

EXPERIENCES OF MOTHERS WHO GIVE BIRTH BEFORE ARRIVAL AT THE BIRTHING UNIT

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ABSTRACT

The purpose of this research was to explore and to describe the experiences of mothers who give birth before arrival at a maternity unit in the Nelson Mandela Bay Municipal area in South Africa to enhance support and healthcare provided to them by healthcare providers. The study used a qualitative research design and implemented explorative, descriptive and contextual approaches. Birth-before-arrival at the maternity unit was found to be an experience with diverse emotional reactions, namely embarrassment, concern, anxiety, anger, but also in some cases the participants were comfortable with giving birth at home. Another challenging experience was the delay of paramedics in responding and arriving following a call-out. Some midwives were experienced to be unsupportive at the maternity unit by showing no compassion, and not providing the necessary privacy as expected. Recommendations for midwifery practice focused on improving the health education of pregnant women with regard to danger signs during pregnancy, signs of labour, a birth companion, birth packages, emergency numbers to call if in labour, and in-service education for the emergency response teams to make them aware of the implications of a delayed response to a call of a woman in labour. It is also recommended to deploy a sufficient number of midwives for community service in addition to those that are in labour wards. There appeared to be an urgent need for collaboration between managers and midwives and the emergency response teams to review transport-related policies and to enhance communication processes between these two departments.

Keywords: birth before arrival; experiences; mother; support services

Introduction and Background

Pregnancy can be a period of great anticipation and excitement for most mothers and mothers-to-be, their partners and families. Most pregnant women attend antenatal

care clinics. Benefits from these services include a healthy pregnancy and outcome, monitoring of the current pregnancy condition, and health education on the labour processes. Although midwives give advice on how to give birth in a safe and healthy environment, some mothers end up giving birth unexpectedly, either at home or en route to the maternity unit. These births are known as a birth-before-arrival (BBA) (McLelland, McKenna, and Archer 2013, e19).

BBA is defined as the birth of a baby before the arrival of a midwife. It could be a birth in an inappropriate location without the support of a midwife or medical officer trained in maternity care (McLelland, McKenna, and Archer 2013, e19). When a BBA happens the woman often experiences disempowerment, embarrassment and loss of dignity (Bryanton et al. 2008, 24). Furthermore, besides the personal effects, the experience of BBA has also been shown to cause postpartum depression, fear of future childbirth and post-traumatic stress disorder (Dietsch et al. 2010, 3).

The incidence of BBA is a global phenomenon and is affecting many high- or low-income countries. For example, among the 17 849 births in the Maribor region in Slovenia, there were 58 (3.2%) unattended births at home and on the way to the hospital (Lazić and Takač 2011, 12). The phenomenon is also evident in Australia with an average rate of 4.2 per cent for the years 1992–2011 (Thornton and Dahlen 2018, 1). In South Africa there has also been a steady increase in the rate of BBAs. In 2009, South Africa had a BBA rate of 5.4 per cent (Parag, McKerrow, and Naby 2014, 45) and 10 per cent in 2013 (Alabi et al. 2015, 2) with 5.7 per cent in KwaZulu-Natal and 5 per cent in Gauteng. The highest incidence rate occurred in the Eastern Cape with 7 per cent from January 2012 to December 2013. If one focuses on this province, the statistics related to local communities and services are therefore important to be considered in the context of the study.

In the Nelson Mandela Bay Municipal area (NMBM), which is a municipality in the Eastern Cape, a constant rise in the BBA rate has been noted by the researcher (Department of Health 2011–2012). In one of the midwife obstetric units (MOUs) in the municipal area between January 2012 and December 2012 there were 7.4 per cent BBA deliveries, while in another one within the same period the rate was 7.3 per cent, which was a rise of 2 per cent from 2011. For the year 2014 there was a significantly high number of BBAs for the above MOU, with 129 BBAs out of 1 218 deliveries. In 2015 there were 87 BBAs out of 1 088 deliveries, a high number though showing a marked reduction of BBAs compared with those of the year 2014. The above statistics were obtained from the MOU's annual statistics report of deliveries. In view of the above statistics, BBA remains a matter of concern not only because of the high number as shown above; but also because of the risk factors regarding maternal and neonatal health.

There are several risk factors that make certain mothers-to-be vulnerable to BBA. Pregnant women from low socio-economic backgrounds who have no access to

healthcare services tend to be more susceptible to BBA (Chiragdin 2013, 10; Lazić and Takač 2011, 12). Socio-economic risk factors such as long travel distances to maternity units and the lack of access to transport to the maternity unit are contributing factors to BBA (Blondel et al. 2011, 1171). In South Africa, poor service delivery and the negative attitudes of midwives were cited by Silal et al. (2012, 10) as another cause of BBA.

Antenatal services are therefore a platform for not only building rapport between mothers and midwives but also for dispelling fears and myths about birthing practices. Pregnant women need to be educated about danger signs during pregnancy and labour and mothers need to be referred to community midwives or other centres for postnatal and collaborative care.

Statement of the Research Problem

Data from the Nelson Mandela Bay maternity ward have reported an increase in the number of mothers who give birth without professional assistance. The BBA is partly blamed on a delay in ambulance response times and mothers who wait until their labour is advanced before visiting the hospital. Most of these deliveries are during night-time and mothers experience physical and psychological trauma. These mothers feel embarrassed and unhappy with themselves and are reluctant to respond to questions related to their labour, thus making it difficult for a true labour history and further management of the mother and the baby. At times the mother seems not to want to bond or breastfeed her baby and midwives start fearing for baby abandonment after being discharged (Ashbacher 2013, 19). Most of these babies are born prematurely and therefore the risk of respiratory compromise and death increases (Khupakonke, Beke, and Amoko 2017, 2).

With the challenge of the shortage of material and human resources, the two hospitals in the area are under pressure to provide adequate care to these babies. The mothers usually refuse to stay in the hospital thus leading to a challenge of feeding their babies. Information gathered from this study and the results thereof could, notwithstanding the current policies, assist to increase awareness among the emergency response units of the need to promptly respond to a maternity call-out. The information can also make midwives at the maternity unit aware of the necessary support and care they need to provide to the mothers who experienced BBA. The government and those with the necessary managerial positions could be advised of the need of the service of community midwives.

Research Question

How do mothers experience giving birth before arrival at a maternity unit? What support do these mothers need?

Purpose of the Study

The purpose of this study was to obtain an in-depth understanding of the experiences of mothers giving birth before arrival at the birthing unit to enhance support and healthcare provided to them.

Objectives of the Study

The objectives of the study were to explore and to describe the experiences of mothers giving birth before arrival at the birthing unit and to make recommendations to enhance the support and healthcare provided by healthcare providers.

Research Methodology

Research Design

A qualitative research design was used implementing an explorative, descriptive and contextual research approach.

Research Methods

The target population for the study was mothers who had experienced BBA at the maternity units in the NMBM between October 2014 and December 2014. Purposive criterion-based sampling was used to select participants. Criteria were mothers who had delivered their babies before arrival at the maternity unit, who had been admitted on arrival, and who had to spend at least 8 and not more than 12 hours in the MOU before being discharged. They had to be between the ages of 18 to 36 years. The babies had to be alive and healthy at the time of data collection. The researcher excluded the mothers that had been referred to a higher level of care owing to their and their babies' health conditions in order to protect the mothers from mental and emotional harm. The area of study had five MOUs that each had at least four delivery beds. The researcher identified the two MOUs using convenient sampling, because the catchment area falling under the two facilities had the highest rate of BBAs at the time (Department of Health 2011–2012). Both midwife-only-units are located in areas where there is a mixed cultural population with Afrikaans and English being the main languages used, and the distances from the local emergency response team office to the residences are similar. The researcher aimed for a sample of at least 12 participants; but following data saturation (Burns and Grove 2009, 361) the sample size was 9 participants. (See Table 1 for the characteristics of the participants.)

Table 1: Characteristics of participants

No	Age in years	Race	Language	Gravidity/parity	Gestation at birth	Unit of birth	Weight of baby kg
1	26	African	English	G2P2	Term	MOU 1	2.9
2	29s	Coloured	Afrikaans	G5P5	Term	MOU 2	2.9
3	28	African	English	G2P2	Term	MOU 1	3.2
4	32	Coloured	English	G3P3	Term	MOU 2	3.2
5	24	Coloured	Afrikaans	G3P3	Term	MOU 2	2.3
6	26	Coloured	Afrikaans	G3P3	Term	MOU 2	3
7	23	Coloured	Afrikaans/English	G2P2	Term	MOU 2	2.95
8	26	Coloured	Afrikaans	G4P3	Term	MOU 2	2.45
9	35	Coloured	Afrikaans	G6P4	Term	MOU 2	2.9

Data Collection

Data were collected over six months from January 2015 to June 2015 owing to delays of permission and ethical clearance for the study. After obtaining the necessary permission and ethical clearance from the Nelson Mandela University's Faculty of Postgraduate Studies Committee, the Department of Health of the Eastern Cape and the unit managers of the five MOUs in the NMBM, the researcher identified suitable participants from the labour ward delivery registers of the two identified MOUs. Only the name, date, mode of delivery and the contact details of the participants were copied from the register. The researcher contacted the participants in person or telephonically for further discussions about their experiences of giving birth before arriving at the maternity unit and the request to be participants in the study. The permission would be requested at least two days before the day of data collection. Interviews would be preceded by confirmation of the voluntary informed consent for participation of each participant. Data were collected by means of one-on-one semi-structured voice-recorded interviews and participants responding to the main question: "How you feel about giving birth before you could reach the midwife obstetric unit?" An interview schedule consisting of three additional questions (De Vos 2011, 352) helped to drive the progress of the interviews and collection of useful data. The questions were as follows:

- I understand your baby was born before you got to the maternity unit. Can you describe what happened that day?
- What happened once you arrived at the maternity unit?
- What could have been done to assist you when you arrived at the unit?

Participants chose to be interviewed at a venue near their homes and therefore the central library was useful in this regard. The duration of the interviews was approximately 20 to 30 minutes.

Trustworthiness

The four criteria of Lincoln and Guba's Model of Trustworthiness (Polit and Beck 2012, 71) were applied to ensure trustworthiness of the study. To ensure credibility (Botma et al. 2010, 233) triangulation and member checking were done by means of tape-recorded semi-structured interviews, observations and taking of field notes. The researcher allowed the participants to tell their stories as they had happened and also made use of probing to ensure that participants gave relevant information and that it was understood by the researcher. The recorded interviews were used as constructive evidence of the data collected. Purposive sampling and the dense description of the data ensured the transferability (Botma et al. 2010, 233) in this study. To ensure dependability and confirmability, auditing was done by the supervisor. An independent coder was used to verify the findings while field notes were also useful in this regard (Tappen 2011, 161).

Ethical Considerations

The researcher obtained written permission and ethical clearance from the Nelson Mandela University's Faculty of Postgraduate Studies Committee (FPGSC) [H14-HEA-NUR-026]. Participants were fully informed in a language that was clear to them regarding the purpose of the study, the use of the voice-recording device, the possible duration of the interview session as well as the possibility of publication of the complete findings of the study as articles. The participants were informed of confidentiality principles and their right to withdraw from the study at any given time without penalty. All transcripts were identified using codes and no names of persons or institutions were used. The researcher made use of debriefing to exclude a possible need for emotional support by the mothers. The researcher following discontinuing of the interview asked the participants to share how they felt about the interviews so as to identify a need for immediate intervention but none were identified in need of such intervention. However, all the participants were referred to a clinical psychologist at the university who was asked and agreed to be on standby for immediate assistance or as needed. The service will be free as long as the service was within three months of the interview date. The participants were provided with the contact details of the researcher and those of the clinical psychologist.

Analysis

Data were transcribed verbatim and analysis was done using the eight steps of Tesch's method of data analysis (Creswell 2009, 192). An independent coder assisted with the coding of the data and finalising interpretation of the findings and two main themes, three subthemes and the several categories which emerged (Table 2).

Table 2: Themes, subthemes and categories

Themes	Subthemes	Categories
1. BBA at the midwifery facility is an emotional experience for the mother	1.1 Mothers experienced mixed emotions in relation to a BBA	1.1.1 Mothers identified a range of emotions with regard to the experience of BBA. The emotions were: - embarrassment - concern and anxiety - anger - feeling comfortable with giving birth at home
2. Mothers described diverse experiences related to emergency response to childbirth and healthcare received	2.1 Mothers experienced the service of the ambulance officers differently 2.2 The mothers experienced the care received from the midwives as disappointing	2.1.1 Ambulance attendants delayed in responding and arriving following call-outs. 2.1.2 Some ambulance attendants were helpful and supportive towards the delivered mother and baby 2.2.1 The midwives were generally experienced as: - being unsupportive and - unfriendly while rendering care

Theme 1: Birth-Before-Arrival at the Midwifery Facility is an Emotional Experience for the Mother

In modern-day society, owing to the availability of the services of skilled birth attendants, the experience of childbirth should be positive and with minimal avoidable adverse outcomes, but for the mothers in this study giving birth before arriving at the maternity unit was a mixed emotional experience. Those emotions included embarrassment, concern and anxiety, anger but also feeling comfortable with giving birth at home or on the way to the maternity unit.

Embarrassment

The mothers felt embarrassed as there were a lot of lay people present at the time of their birthing experience. The following responses were expressed in this regard:

I didn't feel to deliver at home, because there were actually a lot of people here and I felt embarrassed. (Participant 5)

... it was a little uncomfortable also, because of the people. (Participant 7)

Concern and Anxiety

Mothers felt concerned and anxious with regard to BBA, their main concern being more the outcome of the delivery (the baby) than concern for themselves. The following quotes highlight this experience:

I thought my child won't make it, because there was nobody to help me. I was worried, very troubled. (Participant 6)

As I said I was terrified because I thought it was an early birth ...What if the baby dies? (Participant 9)

Anger

The mothers not only felt anxious and embarrassed by the birth of the baby at home but some in particular also felt angry with the delay of the ambulance. Some of the mothers expressed their distress and dissatisfaction:

The thing that actually makes me angry is with the ambulances that took so long. (Participant 5)

I was very angry that I had to phone the ambulance again. (Participant 6)

In spite of all the emotions of embarrassment, anxiety and anger experienced by the mothers pertaining to the birth of the baby at home, a few mothers felt comfortable with having their babies at home.

Comfortable with Giving Birth at Home

One mother said that she felt comfortable and stress-free as her mother who is a qualified staff nurse (enrolled nurse) had assisted her with the delivery. The home environment was experienced as relaxed and comfortable as expressed by the participants:

... but being at home having my mother do it and my mother being the one scratching there, it makes you feel comfortable ... If I have to go through it again I will say I would rather deliver at home, its better. (Participant 7)

To tell the truth I was very happy to deliver my baby at home ... The way it goes on there, I only thought, thank you Lord I have my child here in my arms already born at home ... (Participant 2)

The mothers also expressed their mixed feelings towards the healthcare professionals.

Theme 2: Mothers Described Diverse Experiences Related to Emergency Response to Childbirth and Healthcare Received

The mothers not only had unpleasant experiences regarding the labour that had occurred before arrival at the maternity unit, but had also been unhappy about the service they had received at the hospital. They experienced healthcare services in the NMBM maternity units as user-unfriendly.

Mothers Experienced the Service of the Ambulance Officers Differently

The mothers strongly expressed their dissatisfaction and disappointment related to the healthcare service given to them by some of the emergency ambulance personnel, especially regarding the delay in responding and arriving following call-outs. However, despite the transport delay, the mothers felt the care given by the emergency personnel was of a good standard.

Ambulance Attendants Delayed in Responding and Arriving Following Call-Outs

With the ambulance service being the only reliable transport available the mothers had experienced serious problems owing to the delay in the arrival of the ambulances. Some mothers expressed the following:

... the ambulance took very long to come. We phoned for several hours ... (Participant 5)

Then she phoned again and said the baby is on the way, can't you come quickly and they [ambulance response attendants] told her they were still getting their equipment ready. (Participant 6)

Some mothers, however, had experienced at times being well taken care of by the emergency transport personnel despite the delay. They said:

... then the ambulance came, they worked well with me here. (Participant 9)

... and just when the afterbirth came out the ambulance came and helped me further ... (Participant 6)

... wrapped her in a thick blanket ... the ambulance driver and his assistant received me well. (Participant 4)

Some Ambulance Attendants Were Helpful and Supportive towards the Delivered Mother and Baby

All the participants, except for one who had a problem of minor concern, had uncomplicated deliveries. The mother with a minor concern thought the cord was wrapped around the baby's neck. It was found to be around the arms; but this was still a concern for her as she was afraid of what could happen to the baby. The mother expressed satisfaction of how she had been calmed down by the emergency officer and that the care given to her child thereafter had been of a high standard. The mother stated the following:

... then the ambulance driver came ... I was so panicky, because the cord is now so around ... Then they told me no she will be orait [all right]. Then they wrapped her in a burn shield blanket. (Participant 8)

Some of the mothers experienced some of the emergency healthcare staff as being caring which enabled them to forget the negative experiences fairly soon but the same could not be said about some of the midwives in the MOUs.

The mothers experienced the care from the healthcare professionals as disappointing. Some of the women who participated in this study described the inadequate care provided by the midwives on arrival at the maternity unit following the BBA.

The Midwives Were Generally Experienced as Being Unsupportive

To some mothers the midwives showed no compassion and did not provide them with the privacy and confidentiality expected. The following statement was made:

I was lying there waiting for the sister to come back after the first one left. I hope she is going to help me. As soon as the sister came and she didn't do that, then I stressed. (Participant 7)

The inadequate service experienced by these participants resulted in their deciding not to make use of that health facility in the future. The following was said:

... If I have to choose between going to ... and going to the ... [she mentions the names of the institutions], I would rather choose to go to ... [she mentions her option]. (Participant 7)

Besides not receiving the adequate care in the unit, the mother also dealt with midwives with unfriendly and unprofessional attitudes as discussed below.

Unfriendliness

Some of the mothers experienced unfriendliness of the midwives as well. They said the following:

They were not friendly [towards me] because I gave birth at home. (Participant 9)

I'm telling you something ... I feel it is not right ... it is their job to look after me (Participant 7)

The unfriendliness displayed by the midwives was at times experienced as being unprofessional. Some of the mothers encountered midwives who acted in an unprofessional manner causing them to lose faith in the health system. The following statements of dissatisfaction were made:

... they [midwives] were talking with each other and said, 'but couldn't the sister write clearly on the file and say this is a HIV patient, then we would have known to work better with ourselves'. (Participant 9)

I was upset for myself because how can I be in this situation. Look how unprofessional people react towards me ... I was very disappointed in those sisters. I was disappointed in the system. (Participant 9)

Although the above research findings and responses of the mothers indicate the challenges experienced by mothers who had BBAs, not all had unpleasant experiences with the midwives. A few experienced adequate healthcare service from some of the midwives. The following statement was made regarding this:

They [midwives] treated me well. They handled me nicely. (Participant 8)

Despite the experience of being treated well by some of the midwives the mothers still preferred house deliveries to being exposed to the unprofessional behaviour of some of the midwives. Mothers who delivered at home are of the opinion that midwives should start with home deliveries where their attention and support to the delivering mother will then be uninterrupted from other ward duties and be exclusive to the mother, the delivery and the neonate. Some of the mothers felt that the midwives could also improve their communication with the delivering women during house calls.

The discussion above indicates the contrast in the quality of healthcare services rendered to some of the mothers compared with that experienced by others who had poor opinions of the healthcare services provided by health professionals. The results show that indeed BBAs have intense emotional effects on the women but that the sources of those emotions are diverse.

Discussion of Research Results

Despite strategies in place to improve emergency obstetric care, mothers continue to give birth before arriving at a health facility without a skilled attendant (Phiri et al. 2014, 1). The experience of birth alone, irrespective of where the birth occurs, has an emotional impact on the mother (Laurel Merg and Carmoney 2012, 71), and according to Bryanton et al. (2008, 24), the level of emotions is influenced by the environment where the childbirth takes place. Participants in this study had emotions ranging from those

experienced in the home environment that was crowded to the treatment they received from the people who were supposed to take care of them under those circumstances.

The BBA experiences of these mothers are congruent with those related by Dahlen, Barclay, and Homer (2010, 416) as these authors explain that pregnant women become fearful, anxious and at times feel angry and exasperated at having lost control during labour especially if they were in a vulnerable space. After a traumatic birth experience, especially BBA at a maternity unit, mothers expect professional and comprehensive healthcare service to help ease their emotional reactions and physical pains. It is therefore advised to consider these effects when attending to mothers following BBA as poor quality of healthcare services may cause fear and a lack of confidence in the system.

An organised obstetric ambulance service is an essential service identified by the national Department of Health in South Africa aiming at reducing maternal and perinatal mortality and morbidity (Schoon 2013, 534). In this study the delay of emergency transport still came out strongly. One of the reasons given for the delay was the collection of equipment. Added to this burden was the inadequate healthcare services provided by midwives that the mothers had experienced on arrival at the maternity unit.

In a report by Odihambo (2011, 24) it was noted that several mothers in public health maternity facilities in the Eastern Cape described situations in which they had to wait several hours for care from midwives and were ignored by midwives when they called for help. Concurring with that report, one mother had been stressed because the midwife had delayed in helping her. A good nurse/patient relationship is therefore of utmost importance as it will have an impact on access to health services, quality and effectiveness (Kruger and Schoombee 2010, 84).

One of the mothers strongly expressed her disappointment at the attitudes and unprofessional behaviour of the midwives as they had ill-treated her due to her HIV status. The experience of this mother raises a major concern and such information agrees with what literature is revealing regarding the HIV stigma and discrimination among women in South Africa (Chonghaile 2014). Healthcare workers, especially midwives in maternity units, need to provide a caring, effective healthcare service, maintain a positive mother/midwife relationship and protect the privacy of sensitive information of mothers during pregnancy, birth and the postpartum period.

As noted from the response of the mothers in this study, there is still a challenge with some midwives being unsupportive, unfriendly, unprofessional and disrespectful towards mothers who give birth before arrival at the maternity units. It is therefore crucial that all midwives in maternity units make healthcare services accessible and available to all mothers who have experienced BBA in terms of protecting and supporting them in the unit.

Conclusion

Based on the results of the study the experiences of mothers who delivered their babies before arrival at the maternity units were that of mixed emotions, overall maternity care being described as disappointing from both the attending ambulance personnel and midwives. Midwives were experienced as non-supportive. Care provided by the midwives made the mothers to prefer staying at home until the time of delivery. Such a preference is of concern to maternal and child healthcare services owing to the challenges brought about by birthing before arrival or at home. A plan is therefore needed to enhance the support and healthcare provided by healthcare providers to mothers who deliver before arrival at the maternity unit.

Recommendations

It is recommended that midwives improve the health education to pregnant mothers focusing on danger signs during pregnancy, signs of labour, a birth companion, place of delivery, and whom to call if in labour. Midwives need to be empowered regarding people skills such as providing sensitive care and emotional support to these mothers as well as keeping to the values of professionalism. Emergency transportation and response teams also need continuous education regarding the implications of delaying response to a maternity call. Furthermore, collaboration between the midwifery and emergency response team management needs to be initiated, and transport referral protocols need to be streamlined to enhance communication and to improve maternity support given to pregnant and labouring mothers.

Limitations of the study

The study had a small sample size because the researcher only selected participants from two of the five MOUs in the NMBM.

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References

- Alabi, A. A., D. O'Mahony, G. Wright, and M. J. Ntsaba. 2015. "Why are Babies Born before Arrival at Health Facilities in King Sabata Dalindyebo Local Municipality, Eastern Cape, South Africa? A Qualitative Study." *African Journal of Primary Health Care and Family Medicine* 7 (1): 1–9. <https://doi.org/10.4102/phcfm.v7i1.881>.

- Ashbacher, A. 2013. "Women's Experiences of Birth Trauma and Postpartum Mental Health." Master of Social Work Clinical Research Papers, St. Catherine University.
- Blondel, B., N. Drewniak, H. Pilkington, and J. Zeitlin. 2011. "Out-of-Hospital Births and the Supply of Maternity Units in France." *Health and Place* 17 (5): 1170–73. <https://doi.org/10.1016/j.healthplace.2011.06.002>.
- Botma, Y., M. Greeff, F. M. Mulaudzi, and S. C. D. Wright. 2010. *Research in Health Sciences*. Cape Town: Heinemann.
- Bryanton, J., A. J. Gagnon, C. Johnston, and M. Hatem. 2008. "Predictors of Women's Perceptions of the Childbirth Experience." *Journal of Obstetric, Gynecologic, and Neonatal Nursing* 37 (1): 24–34. <https://doi.org/10.1111/j.1552-6909.2007.00203.x>.
- Burns, N., and S. K. Grove. 2009. *Understanding Nursing Research: Building an Evidence-Based Practice*. Missouri: Elsevier.
- Chiragdin, T. 2013. "Effect of Giving Birth Before Arrival (BBA) on Pregnancy Outcome Among Booked Mothers at Coast Provincial and General Hospital (CPGH)." Master's dissertation, University of Nairobi.
- Chonghaile, T. N. 2014. "HIV Stigma Causing Avoidable Maternal Deaths in South Africa." *The Guardian*, 9 October 2014. <https://www.theguardian.com/global-development/2014/oct/09/hiv-stigma-maternal-deaths-south-africa-amnesty>.
- Creswell, J. W. 2009. *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. London: Sage.
- Dahlen, H. G., L. Barclay, and C. S. E. Homer. 2010. "'Reacting to the Unknown': Experiencing the First Birth at Home or In Hospital in Australia." *Midwifery* 26 (4): 415–23. <https://doi.org/10.1016/j.midw.2008.07.009>.
- Department of Health. 2011–2012. Nelson Mandela Bay District, Birth Before Arrival Statistics.
- De Vos, A. S., ed. 2011. *Research at Grass Roots*. Pretoria: Van Schaik.
- Dietsch, E., P. Shackleton, C. Davies, M. Alston, and M. McLeod. 2010. "Mind You, There's No Anaesthetist on the Road: Women's Experience of Labouring En Route." *Rural and Remote Health* 10 (2): 1371.
- Khupakonke, S., A. Beke, and D. H. A. Amoko. 2017. "Maternal Characteristics and Birth Outcomes Resulting from Births before Arrival at Health Facilities in Nkangala District, South Africa: A Case Control Study." *BMC Pregnancy and Childbirth* 17: 401. <https://doi.org/10.1186/s12884-017-1580-5>.
- Kruger, L., and C. Schoombee. 2010. "The Other Side of Caring: Abuse in a South African Maternity Ward." *Journal of Reproductive Infant Psychology* 28 (1): 84–101. <https://doi.org/10.1080/02646830903294979>.
- Lazić, Z., and I. Takač. 2011. "Outcomes and Risk factors for Unplanned Delivery at Home and Before Arrival to the Hospital." *Central European Journal of Medicine* 123: 11–14. <https://doi.org/10.1007/s00508-010-1505-z>.

- McLelland, G., L. McKenna, and F. Archer. 2013. "No Fixed Place of Birth: Unplanned BBAs in Victoria, Australia." *Midwifery* 29 (2): e19–e25. <https://doi.org/10.1016/j.midw.2011.12.002>.
- Laurel Merg, A., and P. Carmoney. 2012. "Phenomenological Experiences: Homebirth after Hospital Birth." *International Journal of Childbirth Education* 27 (4): 70–75.
- Odihambo, A. 2011. "Stop Making Excuses": *Accountability for Maternal Health Care in South Africa (Human Rights Watch Report)*. Pretoria: Government Printer.
- Parag, N., N. H. McKerrow, and F. Naby. 2014. "Profile of Babies Born before Arrival at Hospital in a Peri-Urban Setting." *South African Journal of Child Health* 8 (2): 45–49.
- Phiri, S., K. Fylkesnes, A. L. Ruano, and K. M. Moland. 2014. "'Born Before Arrival': User and Provider Perspectives on Health Facility Childbirths in Kapiri Mposhi District, Zambia." *BMC Pregnancy and Childbirth* 14: 323. <https://doi.org/10.1186/1471-2393-14-323>.
- Polit, D. F., and C. T. Beck. 2012. *Nursing Research: Generating and Assessing Evidence for Nursing Practice*. New York: Lippincott Williams and Wilkins.
- Schoon, M. G. 2013. "Impact of Inter-Facility Transport on Maternal Mortality in the Free State Province." *South African Medical Journal* 103 (8): 534–7. <https://doi.org/10.7196/SAMJ.6828>.
- Silal, S., L. P. Penn-Kekana, B. Harris, S. Birch, and D. McIntyre. 2012. "Exploring Inequalities in Access to and Use of Maternal Health Services in South Africa." *BMC Health Services Research* 12: 120. <https://doi.org/10.1186/1472-6963-12-120>.
- Tappen, R. M. 2011. *Advanced Nursing Research: From Theory to Practice*. London: Jones and Bartlett.
- Thornton, C. E., and H. G. Dahlen. 2018. "Born before Arrival in NSW, Australia (2000–2011): A Linked Population Data Study of Incidence, Location, Associated Factors and Maternal and Neonatal Outcomes." *British Medical Journal* 8: e019328. <https://doi.org/10.1136/bmjopen-2017-019328>.