight specific resources and
strategies relevant to women’s coping with their unexpected labour and childbirth experiences.

Finally, in Section 5, conclusions will be drawn. The implications of this research are explored and recommendations for further research are highlighted.
SECTION 2: ARTICLE 1

The stress responses experienced by a group of mothers who gave birth by unplanned Caesarean section

Submitted to Anxiety, Stress and Coping
2.1. INTENDED JOURNAL AND AUTHOR GUIDELINES

Intended journal: Anxiety, Stress and Coping

The manuscript has been styled according to the above mentioned journal’s specifications (www.tandf.co.uk).

ANXIETY, STRESS AND COPING

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Nazanin Derakhshan

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Journal Guidelines

Anxiety, Stress and Coping provides a forum for scientific, theoretically important, and clinically significant research reports and conceptual contributions. It deals with experimental and field studies on anxiety dimensions and stress and coping processes, but also with related topics such as the antecedents and consequences of stress and emotion. The Journal also encourages submissions contributing to the understanding of the relationship between psychological and physiological processes, specific for stress and anxiety. Manuscripts should report novel findings that are of interest to an international readership. While the journal is open to a diversity of articles, it is primarily interested in well-designed, methodologically sound research reports, theoretical papers, and interpretative literature reviews or meta-analyses.
Manuscript Submission

The Journal welcomes the submission of manuscripts that meet the general criteria of significance and scientific excellence. Manuscripts already under review elsewhere or similar to a previously published manuscript will not be considered for publication. Contributions to Anxiety, Stress, & Coping must report original research and will be subjected to review by referees at the discretion of the Editorial Office.

Manuscript preparation

1. General guidelines

- Papers are accepted only in English. American English spelling and punctuation is preferred.

- A standard submission will not exceed 30 manuscript pages (APA style) overall, not including the title page. Submissions presenting a series of studies may exceed this limit. Further, authors may send an inquiry about more extended manuscripts to the Editors. Papers that greatly exceed this will be critically reviewed with respect to length. Authors should include a word count with their manuscript.

- Manuscripts should be compiled in the following order:
  1. Title page
  2. Abstract
  3. Keywords
  4. Main text
  5. Appendixes (as appropriate)
  6. References
7. Table(s) with caption(s) (on individual pages)

8. Figure caption(s) (as a list).

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MANUSCRIPT 2.2.: The stress responses experienced by a group of mothers who gave birth by unplanned Caesarean section
The stress responses experienced by a group of mothers who gave
birth by unplanned Caesarean section

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ABSTRACT

Objective The present study aimed to explore the nature of stress responses experienced by women during birth by unplanned Caesarean section. Background Research suggests that the psychological effects of birth can be significant and far-reaching for some women. The processes occurring during a traumatic birth experience could affect a woman's emotional and psychological state, which could generate potentially virulent stress reactions. Methods In-depth interviews were undertaken to explore 10 women's lived experiences and meanings of birth. This interpretive phenomenological study aimed to gain a greater understanding of how women experience and internalise childbirth accounts. Thematic content analysis was used to synthesize data. The elements of phenomenological theory served as a broad framework for the structuring, organization and categorizing of data. Findings The stress responses experienced by women both prior to, and during the Caesarean section were predominantly anxiety-based, whereas they reported more depressive symptoms in the post-partum period. The experience of adverse emotional consequences during the post-partum period can undermine a woman’s ability to successfully adapt to her role as a mother, meet the needs of her infant, and cope with post-partum challenges.

Keywords: Caesarean section; mother's expectations or experiences; post-traumatic stress response; depression; anxiety; interpretive phenomenology
Childbearing has been acknowledged as a major life transition for women, with the actual birth being the climax of this process (Darvill, Skirton & Farrand, 2008). The impact of an unexpected Caesarean delivery on this experience has begun receiving more attention in recent years (Weiss, Fawcett & Aber, 2009). For women who desire to deliver their babies naturally, a birth culminating in an unplanned Caesarean section may colour and complicate their labour experiences, as well as their adaptive transition to motherhood (Fenwick, Gamble & Hauck, 2007; Nystedt, Hogberg & Lundman, 2008). Existing literature on the topic persistently documents negative psychological and emotional responses to Caesarean delivery among women (Lobel & DeLuca, 2007; Stadlmayr, Schneider, Amsler, Burgin & Bitzer, 2004; Weiss et al., 2009), as well as the potentially virulent stress reactions generated by such powerful emotions (Gamble & Creedy, 2005; Olde, van der Hart, Kleber & van Son, 2006). Recently these emotional reactions have been described as post-traumatic stress responses (Gamble & Creedy, 2005; Tham, Christensson & Ryding, 2007), and have been associated with negative perceptions of the birth, self and infant; poor parenting behaviours; and an increased risk for postpartum mood disorders (Lobel & DeLuca, 2007).

**Background and Motivation**

Stress is described as an event in which an organism senses a threatening or real disruption of homeostasis, and which leads to a compensatory reaction (Goldstein & McEwen, 2002). In simple terms, the stress paradigm suggests that a stressor will lead to certain outcomes (Wheaton & Montazer, 2009).

Stressors refer to the problems, hardships or threats that challenge the adaptive capacities of individuals, and comprises both external stimuli and the
perceptual processes of the individual (Cohen, Kessler & Gordon, 1995). According to the American Psychiatric Association (2000), a traumatic event happens suddenly and unexpectedly, threatens one’s sense of control, and disrupts one’s beliefs, values and basic assumptions. This type of event is acknowledged as psychologically distressing; one that has the potential to overcome a person’s normal ability to cope. This definition may well apply to what some women experience during an unexpected labour and birth process, such as in an unplanned Caesarean section (Darvill et al., 2008; Olde et al., 2006).

Cox and Griffiths (1995) identify three approaches in the conceptualization of the nature of stress. First is the “engineering” approach, where stress is viewed as a stimulus or characteristic of the environment in the form of level of demand. Second is the physiological approach, where the definition of stress is based upon the physiological or biological changes that occur in the person when they are in a stress state. Thirdly, the psychological approach conceives of stress not as a mere stimulus or response, but rather as a dynamic process that occurs as an individual interacts with their environment.

A distinction is made between two types of psychological models of stress: interactional or structural approaches, and transactional or process models (Fruzzetti & Worrall, 2010). Cox, Griffiths and Rial-Gonzalez (2000) explain that interactional models focus on the structural characteristics of the stress process; that is, which stressors are likely to lead to which outcomes in which populations. Alternatively, transactional views are more cognitive, and focus on the dynamic results of the interactions between individuals and their environments. The physical risk present in a Caesarean section, together with the angst of the situation, results in stress hormones flooding to both mother and baby. This has been acknowledged to set up
a dynamic and transactional effect of potential physiological and psychological stress responses in women during the actual birth process (Fenwick, Holloway & Alexander, 2009). The possible emotional distress evoked in this process, and its ensuing consequences, have further been acknowledged to potentially hinder the series of necessary psychological adjustments that subsequently need to be made in the post-partum period (Fenwick et al., 2009; Roux & van Rensburg, 2011). In terms of transactional theory, outcomes of a traumatic and distressing birth experience have therefore been identified as the physical, behavioural, and psychological products of this dynamic process and include such diverse responses as anxiety and depression (Griffin & Clark, 2011; Ryding, Wijma & Wijma, 2000).

Transactional models of stress are founded on the common observation that although some events are intrinsically stressful, individuals respond to stressful events in several different ways (Fruzzetti & Worrall, 2010). Given the many interrelated levels of psychological and physiological functioning, there is no reason to suppose that stress will be expressed in only one way or at only one of these levels (Wheaton, 2009). Transactional views therefore place emphasis on the role of subjective perceptions of the environment, and acknowledge the possible impact of individual difference factors (Cox et al., 2000; Fruzzetti & Worrall, 2010).

Transactional theory research leaves little doubt that the stress process can be inimical to health and well-being, and that it can manifest negative effects in multiple ways at multiple levels of organismic functioning (Wheaton, 2009). A wide variety of physical and mental and states have been identified as possible consequences of the stress process, with one of the most significant being that of emotional trauma, distress, and adverse emotional outcomes (Fruzzetti & Worrall, 2010). Research into birth and labour experiences supports this theory and
acknowledges that adverse childbirth experiences related to unexpected medical intervention, such as an unplanned Caesarean section, can potentially evoke diagnostically significant post-traumatic emotional stress responses in women (Rowe-Murray & Fisher, 2001; Ryding et al., 2000). Research findings suggest that these responses can even include acute traumatic stress reactions (Alder, Stadlmayr, Tshudin & Bitzer, 2006; Ayers, 2007; Ryding et al., 2000), post-partum ‘baby blues’ or depressive mood disturbances (Lobel & DeLuca, 2007; Noriko, Mequmi, Hanako & Yasuko, 2007; Robertson, Grace, Wallington & Stewart, 2004), grief (Nystedt et al., 2008; Olde et al., 2006; Ryding et al., 2000), or some combination of these.

There is no existing research on the nature of stress responses experienced by South African women who delivered their babies by unplanned Caesarean section. This study therefore aimed to the nature of stress responses experienced by a group of women as a result of their unexpected labour and birth experiences.

**Research Design**

An exploratory, descriptive, qualitative research design was used to explore and describe the nature of stress experienced by women during birth by unplanned Caesarean section. Qualitative research examines the lived experience in an effort to describe, explain, understand, and give meaning to peoples’ experiences, behaviours, interactions and social contexts (Fossey, Harvey, McDermott & Davidson, 2002; Strauss & Corbin, 1998). Within qualitative research, phenomenology refers to the individual’s personal construction of the meaning of a phenomenon (Mertens, 2009). Original data is comprised of ‘naive’ descriptions obtained through open-ended questions and dialogue, and the researcher describes
the structure of the experience based on reflection and interpretation of the research participant's story (Moustakas, 1994). Such an approach places this study within the interpretive phenomenological perspective. The researcher explored in detail how mothers made sense of the stress that they experienced during their unplanned Caesarean deliveries with the intention of understanding their meaning, while simultaneously interpreting how themes of meaning are structured.

**Research Methods**

The research began with ensuring ethically sound research, followed by data collection and analysis. Throughout the study, trustworthiness of the research findings was ensured.

**Ethical Considerations**

Ethical issues and standards were critically considered in this research project. In accordance with the ethical rules of conduct for practitioners registered under the Health Professions Act of South Africa, 1974, as stipulated in the HPCSA Ethical Code of Professional Conduct (2004), several measures were taken to ensure the ethicality of this research. Firstly, the research protocol was approved by the Ethics Committee of the North-West University (Potchefstroom Campus: NWU-00056-09-S1). Thereafter, prospective participants were informed of the background to the study and the voluntary nature of participation in the study. Interviews proceeded once participants had given verbal and written consent. The researcher was fully aware of the sensitive and emotional nature of exploratory inquiry, and the rights and needs of the individual were therefore considered at all times. Furthermore, the participants were assured of confidentiality. Finally, participants
were debriefed at the resolution of the interview process to resolve any questions, unease or queries.

**Population and Sampling**

Phenomenology uses purposive, non-probability sampling procedures, where participants are included because they have a specific knowledge of the phenomena (Baker, Wuest & Stern, 1992). For the purposes of this study, an *unplanned Caesarean section* referred to a surgical, Caesarean delivery, despite the mother’s desire to deliver her baby naturally. Such a delivery may have occurred after labour had begun due to unexpected maternal or foetal conditions, or prior to labour, as is the case in an emergency Caesarean delivery. Thus, in this study, the population of interest comprised mothers who had wanted to deliver their babies naturally, but who had instead had to deliver their babies by Caesarean section. Within the population of interest, participants had to comply with the following criteria:

- Married women
- Mothers aged 25-30 years
- It was the birth was of each woman's first-born child that culminated in a Caesarean delivery
- A period of 2 to 4 years had elapsed since each woman’s unplanned Caesarean delivery
- Caucasian women: Cultural beliefs about and values associated with childbearing touch all aspects of social life in any given culture. Such beliefs and values could lend different perspectives to the meaning of childbirth to the childbearing woman (Callister, 2006).
- No previous miscarriages had been experienced
Selection of participants included snowball sampling, as discussed by Babbie (2007), where women nominated acquaintances whom they thought may be willing to participate in the research. The sample comprised ten women, with a mean age of 28 years, who volunteered for in-depth phenomenological semi-structured interviews. Interviews were not limited to a certain number, but continued until data saturation had taken place in order to deepen, enrich and complete categories, themes and concepts (Brink & Wood, 2001).

**Data Collection**

Various aspects were explored in in-depth phenomenological interviews, allowing the researcher to probe certain aspects offered by participants in order to understand and explore their contributions in as much depth as possible. A semi-structured, open-ended approach allowed for the exploration of relevant opinions, perceptions, feelings, and comments in relation to the women’s experiences.

**Data Analysis**

Thematic content analysis allows for detailed analysis of data (Nystedt et al., 2008). When it comes to analysis, phenomenological researchers engage in active and sustained reflection as they ‘dwell’ with the data and interrogate the content. By applying the analytical method as suggested by Wertz (1983) and Giorgi (1985), analysis involved systematic readings of the transcripts and field notes by first dwelling on the phenomenon (through empathetic immersion and reflection), and then describing emergent psychological structures (i.e., constituents and recurrent themes). Analysis continued with a cross-category search to identify recurring regularities expressed as themes that were seen at an interpretive level as
underlying threads of meaning running through condensed meaning units, codes, or categories (Graneheim & Lundman, 2004). Themes were then categorized so that data could be synthesized and comparisons could take place.

**Measures to Ensure Trustworthiness**

To ensure validity of results, Guba’s model (1985) of trustworthiness of qualitative research was applied to this study (Lincoln & Guba, 1985). The model identifies four aspects of enhanced trustworthiness of a study, namely, credibility, transferability, confirmability, and dependability.

To enhance credibility, the researcher engaged in active and sustained reflection during data interpretation to ensure quality, and to highlight the complexity of participants’ experiences (Marshall & Rossman, 1995). The researcher aimed to suspend previous assumptions in order to be open to the phenomenon as it appeared, and to generate a sense of reality and a personal recognition of the phenomenon through precise and rich description. This refers to the extent to which the findings are a function solely of the research participants and conditions of the research, with no biases, motivations and researchers’ perceptions (Krefting, 1991).

Transferability was achieved through thorough description of the research context and the assumptions that were central to the research. The criteria applied were made explicit, according to the purpose and orientation of the study (Patton, 2002).

To ensure confirmability in this study, the researcher and an external auditor reached agreement that the findings, conclusions and recommendations made by the researcher were supported by the data and that the researcher’s interpretation of the data was meaningful and relevant.
Dependability was achieved through clear and thorough description of methods used in gathering, analysis and interpretation of data, as well as in the precise and comprehensive reporting of data. Documentation was such that other researchers would be able to follow the investigative process and reach similar conclusions given the researcher’s data, perspective and situation (Marshall & Rossman, 1995).

Findings

Thematic content analysis gave rise to the identification of the themes relevant to exploring the nature of stress responses experienced by women in relation to unplanned Caesarean sections. Three distinct phases / categories of women’s stress experiences were identified, being stress experienced prior to the Caesarean, stress experienced during the Caesarean, and stress experienced post-Caesarean. The data held within these themes was analysed into discrete parts; concepts relevant in developing a deeper understanding of women’s experiences. The categories are named and explained below, indicating and discussing the concepts that have been connected / grouped within each category.

**Stress Experienced Prior to the Caesarean**

Eight of the women experienced a trial of labour before a Caesarean section became necessary. However, due to complications or physical limitations, labour later became prolonged and difficult. In these cases, women described the pain as ‘just unbelievable, it was just incredible’ (Mom #10). The labouring period was considered a physically gruelling experience; one that left mothers ‘tired [and] so exhausted’ (Mom #4). Furthermore, lengthy labouring without progression became
reason for them to be concerned: ‘Nothing was happening...’ (Mom #3), and ‘I started to worry... why is this not going the way it's supposed to, you don't understand what is going on’ (Mom #4). Thus, women acknowledged the presence of physical complications to modify their childbirth experiences, where physical pain and distress increased the risk of a negative and stressful birth experience.

The identification of a medical complication was extremely anxiety-provoking for women. Mom #3 explained: ‘They say “emergency Caesar” and you immediately think something is wrong with the baby’. For seven of the mothers, the uncertainty that they experienced included significant concern about whether their babies were ‘still going to live through all of this’ (Mom #9). Mom #8 explained, saying: ‘I started freaking out, all I could think was you need to get baby out within 5 minutes or baby is going to die’. A fear for the well-being of the baby was therefore described as particularly distressing for mothers and contributed to perceptions of labour as having been traumatic.

Once the decision to perform a Caesarean section had been made, six of the women described the ensuing events as ‘complete and utter chaos’ (Mom #8). This contributed to a sense of bewilderment: ‘It just felt like everything was just going so fast, all rushing past me so quickly. And there was nothing I could do to stop it. I was just lost in it’ (Mom #10). Consequently, in the commotion that accompanied a Caesarean delivery, women were left feeling disorientated, uncertain and insecure: ‘Nurses would rush past me and they wouldn’t tell me where I was or where they were taking me ... I mean, they probably thought that I was supposed to know but I didn’t’ (Mom #6). Mom #7 explained that: ‘It’s so confusing, you don’t know if this is normal, or if this should be happening’. With little time to prepare mentally for the
operation, not knowing what to expect fostered a sense of panic and feelings of helplessness.

**Stress Experienced During the Caesarean**

Mothers’ emotional reactions during the surgery were susceptible to the influence of medical staff’s conduct. Six of the women described staff’s reactions and management of the Caesarean section as frantic. They became concerned in response to the atmosphere of alarm, with their distress pertaining to a sense of emergency: ‘I started freaking out … nothing was controlled, everyone seemed to be in a panic (Mom #8). Mom #2 further explained that: ‘I heard them shouting to each other to hurry up, so it was a bit panicky, which made me a bit panicky … It was very frightening.’ Thus, as mothers struggled to adjust to the frantic rush of operative procedures, staff members’ frenzied management of the situation increased their levels of anxiety.

During preparation for surgery, mothers recounted how ‘you just lie there like a turkey being basted’ (Mom #7). This left them feeling ‘vulnerable and very exposed’ (Mom #4). Surgery itself was detailed as a procedure whereby doctors ‘[cut] you up like they’re going to serve you for dinner’ (Mom 3). Thus, women’s privacy was perceived to have been compromised and they were left feeling uneasy and uncomfortable.

Some women were critical of inadequate communication during the labour period, as it was perceived as contributing to a sense of insecurity and uncertainty: ‘I was feeling very vulnerable and very exposed … I could feel them working on me and I could feel that things were happening, but no one was telling me what they were doing, what was going on…’ (Mom #4). Post-Caesarean, ‘nurses would rush
past me and they wouldn’t tell me where I was or where they were taking me. I was just so frustrated’ (Mom #6). Mothers were left feeling excluded, dismissed and insignificant. Thus, for some women, inadequate communication from staff was both frustrating and anxiety-provoking. In these instances, mothers reported feelings of uncertainty and insecurity. Moreover, they were left feeling excluded, dismissed and insignificant.

Immediately post-Caesarean, all of the women in this study reported their initial contact with their babies to have been delayed. In most cases, this was due to routine Caesarean procedure: ‘So baby doesn’t come straight to mom... they do that, they take baby away to check. There was that distance, that separation...’ (Mom #1). For those mothers not prepared for it, this was described as distressing: ‘...I didn’t know where my baby was and it made me nervous’ (Mom #6). Mom #4 further explained that ‘I just wanted my baby, they had him in the nursery and I couldn’t get to him. It was horrible’. This separation was anxiety-provoking for women, and prolonged the distress experienced throughout the labour and operative process.

**Stress Experienced Post-Caesarean**

During the actual Caesarean procedure anaesthesia numbed the pain, but once the medication had worn off post-Caesarean, mothers described a period of intense ‘physical trauma’ (Mom #7). For all of the women in this study, heightened somatic stress reactions in response to having an unplanned Caesarean section, together with the pain and fatigue that resulted from having a major operation, contributed to a strenuous and wearing initial post-partum period: ‘I was tired, I was so exhausted ... I had nothing left’ (Mom #6). The subsequent prolonged and painful recovery period was extremely taxing for women, primarily because they ‘almost
didn’t even have the energy to care’ (Mom #4). Furthermore, mothers reported having ‘pains in my shoulders, I was tender, I was bruised, I felt like I couldn’t breathe properly’ (Mom #8). This period was frustrating for mothers as they physically struggled to care for their new-borns. As Mom #7 said, ‘Walking her, carrying her, moving, sitting, coughing, sneezing, laughing, was all stuff that I couldn’t do.’ Physical limitations include diminished energy levels and a reduced capacity to perform several self-care and care-giving tasks. For some women, these symptoms persisted for a number of weeks after the birth and were identified as significant contributors to a stressful post-Caesarean experience.

For nine of the women, the desire to have a natural birth encompassed the idea ‘of the baby coming out through the canal, and the closeness; the bond that you form then in that process’ (Mom #1). After having a Caesarean delivery, mothers felt robbed of an intimate birth experience: ‘it was taken away from me’ (Mom #2). Feelings of disappointment were primarily associated with unmet expectations of the birthing experience. As Mom #4 explained, ‘It didn’t go the way I had wanted it to go, the way I had prepared for. It wasn’t what I had been dreaming of, and the thoughts, or feelings, weren’t what I had imagined them to be. It wasn’t what I had wanted.’ Feelings of disappointment were primarily associated with unmet expectations; that is, the experience had not been what women had hoped and planned for.

For some mothers, a Caesarean delivery represented a failure on their part: ‘I failed to be able to give birth naturally … I sometimes blame myself for not pushing harder’ (Mom #5). The disappointment of an unsuccessful natural delivery led to self-doubt and feelings of regret. This resulted in women wondering ‘what have I done wrong?’ (Mom #1), and questioning their abilities as both women and mothers: ‘I thought I had failed myself and womankind as a whole’ (Mom #3). Thus, women’s
self-confidence and self-esteem were threatened as a sense of failure, self-blame and self-doubt left them feeling both inadequate about their own abilities and inferior to other women. Women’s disappointment and dissatisfaction in themselves and the birth process was significant in that, even when the outcome was a healthy baby, it tainted their overall perception and recall of the birth experience.

Five of the women experienced significant emotional disturbance in the post-partum period. Mothers described how ‘the whole thing was so draining … I was finished, mentally and physically’ (Mom #4). The delivery experience was described as ‘an emotional rollercoaster’ (Mom #9), and was associated with emotions such as sadness, disappointment, anxiety and grief in the post-partum period.

Nine of the mothers reported some depressive symptoms. These included psychomotor retardation, a decreased interest in normal activities, irritability and anger, disturbed sleeping patterns, reduced concentration levels, fatigue, low energy levels, feelings of worthlessness or guilt, and persistent sadness. Mom #8 explained how she ‘...just cried and cried. I really battled...’ and Mom #10 agreed, saying: ‘I should’ve been happy but I was just crying for so long and no one knew why … I just really, really battled’.

Four of the mothers reported traumatic stress reactions during the post-partum period. Symptoms included a sense of emotional numbness, such as an absence of relation to the baby, avoidance of things related to the birth, such as the baby, and heightened levels of arousal, such as insomnia and anxiety about the baby’s health: ‘Afterwards, I was extremely scared to even go to sleep and to leave the child alone. For the first couple of nights I didn’t sleep. I was just too scared that something was going to happen’ (Mom #8).
Symptoms of grief after the unplanned Caesarean section included sadness, anger, and guilt. As Mom #7 explained, ‘Thinking about my first child and that whole period, I can only think about the horrible stuff and everything that went wrong, rather than the time with this new baby in the house, and all that nice stuff … Walking her, carrying her, moving, sitting, coughing, sneezing, laughing, was all stuff that I now couldn’t do.’

The occurrence of traumatic post-partum emotional responses coloured women’s already negative perceptions of childbirth by prolonging the distress experienced during the unplanned Caesarean section and hindering recovery. In these instances, adjustment in the post-partum period and the transition to motherhood was complicated by mother’s own emotional adjustment difficulties.

**Discussion**

In this study, an unplanned Caesarean section was described as a distressing, difficult and disappointing experience for women; one that confronted mothers with considerable adjustment difficulties. Consequently, women reported several uncomfortable stress responses. The nature of the stress responses reportedly experienced by women both prior to, and during the Caesarean section was predominantly anxiety-based, whereas they reported more depressive stress responses and symptoms in the post-partum period.

Before and during the Caesarean section, women described feelings of anxiety. Research suggests that women’s feelings of confidence and security quickly change to ones of fear and anxiety when they learn that they are going to have a Caesarean section (Berg & Dahlberg, 1998; Ryding et al., 2000). Culmination of the birth in a Caesarean section has been acknowledged as potentially anxiety-
provoking for women who felt unprepared and had little knowledge of the processes involved (Barclay, Everitt, Rogan, Schmied & Wyllie, 1997; Lavender, Walkinshaw & Walton, 1999; Nelson, 2003). Elements of labour and delivery may then be unexpected and frightening, potentially eliciting traumatic stress responses (Soderquist, Wijma, & Wijma, 2002).

Anxiety-provoking aspects of the unplanned Caesarean section included physical complications and pain for the women in this study. Research suggests that the presence of physical pressures can modify the psychological impact of childbirth (Clement, 2001; Karlstrom, Engstrom-Olfsson, Norbergh, Sjoling & Hildingsson, 2007), where physical distress increases the risk of a negative and stressful birth experience (Stadlmayr et al., 2004). Furthermore, women’s privacy and sense of physical integrity is compromised by their dependence on physicians, a loss of autonomy, feelings of depersonalization, and perceptions of insensitive physical invasion (Ford & Ayers, 2011; Olde et al., 2006; Roux & van Rensburg, 2011).

Treatment by hospital staff during the labour and birth process has been acknowledged as influential in the experience and appraisal of the birth (Clement, 2001; Darvill et al., 2008; Ryding et al., 2000). In this study, women were critical of inadequate communication by staff. Perceived frenzied staff activity therefore increased mothers’ anxiety levels as they failed to understand what was happening around them. The rating of contact with staff in negative terms, the perception of inadequate intra-partum care, a lack of information during labour, a lack of participation in decision-making, and lack of support by staff has been found to be associated with increased anxious stress reactions to unplanned Caesarean section (Baston, Rijnders, Green & Buitendijk, 2008; Creedy, Shocket & Horsfall, 2000; Olde et al., 2006).
Lastly, mothers described an on-going concern for their babies’ health, as well as a period of separation from their babies immediately post-Caesarean. This was articulated as being extremely anxiety-provoking for women. Research explains that throughout births which require intervention procedures, mothers fear for their babies’ well-being (Clement, 2001; Creedy et al., 2000; Olde et al., 2006). Thus, when mothers expect to hold their babies and confirm that they are healthy, maternal anxiety stress responses increase with the duration of mother-infant separation (Feldman, Weller, Leckman, Kuint & Eidelman, 2003).

These descriptions of feelings of vulnerability, helplessness, insecurity and fear all allude to the significance of a power variable. When preconceptions and expectations, dignity or esteem are challenged, the sense of loss of control can be overwhelmingly distressing and anxiety-provoking for women (Roux & van Rensburg, 2011). Soderquist et al. (2002) propose that women unable to integrate these traumatic experiences with prior expectations and core beliefs may be vulnerable to developing adverse post-partum emotional stress responses.

Post-Caesarean, mothers reported several stress responses that they perceived to have hindered their successful adaptation to motherhood. Although not directly or conclusively correlated, women associated psychological stress and morbidity in the post-partum period with an adverse birthing experience (Roux & van Rensburg, 2011). After a traumatic birth experience, the new mother may experience numbness, emotional release, anger, loss, hyper-arousal, low self-esteem, and symptoms of depression (Ayers, 2007; Creedy et al., 2000; Olde et al., 2006). Furthermore, women’s perceptions of an emergency Caesarean can lower their self-esteem and leave them with a sense of failure, loss of control, disappointment, sadness, anger, and guilt (Fenwick, Gamble & Mawson, 2003; Gibbons &
Thompson, 2001; Olde et al., 2006). Researchers warn that those women who are traumatized may experience difficulty in maintaining intimacy, and they may withdraw both emotionally and physically from others (Korja et al., 2009; Meijssen et al., 2010). Avoidance may result in failure to seek appropriate help or support, leading to isolation and inadequate cognitive processing, and in prolonging symptom duration (Ehlers & Clark, 2000). Thus, the occurrence of depressive illness as a stress responses following childbirth can be detrimental to the mother, her marital relationship and her child, and can have adverse long-term effects if left untreated (Robertson et al., 2004).

Conclusions, Implications and Limitations

The experience of an emergency Caesarean section has been identified as a potentially traumatic and stressful experience, which has added to professional understanding of the adverse emotional consequences of surgical delivery on childbearing women (Creedy et al., 2000). Furthermore, some women may experience adverse emotional stress responses during the post-partum period. Even for those mothers who don’t develop acute stress or depressive symptoms, post-traumatic stress responses, grief and adjustment difficulties may all undermine a mother’s ability to successfully adapt to her role as a mother, meet the needs of her infant, and cope with post-partum challenges.

This exploration has important implications for preventive measures, therapeutic intervention and guidance. Professionals involved in pre-natal care should consider strategies for preventing post-Caesarean psychological distress through greater pre-natal preparation for Caesarean deliveries. Findings also draw attention to the encounter between the women and the hospital staff. Staff should be
aware of the importance of positive encounters between themselves and women, as this will affect their levels of satisfaction, comfort and support. These findings can contribute to midwifery and nursing literature by highlighting the difficulties associated with adjusting to an unplanned Caesarean section. Caregivers should be aware of the range of possible psychological responses to Caesarean section so that they may recognize psychological difficulties and distresses in the Caesarean-delivered mothers they care for, and so that they are able to provide the appropriate care and support. Moreover, the qualitative data contribute to the continuously developing body of knowledge about the diversity of mothers’ experiences of unplanned Caesarean sections.

Several methodological limitations may underestimate or misrepresent the impact of the present study. This study did not explore mothers’ psychiatric histories, nor did it investigate pre-natal mood and levels of stress. A woman’s pre-natal emotional functioning could affect her vulnerability and predisposition to the development of post-natal traumatic stress responses. The small sample may limit the generalizability of results. The study did not discriminate between planned versus unplanned pregnancies. This distinction could have important implications for the levels of preparedness, anxiety, and adaptation experienced. Furthermore, this research did not control for the use of instruments (e.g. forceps) or other interventions (e.g. labour induction) that may obscure subjective experiences and post-traumatic stress responses. The women that participated in this study were all Caucasian. Within the South African context, there are women from other racial groups who experience unplanned Caesarean sections. These women live in communities that hold different cultural values and it is important that their perspectives be explored to investigate how different cultural backgrounds influence
women’s experiences of unplanned Caesarean sections. Lastly, it is also possible that the effect of childbirth may have changed over time. As time passes, positive affect for one’s role as a mother may favourably colour a woman’s feelings about her birthing experience (Waldenström, 2004).
References


SECTION 3: ARTICLE 2

The influence of an unplanned Caesarean section on initial mother-infant bonding: Mothers’ subjective experiences

Submitted to The Journal of Psychology in Africa
3.2. INTENDED JOURNAL AND AUTHOR GUIDELINES

Intended journal: The Journal of Psychology in Africa

The manuscript has been styled according to the above-mentioned journal’s specifications (http://www.elliottfitzpatrick.com/jpa.html).

THE JOURNAL OF PSYCHOLOGY IN AFRICA

Editor: Prof. E. Mpofu
Publisher: Elliott & Fitzpatrick

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MANUSCRIPT 3.2.: The influence of an unplanned Caesarean section on initial mother-infant bonding: Mothers’ subjective experiences
The influence of an unplanned Caesarean section on initial mother-infant bonding: Mothers’ subjective experiences

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2012
Abstract

**Objective** The present study aimed to explore the impact of unplanned Caesarean section on mother-infant bonding. The processes occurring during a traumatic birth experience could affect a woman’s psychological state, and she may find the process of becoming a mother particularly distressing. Consequently, many women may struggle to develop maternal identities and relationships with their babies.

**Method** In-depth interviews with 10 women (mean age =28; SD= 1.97) explored their lived experiences of childbirth. Data were analyzed thematically. Phenomenological theory served as a broad framework for the structuring, organizing and categorizing of data. **Conclusions** Adverse responses could influence the establishment of a maternal role identity, the formation of balanced maternal attachment representations, the Caregiving System, and ultimately initial mother-infant bonding.

**Keywords:** attachment; Caesarean section; failed natural birth; interpretive phenomenology; mother-infant bonding; mother-infant relationship.

**Search engines:** Science Direct, Ebsco Host, Google Scholar, SA Epublications
Childbirth and the transition to motherhood are special experiences that make a mother uniquely capable of caring for her child (Fenwick, Gamble & Hauck, 2007). The experience of birth by unplanned Caesarean section places women at risk of having a negative or even a traumatic delivery experience (Gamble & Creedy, 2009; Roux & van Rensburg, 2011). When a woman feels traumatized by her pregnancy and childbirth, she may find the process of becoming a mother particularly distressing as she strives to incorporate these undesired delivery experiences into her self-system. In such a vulnerable situation, the quality of a mother’s post-partum psychological experience may affect the quality of her attachment representations, maternal behaviours and responses, as well as initial mother-infant bonding (Forcada-Guex, Borghini, Pierrehumbert, Ansermet & Muller-Nix, 2011; Wijnroks, 1999; Wilkinson & Scherl, 2006).

**Background and Motivation**

Attachment is described as the emotional bond that one person has with another (Ebbeck & Yim, 2009). Psychologist John Bowlby described it as a "lasting psychological connectedness between human beings" (Bowlby, 1969, p. 194). The attachment bond is characterized by several key elements: (1) an attachment bond is an enduring emotional relationship with a specific person; (2) the relationship brings safety, comfort, soothing and pleasure; and (3) loss or threat of loss of the person evokes intense distress (Perry, 1996). In the field of infant development, attachment theory specifically emphasizes the importance of the emotional connection between the infant and the primary care-giver (Bowlby, 1969).

Klaus and Kennell (1976), building on Bowlby’s work, distinguished between attachment and bonding. Simply stated, bonding is understood to be the process of
forming an attachment; it involves a set of behaviours that will help lead to an emotional connection (attachment) (Carter et al., 2005). Where the term attachment is generally used to describe the tie from infant to parent, bonding then describes the unique and enduring relationship extending specifically from the parent to the infant (George & Solomon, 2008; Kennell & Klaus, 1998; Kennell & McGrath, 2005).

The acts of holding, rocking, singing, feeding, gazing, kissing, and other nurturing behaviours involved in caring for infants and young children are highlighted as bonding experiences (Carter et al., 2005; Klaus & Kennell, 1976; Kennell & McGrath, 2005; Sadock & Sadock, 2007). Factors crucial to bonding include time spent together, face-to-face interactions, eye contact, physical proximity, touch, and other primary sensory experiences such as smell, sound, and taste (Carter et al., 2005). These bonding experiences will influence the subjective relational experiences of both mother and infant (Zeanah & Benoit, 1995). Any factors that interfere with bonding interactive patterns therefore have the potential to interfere with the development of maternal attachment representations and capabilities (Carter et al., 2005; Kennell & McGrath, 2005).

Maternal attachment representations of the infant and mother–infant interactions (behaviours) are highlighted in attachment theory as the caregiving system (Bowlby, 1982). The subjective experiences that affect the mother-infant relationship are the mental representations of each individual’s interaction history (Bowlby 1982; Korja et al., 2010). Mothers develop internal subjective experiences of the relationship with their infant (Zeanah & Benoit, 1995), and in the same way, maternal interaction patterns are experienced by the baby (known as internal working models) (Ainsworth, 1993). When the interactive, reciprocal “dance”
between the caregiver and infant is disrupted or difficult, bonding experiences are difficult to maintain (Carter et al., 2005).

Within the context of traumatic birth experiences, attachment has mainly been examined from the infant's attachment perspective (Forcada-Guex et al., 2011). The development of secure attachment early in life is a key developmental task that influences the child’s representations of the self and others. This dictates aspects of the internal working model which influences future expectations of the self and others, and determines strategies for processing attachment-related thoughts and feelings (Bowlby, 1973, 1980). However, very little research has focused on maternal representations of their infants, and how these representations may affect early mother-infant bonding and maternal attachment processes.

Research indicates a high concordance exists between mothers’ representational models of their own attachment experiences and the quality of their infants’ attachment, with maternal responsivity and sensitivity playing a major role in this construction (Schmücker et al., 2005). It has been suggested that maternal representations are relatively stable (Benoit, Parker, & Zeanah, 1997) and are based on mothers’ own attachment developmental processes in childhood (Bowlby, 1982; Korja et al., 2010). However, Slade, Belsky, Aber, and Phelps (1999) suggest that adult attachment representations are not the only determinants shaping maternal representations, but that factors associated with pregnancy, the nature of the labour and post-partum experience, the actual infant, and the relationship also modify maternal representations (Korja et al., 2010).

An unplanned Caesarean section delivery has been identified as a potentially traumatic experience for those mothers expecting a natural birth (Rijnders et al., 2008). The sense of loss of control and the series of subsequent rapid psychological
adjustments may be distressing, anxiety-provoking and emotionally unsettling for women (Roux & van Rensburg, 2011). Furthermore, the traumatic experience and its consequences have the potential to adversely affect women’s well-being in the long-term (Rijnders et al., 2008). A mother’s unresolved traumatic experiences and negative emotions associated with the labour may then interrupt the maternal representation process that takes place in the post-partum period (Borghini et al., 2006; Korja et al., 2010), and may be related with disorganization of the Caregiving System and maternal attachment behaviours (Planta, Marvin, Britner & Borowitz, 1996).

Research on how a traumatic birth experience may hinder a mother’s ability to be available, sensitive and responsive to her infant is virtually non-existent. There is no existing South African research on the relation between maternal attachment representations and the quality of mother–infant interaction (bonding behaviours) involving infants delivered by an unplanned Caesarean section. Neither does a phenomenological orientation seem to have been applied in local contexts to explore this area of interest. This study therefore aimed at exploring and understanding the subjective experiences and perceptions of South African women who had delivered their babies by an unplanned Caesarean section, as well as how these experiences may have influenced maternal attachment representations and mothers’ relationships with their babies.

**Research Design**

An exploratory, descriptive, qualitative research design was used to explore women’s subjective experiences of an unplanned Caesarean section, as well to describe how these experiences influenced mothers’ relationships with their babies.
Qualitative research examines the lived experience in an effort to describe, explain, understand, and give meaning to peoples' experiences, behaviours, interactions and social contexts (Fossey, Harvery, McDermott & Davidson, 2002; Strauss & Corbin, 1998). Within qualitative research, phenomenology refers to the individual's personal construction of the meaning of a phenomenon (Mertens, 2009). Original data is comprised of ‘naive’ descriptions obtained through open-ended questions and dialogue, and the researcher describes the structure of the experience based on reflection and interpretation of the research participant’s story (Moustakas, 1994). Such an approach places this study within the interpretive phenomenological perspective. The researcher explored in detail how mothers made sense of their unplanned Caesarean and mother-infant relational experiences with the intention of understanding their meaning, while simultaneously interpreting how themes of meaning are structured.

**Research Methods**

The research began with ensuring ethically sound research, followed by data collection and analysis. Throughout the study, trustworthiness of the research findings was ensured.

**Ethical Considerations**

Ethical issues and standards were critically considered in this research project. In accordance with the ethical rules of conduct for practitioners registered under the Health Professions Act, 1974, as stipulated in the HPCSA Ethical Code of Professional Conduct (2004), several measures were taken to ensure the ethicality of this research. Firstly, the research protocol was approved by the Ethics
Committee of the North-West University (Potchefstroom Campus: NWU-00056-09-S1). Thereafter, prospective participants were informed of the background to the study and the voluntary nature of participation in the study. Interviews proceeded once participants had given verbal and written consent. The researcher was fully aware of the sensitive and emotional nature of exploratory inquiry, and the rights and needs of the individual were therefore considered at all times. Furthermore, the participants were assured of confidentiality. Finally, participants were debriefed by a Clinical Psychologist at the resolution of the interview process to resolve any questions, unease or queries.

**Population and Sampling**

Phenomenology uses purposive, non-probability sampling procedures, where participants are included because they have a specific knowledge of the phenomena (Baker, Wuest & Stern, 1992). For the purposes of this study, an unplanned Caesarean section referred to a surgical, Caesarean delivery, despite the mother’s desire to deliver her baby naturally. Such a delivery may have occurred after labour had begun due to unexpected maternal or foetal conditions, or prior to labour, as is the case in an emergency Caesarean delivery. Thus, in this study, the population of interest comprised mothers who had wanted to deliver their babies naturally, but who had instead had to deliver their babies by Caesarean section. Within the population of interest, participants had to comply with the following criteria:

- Married women
- Mothers aged 25-30 years
- It was the birth was of each woman's first-born child that culminated in a Caesarean delivery
• A period of 2 to 4 years had elapsed since each woman’s unplanned Caesarean delivery

• Caucasian women: Cultural beliefs about and values associated with childbearing touch all aspects of social life in any given culture. Such beliefs and values could lend different perspectives to the meaning of childbirth to the childbearing woman (Callister, 2006).

• No previous miscarriages had been experienced

Selection of participants included snowball sampling, as discussed by Babbie (2007), where women nominated acquaintances whom they thought may be willing to participate in the research. The sample comprised ten women, with a mean age of 28 years, who volunteered for in-depth phenomenological semi-structured interviews. Interviews were not limited to a certain number, but continued until data saturation had taken place in order to deepen, enrich and complete categories, themes and concepts (Brink & Wood, 2001).

**Data Collection**

Various aspects were explored in in-depth phenomenological interviews, allowing the researcher to probe certain aspects offered by participants in order to understand and explore their contributions in as much depth as possible. A semi-structured, open-ended approach allowed for the exploration of relevant opinions, perceptions, feelings, and comments in relation to the women’s experiences.

**Data Analysis**

Thematic content analysis allows for detailed analysis of data (Nystedt, Hogberg & Lundman, 2008). When it comes to analysis, phenomenological
researchers engage in active and sustained reflection as they ‘dwell’ with the data and interrogate the content. By applying the analytical method as suggested by Wertz (1983) and Giorgi (1985), analysis involved systematic readings of the transcripts and field notes by first dwelling on the phenomenon (through empathetic immersion and reflection), and then describing emergent psychological structures (i.e., constituents and recurrent themes). Analysis continued with a cross-category search to identify recurring regularities expressed as themes that were seen at an interpretive level as underlying threads of meaning running through condensed meaning units, codes, or categories (Graneheim & Lundman, 2004). Themes were then categorized so that data could be synthesized and comparisons could take place.

**Measures to Ensure Trustworthiness**

To ensure validity of results, Guba’s model (1985) of trustworthiness of qualitative research was applied to this study (Lincoln & Guba, 1985). The model identifies four aspects of enhanced trustworthiness of a study, namely, credibility, transferability, confirmability, and dependability.

To enhance credibility, the researcher engaged in active and sustained reflection during data interpretation to ensure quality, and to highlight the complexity of participants’ experiences (Marshall & Rossman, 1995). The researcher aimed to suspend previous assumptions in order to be open to the phenomenon as it appeared, and to generate a sense of reality and a personal recognition of the phenomenon through precise and rich description. This refers to the extent to which the findings are a function solely of the research participants and conditions of the research, with no biases, motivations and researchers’ perceptions (Krefting, 1991).
Transferability was achieved through thorough description of the research context and the assumptions that were central to the research. The criteria applied were made explicit, according to the purpose and orientation of the study (Patton, 2002).

To ensure confirmability in this study, the researcher and an external auditor reached agreement that the findings, conclusions and recommendations made by the researcher were supported by the data and that the researcher's interpretation of the data was meaningful and relevant.

Dependability was achieved through clear and thorough description of methods used in gathering, analysis and interpretation of data, as well as in the precise and comprehensive reporting of data. Documentation was such that other researchers would be able to follow the investigative process and reach similar conclusions given the researcher’s data, perspective and situation (Marshall & Rossman, 1995).

Findings

Thematic content analysis gave rise to the identification of the themes relevant to exploring mothers’ perceived impact of an unplanned Caesarean section on the mother-infant relationship. In their accounts, mothers described their different bonding experiences during the pre-natal period, during the Caesarean section, and post-Caesarean. Mothers emphasized the pre-natal relationship during the pre-natal period. During the Caesarean section, mothers described a sense of detachment and anticipation. Subsequent to the Caesarean, mothers reported delayed initial contact, a diminished capacity for care-giving, and emotional disturbance. Mothers then portrayed a progressive engagement. The data held within these themes was
analysed into discrete parts; concepts relevant in developing a deeper understanding of women’s experiences. The categories are named and explained below, indicating and discussing the concepts that have been connected / grouped within each category.

**The Pre-Natal Relationship**

For the women in this study, pregnancy was conceptualized as a ‘spiritual...’ (Mom #1) and ‘...special bond[ing]...’ (Mom #10) process. Mothers described developing attachment relationships with the foetuses during this time: ‘I loved him fiercely from the minute he was conceived’ (Mom #3). Mom #4 further explained that pregnancy was ‘...personal, intimate, just between [me and my baby]’. Natural delivery was then perceived to be a significant and symbolic extension of this process; encompassing the idea ‘of the baby coming out through the canal, and the closeness, the bond that you form then in that process’ (Mom #1). Therefore, each mother considered her pregnancy to represent the formation of a unique bond between her and her baby.

**A Sense of Detachment**

The desire to have a natural birth was often associated with a conscious and active process of birthing. Nine of the mothers aspired to work with their bodies to deliver their babies themselves: ‘It’s what my body was designed to do, I was supposed to do it; me, not the doctors’ (Mom #8). However, due to the sedating effects of the medication and the surgical nature of a Caesarean section, women reported a passive labour and birth process: ‘You are just sitting there and your baby is being born for you’ (Mom #7). Delivery by unplanned Caesarean section was
therefore perceived as having been impersonal, with mothers describing a sense of detachment and a loss of intimacy between mother and infant.

**Anticipation**

Despite the anxiety, uncertainty, distress, and sense of detachment experienced during an unplanned Caesarean section, mothers continued to await their babies with anticipation: ‘You’re really happy that this is finally happening and [your baby] is finally coming’ (Mom #9). Acknowledgement of the imminent arrival of their baby can be a powerful reminder of the positive expectations and emotions associated with pregnancy. Mom #1 explained that: ‘It’s fantastic at the same time because you also realise that this is it; your baby is being born, this life is coming into the world, and you’re aware of this miraculous moment.’ Thus, in the midst of the frantic activity and emotional turmoil surrounding the emergency Caesarean surgery, there is still an eager expectancy and excitement for their babies’ arrival.

**Delayed Initial Contact**

Immediately post-Caesarean, all of the women in this study reported their initial contact with their babies to have been delayed. In most cases, this is due to routine Caesarean procedure: ‘So baby doesn’t come straight to mom... they do that, they take baby away to check. There was that distance, that separation...’ (Mom #1). For those mothers not prepared for it, this was anxiety-provoking and somewhat distressing: ‘I was lying there, not really sure what was going on, I didn’t know where my baby was and it made me nervous’ (Mom #6). Mom #4 further explained that ‘I just wanted my baby, they had him in the nursery and I couldn’t get to him. It was horrible’. In some instances, the baby’s incubation delayed initial physical contact: ‘I
just wanted him, I didn’t want to be seeing him through a glass box, I wanted to hold him’ (Mom #3). As Mom #8 explained: ‘I felt like I was a mom with no baby... he felt so far away, he wasn’t with me, he just wasn’t there’ (Mom #8). Thus, regardless of the length of separation, women considered the separation to interrupt initial mother-infant contact and subsequent bonding, and they described a sense of disconnection from their babies.

Despite this initial separation period, for some mothers these feelings of detachment and disconnection dissipated on contact with their babies. On hearing their babies’ initial cries, or on holding their babies for the first time, these mothers’ apprehensions and anxieties associated with the Caesarean section dissolved: ‘[When] they brought him to me I remember thinking, wow, this is my baby’. Feelings of relief and gratefulness referred to a perception that despite the traumatic delivery experience: ‘it is all about a happy, healthy baby. That is more important than anything else’ (Mom #3). Other mothers reported a slightly more gradual, but still powerful bonding process in their relationships with their babies: ‘Seeing him and touching him made the adjustment so much easier, then I could start to bond with him’ (Mom #1). Furthermore, some mothers reported a strengthened a reinforced attachment to their babies. Mom #4 explained: ‘If anything, it made me more protective over him… It’s almost as if you went through this rough patch together, so now you must stick close to each other’. For these women, their emotional reactions to their babies were positive and resulted in affectionate attachment representations.

**Diminished Caregiving Capacity**

For all the women in this study, the prolonged and painful recovery period post-Caesarean was extremely taxing, primarily because they ‘almost didn’t even
have the energy to care’ (Mom #4). Physical limitations included diminished energy levels and a reduced capacity to perform several self-care and care-giving tasks: ‘It was just very uncomfortable, very painful. You’re changing the baby’s nappy and the baby’s kicking right on your stomach and you just want to cry but you’ve just got to carry on’ (Mom #10). Furthermore, mothers consistently described the negative impact of the birth trauma on their breastfeeding experiences: ‘My breasts were so sore’ (Mom #7) and ‘I just battled so much to feed’ (Mom #5). This period was frustrating for some mothers as they struggle to care for their newborns: ‘Walking her, carrying her, moving, sitting, coughing, sneezing, laughing, was all stuff that I couldn’t do... I felt useless’ (Mom #7). Therefore, due to physical limitations, some mothers were left with a feeling of emptiness at not taking part in caring for their babies.

**Emotional Discomfort**

For some mothers in this research, the transition to motherhood was complicated by post-traumatic stress responses. Mothers expressed feelings of high emotional turmoil in relation to their unplanned Caesarean birth: ‘By the end I was finished... I was absolutely drained’ (Mom #4). The delivery experience was described as ‘an emotional rollercoaster’ (Mom #9), and was associated with emotions such as frustration, anxiety, disappointment, and anticipation. Negative post-Caesarean emotional responses included acute trauma symptoms, post-partum ‘baby blues’ or depressive mood disturbance, and grief. Mom #8 explained how she ‘...just cried and cried. Every time he cried, I cried. Every time I cried, he cried. I really battled with him, I just wanted to shut him up. I was so annoyed with him’. Mom #10 agreed, saying that ‘I felt like I didn’t have any patience with her, I was so
angry inside’. Thus, for these women, adjusting to motherhood and connecting with their infants was complicated by their post-partum emotional distress.

**Progressive Engagement**

For these women suffering post-traumatic stress responses, coming to terms with their labour experiences was a longitudinal course. Although ‘that initial period was crazy, and I battled for a long time after [the Caesarean]’ (Mom #7), mothers described a gradual process of acceptance in the months following the birth: ‘It took a while for me to take it all in, and process it all’ (Mom #8). Nevertheless, it increasingly ‘...got easier. It was slow, but it did get easier’ (Mom #3). Several years after their labour experiences, all of the women in this research reported positive relationships with their children: ‘As hard as the whole [Caesarean section] was, I still loved him from the second he was born’ (Mom #3). As Mom #7 explained: ‘It was something that happened to me, it was my experience, that I had. It was outside of her control. It wasn’t her fault, she wasn’t responsible for it. To try and blame her for it isn’t going to change anything’. Thus, despite the trauma linked with their birth experiences, mothers described an association of their feelings with the Caesarean surgery itself, rather than with their babies.

**Discussion**

In this study, women depicted a special bonding process during pregnancy. Parratt (2002) explains that a natural delivery is then understood to promote further maternal-infant connection, and ease the transition to motherhood (Parratt, 2002). An unplanned Caesarean section was therefore described as a distressing, difficult and disappointing experience; one that confronted women with considerable
adjustment difficulties (Roux & van Rensburg, 2011). Darvill, Skirton and Farrand (2008) explain that a disruption of the expected natural continuity between pregnancy, delivery and motherhood can be both negative and traumatic. Research then suggests that unmet childbirth expectations and the consequent traumatic responses may disrupt the Caregiving System (Forcada-Guex et al., 2011; Gibbons & Thompson, 2001; Schmücker et al., 2005).

Women perceived the effects of medication and the nature of the Caesarean surgery to depersonalize the experience; that is, the experience had not been as intimate as they had hoped for (Roux & van Rensburg, 2011). As evidenced in other research, feelings of physical invasion and exposure, together with physical reactions to medication and anaesthesia, have been described in the literature as feelings of detachment (Clement, 2001; Fenwick, Gamble & Mawson, 2003; Nystedt et al., 2008; Ryding, Wijma & Wijma, 1998). Anaesthesia and medication numb all physical sensations of birth, and mothers feel disconnected from their bodies and their babies (Goldbort, 2009; Herishanu-Gilutz, Shahar, Schattner, Kofman & Holcberg, 2009). Furthermore, mothers described compromised early mother-infant interaction post-Caesarean and related feelings of detachment. Passivity, initial separation, delayed physical contact, and feelings of detachment have been suggested to disrupt the expected natural continuity between pregnancy, delivery, and motherhood (Darvill et al., 2008; Nystedt et al., 2008; Olin & Faxelid 2003), and negatively impact maternal role acquisition, the formation of initial maternal attachment representations, and early mother-infant bonding (Eden, Hashima, Osterweil, Nygren & Guise, 2004; Forcada-Guex et al., 2011; Korja et al., 2010).

Despite this, some mothers described feelings of devotion, overwhelming love and protectiveness towards their infants. Research (Fenwick, Holloway & Alexander,
2009; Nystedt et al., 2008; Wilkins, 2005) suggests that for some women, becoming a mother after the emotionally challenging unplanned Caesarean section involves feelings of having a deep and significant bond with their babies. This emotional bond and sense of connectedness is representative of mothers' positive attachment representations (Bryanton, Gagnon, Hatem & Johnston, 2009; Darvill et al., 2008), and is likely to influence affectionate maternal caregiving and bonding behaviours (Herishanu-Giltuz et al., 2009; Korja et al., 2010).

In the post-partum period, mothers described the impact of pain and physical recovery on caregiving behaviours. Physical tenderness and overwhelming fatigue have been acknowledged as factors that may compromise mothers' abilities to be responsive and available to their newborns (Karlstrom, Engstrom-Olfsson, Norbergh, Sjoling & Hildingsson, 2007). Furthermore, breastfeeding after a Caesarean birth may be impeded by the pain and fatigue that results from having a major operation (Beck & Watson, 2008; Karlstrom et al., 2007). This is understood to have important implications for a woman's perceptions of herself as a mother and her ability to provide for her infant, her self-esteem, and feelings of relatedness with her baby (Beck & Watson, 2008; Manhire, Hagan & Floyd, 2007; McGrath & Phillips, 2009).

Some women in this study acknowledged the impact of emotional discomfort in the post-partum period on initial mother-infant bonding. More recently, the link between maternal mood disturbances and mother-infant interaction has become an area of interest in research (Noriko, Mequmi, Hanako & Yasuko, 2007; Olde, van der Hart, Kleber & van Son, 2006). The potential traumatic impact of the birth may cause adverse physical, anxious, or depressive stress reactions (Kersting et al., 2004, 2009; Singer et al., 1999), which may be linked with cognitive distortions (Paris,
Bolton & Weinberg, 2009), lower maternal self-esteem (Good Mojab, 2009), and greater parenting stress (Creedy, Shochet & Horsfall, 2000). Such consequences may be associated with initial non-balanced attachment representations, and could affect a mother's maternal sensitivity and responsivity towards her infant (Meijssen et al., 2011; Rosenblum, McDonough, Muzik, Miller & Sameroff, 2002; Sokolowski, Hans, Bernstein & Cox, 2007). This is significant in that, after a traumatic birth experience, emotional disturbance and post-traumatic stress responses could influence growth and transformation in the establishment of a maternal role identity, the formation of balanced maternal attachment representations, the caregiving system, and ultimately the engagement and bonding process in mother-infant interaction (Korja et al., 2010; Nelson, 2003).

Nevertheless, in the long-term mothers reported positive relationships with their toddlers. Theran, Levendosky, Bogat and Huth-Bocks (2005) explain that maternal attachment representations of the child, after a traumatic event, show less stability over time. Research further suggests that as coping strategies change (Aldwin & Werner, 2007; Strumpfer, 2005), passage of time may promote mothers’ emotional engagement with the experience as well as with their babies (Roux & van Rensburg, 2011; Yokote, 2008). However, Schmucker et al. (2005) warn that this should not negate the presence of initial unbalanced maternal attachment representations. Although maternal attachment representations may stabilize (Benoit et al., 1997), a mother’s unresponsiveness and maternal insensitivity during infancy can have debilitating and lasting effects on an infant’s attachment development (Barnes et al., 2007; Herishanu-Gilutz et al., 2009; Raval et al., 2001).
Conclusions, Implications and Limitations

The experience of an emergency Caesarean section has been identified as a potentially traumatic experience, which has added to professional understanding of the adverse emotional consequences of surgical delivery on childbearing women (Creedy et al., 2004; Roux & van Rensburg, 2011). Although mothers report positive mother-child relationships in the long-term, this research significantly draws attention to the possible risk of a traumatic birth experience on initial maternal attachment representation and the mother-infant bonding process. Disruption of initial mother-infant attachment processes may then have significant and far-reaching consequences in the development of a child’s attachment security and representational development (Forcada-Guex et al., 2011; Korja, 2010; Toth, Cicchetti, Rogosch & Sturge-Apple, 2009).

This exploration therefore has important implications for preventive measures, therapeutic intervention and guidance. These findings can contribute to midwifery and nursing literature by highlighting the difficulties associated with adjusting to an unplanned Caesarean section, and the impact that this may have on initial mother-infant bonding. Caregivers should be aware of the range of possible psychological responses to Caesarean section so that they may recognize psychological difficulties and distresses in the Caesarean mothers they care for, and so that they are able to provide the appropriate care and support. Furthermore, professionals involved in pre-natal care should consider strategies for preventing post-Caesarean psychological distress through greater pre-natal preparation for Caesarean deliveries. Moreover, the qualitative data contribute to the continuously developing body of knowledge about the diversity of mothers’ experiences of unplanned Caesarean sections.
Several methodological limitations may underestimate or misrepresent the impact of the present study. The small sample may limit the generalizability of results. The study did not discriminate between planned versus unplanned pregnancies. This discrimination could have important implications for pre-natal maternal attachment representations, as well as the levels of preparedness, anxiety, and adaptation experienced. Maternal attachment representations linked to the mother's own experiences in childhood are understood to play a major role in a mother’s attachment representations of her infant, as well maternal behaviour post-partum (Bowlby, 1982; Korja et al., 2010). Mothers’ own attachment styles were not explored in this study. This may be useful to investigate in further research to determine the impact of mothers' own attachment styles on post-natal attachment representation, initial mother-infant bonding, and the management of traumatic birth experiences. Lastly, the women that participated in this study were all white. Within the South African context, there are women from other racial groups who experience unplanned Caesarean sections. These women live in communities that hold different cultural values and it is important that their perspectives be explored to investigate how different cultural backgrounds influence women’s experiences of unplanned Caesarean sections.
References


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SECTION 4: ARTICLE 3

Mothers’ coping with an unplanned Caesarean section

Submitted to The Journal of Peri-Natal Education
4.1. INTENDED JOURNAL AND AUTHOR GUIDELINES

Intended journal: The Journal of Peri-Natal Education

The manuscript has been styled according to the above mentioned journal’s specifications (www.springerpub.com).

THE JOURNAL OF PERI-NATAL EDUCATION

Editor: Wendy C. Budin
Publisher: Springer Publishing Company

Journal Guidelines

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MANUSCRIPT 3.2.: Mothers’ coping with an unplanned Caesarean section
Mothers’ coping with an unplanned Caesarean section

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2012
This study explored mothers’ coping strategies in dealing with birth by unplanned Caesarean section. Mothers’ experiences of a traumatic birth could be influenced by perceived strengths when coping with the stress related to the incident. Coping strategies could result in reassessment of the birth process and be associated with a more positive and memorable experience. In-depth interviews with 10 women explored their lived experiences of childbirth. Data were analyzed thematically. Phenomenological theory served as a framework for the structuring, organizing and categorizing of data. Mothers described several factors and coping strategies that they perceived to be effective in reducing the impact of their traumatic birth experiences.

**Keywords:** mother’s expectations or experiences; coping; Caesarean section; interpretive phenomenology; qualitative research.
Childbearing is acknowledged as a significant developmental transition for women, especially for first-time mothers (Darvill, Skirton & Farrand, 2008). Birth by unplanned Caesarean section has been identified as a traumatic experience for women; one that has the potential to disrupt this transition to motherhood (Roux & van Rensburg, 2011; Ryding, Wiren, Johansson, Ceder & Dahlstrom, 2004). According to Gibbons and Thompson (2001), there is a correlation between women’s experiences of birth, their expectations, and their perceived abilities to cope with the process. The processes occurring during a traumatic birth experience, such as during an unplanned Caesarean section, could affect a woman’s emotional and psychological state and could be influenced by perceived strengths when coping with the stress related to the incident (Singer et al., 2010). Coping strategies could thus result in reassessment of the birth process, and be associated with a more positive, acceptable and memorable experience (Escott, Slade, Spiby & Fraser, 2005).

**Background and Motivation**

The impact of a Caesarean birth on women has begun receiving more attention in recent years. For a woman desiring a natural birth, a birth culminating in an unplanned Caesarean section may colour and complicate her labour experience (Roux & van Rensburg, 2011). Existing literature on the topic persistently documents negative psychological and emotional responses to Caesarean delivery among women (Gamble & Creedy, 2009; Ryding, Wijma & Wijma, 1998; Stadlmayr et al., 2006; Weiss, Fawcett & Aber, 2009; Yokote, 2008). Despite this, not all women who deliver their babies by Caesarean section experience negative psychological outcomes (Ryding et al., 2004). Although there are women who feel devastated by their Caesarean birth experiences and have long-term negative psychological
outcomes, there are women whose post-Caesarean psychological profile and birth appraisal is relatively positive (Clement, 2001).

Individual responses to threats and challenges are embedded in a complex web of contents, including the event’s characteristics, genetics, physical conditions, life stage, family, social, and cultural factors. These factors influence how an individual perceives, frames, evaluates, interprets, and is affected by an event (Strumpfer, 2005). For new mothers, this may account for some of the individual variation in post-Caesarean psychological outcomes (Baston, Rijnders, Green & Buitendijk, 2008; Clement, 2001). A woman’s attitude towards birth, her expectations, and her personal and subjective attributed meaning to giving birth could affect her feelings of satisfaction, strength, esteem and achievement (Gibbons & Thomson, 2001). Psychological vulnerability, cultural factors and aspects of care received also appear to influence the psychological effects of caesarean delivery (Clement, 2001). Furthermore, coping strategies may moderate the impact of women’s stressful labour experiences, and effect more positive appraisal outcomes (Aldwin & Werner, 2007).

Coping refers to the cognitive, behavioural and belief strategies that are intentionally employed in order to manage internal and external demands (Hamilton & Lobel, 2008, Lazarus & Folkman, 1984). These demands are experienced as being challenging and exceeding perceived personal resources required for intervention. Coping strategies are not concerned with an objective evaluation of a successful outcome, but rather a subjective experience of an attempt to effect or manage a perceived stressful event (Lazarus & Folkman, 1984). Both situational and intrapersonal factors including available resources, competing demands, and the perceived controllability of a situation influence how an individual copes with stress
(Hamilton & Lobel, 2008; Lobel, Yali, Zhu, de Vincent & Meyer, 2002; Moos & Holahan, 2003). Furthermore, there is an active interplay between past experiences, current perceptions and the perceived results of the mechanisms employed, resulting in re-evaluation of the experience (Thoits, 1995).

Successful coping is linked with resilience resources (Tugade, Fredrickson & Feldman Barrett, 2004). 

Resiliency is a pattern of psychological actions consisting of a drive to be tough in the face of unwarranted demands, the goal-directed behaviour of coping and rebounding, and of supplementary emotions and cognitions (Strumpfer, 2002). Although coping and resilience are related constructs, they are distinct in that coping refers to a wide set of skills and purposeful responses to stress, whereas resilience refers to positive adaptation in response to serious adversity (Rosen, Glennie, Dalton, Lennon & Bozick, 2010). Through specifying mothers’ achievement of positive adjustment in the face of traumatic or negative birth experiences, resilience encapsulates the view that adaptation to significant adverse birth experiences can occur through coping trajectories (Luthar, Cicchetti & Becker, 2000).

A number of possible coping responses have been identified and examined in the literature (Avero, Corace, Endler & Calvo, 2007; Carver, Scheier, & Weintraub, 1989; Endler & Parker, 1990, 1999; Lazarus & Folkman, 1984). Updegraff and Taylor (2000) group these strategies into three general categories: active coping, acceptance and positive reinterpretation, and avoidance coping. Active coping refers to strategies that are directed at problem solving, and entail taking direct action to confront the stressor and reduce its effects (Carver et al., 1989). Acceptance and positive reinterpretation refer to acceptance of a stressor as real and unavoidable, as well as attempts to focus on the positive aspects of a situation (Updegraff & Taylor,
Avoidance coping refers to primarily emotion-focused strategies, which may reduce the distress associated with a stressful event by denial or withdrawal from the situation, without reducing the noxious aspects of the situation itself (Endler & Parker, 1990, 1999).

Variations in coping strategies are associated with variations in adaptive and maladaptive emotional adjustment (Avero et al., 2007). Active coping can lead to adjustment and improvement by both reducing the distress and the impact of a traumatic event, as well as by contributing to perceptions of stress-related growth. Acceptance and positive reinterpretation coping may be most adaptive in situations that are not controllable by direct action. In contrast, an avoidant coping style appears to be a less adaptive response to a stressful life event and can ultimately lead to greater long-term distress and disruptive cycles of intrusion and avoidance (Updegraff & Taylor, 2000).

An unplanned Caesarean section has been described as a distressing, difficult and disappointing experience; one that confronted women with considerable adjustment difficulties (Roux & van Rensburg, 2011). In some instances, this can have significant and far-reaching consequences for their psychological well-being (Fenwick, Gamble & Hauck, 2007; Porreco & Thorp, 1996; Ryding et al., 1998). Thus, exploration and understanding of how women respond to, and cope with an unplanned Caesarean section has important implications for therapeutic intervention. Despite this, phenomenological research on how women cope with unplanned Caesarean section is virtually non-existent, both internationally and in South Africa. This study therefore aimed at exploring and understanding how a group of South African women coped with their experiences of an unplanned Caesarean section.
Research Design

An exploratory, descriptive, qualitative research design was used to explore and describe women’s subjective experiences of an unplanned Caesarean section. Qualitative research examines the lived experience in an effort to describe, explain, understand, and give meaning to peoples’ experiences, behaviours, interactions and social contexts (Fossey, Harvey, McDermott & Davidson, 2002; Strauss & Corbin, 1998). Within qualitative research, phenomenology refers to the individual’s personal construction of the meaning of a phenomenon (Mertens, 2009). Original data is comprised of ‘naive’ descriptions obtained through open-ended questions and dialogue, and the researcher describes the structure of the experience based on reflection and interpretation of the research participant’s story (Moustakas, 1994). Such an approach places this study within the interpretive phenomenological perspective (Roux & van Rensburg, 2011). The researcher explored in detail how mothers made sense of their unplanned Caesarean experiences with the intention of understanding their meaning, while simultaneously interpreting how themes of meaning are structured.

Research Methods

The research began with ensuring ethically sound research, followed by data collection and analysis. Throughout the study, trustworthiness of the research findings was ensured.

Ethical Considerations

Ethical issues and standards were critically considered in this research project. In accordance with the ethical rules of conduct for South African
psychologists registered under the Health Professions Act, 1974, as stipulated in the HPCSA Ethical Code of Professional Conduct (2004), several measures were taken to ensure the ethicality of this research. Firstly, the research protocol was approved by the Ethics Committee of the North-West University (Potchefstroom Campus: NWU-00056-09-S1). Thereafter, prospective participants were informed of the background to the study and the voluntary nature of participation in the study. Interviews proceeded once participants had given verbal and written consent. The researcher was fully aware of the sensitive and emotional nature of exploratory inquiry, and the rights and needs of the individual were therefore considered at all times. Furthermore, the participants were assured of confidentiality. Finally, participants were debriefed at the resolution of the interview process to resolve any questions, unease or queries.

**Population and Sampling**

Phenomenology uses purposive, non-probability sampling procedures, where participants are included because they have a specific knowledge of the phenomena (Baker, Wuest & Stern, 1992). For the purposes of this study, an *unplanned Caesarean section* referred to a surgical, Caesarean delivery, despite the mother’s desire to deliver her baby naturally. Such a delivery may have occurred after labour had begun due to unexpected maternal or foetal conditions, or prior to labour, as is the case in an emergency Caesarean delivery. Thus, in this study, the population of interest comprised mothers who had wanted to deliver their babies naturally, but who had instead had to deliver their babies by Caesarean section. Within the population of interest, participants had to comply with the following criteria:

- Married women
• Mothers aged 25-30 years
• It was the birth of each woman’s first-born child that culminated in a Caesarean delivery
• A period of 2 to 4 years had elapsed since each woman’s unplanned Caesarean delivery
• Caucasian women: Cultural beliefs about and values associated with childbearing touch all aspects of social life in any given culture. Such beliefs and values could lend different perspectives to the meaning of childbirth to the childbearing woman (Callister, 2006).
• No previous miscarriages had been experienced

Selection of participants included snowball sampling, as discussed by Babbie (2007), where women nominated acquaintances whom they thought may be willing to participate in the research. The sample comprised ten women, with a mean age of 28 years, who volunteered for in-depth phenomenological semi-structured interviews. Interviews were not limited to a certain number, but continued until data saturation had taken place in order to deepen, enrich and complete categories, themes and concepts (Brink & Wood, 2001).

**Data Collection**

Various aspects were explored in in-depth phenomenological interviews, allowing the researcher to probe certain aspects offered by participants in order to understand and explore their contributions in as much depth as possible. A semi-structured, open-ended approach allowed for the exploration of relevant opinions, perceptions, feelings, and comments in relation to the women’s experiences.
Data Analysis

Thematic content analysis allows for detailed analysis of data (Nystedt, Hogberg & Lundman, 2008). When it comes to analysis, phenomenological researchers engage in active and sustained reflection as they ‘dwell’ with the data and interrogate the content. By applying the analytical method as suggested by Wertz (1983) and Giorgi (1985), analysis involved systematic readings of the transcripts and field notes by first dwelling on the phenomenon (through empathetic immersion and reflection), and then describing emergent psychological structures (i.e., constituents and recurrent themes). Analysis continued with a cross-category search to identify recurring regularities expressed as themes that were seen at an interpretive level as underlying threads of meaning running through condensed meaning units, codes, or categories (Graneheim & Lundman, 2004). Themes were then categorized so that data could be synthesized and comparisons could take place.

Measures to Ensure Trustworthiness

To ensure validity of results, Guba’s model (1985) of trustworthiness of qualitative research was applied to this study (Lincoln & Guba, 1985). The model identifies five aspects of enhanced trustworthiness of a study, namely, credibility, transferability, confirmability, dependability, and authenticity.

To enhance credibility, the researcher engaged in active and sustained reflection during data interpretation to ensure quality, and to highlight the complexity of participants’ experiences (Marshall & Rossman, 1995). The researcher aimed to suspend previous assumptions in order to be open to the phenomenon as it appeared, and to generate a sense of reality and a personal recognition of the
phenomenon through precise and rich description. This refers to the extent to which the findings are a function solely of the research participants and conditions of the research, with no biases, motivations and researchers’ perceptions (Krefting, 1991).

Transferability was achieved through thorough description of the research context and the assumptions that were central to the research. The criteria applied were made explicit, according to the purpose and orientation of the study (Patton, 2002).

To ensure confirmability in this study, the researcher and an external auditor reached agreement that the findings, conclusions and recommendations made by the researcher were supported by the data and that the researcher’s interpretation of the data was meaningful and relevant.

Dependability was achieved through clear and thorough description of methods used in gathering, analysis and interpretation of data, as well as in the precise and comprehensive reporting of data. Documentation was such that other researchers would be able to follow the investigative process and reach similar conclusions given the researcher’s data, perspective and situation (Marshall & Rossman, 1995).

Findings

Thematic content analysis gave rise to the identification of the themes relevant to exploring how women coped with their experiences of birth by unplanned Caesarean section. These themes have been categorised for identification, being information, control, support, and time. The data held within these themes was then analysed into discrete parts; concepts relevant in the exploration of mothers’ coping with unplanned Caesarean section. The categories are named and explained below,
indicating and discussing the concepts that have been connected / grouped within each category.

**Information**

Information received was acknowledged by mothers as important in their experienced sense of inclusion, choice and control. Women described the significance of communication and information in relation to perceived levels of preparedness, involvement in decision-making, and having questions answered.

**Preparation** Once the decision to perform an emergency Caesarean section had been made, six of the women described the ensuing events as ‘complete and utter chaos’ (Mom #8). For some women, this contributed to a sense of bewilderment: ‘It just felt like everything was just going so fast, all rushing past me so quickly. And there was nothing I could do to stop it. I was just lost in it’ (Mom #10). However, although anxiety-provoking, the pandemonium was less distressing for those women who had been prepared during pregnancy for the possibility of having a Caesarean section: ‘[My doctor] said he would try to give me a natural birth, but he also said that we must see what happens (Mom #1). As Mom #2 described, ‘I obviously really wanted to give natural birth, but I also knew that sometimes it does go wrong, it wouldn’t be the absolute end of the world, and so I was aware of that’ (Mom #2). This was important for the expectant mothers in that ‘I knew what to expect, I knew what would happen, I knew about the recovery process’ (Mom #3). Thus, having developed knowledge of the Caesarean procedure prior to labour contributed to a greater sense of surety and security in terms of levels of predictability, controllability, and expectancies. Thus, mothers were able to cope with
their Caesarean section experiences as previous preparation helped to decrease subsequent feelings of disappointment to a certain degree.

**Having questions answered** In the commotion that accompanied a Caesarean delivery, women were left feeling disorientated, uncertain and insecure. As Mom #6 explained: ‘I couldn’t really comprehend what was happening and why it was happening’. Thus, post-Caesarean, women spoke of the need to have their questions answered, and to be able to talk about their Caesarean section with caregivers to try to appreciate the circumstances surrounding their labour experiences. The explanation by doctors as to the reasons behind why the Caesarean had to be performed helped to reassure mothers that it was the right thing to do, as well as to calm their anxieties about their own and their babies’ well-being: ‘The doctor came and explained everything that happened and everything that she had to do. It made a difference, you know. It just kind of reassures you that everything is okay, you’re going to be okay, and that the baby is going to be okay (Mom #9). This was comforting for women, in that ‘it makes you feel better, because you know exactly why it happened. I think a lot of women actually wonder did I do something wrong? Was it my fault? At least if you get that explained, you know why (Mom #9). This was important for women in that they ‘knew it wasn’t anything [they] had done’ (Mom #3), and that it didn’t ‘make [them] bad mother[s]’ (Mom #1). Understanding gained through such discussion therefore determined the level of acceptance of the procedure, and the degree of satisfaction with the birth experience.
Control

For all of the women in this study, an unplanned Caesarean section was associated with a loss of control. Loss of control was described in relation to a loss of physical and/or emotional control, and was primarily related to unmet expectations. Nevertheless, mothers were able to achieve some sense of control over isolated aspects of their Caesarean deliveries, and this was acknowledged as significant in determining more positive birth appraisals. Control was effected in decision-making and inclusion in the process.

Involvement in decision-making The extent to which mothers felt that they had been involved in decision-making determined their feelings of confidence and satisfaction. Mothers who felt that they hadn’t been included in decision-making described feeling ignored, intimidated and pressurized by staff and doctors. For these women, a sense of being undermined during labour contributed to more negative birth appraisals. Conversely, mothers who felt that they had played a role in decision-making felt respected and valued, and were more accepting of consequent events. As Mom #1 said: ‘My gynea was amazing, he asked me, he listened, and I wasn’t pushed into it. I knew that my rights and my wishes were being respected. I had wanted a natural and I had tried, and when it had to happen then, well it had to’.

Inclusion in the process The desire to have a natural birth was often associated with a conscious and active process of birthing. Nine of the mothers aspired to work with their bodies to deliver their babies themselves. The passivity of a Caesarean section therefore left mothers feeling disengaged and removed from the birth of their child, and that the active and physical experience of childbirth had
been lost. Therefore, being informed and aware of what was happening during labour and birth was an important variable in determining how women experienced and coped with the birth: ‘My [gynaecologist] talked me through it and, before he did anything, he told me what he was going to do, and [he] did everything so I could see it. Even in surgery, I could see all the instruments, which helped. I guess it kind of helped to connect me with my body a bit’ (Mom #1). Inclusion in the Caesarean procedure thus helped contribute to a sense of control, by promoting sustained participation and contribution.

**Support**

Support was identified as a significant mediator in women’s birth and labour experiences, as it served a protective and encouraging role. Mothers in this study recognized several sources of support, including doctors, *midwives and medical staff*, their *husbands, family and friends*, and their *religion*.

*Doctors, midwives and medical staff* Characteristic qualities and attributes of doctors, midwives and staff played a significant role in reducing the stress experienced by mothers during birth. A soothing personality style was a source of reassurance and comfort for mothers, and helped to lower anxious responses. As Mom #6 described, ‘[The doctor] is a very calm sort of person. You know, the way he talks to you, he just has a way of making you feel at ease.’ Furthermore, throughout the entire birth process, the level of care received from staff was perceived to be of significant value. Sympathetic, attentive and supportive assistance from staff, especially during the initial period after the surgery, played a significant role in mothers’ experiences of the Caesarean delivery. Encouraging, placating and
accommodating staff members were ‘wonderful in helping to accept what was happening’ (Mom #3). Their support helped mothers to feel ‘a lot more comfortable, it helps to take off the edge, and it just made it so much easier’ (Mom #8). Women valued having professional carers who appeared to care about them as individuals, and were more positive about their caesarean experience.

**Husband** A husband’s presence was of remarkable significance in women’s labour and birth experiences. The shared experience of their babies’ births represented an intimate connection between husbands and wives, and it ‘was exciting going through it together’ (Mom #3). Furthermore, it was symbolic of the transformation into a family unit. These women described that ‘as a family, [it was] the ultimate connection’ (Mom #1). Additionally, affection and support from their husbands was a source of reassurance and consolation to women. Husbands were identified as a considerable source of comfort, providing women with a sense of familiarity in the unknown, anxiety-provoking Caesarean environment: ‘I don’t know how I would’ve done it without him. Having the person you love and trust the most there, it kind of eases all the rest of it’ (Mom #2). Thus, having their husbands present helped to neutralize or counteract women’s feelings of uncertainty and anxiety.

**Family and friends** Family members and friends were regarded by mothers as other significant sources of environmental support: ‘My mom and my sister were at my house for seven weeks straight after [my daughter] was born, and I didn’t have to lift a finger or anything. We just used to sit and we’d just talk. And that’s how we kind of got through it’ (Mom #10). As Mom #7 said: ‘It was difficult, but I called my
mother-in-law and sister-in-law, and they were just amazing... Their support was incredible'. Family and friends served to reassure mothers, assist them in self-care tasks, and calm their anxieties. Difficult feelings and physical limitations that followed the Caesarean section were thus experienced as more manageable with the care and assistance of others.

**Religion** For six women, religion appeared to influence their coping processes and outcomes through tenets and attitudes. During labour and surgery, prayer for safety and well-being was described as a way in which mothers’ were able to achieve a sense of comfort: ‘I wasn’t alone, I had [God’s] hand on me, I knew it would always be alright (Mom #1). Post-Caesarean, mothers described their faith as having contributed to an acceptance of the process as the way it had to be: ‘God had other plans for me’ (Mom #3). Thus, a trust in a higher being helped to calm mothers’ anxieties and encourage peace of mind. Furthermore, mothers described an appreciative approach to the birth outcomes: ‘There [my baby] was, and no matter how it happened, here was a beautiful miracle’ (Mom #3). As Mom 1 described: ‘I just kept reminding myself that God had blessed with me with this baby, and knowing that I was given the ability to love him just made it easier’ (Mom #1). Prayer groups were also identified as a source of support: ‘I remember everybody sitting with me and they were praying for me, for strength and for calm. It was so powerfully reassuring and soothing’ (Mom #3). Thus, mothers’ religious beliefs helped in relieving stress, retaining a sense of control, and maintaining hope and a sense of meaning and purpose.
**Attitudinal and Emotional Response**

Post-partum responses to unplanned Caesarean section varied amongst women. For some women, the initial post-partum period was characterized by *positive emotional reaction*. For others, it reflected *disengagement*.

**Positive emotional reaction** Despite the trauma associated with unplanned Caesarean section, five of the mothers experienced the emotional adjustment during the post-partum period as relatively uncomplicated. Affectionate recollections of mother-infant bonding, family union, and maternal role acquisition illustrated positive post-Caesarean experiences: ‘All thoughts of the process disappear and you’re so aware of this little life … I just stopped focusing on myself, and let myself think about him’ (Mom #1). Mom 3 said: *I loved him no matter what, he was still my baby and [the Caesarean] wouldn’t change how I felt about him*. For some mothers, having a positive attitude involved a conscious decision. Mom #4 described how ‘the whole was just so exhausting. It was so hard. But I couldn’t dwell on it, it wasn’t about me, it was about [my baby]. I had to pick myself up and move on’. Regardless of whether mothers experienced a natural positive reaction or had to consciously regulate their responses, time spent between mother and infant was described by these women as ‘an amazing, special, bonding time’ (Mom #1).

**Disengagement** For five of the women, the experience of early motherhood was marred by emotional disturbance. These mothers reported a variety of traumatic stress reactions, depressive symptoms, and grief responses. For these women, addressing and dealing with their negative birth experiences was challenging. Four of the women reported that during this time, they had resisted inter-personal
interaction: ‘I didn’t want to see anybody... I refused for them to come and see me. I didn’t even want to see the baby’ (Mom #5). Mom #10 explained: ‘I just really needed time on my own, to just deal with stuff, to get through it’. Other mothers enjoyed fantasies about getting out of the situation: ‘I wanted to run away, it was all I could think about’ (Mom #8). Other functional distractions included ‘TV, reading, listening to music, computer games, washing dishes, making food, anything routine that stopped my world from completely being absorbed by this thing that happened’ (Mom #7). Thus, disengagement served to help mothers ‘get out of our heads for a while’ (Mom #8).

**Time**

For seven mothers, coming to terms with their labour experiences was a longitudinal course. Mom #5 said: ‘That initial period was crazy, I battled for a long time after [the Caesarean]’. In the months following the birth, mothers described a gradual process of acceptance: ‘It took a while for me to take it all in, and process it all’ (Mom #8). Increasingly ‘it got easier. It was slow, but it did get easier’ (Mom #3). For these women, passage of time promoted both an emotional engagement with the experience and an increased sense of appreciation for circumstances surrounding the experience. Ultimately, positive adjustment to their negative birth experiences was dependent on women’s on-going coping strategies.

**Discussion**

Becoming a mother is a life-changing event and a status passage, particularly for first-time mothers (Fenwick, Holloway & Alexander, 2009). Many women enter labour with particular anticipations of the birth and it has been shown that whether or
not expectations are met, women still consider them to be important after delivery (Lavender, Walkinshaw & Walton, 1999; Roux & van Rensburg, 2011). It has been suggested that forming a positive appraisal of birth depends on how well events have lived up to expectations; studies have shown that when such expectations are fulfilled, women report higher levels of satisfaction (Baston et al., 2008; Hauck, Fenwick, Downie & Butt, 2007; Tulman & Fawcett, 2003). Roux and van Rensburg (2011) found that an unplanned Caesarean section was described as a distressing, difficult and disappointing experience for women; one that confronted mothers with considerable adjustment difficulties. However, despite unfulfilled expectations and negative experiences, mothers described several strategies, resources and factors that promoted adaptation, coping and adjustment.

For the women in this study, the provision of clear and realistic information prior to birth enhanced feelings of preparedness and enhanced emotional well-being after the Caesarean surgery. Furthermore, women emphasized the need to discuss the circumstances surrounding their birth experiences afterwards, and to have their questions answered. This is consistent with research that indicates that communication by the health-care professionals is an important factor in promoting women’s understanding of the indications for an operative birth (MacMillan, 2010), in determining the degree to which women accept their Caesarean delivery as having been necessary (Clement, 2001), and in whether women have positive or negative memories of the event (Fenwick et al., 2009; Murphy, Pope, Frost & Liebling, 2003). Thus, information and knowledge received prior to childbirth about the Caesarean process appears to reduce post-Caesarean psychological distress (Jay, 2008; Nilsson & Lundgren, 2009), and increase women’s confidence in their ability to cope with the experience (Ip, Tang & Goggins, 2009).
Another important aspect of communication that was identified as an important dimension of care was the extent to which women felt informed about or involved in decision-making. Being informed and contributing to what is happening during labour and birth has been identified as an important variable in determining how women experienced the birth (Howarth, Swain & Treharne, 2011; Melender, 2002), by contributing to a sense of inclusion and respect in the process (Lyberg & Severinsson, 2010). Decision-making may involve aspects over labour and the actual Caesarean section, hospital admission, medication and pain relief, and treatment of the baby immediately after delivery (Clement, 2001; McDonald, Amir & Davey, 2011). In this study, women who felt that they had been informed and involved in decision-making felt respected and valued, and were more accepting of consequent events. Furthermore, they were more positive about having relinquished control to caregivers.

The degree to which women felt prepared, informed, and involved in decision-making seemed to have a positive effect on their sense of self, and was identified as significant contributors to women’s sense of control over the experience. Research (Gibbins & Thompson, 2001; Lobel & DeLuca, 2007) consistently suggests that a perceived sense of control may enhance psychological outcomes, adjustment, and satisfaction with the experience, even if expectations differ from reality (Al-Nuaim, 2004; Gibbins & Thomson, 2001; Updegraff & Taylor, 2000). Maintaining a sense of control has been linked with establishing a sense of purpose and fulfillment, and therefore with more desirable delivery outcomes (Fenwick at al., 2009; Olde, van der Hart, Kleber & van Son, 2006).

Mothers’ social networks were identified as a remarkable source of support for women. Many studies have identified the contribution of supportive care to a positive
evaluation of the birth (Baston et al., 2008; Hauck et al., 2007; Waldenström, 2004). The most important source of support and encouragement for women came from their husbands. The familiarity and company of their partners provided a sense of comfort and security throughout the birth experience. These findings are supported by other studies, which describe partners as valuable in providing support, encouragement and reassurance, and in helping a woman to maintain control and acting as her advocate (Gibbons & Thomson, 2001; Hodnett, Gates, Hofmeyr & Sakala, 2009; Lavender et al., 1999).

Support from family and friends was identified as an important resource, especially Post-Caesarean. Social support may be in the form of emotional support, aid, information, validation, and/or affirmation (Cacciatoro, Schnebly & Froen, 2009; Melender, 2002). For many women, the unfamiliar territory of pregnancy and early motherhood created a need for others to help guide them through the transition. Aside from professional advice and counselling, Darvill et al. (2008) explain that informal ‘mentorship’ from friends and relatives serves as a valuable source of support for women, as it affords some positive feedback to them to normalise their feelings and experiences, and in so doing support the individual self-concept.

In this study, caregiving by health care professionals contributed significantly to women’s perceptions of childbirth. Research on women’s experiences of Caesarean childbirth consistently suggests that the perceived quality of care received has an important influence on the psychological impact of a caesarean section (Clement, 2001; Parratt, 2002; Waldenström, 2004). Attentive, considerate and sympathetic caregiving was reported to affect mothers’ experiences of birth by unplanned Caesarean section positively, by contributing to a sense of support (Roux
& van Rensburg, 2011). Novick (2009) explains that women value working with professionals who appear to care about them as individuals.

Notably, religion was identified as significant in predicting more positive birth experiences. The relationship between religion and/or spirituality, mental health, and coping has been receiving more attention in recent years (Miller & Thoresen, 2003). Religious involvement appears to buffer individuals against the negative effects of a traumatic experience (Halama & Bakosova, 2009; Kendler, Gardner & Prescott, 1997; Krumrei & Pargament, 2008). It may help in bolstering feelings of (secondary) control, increasing women’s confidence in their ability to manage their experiences, and in enhancing self-concept (Ellison & Levin, 1998). Through prayer and other intrapsychic religious coping efforts, primary appraisals of the birth may be altered, leading mothers to reassess the meaning the birth experience as an opportunity for spiritual growth (Graham, Furr, Flowers & Burke, 2001; Koenig & Larson, 2001).

The women in this study described different emotional reactions to their Caesarean experiences. Attitudes to childbirth have been identified to influence how likely a woman is to experience an adverse psychological outcome after a caesarean (Clement 2001), as well as how she will cope with the experience (Hamilton & Lobel, 2008). This is because of the significance of emotion-regulation coping strategies (Reisenzein & Weber, 2008). Emotional and attitudinal responses to traumatic experiences represent varying cognitive adaptations and schemas, and are determinant of adaptive versus maladaptive appraisals and coping patterns (Lobel, Hamilton & Cannella, 2008).

Lastly, time appeared to play a role in women’s coping with their traumatic labour experiences. Research suggests that coping strategies often change over time (Aldwin & Werner, 2007; Strumpfer 2005). Waldenström (2004) explains that as
time passes, positive affect for one’s role as a mother may favourably colour a woman’s feelings about her birthing experience. Thus, it is possible that, despite the initial trauma and negative feelings associated with the Caesarean section, the effect of childbirth may have changed over time as mothers’ attention and focus shifted.

From women’s descriptions, several coping styles and strategies in relation to managing traumatic birth experiences were identified. The new mothers highlighted the significance of receiving social support. Literature identifies the seeking of social support as an active coping strategy (Prati & Pietrantoni, 2009). Seeking social support for emotional reasons includes attaining moral support, sympathy and understanding (Updegraff & Taylor, 2000). Seeking social support may also be for instrumental reasons, such as in seeking advice or assistance (John & Gross, 2007). Information-seeking, another active coping response, appears to be effective in reducing the impact of a traumatic event by focusing on confronting and resolving certain aspects of a stressful experience (Updegraff & Taylor, 2000). Additionally, such information may promote acceptance and positive reinterpretation of an event through improved understanding of circumstances surrounding a traumatic event, as well by contributing to an increased sense of mastery and control over the experience (Fenwick et al., 2009; John & Gross, 2007).

For the women in this study, religion as a source of emotional support encouraged reconsideration of the circumstances surrounding their traumatic birth experiences. This reflects a process of acceptance and reinterpretation of the experience. Acceptance and reinterpretation, an emotion-focused aspect of resiliency, is the tendency to manage distress emotions, rather than deal with the experience per se (Lazarus & Folkman, 1984). As a traumatic experience gradually becomes construed in more positive terms, a person is intrinsically able to continue
active, problem-focused coping strategies (Carver et al. 1989). Recently, this has been acknowledged as a significant determinant of stress-related growth (Updegraff & Taylor, 2000). Thus, with passage of time, women’s initial negative appraisals of the birth experience developed into more positive ones. However, although this reflects a measured acceptance and re-appraisal, it also reveals an initial avoidance of addressing and coping with the experience (Carver et al., 1989).

Avoidance coping, which refers to primarily emotion-focused coping strategies, have been identified as reducing the distress associated with a stressful event by denial or withdrawal from the situation, without reducing the noxious aspects of the situation itself (Endler & Parker, 1990, 1999). The women in this study reported varying forms of behavioural and mental disengagement, which served to distract and delay them from thinking about and dealing with their experiences. These coping responses are generally acknowledged as less helpful in that they often impede adaptive coping. However, in terms of resiliency, avoidance coping may be useful in reducing short-term distress, and may be an effective strategy for dealing with a short-term stressor such as a traumatic labour experience (Melender, 2002; Updegraff & Taylor, 2000).

Conclusions and Limitations

The recent proliferation of research on coping shows evidence of the recognition of the prospective and potential of this construct. Facilitating adaptive coping may represent effective means to alleviate stress during the post-partum period and reduce its undesirable effects on women and their offspring (Veloso, 2007). Further exploration of such an aspect of competence may provide insight into the ability of new mothers to continue to thrive and function despite their
high-risk status, and may lead to increased empirical efforts to understand individual variations in response to adverse childbirth experiences. This, in turn, could contribute to the development and expansion of theory and research in the field, as well as the designing of appropriate prevention and intervention strategies (Luthar et al., 2000).

Several methodological limitations may underestimate or misrepresent the impact of the present study. The small sample may limit the generalizability of results. The study did not discriminate between planned versus unplanned pregnancies. This distinction could have important implications for the levels of preparedness, anxiety, and adaptation experienced. Furthermore, this research did not control for the use of instruments (e.g. forceps) or other interventions (e.g. labour induction) which may obscure subjective experiences. The women that participated in this study were all Caucasian. Within the South African context, there are women from other racial groups who experience unplanned Caesarean sections. These women live in communities that hold different cultural values and it is important that their perspectives be explored to investigate how different cultural backgrounds influence women’s experiences and coping of unplanned Caesarean sections. Finally, the study did not control for individual characteristics, which may have influenced subjective responses and reactions to stress.
References


5.1. **Summary**

The current section has as its major objective the main conclusions based on the three manuscripts and the interpretation of qualitative information. Possible limitations of the study will be noted, the implications of the findings will be explored, and recommendations will be made for future research.

Research suggests that Caesarean deliveries have increased substantially in recent years (Fokazi, 2011; Hamilton et al., 2007). Yet despite medical advances, many women still hold strong views about the importance of actively participating and working with their bodies to achieve a vaginal birth (Roux & van Rensburg, 2011). Thus, for those women anticipating and expecting to deliver their babies naturally, a failed natural birth can be a psychological and existential challenge (Fenwick et al., 2007; Porreco & Thorp, 1996; Ryding et al., 1998).

The primary aim of this study was to explore, understand and describe women’s subjective experiences and perceptions of birth by unplanned Caesarean delivery. The objective of the first article was to explore women’s accounts with specific regard to the consequent stress responses experienced. The second article highlighted the possible impact of women’s unexpected and potentially traumatic childbirth experiences on initial mother-infant bonding. In the third article, women’s experiences were contextualized in relevant coping resources and strategies.

This study was undertaken from a qualitative, phenomenological perspective. The elements of phenomenological theory served as a broad framework for the structuring, organizing and categorizing of data, with interpretation aimed at gaining a greater understanding of women’s internalised childbirth accounts.
5.2. Conclusions of Section 2 / Article 1: The stress responses experienced by a group of mothers who gave birth by unplanned Caesarean section

In this study, an unplanned Caesarean section was described as a difficult, disappointing, and distressing experience for women. Three distinct phases / categories of women’s stress experiences were identified, being stress experienced prior to the Caesarean, stress experienced during the Caesarean, and stress experienced post-Caesarean.

Before and during the Caesarean section, women described feelings of anxiety. Culmination of the birth in a Caesarean section has been acknowledged as potentially anxiety-provoking for women who felt unprepared and had little knowledge of the processes involved (Barclay, Everitt, Rogan, Schmied & Wyllie, 1997; Lavender, Walkinshaw & Walton, 1999; Nelson, 2003).

During the actual Caesarean surgery, anxiety-provoking aspects of the unplanned Caesarean section included physical complications and pain. Such physical pressures can increase the risk of a negative and stressful birth experience (Stadlmayr, Schneider, Amsler, Burgin & Bitzer, 2004), and can modify the resultant psychological impact of childbirth (Clement, 2001; Karlstrom, Engstrom-Olofsson, Norbergh, Sjoling & Hildingsson, 2007). Staff’s behaviour and their treatment of mothers during operative processes were also found to be associated with increased anxious stress reactions. Lastly, mothers described an on-going concern for their babies’ health. Research explains that throughout births which require intervention procedures, mothers can experience fear and anxiety for their babies’ well-being (Clement, 2001; Creedy at al., 2000; Olde et al., 2006).

Post-Caesarean, mothers reported several depressive stress responses that they perceived to have hindered their successful adaptation to motherhood. Such
symptoms can include numbness, emotional release, anger, loss, hyper-arousal, low self-esteem, and symptoms of depression (Ayers, 2007; Creedy et al., 2000; Olde et al., 2006). These responses can lower a woman’s self-esteem and leave her with a sense of failure, loss of control, disappointment, sadness, anger, and guilt (Gibbons & Thompson, 2001; Fenwick, Gamble & Mawson, 2003; Olde et al., 2006). The occurrence of traumatic post-partum emotional responses coloured women’s already negative perceptions of childbirth by prolonging the distress experienced during the unplanned Caesarean section and hindering recovery.

In conclusion, the stress responses experienced by women both prior to, and during the Caesarean section were predominantly anxiety-based, whereas they reported more depressive symptoms in the post-partum period. The experience of adverse emotional consequences during the post-partum period can undermine a woman’s ability to successfully adapt to her role as a mother, meet the needs of her infant, and cope with post-partum challenges.

5.3. Conclusions of Section 3 / Article 2: The influence of an unplanned Caesarean section on initial mother-infant bonding: Mothers’ subjective experiences

In this study, mothers described their different bonding experiences during the pre-natal period, during the Caesarean section, and post-Caesarean.

During the pre-natal period, pregnancy was depicted as a special bonding time between mother and baby. For these women expecting natural birth as a symbolic extension of this process, an unplanned Caesarean section was then described as a negative and traumatic experience.
Due to the sedating effects of medication, together with feelings of physical invasion and exposure, mothers reported a sense of disconnection from their bodies and babies during the birthing process. This left them disappointed in the loss of expected intimacy in the experience. Furthermore, the initial separation period and delayed physical contact with their babies immediately after delivery was experienced as a form of detachment. It has been suggested that perceived disruption in the desired natural continuity between pregnancy, delivery and motherhood (Darvill et al., 2008; Nystedt et al., 2008; Olin & Faselid 2003) could negatively impact maternal role acquisition, the formation of initial maternal attachment representations, and early mother-infant bonding (Eden, Hashima, Osterweil, Nygren & Guise, 2004; Forcada-Guex, Borghini, Pierrehumbert, Ansermet & Muller-Nix, 2011; Korja et al., 2010).

Nevertheless, during labour and indeed even during the Caesarean section, mothers continued to await their babies with eager anticipation. Furthermore, some mothers described devotion and feelings of protectiveness towards their infants. This sense of connectedness is representative of mothers’ positive attachment representations (Bryanton et al., 2009; Darvill et al., 2008), and is likely to influence affectionate maternal caregiving and bonding behaviours (Herishanu-Giltuz et al., 2009; Korja et al., 2010).

Subsequent to the Caesarean, the prolonged and painful recovery period was described to have impacted negatively on women’s abilities to care for their newborns. This is understood to have important implications for a woman’s perceptions of herself as a mother and her ability to provide for her infant, her self-esteem, and feelings of relatedness with her baby (Beck & Watson, 2008; Manhire, Hagan & Floyd, 2007; McGrath & Phillips, 2009).
For some mothers in this research, the transition to motherhood was complicated by emotional discomfort. The potential traumatic impact of the birth may cause adverse physical, anxious, or depressive stress reactions (Kersting et al., 2004; Kersting et al., 2009; Singer, Salvator, Guo, Collin, Lilien & Baley, 1999). Such consequences may be associated with initial non-balanced attachment representations, and could affect a mother’s maternal sensitivity and responsivity towards her infant (Meijssen et al., 2010; Rosenblum, McDonough, Muzik, Miller & Sameroff, 2002; Sokolowski, Hans, Bernstein & Cox, 2007).

In sum, adverse reactions and experiences could influence the establishment of a maternal role identity, the formation of balanced maternal attachment representations, the Caregiving System, and ultimately initial mother-infant bonding (Korja et al., 2010; Nelson; 2003).

Nevertheless, in the long-term mothers reported positive relationships with their toddlers. Theran, Levendosky, Bogat and Huth-Bocks (2005) explain that maternal attachment representations of the child, after a traumatic event, show less stability over time. Research further suggests that as coping strategies change (Aldwin & Werner, 2007; Strumpfer, 2005), passage of time may promote mothers’ emotional engagement with the experience as well as with their babies (Roux & van Rensburg, 2011; Yokote, 2008).

5.4. Conclusions of Section 4 / Article 3: Mothers’ coping with an unplanned Caesarean section

The mothers in this study described several factors and coping strategies that they perceived to have been effective in reducing the impact of their traumatic birth
experiences. From their narratives four significant themes were identified, being information, control, support, and time.

Information received was acknowledged by mothers as important in their experienced sense of choice, inclusion, and control. Upon reflection of their birth experiences, women acknowledged that the information received in the pre-natal period had affected their perceived levels of preparedness when confronted with the possibility of a Caesarean section. Subsequent to having delivered their babies, women emphasized that they needed to discuss the circumstances surrounding their birth experiences. This included having their questions answered. These findings indicate that communication by health-care professionals is an important factor in enhancing women’s understanding and acceptance of their Caesarean births. In this way, information and knowledge appears to reduce psychological distress related to the birth experience, which may promote more adaptive coping processes.

For all of the women in this study, an unplanned Caesarean section was associated with a loss of control. Loss of control was described in relation to a loss of physical and/or emotional control, and was primarily related to unmet expectations. Nevertheless, the extent to which women felt informed about or involved in decision-making appears to have contributed to a sense of inclusion and respect in the process. This was found to affect a more positive sense of self, as mothers were able to achieve a sense of purpose and control over some aspects of their Caesarean deliveries. Consequently, through their perceived sense of inclusion and involvement, mothers reported an increased acceptance of the whole Caesarean process. More positive birth appraisals appear to decrease resultant levels of emotional distress, and enhance the perceived manageability of the experience.
Mothers’ social networks were identified as a remarkable source of support for women. The most important source of care and reassurance for women came from their husbands. Support from family and friends was identified as another important resource, especially Post-Caesarean. Attentive, considerate and sympathetic caregiving by doctors, midwives and medical staff was reported to affect mothers’ experiences of birth by unplanned Caesarean section positively, by contributing to a sense of support. Notably, religion was identified as significant in predicting more positive birth experiences. Support, in its different forms, was identified as a significant mediator in women’s birth and labour experiences as it served a protective and encouraging role.

Post-partum responses to unplanned Caesarean section varied amongst women. For some women, the initial post-partum period was characterized by a positive emotional reaction. For others, it reflected a disengagement. Due to the significance of these emotion-regulation coping strategies, women’s attitudes about their birth experiences appear to influence the likelihood of an adverse psychological outcome.

Lastly, coming to terms with their labour experiences was a longitudinal course for some mothers. It is possible that mothers’ coping strategies may affect their associations of birth as they grow in sense of self and security.

From women’s descriptions, several coping styles and strategies in relation to managing traumatic birth experiences were identified. For some women, initial avoidance and disengagement was the adopted coping mechanism. Avoidance coping reduces the distress associated with a stressful event by denial or withdrawal from the situation, without reducing the noxious aspects of the situation itself (Endler & Parker, 1990, 1999). Although generally acknowledged as less helpful in that they
often impede adaptive coping, avoidance coping may be useful in reducing short-
term distress (Melender, 2002; Updegraff & Taylor, 2000).

Active coping strategies, such as information-seeking, appear to be effective in reducing the impact of a traumatic event by focusing on confronting and resolving certain aspects of a stressful experience (Updegraff & Taylor, 2000). This may promote acceptance and positive reinterpretation through improved understanding of the circumstances, as well contribute to an increased sense of mastery and control over the experience (Fenwick et al., 2009; John & Gross, 2007).

Other active coping strategies, such as the seeking of social support and the application of religion, are emotion-focused aspects of resiliency. This is the tendency to manage distress emotions rather than deal with the experience per se (Lazarus & Folkman, 1984). As the intensity and effect of difficult emotions subsequently decreases, a person is intrinsically more able to continue active, problem-focused coping strategies (Carver et al., 1989).

Through the use of the above-mentioned coping mechanisms, women's initial negative appraisals of their birth experiences appeared to have developed into more positive ones.

5.5. **Implications of the study**

This study contributes to nursing, midwifery and psychological literature, by adding to the professional understanding of the emotional consequences of surgical delivery on South African childbearing women. Firstly, these findings expose the experience of an emergency Caesarean section as a potentially traumatic experience. Women’s emotional reactions to this trauma are revealed, and include post-traumatic stress responses, depressive symptoms, grief, and adjustment
difficulties. Secondly, this study explores resiliency and the negating impact of adaptive coping strategies on adverse emotional outcomes. Lastly, this research also draws attention to the risk of a traumatic birth experience on initial maternal attachment representation and the mother-infant bonding process (Borghini et al., 2006). The potential traumatic impact and consequent emotional responses of the birth may impair maternal role acquisition (Nystedt et al., 2008; Weiss et al., 2009), may affect a mother’s maternal feelings and sensitivity towards her infant, and may be associated with non-balanced attachment representations (Meijssen et al., 2010).

This exploration therefore has important implications for preventative measures, therapeutic intervention, and professional guidance. Professionals involved in pre-natal care should consider strategies for preventing post-Caesarean psychological distress through greater pre-natal preparation for Caesarean deliveries. Furthermore, guidelines should be given to expecting mothers about positive attachment behaviours in the post-partum period. Hospital staff should be aware of the importance of positive encounters between themselves and women, as this will affect women’s levels of satisfaction and comfort. Caregivers should also be aware of the range of possible psychological responses to Caesarean section so that they may recognize psychological difficulties and distresses in the Caesarean mothers they care for, and so that they are able to provide the appropriate care and support. Prophylactic interventions, such as post-partum counselling and debriefing, may also help to diminish psychological complications of an emergency Caesarean section. Ultimately, the aim of the above-mentioned measures would be to reduce the potential development of adverse emotional responses to an unexpected and traumatic birth experience.
5.6. **Limitations of the current study**

Several methodological limitations may underestimate or misrepresent the impact of the present study. The small sample may limit the generalizability of results. The study did not discriminate between planned versus unplanned pregnancies. This distinction could have important implications on pre-natal attachment representations, as well as levels of preparedness, anxiety, and adaptation experienced. Furthermore, this research did not control for the use of instruments (e.g. forceps) or other interventions (e.g. labour induction) which may obscure subjective experiences. The women that participated in this study were all white. Within the South African context, there are women from other racial groups who experience unplanned Caesarean sections. It is also possible that the effect of childbirth may have changed over time. As time passes, positive affect for one’s role as a mother may favourably colour a woman’s feelings about her birthing experience. This study did not explore mothers’ psychiatric histories, nor did it investigate pre-natal mood and levels of stress. A woman’s pre-natal emotional functioning could affect her vulnerability and predisposition to the development of post-natal traumatic stress responses. Finally, the study did not control for individual characteristics, which may have influenced subjective responses and reactions to stress.

5.7. **Recommendations for further research**

This study controlled for culture due to the inherent implications of cultural beliefs on perceptions of birth, means of giving birth, resources and coping strategies. Nevertheless, South Africa is a diverse nation and due regard should be given to women in other areas and cultures. These women live in communities that
hold different values and it is important that their perspectives be explored to investigate how different cultural backgrounds influence women’s experiences of unplanned Caesarean sections.

Further research could explore the influence of expecting mothers’ individual characteristics, pre-natal emotional functioning, and pre-existing attachment representations on post-natal emotional outcomes. Through the identification of at-risk variables for post-partum stress, preventative and protective measures could be developed and put in place to reduce adverse outcomes.

The recent proliferation of research on coping shows evidence of the recognition of the prospective and potential of this construct. Further exploration of such an aspect of competence may provide insight into the ability of new mothers to continue to thrive and function despite their high-risk status, and may lead to increased empirical efforts to understand individual variations in response to adverse childbirth experiences. This, in turn, could contribute to the development and expansion of theory and research in the field, as well as the designing of appropriate prevention and intervention strategies.

Lastly, longitudinal studies would be useful in exploring the emotional journey from conception to a few years after the birth. This would be significant in terms of identifying specific areas of emotional vulnerability, predisposition for adverse emotional outcomes, coping and supportive structures, and the patterns of attachment relationships.

5.8. Closing remark

During this study I was privileged to share in the meaningful and intimate experiences of a group of women. I am so grateful to them for their willingness to
participate in this research project, as well as for the opportunities held within this phenomenological journey. It is my hope that the findings of this research will be meaningful to the midwifing, nursing and psychological professions, and that they will translate into practical and positive implications for childbearing women.

When you change the way you view birth, the way you birth will change

~Marie Mongan~
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