Exploring Antenatal Education:
An Interpretive Description

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Doctor of Philosophy

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Keywords

Antenatal education, prenatal, childbirth, homebirth, woman centred care, continuity of care, midwife, doula, interpretive description, health literacy.
Abstract

Antenatal education has been normalised in Australian maternity services and is currently delivered within antenatal care services or as formal standalone educational experience for women and their partner or support person. Antenatal education has evolved little over the years. Despite many changes in childbirth and parenting practices, this education still hopes to prepare women for birth and achieve optimal physical health during pregnancy. Despite these developments and the value placed on antenatal education, little is known about the way in which antenatal education activities are developed, implemented or evaluated. The aim of the research was to explore the key factors that influence pedagogy and practice of antenatal education in a range of contexts; and to examine to what extent current antenatal education provides meaningful and effective learning experiences from the perspectives of both the educators and the consumers (class participants).

A research methodology of Interpretive Description guided this research study. The methodology produced a qualitative description of experiences from a sample of antenatal educators and consumers of antenatal education. Data were collected through individual in-depth interviews with antenatal educators and antenatal class participants. Perspectives and experiences of 18 participants were explored in a total of 25 interviews. In addition to the interviews, educators were asked to discuss an example of a learning activity or learning material that they had used during their class. The researcher included other processes to enhance reflexivity, including learning materials that antenatal educators brought to the interview to discuss, and field notes taken directly after each interview. Interpretive Description was used to gain insight into participants’ perceptions and experiences. It provided the researcher with an opportunity to generate knowledge about antenatal education practice and understand the experiences of the participants involved in the study.

Health Literacy was used as a conceptual framework for the study. The findings of this study centre around five themes and nine subthemes relating to the participants’ experiences in either delivering or attending antenatal classes. The main themes were: ‘balancing provider influences with participant expectations’, ‘accommodating participants’ learning styles and
preferences’, ‘influence of the environment on pedagogy and practice’, ‘empowering participants for decision-making’ and ‘reflections on what is and is not meaningful and effective’.

The findings indicated tensions between antenatal educators who predominantly provided information at a functional level, and consumers who came to antenatal classes well prepared having accessed information from a wide range of sources. In addition, discord was evident between the information provided about birth choices (the ideology of normal birth), options available, and health service policy.

Findings from this thesis strongly suggest that in order to meet the needs of women and where applicable their families, the future of antenatal education should refocus on the concepts of health literacy. Consideration of the goals of antenatal education using health literacy as a conceptual model offers an opportunity to move thinking in antenatal education away from a simple didactic transfer of knowledge, to an active engagement in learning that builds confidence. This may contribute to the development of social networks and ultimately empowers women and families in individual decision-making during pregnancy, birth and parenting.
Publications and presentations resulting from this thesis

**Peer-reviewed Conferences and Presentations**


Downer, T 2017, Navigating tensions in antenatal education practice, *31st ICM Triennial Congress*, 18th -22nd June, Toronto, Canada.

**Peer reviewed - Poster Presentations**


Downer, T, Barnes, M & Rowe, J 2015, *Whose classes are they?* Passage to Motherhood, Capers Conference, 7th – 9th May, Brisbane, Australia.

**Professional Newsletter**

Statement of original authorship

- the thesis is my own account of research undertaken by me; and
- the thesis has been wholly completed during candidature, except where the Committee has approved a transfer of enrolment from another higher degree by research; and
- where work has been done conjointly with other persons, my contribution is clearly stated and the contribution of other persons is clearly acknowledged and recognised; and
- the thesis does not contain as its main content any work or material which is embodied in a thesis or dissertation previously submitted by me or any other person for a University degree or other similar qualification at this or other higher education institution, except where approval has previously been granted by the Committee.

Signature:

Teresa Downer

Date: 31st October 2018
Without the support of many wonderful people this thesis would not have been possible. I would like to acknowledge and express my sincere gratitude to the following:

- Firstly, I would like to thank the participants in this project: the new mothers who relived their antenatal classes and shared their stories and experiences of antenatal education with me. Also, my colleagues in antenatal education for their willing involvement and contributions. I am grateful to them for their professional interest in my work and for their generous sacrifice of time.

- The University of the Sunshine Coast for providing me with a competitive HDR Student Research Grant, which enabled me to travel for interviews across Australia and disseminate my work internationally.

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List of definitions (As utilised in this thesis)

**Active Learning:** Active learning is any approach to instruction in which class participants are asked to engage in activities through writing, talking, listening, problem solving, or reflecting. It aims to involve class participants in the learning process directly.

**Antenatal education:** Antenatal education, in the context of this research, is defined as a single intensive class or a series of classes, provided for individual or groups of pregnant women and their partners or support people.

**Antenatal educator:** For this study an antenatal educator is a person who provides antenatal education, they may be a qualified midwife with a special interest in antenatal education, a physiotherapist, a doula or a person providing antenatal education.

**Consumers of antenatal education/class participants:** These terms are used interchangeably and for this study refer to the women who attended antenatal classes and shared their experiences with the researcher.

**Didactic teaching:** is a teaching method that follows an educational style in which the antenatal educator presents information and the required theoretical knowledge to class participants.

**Doula:** The definition used in this research for a doula is a woman experienced in childbirth who provides advice, information, emotional support and physical comfort to a mother before, during and after childbirth.

**Experiential learning:** Experiential learning is the process of learning through experience or doing, e.g. Kolb (1984).

**Facilitated learning:** A process whereby an antenatal educator leads class participants in acquiring new skills, knowledge, or understanding.
**Group discussion:** A discussion involving a group of people who are connected by a shared activity, interest, or quality (Merriam-Webster 2018).

**Just in Time Teaching (JiTT):** is a teaching and learning strategy designed to promote the use of class time for more active learning. JiTT allows the antenatal educator to create an interactive classroom environment that emphasizes active learning and cooperative problem solving.

**Learner-centred pedagogy:** Learner-centred pedagogy also known as student-centred learning, encompasses methods of teaching that shift the focus of instruction from the antenatal educator to the class participant (Based on Piaget’s constructivism).

**Lecture:** A lecture is an oral teaching method in which antenatal educators teach class participants about a topic.

**Pedagogy:** the method and practice of teaching.

**Nulliparous:** the medical term for a woman who has never given birth either by choice or for any other reason.

**Primiparous:** the medical term for a woman who has or is giving birth for the first time.

**Multiparous:** the medical term for a woman who has given birth two or more times.

**Teacher-centred pedagogy:** A teaching method where the antenatal educator is actively involved in teaching while the class participants are in a passive, receptive mode listening as the antenatal educator teaches. This approach places a significant amount of responsibility on the antenatal educator to provide the ‘right’ information, in the ‘right’ way, regardless of learning/teaching styles.
Chapter 1: Introduction

Introduction

This study considers contemporary antenatal education in Australia, particularly the way in which programs are developed and delivered, and women’s experiences of such educational preparation. This phenomenon is now given much attention by professional services, web-based resources and products, and social media; the complexities and experience of women learning about pregnancy and birth and how to care for their baby has a long history. While it is acknowledged that antenatal education and birth are related, in that antenatal education would not exist without pregnancy and birth, birth and birth interventions by the medical profession are not the focus of this study. This chapter aims to provide an overview of the evolution of antenatal education and the context in which it is currently engaged in by participants within Australia. It examines the aims of contemporary antenatal education, considers the design and structure of antenatal education, and acknowledges health literacy as a key factor for enhancing consumer engagement.

In Australia today, antenatal education is embedded throughout a woman’s antenatal care. Further educational opportunities are provided in formal and informal antenatal classes, conducted by practitioners with an interest in health and wellbeing in the perinatal period and in parenting. The background and qualifications of the educators vary, as does the structure and format of the programs themselves. Despite antenatal education now being an expected part of pregnancy care with a cost to health services and consumers, limited investigation of this phenomenon has been conducted.

Defining antenatal education

Antenatal education, in the context of this research, is defined as a single intensive class or a series of classes, provided for an individual or groups of pregnant women and their partners or support people. It is recognised that partners and families are defined by various
groupings and a partner can be any support person regardless of gender. While contemporary antenatal curricula vary by program and type of services, currently, the core subjects encompass: pregnancy health, labour, birth, the immediate post-partum and breastfeeding (Svensson, Barclay & Cooke 2008; Entsieh & Halstrom 2016). Some antenatal programs also facilitate social support for pregnant women (Petersson, Petersson & Hakansson 2004; Nolan 2009; Nolan 2012; Tighe 2008; Widarsson et al. 2012). The focus and aims of antenatal education are described by Gagnon and Sandall (2011) as to:

- influence health behaviour; build women’s confidence in their ability to give birth;
- prepare women and their partners for childbirth; prepare for parenthood; develop social support networks; promote confident parents; and contribute to reducing perinatal morbidity and mortality. (p. 3)

This definition demonstrates the emphasis in antenatal education on the influence of health behaviours, preparation and building of confidence, and to support women and their partners to develop social support networks. Brixval and colleagues (2014, p. 1) acknowledged the above definition but also included specific aims the “informing about pain relief and promoting breastfeeding” (p.1). Both definitions demonstrate the emphasis in contemporary antenatal education on health education and social support, both of which are part of health promotion. Together, these approaches advocate health promoting behaviours to improve pregnancy outcomes, birth experience and preparation for parenting (Gagnon & Sandall 2011). Svensson, Barclay and Cooke (2008) argue that the principles of health promotion are critical in the development of antenatal education. However, it is unclear from the literature if existing antenatal education meets all the outcomes described in the definitions above.

Nolan (2011, p. 197) states that antenatal education should be provided at a time that has been described as the “teachable moment”. This term has also been used by McBride et al. (2003) and Walker and Worrell (2008) to describe naturally occurring health events that can motivate women and their partners to consider their health behaviours and at a point in time when they are ready and willing to learn and become more health literate; that is, having the knowledge to make informed decisions for birth and parenting. Chalmers and McIntyre (1994) consider pregnancy to be an ideal teachable moment as the woman and her family prepare for parenting a newborn. The antenatal period is considered particularly
relevant because it is during this time that women are often inspired to reflect on their lives and make appropriate changes (Lavender, Moffat & Rixon 2000). Ideally, the content of antenatal education would support their decisions in these teachable moments.

**Antenatal education – major influences**

Antenatal education is a relatively modern phenomenon provided by practitioner groups or individuals across a range of contexts. What is considered contemporary antenatal education today was preceded by several developments in both public health and the development of health services. While a comprehensive account of the history of antenatal education is beyond the scope of this thesis, it appears that there have been several major influences over the last two centuries: public health, natural childbirth, physiological antenatal education, commercial antenatal education, the professionalisation of antenatal education and commercial antenatal education. These influences will each be discussed in detail and are outlined in Table 1 below.
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<td>Industrialisation/ public health movement</td>
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<td>Educating mothers in good hygiene practice</td>
<td>Production of information for mothers by ‘experts’</td>
<td>Bull, T. Hints to mothers for the management of health during the period of pregnancy and in the lying-in-room. First published 1837 – continued until 1877 Anon, 1893 Healthy Mothers and Sturdy Children, A book for every family, Peter &amp; Knapton Printers, pp.10-16; First published c.1893</td>
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<td>Formal antenatal programs developed for antenatal educators influenced by Dick-Read’s methods</td>
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<td>Dick -Read 1944 Childbirth Without Fear</td>
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<td>Karmel, M 1959, <em>Thank you Dr Lamaze.</em></td>
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<td>1965</td>
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<td>Bradley, R 1965, <em>Husband-Coached Childbirth.</em> Harper &amp; Row</td>
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<td>1970s</td>
<td>Sheila Kitzinger - social anthropologist</td>
<td>Kitzinger method which promoted birth as an empowering and psychological experience</td>
<td>Massage, pressure, or stroking. Upright and mobile</td>
<td>Home birth advocate</td>
<td>Numerous books</td>
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<td>specialising in pregnancy, childbirth and parenting</td>
<td>Woman centred care</td>
<td>Campaigned for women to have the information they need to make choices about childbirth</td>
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<td>E.g. Kitzinger, S 2006, <em>Birth crisis,</em> Routledge, Abingdon</td>
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<td>Professionalisation of ANE, introduction of professional organisations, registration and competencies</td>
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<td>1990s - present</td>
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<td>3 principles: Antenatal care, antenatal education, antenatal support</td>
<td>Group antenatal education, care and support</td>
<td>Facilitative approach to antenatal education</td>
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Public health: strategies in the development of maternity care

When Australia was first colonised in 1788, a woman would give birth in her home, attended by her family members and another woman from her community would act as the midwife if the woman could afford one (Monk et al. 2013). What women knew about birth and parenting was passed on through family and community (Lindell 1988) such as lay midwives; these midwives provided intensive and individualised antenatal education in what today would be considered a continuity of care model. Lay midwives, despite fulfilling an important role in antenatal education, had little formal training. Their knowledge about birth and parenting was derived from the oral tradition of ‘women’s wisdom’ (Donnison 1988), which was knowledge passed on from woman to woman and accumulated following personal experiences of attending home births and parenting their own children. Women would share information with members of the extended family known as the ‘women’s network’ (Zwelling 1996; Nolan 1997; Jordaan 2009).

Antenatal education developed with efforts to educate expectant mothers on good hygiene practices (Wilson 1990), these practices aimed to reduce high levels of infant mortality. Health-related legislation that existed at the time focussed on protecting citizens from contaminated water supplies and hazardous waste disposal (Monk et al. 2013). Due to poor sanitation, a woman’s antenatal care, education and birth moved into the public domain meaning that siblings, relatives and friends were no longer present for the experience of birth and the education it would have provided for them (Nolan 1997).

The key change in the early 20th century was the emergence of public health strategies and therefore, a professional lens on managing the maternity experience developed (Schofield 1995). Competition between doctors and midwives arose regarding the provision of care and in response, medicine achieved control over women’s health (Monk et al. 2013). The impact of this was that medical practitioners furthered the professionalisation of obstetric care and were influential in developing maternity policies and practice (Willis 1989). This had several impacts in terms of what women thought about birth, where they birthed and how they prepared for birth. Furthermore, this has evolved as professional management of pregnancy, birth and parenting, with an increasingly perceived need for maternity services.
and support, under the premise of health promotion at the time, which reflected the public health focus. This new focus on public health included hygiene, good mothering and the production of information by experts. Women’s networks became less available over time leading to increased engagement with formal services (Nolan 1997).

**Natural childbirth**

As birth moved from home to hospital and became more medicalised (Lothian 2008a), antenatal education became an integral part of antenatal care. In the early 20th century the focus shifted to various techniques to cope with the pain of childbirth (Williams & Booth 1974). In the 1930s the term ‘natural childbirth’ was synonymous with ‘normal birth’; it referred to births without interventions. Women received education about their bodies and were supported during labour, which aimed to enable them to birth spontaneously (Dick-Read 1956 cited by Akrich et al. 2014).

From the 1930s, in response to the increasing medicalisation of childbirth, by the use of pain-relieving drugs and increasing amount of operative deliveries, several approaches to the promotion of ‘Natural Childbirth’ developed (Weiner 1994). The most common approaches identified in the early literature can be found in books such as *Natural Childbirth* (Dick-Read 1933) and later *Childbirth Without Fear* (Dick-Read 1944). Pain was a key content focus in these books. Dick-Read claimed that the pain of labour was due to tension brought on by fear and he set about educating women regarding breathing and relaxation exercises. In his first book, *Natural Childbirth* (1933), Dick-Read claimed that childbirth is not an inherently painful process: “Pain of labor must therefore be accepted as a psychic stimulus, reproduced from misconceptions based upon culture” (p. 52), indicating that pain arises from social expectations. In his second book, *Childbirth Without Fear* (1944), Dick-Read raised several interesting points. Firstly, he modified his description of the origin of pain by stating that fear regarding labour "gives rise to resistance at the outlet of the womb" (p. 6) which in turn produces pain "because the uterus is supplied with organs which record pain set up by excessive tension" (p. 6). In this book, he also identified a process which he calls the “fear-tension-pain-syndrome” (p. 46) and recommended that contractions should not be referred to as painful (Beck et al. 1979). According to Beck et al. (1979) as Dick-Read’s model became more popular he established an antenatal program that included lectures regarding
labour and delivery and provided relaxation training in group settings for couples. These classes were provided by midwives and physiotherapists who were familiar with Dick-Read’s theories (Beck et al. 1979) thus providing classes based on his model of antenatal education. The importance of support for the expectant woman was also evident. Dick-Read pioneered husband coaching and participation. Through his writings, Dick-Read (1944) actively encouraged husband participation during labour, provided the husband could participate “without becoming unduly upset” (Beck et al. 1979, p. 253). Support throughout pregnancy, birth and labour are considered important aspects of antenatal education.

The management of pain in labour and birth predominated, with the realisation that obstetrics had become over medicalised through the use of pain-relieving drugs and operative delivery (Beck et al. 1979). As a result, the Pavlovian theory or psychoprophylaxis method was developed by Russian scientists (Velvovsky et al. 1960) as a method for management of pain during labour. Like Dick-Read, Velvovsky and colleagues (1960) also argued that labour was not inherently painful. Throughout this book Velvovsky and colleagues (1960) describe psychoprophylaxis like Natural Childbirth; it is based on deep breathing and relaxation exercises, as well as techniques such as stroking the abdomen. In addition, the books taught women about pain prevention techniques that consist of applying pressure to certain "pain prevention points" (p. 248) which were found along the back and on parts of the pelvis. According to Velvovsky et al. (1960), the birthing woman should also be instructed to time and record the interval between contractions (Beck et al. 1979), a practice that is continued and taught in some health care facilities today without a rationale.

Following a trip to Russia, Lamaze, a French obstetrician, expanded on the psychoprophylaxis method and adapted it for the European culture (Lamaze 1958). Again, the approach included relaxation, which was based on breathing techniques to manage the pain of birth. Lamaze used this approach in his obstetric practice and presented the method in his book which was later translated into English. Following the delivery of her baby by Dr Lamaze, it was Marjorie Karmel who introduced the method in America through her book, Thank you Dr Lamaze (1959) (cited in Haire 1999). Unlike Velvovsky et al. (1960), the Lamaze method did not include the use of stroking, timing between contractions or the use of pain
prevention points but did include more emotional support from the father of the baby and their involvement with the birth. According to a Cochrane review (Gagnon & Sandall 2011) examining the benefits of individual and/or group antenatal education for childbirth and parenthood, the similarity of Natural Childbirth and Lamaze methods was their emphasis on a healthy pregnancy, physical fitness, education on the physiology of normal birth, elimination of fear during labour, use of relaxation and breathing techniques and continuous support by a familiar person. Today, Lamaze International is not a method but a philosophy (Walker, Visger & Rossie 2009). Their vision: "knowlegeable parents making informed decisions" alludes to the capacity building principles of health literacy.

Underpinning the Lamaze method are evidence-based practices, adapted from the World Health Organization, to promote, protect and support natural, safe and healthy birth (Lamaze International 2016). Lamaze antenatal educators access this information through quarterly summaries of peer-reviewed research that supports normal birth (Hotelling 2005).

Dick-Read’s Natural Childbirth method was adapted by Bradley (1965), an obstetrician from America, who like Dick-Read encouraged partners to attend the birth, to help coach their wives with breathing and relaxation exercises during labour. Bradley (1965) incorporated six main beliefs into his practice: darkness, solitude and quiet, physical comfort, physical relaxation, controlled breathing, and the need for closed eyes and the appearance of sleep. These are incorporated into 12 weeks of classes throughout the third trimester of pregnancy. One of the key concepts of the Bradley Method® was husband as a coach. Bradley’s classes focused on the role of husbands to provide support to their wives while in labour and ensure that the environment also provided support to meet the six beliefs outlined above (Walker, Visger & Rossie 2009). According to Walker, Visger and Rossie (2009) most instructors for Bradley classes were couples where the woman had experienced a medication-free childbirth and had attended a Bradley childbirth education series themselves (Walker, Visger & Rossie 2009). The Bradley Method® stressed the importance of healthy baby, healthy mother and healthy families. Views from many of these approaches still form the foundation of antenatal education programs today (Lothian 2005). Today ‘natural’ and ‘normal’ are no longer synonymous since a ‘normal birth’ in a hospital involves routine interventions led by hospital policies (Brunt 2005).
Promoting physiological birth

Optimal antenatal education promotes physiological birth which can have both positive and negative effects on the woman and her baby. In the absence of a medical necessity the woman and baby are placed at risk if there is interference in the normal birthing process (Romano & Lothian 2008). Interfering in a natural physiological birth is not supported by evidence and goes against the medical imperative to ‘first, do no harm’ (Jansen et al. 2013). Many of the models of antenatal education from the 1970s, ‘80s and ‘90s make use of Dick-Read and Lamaze’s early teachings and emphasise the use of relaxation, support and education on the physiology of normal birth (Jordaan 2009). Contemporary antenatal classes have been influenced by a range of prominent antenatal educators. The work of Sheila Kitzinger, Janet Balaskas and Sharon Schindler-Rising are described as key influencers in the antenatal education movement.

English feminist and social anthropologist, Sheila Kitzinger, developed the Kitzinger Method which promoted birth as an empowering and psychological experience for women. She considered that women were always told what to do when it came to pregnancy, labour and birth and their own wishes were seldom taken into account. The Experience of Childbirth, published in 1962, was her first book following which she joined the advisory board of the United Kindom’s National Childbirth Trust. Kitzinger presented lectures worldwide, wrote many books, pioneered the introduction of birth plans and regularly spoke to the media. Kitzinger (1978) suggested an important part of antenatal education was the emotional preparation of the expectant woman. She recommended that the woman be given the opportunity to find meaning for herself regarding the experience in the companionship of other women through antenatal classes. Important components of her classes were relaxation and breathing, which also involved meditation and concentrating on what was happening in the moment. Furthermore, visualisation was also an important element of her teaching (Kitzinger 1978). Like Dick-Read and Velvovsky, another strategy Kitzinger promoted was the provision of a counter-stimulus by massage, pressure, or stroking the area where pain was being experienced. Further education regarding the need to be upright and mobile were also advocated using this approach (Kitzinger 1978). Another innovation
developed by Kitzinger was the Birth Crisis Network; this was a helpline that women could call if they wanted to talk about a traumatic birth (Watts 2015).

Janet Balaskas (1983) introduced her book, *Active Birth*, in the UK in the early 1980s, and is regarded as the founder of the active birth movement. Balaskas’ active birth method built upon the early work of world-renowned obstetrician Michel Odent who believed that shorter, more effective labours resulted if the woman remained active and ambulant during the first stage of labour (Balaskas 1983). Balaskas argues that in active birth, the mother is encouraged to play an active role in the birthing process. This method views labour and birth as a normal physiological process and helps women to use their instincts to give birth safely by avoiding routine interventions, such as vaginal examinations and to birth successfully through one on one continuous support. Like Kitzinger, Balaskas (1983) who is still currently practising as an antenatal educator, encourages women to adopt an upright and mobile position for labour and to become knowledgeable about what is happening to their bodies during the antenatal period, labour and birth. She also encourages participants to participate in yoga exercises for pregnancy to reduce stress and tension, and to maintain a good posture and develop deep breathing techniques throughout pregnancy. The central aim of Active Birth is the empowerment of women, supported by their birth partners and attendants (Active Birth Centre 2016). Training for health professionals in the Active Birth method consists of a one-week intensive program. The course is accredited by the Royal College of Midwives (RCM) and the Federation of Antenatal Teachers (FEDANT).

With evidence of increasing maternal morbidity and poor outcomes following birth (Morton 2014), new models of antenatal care and education are emerging, with the hope of addressing the issue. One model, CenteringPregnancy, was developed in the 1990s by Sharon Schindler-Rising, a Certified Nurse Midwife (Shindler-Rising 1998; DeCesare & Jackson 2015). *CenteringPregnancy group antenatal care* is a relatively recent model of antenatal education that provides both antenatal care, education and social support in a group setting. The CenteringPregnancy method considers individual learning needs and encourages those who attend to participate in their care. This model of antenatal care and education combined with social support is emerging in many countries (Massey, Rising & Ickovics 2006; Walker & Worrel 2008; Benediktsson 2013). Several health care facilities have
adapted the original CenteringPregnancy program to suit the needs of the local community (Teate et al. 2011; Teate, Leap & Homer 2013; Kearney, Craswell & Reed 2015). According to Shindler-Rising (1998), this model of antenatal education has the potential to improve health outcomes, increase satisfaction amongst antenatal educators who provide the program and provide an efficient and effective model of care delivery. CenteringPregnancy classes are run by qualified health professionals such as midwives and doctors who have additional training in group facilitation; an important aspect of antenatal education.

Professionalisation of antenatal education

As antenatal education has developed, as described above, so too has there been a move to professionalise and recognise the practice through formal educational preparation of educators and regulation of the emerging profession. Efforts have been made towards the normalisation and improvement of birth in Australia throughout the latter part of the 20th century and into the early 21st century (Commonwealth of Australia 2009) however, antenatal education and care across Australia remain fragmented.

While some commercially available programs are highly structured, most antenatal education activities conducted within health services or communities vary widely and are led by educators from a variety of backgrounds. In Australia, for most mainstream public and private maternity services, antenatal education is the responsibility of a midwife, some of whom specialise as antenatal educators. Other providers of antenatal education may come from a wide variety of backgrounds, including physiotherapy, doulas, or individuals with an interest in pregnancy, birth and parenting. In Australia, there are no requirements for antenatal educators to have any formal training or qualifications and little is known about the educational preparation of antenatal educators in general (O’Sullivan, O’Conell & Devane 2014) throughout the world.

While there are not requirements for specific educational preparation for educators in Australia, opportunities are available and have been so for several decades. For example, Andrea Robertson, formally a childbirth educator and National President of Parents Centres
Australia (1978-1984), organised many campaigns for the improvement of maternity services in Australia (Birth International 2016). According to Palmer (2016), Robertson was instrumental in establishing the first training course for childbirth educators in Australia in 1977, using models from the United States (International Childbirth Educators Association) and the United Kingdom (National Childbirth Trust) to assist in the design of the course. In 1985 Robertson established Associates in Childbirth Education (ACE), a private educational consultancy to train antenatal educators and to provide in-service and workshops for midwives and other health professionals interested in birth that supported the ‘active birth’ philosophy and midwifery care. Following this, her influences on contemporary antenatal education then extended to education in the online environment. In 1993 her antenatal education course was accredited through the Australian Government’s Vocational Education and Training Accreditation Board as a Graduate Diploma in Childbirth Education. This was the world’s first such course.

Specialist antenatal education qualifications are available in the form of short courses and professional development, but these are not mandatory in Australia. There is also no regulatory framework or accreditation requirements. O’Meara (1993), in a study of providers and recipients of antenatal education, found that most antenatal educators were in favour of accreditation, if it would be easy to obtain. Currently the only national non-profit association, the Childbirth and Parenting Educators of Australia (CAPEA 2016) (formerly NACE), states that all educators are “accountable and responsible for their own professional development” (NACE 2013, p. 6). How this is monitored or regulated is unknown. In their current strategic plan 2016 – 2021, CAPEA propose to work towards professional recognition of childbirth and parenting educators, with a target of 60% of their members being certified by 2021 (CAPEA 2016). They also plan to commence a national registration process in the same year.

In New Zealand, of the formal qualifications in antenatal education available, a childbirth education certificate or diploma is offered through Aoraki Polytechnic, in Timaru, South Island (Dwyer 2009). As in Australia, Dwyer (2009) indicates that anyone in New Zealand can call themselves a ‘childbirth educator’, and that unlike most health professionals, childbirth
educators do not have a council or national monitoring body to oversee minimum qualifications and requirements.

In contrast, in other countries, for example the United Kingdom (UK), there is a national register of antenatal educators. It is the role of the regulator to ensure that individuals admitted to a National Register are competent to practise and are appropriately trained with a valid qualification, insured and that they abide by the Code of Ethics and Practice applicable to Federation of Antenatal Educators (FEDANT). This has led to the role of the Antenatal Educator becoming recognised as a distinct health profession in the UK (FEDANT 2017).

The UK has national requirements for the training of antenatal educators, which are consistent with government recommendations in the UK. The Federation of Antenatal Educators (FEDANT) administers the professional standards which antenatal educators are required to meet. Introduced in 2010, the National Course Accreditation and Verification (NCAV) process is a national quality assurance process under which services and operations of education providers and programs are evaluated by the FEDANT Education Committee to determine if applicable national standards are met (FEDANT 2017).

Training programs for antenatal educators are mapped against FEDANT Approved National Standards and the competencies used by the Government Sector Skills Council. To comply with standards and competencies, the training programs must include content about key topics that are divided into themes, including: Our developing baby, changes for me and us, giving birth and meeting our baby, caring for our baby, our health and wellbeing and people who are there for us (FEDANT 2016).

Continuing Professional Development (CPD) is a requirement for all antenatal educators to remain registered in the UK. CPD enables antenatal educators to develop in their roles and demonstrate that they are competent in their field of practice. CPD is an ongoing process of reflection, planning, action and evaluation (FEDANT 2016). One of the courses antenatal educators can take is a Foundation Degree called Birth and Beyond that has been developed by the National Childbirth Trust College (NCT) in partnership with the University of
There is also a pathway into a Bachelor of Arts (Honours) program through the university. These degrees provide the training and qualification required to become an NCT Practitioner and to facilitate antenatal education programs for the NCT. The aim of NCT is for birth to be an experience that enriches the lives of women and their partners and give them confidence as they commence parenthood (NCT 2016). It does this by campaigning for improvements to maternity services, and by providing information and support.

In the United States, there are several antenatal education training programs that lead to certification with several organisations; these include: International Childbirth Educators Association (ICEA), Lamaze and the Bradley Method, The Association for Labor Assistants and Childbirth Educators (ALACE), Birth Works and Childbirth and Postpartum Professional Association (CAPPA). Each have their own antenatal educator programs and certification requirements. However, there is not one central regulating body to monitor those providing antenatal education or how they develop their curriculum.

In the USA three types of classes that are most often attended by pregnant women are taught by certified educators: the International Childbirth Educators Association (ICEA), Lamaze and the Bradley Method. The ICEA Professional Childbirth Educator (PCBE) Certification Program validates that antenatal educators have the necessary education and skills to enable them to facilitate expectant parents’ mental and physical preparation for pregnancy, labour, birth and parenthood (ICEA 2016). ICEA is a non-profit organisation and since its formation in 1960 has established its own policies and created courses for antenatal educators, based on the philosophy of freedom of choice. The courses promote the concept of the antenatal educator as an advocate of the natural process of childbirth and the right of the expectant parent to make informed decisions based on knowledge of alternatives. The program curriculum is divided into ten parts: Part I – ICEA and Family-centred Maternity Care, Part II – Informed Decision-making and Evidence-based Teaching, Part III – Teaching Skills for the Childbirth Educator, Part IV – Curriculum Development, Part V – Healthy Lifestyles and Reproduction, Part VI – The Labor Process, Part VII – Coping Skills for Labor, Part VIII – Transition and Birth, Part IX – Complications, interventions, and Unexpected Outcomes, and Part X – Postpartum and the Newborn Care. Upon successful completion of the ICEA Professional Childbirth Educator Certification Program and the
examination, the instructor is entitled to use ICCE and the term “ICEA Certified Childbirth Educator” to designate certification status and to indicate that the antenatal educator is “ICEA Certified” (ICEA 2016). ICEA certifications are valid for four years, following which certified educators must apply for recertification.

The Lamaze program is accredited by the National Commission for Certifying Agencies (NCCA). Training varies depending upon previous experience of the antenatal educator and the appropriate training program is followed by an exam. According to Walker, Visger and Rossie (2009) each Lamaze class has activities for all learning styles, with an emphasis on experiential learning to prepare antenatal educators for the facilitation of classes. Similarly, the Bradley Method teaches natural childbirth techniques and views birth as a natural process. The program is designed for parents who have taken Bradley Method classes, had an un-medicated Bradley birth and would like to become antenatal educators. These three models of antenatal education all mainly follow a similar group education format. All focus on normal, natural birth processes, but each has a unique emphasis, such as family-centred (ICEA), normal birth (Lamaze), or husband-coached birth (Bradley).

The four international examples provided above vary greatly in approach to what could be considered the move towards the professionalisation of the area, considering the ambitious aims of antenatal education and its imperative as a health promotion activity, specifically, health education. International and national guidelines exist, which underpin maternity service provision. They encourage ‘normal’ birth practices (WHO 1997; National Childbirth Trust 2007; National Institute for Health and Clinical Excellence 2007) with an underlying aim to reduce costly interventions in birth. Professional midwifery groups are also especially active in this regard throughout the world to protect ‘normal’ birth (New Zealand College of Midwives 2008; Royal College of Midwives 2004; American College of Nurse Midwives 2008; Canadian Association of Midwives 2008; Australian College of Midwives 2016). Considering these aims, it could be expected that antenatal education could be a central component.
Commercial provision of antenatal education

Since the 1990s a variety of specific types of antenatal education programs have become popular. In Australia, independent antenatal educators are not regulated, and many types of antenatal education have been developed within a commercial or business model to meet a particular market. Examples include programs that focus on Natural birth, HypnoBirthing, Calmbirth, Active Birth, Yoga, Lactation/Breastfeeding, Homebirth classes and Aqua-natal classes. In addition, antenatal education is also provided in online formats and a range of mobile applications have been commercially developed, such as the ‘The Health-e Babies app for antenatal education’ (Dalton et al. 2017). Some of these programs and franchises offer several days of training so that antenatal educators can follow the philosophy of the program and become a practitioner of the method. Ongoing annual fees are often charged so that practitioners can register and use their certification or licence on marketing material, once they have set up their own business. Many of these programs are held in the private homes of the practitioners, local community centres or sports venues.

Social media, blogs and online forums provide virtual educational experiences with a vast amount of information related to pregnancy, birth and parenting available through web-based resources. It is unclear how women interact in web-based discussion forums; however, Fredriksen, Harris and Moland (2016) found that pregnant women access the internet for support and information with the aim of making better health decisions for themselves. This type of education provides just in time learning; however, it often attracts a fee for the service which is private and unregulated. Borrowed from industry ‘Just in time learning’ is where learning is available on-demand and can be accessed when the learner needs it (Baruah 2013); for antenatal education this would include online classes and information.

The commercialisation of antenatal education raises professional and quality related issues with regards to the provision of classes and health related information. While offering choice for participants, costs are involved for those who attend, and annual licencing fees and franchise fees are charged to those who hold the classes. Some of these classes duplicate those offered by the health care facility, which are often free of charge. These
entrepreneurs are currently expanding their practice across Australia which would demonstrate that there is a demand for this service.

In the context of this research antenatal education is on the one hand, an expected part of pregnancy care, and on the other, a highly variable activity within the health services. Limited research has been conducted which explores the design and development of antenatal curricula, or examined what consumers considered a meaningful experience in relation to their preparation for labour, birth and parenting.

**Design and structure of antenatal education**

Traditional antenatal curricula are strongly psycho-educational in methodology (Nichols 2000) with concern for comprehensive preparation "teaching all that must be taught" (Savage 2001, p. 6) with the focus often being on pregnancy, labour and birth. Renkert and Nutbeam (2001) contend that the content of antenatal education prepares women to manage decisions during their pregnancy and birth, yet gives relatively little attention to preparing women or their support partners for parenthood. These authors emphasise that social support is a significantly important component of antenatal classes (Renkert and Nutbeam, 2001).

Svensson, Barclay and Cooke (2006b) identified four main areas of criticism in antenatal educational programs: program content was not based on the needs of program participants, content did not match objectives, poor consideration was often given to clients' existing knowledge and teaching styles were generally not learner-centred. These four points highlight issues concerning not only content but also pedagogy of antenatal education. The aim of their study was to consider learning processes that were most appropriate for first-time expectant and new parents so that appropriate antenatal education could be planned. This study found that experiential learning was the preferred learning strategy. Renkert and Nutbeam (2001) also conducted an exploratory study, examining how health literacy could be improved in those attending antenatal education. Both studies revealed content on parenting and breastfeeding that could be improved and
provided earlier in pregnancy (Renkert & Nutbeam 2001; Svensson, Barclay & Cooke 2006b). Several studies have recommended that the principles of adult learning should be included in the educational preparation for antenatal educators (Kelly 2011; Nolan 2009). Other recommendations have been that group facilitation skills (Wiener & Rogers 2008) and experiential learning should also be incorporated into an educator’s preparation (Svensson, Barclay & Cooke 2007). Several authors argue that a facilitative approach to antenatal education enables class participants to discuss openly topics that are of interest to them, not only about labour and birth, but also about parenting (Svensson, Barclay & Cooke 2007; O’Sullivan, O’Conell & Devane 2014).

A central aspect of antenatal education is the important role it plays in creating the opportunity for social support of parents. According to Nolan (1999; 2012) and Widarsson et al. (2012), women do not attend antenatal classes only to learn about pregnancy, birth and parenting, but also to meet others going through pregnancy at the same time. Experienced facilitators encourage interaction between class members and enable the exchange of contact details so that they can continue to support each other following birth. Social contact made between parents during antenatal classes is considered to be particularly beneficial (Petersson, Petersson & Hakansson 2004; Nolan 2009; Widarsson et al. 2012).

As antenatal education has developed, so too has the availability of a wide range of resources for pregnant women. Amid the multiple opportunities included are those provided by mass media (Declercq, Sakala & Corry 2006; Lagan, Sinclair & Kernohan 2010), offering information and interaction related to antenatal issues, created and developed by both lay and health care professionals. Most of the population now have access to the internet and studies have shown that expectant women frequently search the internet for health-related information (Dhillon et al. 2003; Sayakhot & Carolan-Olah 2016). Sayakhot & Carolan-Olah (2016) found the most frequently mentioned topics of interest included fetal development, nutrition in pregnancy, pregnancy complications and antenatal care (Gao, Larsson & Luo 2013; Larsson 2009; Bakhireva et al. 2011; Bert et al. 2011; Kavlak et al. 2012).
Since the beginning of the 21st century expectant mothers have turned to the internet for community support and information from their peers (Smith 2015). One researcher has argued that women may be less concerned with the evidence base of information than with the reassurance and knowledge that this form of networking and community provides them (Larsson 2009). Many women search for health-related information prior to meeting with their health care provider (Song et al. 2012; Gao, Larsson & Luo 2013) and after their consultations (McMullan 2006). Although internet searching is common, one of the difficulties with this medium is an inability to judge the quality and accuracy of the information (Mead et al. 2003). According to Sayakhot and Carolan-Olah (2016), most pregnant women do not discuss the information they source from the Internet with their health care providers, making it difficult for women to distinguish between accurate and inaccurate information.

These developments have offered women a wide range of options outside professionally provided antenatal education and have presented a community, within which women may interact, learn and gain support. These 21st century developments, in some way mirror the childbearing community historically, where women learnt from women within their community, and have implications for the way that antenatal education is planned and provided if it is to be relevant and helpful to individuals in fostering health literacy for birth and parenting.

**Antenatal education: a health education activity**

Fundamentally, antenatal education is a health promotion activity which aspires to effect improved health outcomes, societally as well as for individuals (Renkert & Nutbeam 2001). Health education is a process that enables individuals to improve their own health and gain control of their life. Formal antenatal education concerns the health and wellbeing of the mother and baby and is therefore considered a health education activity. It has been suggested that through formal education, such as provided in antenatal classes, women improve their health knowledge and confidence during pregnancy, birth and parenting (Renkert & Nutbeam 2001). This links well with the definition provided by Gagnon and
Sandall (2011) above, who described one of the aims of antenatal education as building women’s confidence in birthing.

According to the World Health Organization, health education is defined as “any combination of learning experiences designed to help individuals and communities improve their health, by increasing their knowledge or influencing their attitudes” (WHO 2008, 2017). This definition, in part, aligns with the ambition of antenatal education, which according to the Healthy Start Standards and Guidelines (2007) aims to “provide information and education....to promote health outcomes” (Healthy Start Standards & Guidelines 2007, p. 104) for childbearing women and their families. The WHO definition frames the educational exercise as a learning experience which has the capacity to influence attitudes, which is essential if health and knowledge are to be influenced (WHO 2008, 2017).

Antenatal education activities should be targeted at the level of individuals and aim to motivate them to accept a process of behavioural-change through directly influencing their value, belief and attitude systems. Therefore, it is important to investigate if antenatal education as a health education activity is to have a positive impact for individuals and the community. In Australia, antenatal education is encompassed within health policy, including the National Health and Medical Research Council (NHMRC) recommendations as the clinical practice guideline for antenatal care (NHMRC 2012). This guideline includes the need for more research regarding optimal methods of providing information to women to promote health in pregnancy (NHMRC 2012).

It has been argued that antenatal education and support can provide early intervention and enable parents to develop their own skills and support systems within the local community (Senate Community Affairs References Committee 1999; Hirst 2005). However, several researchers have argued that with many antenatal education classes being institutionalised, women and their support partners are often more prepared for the needs of the institution rather than developing their own life skills and building support networks (Barclay, Andre & Glover 1989; Armstrong 2000; Kirkham 2004; Svensson, Barclay & Cooke 2006a; Homer 2006; Murphy 2008; Walker, Visger and Rossie 2009). Walker, Visger and Rossie (2009) propose that antenatal education may reinforce institutional polices instead of empowering
women in the birth process. Murphy (2008) also claims that antenatal education promotes dependency and coercion into compliance with hospital policies and procedures and that women feel unprepared for the reality of birth and parenting. These practices may have contributed to an increase in the rates of birth intervention (Dahlen et al. 2012).

The United Nations Economic and Social Council Ministerial Declaration (UN ECOSOC 2009) considered health literacy as an important factor for improving health outcomes (UN ECOSOC 2009), which was also one of the key objectives of the 9th Global Conference on Health Promotion (2016). Health literacy should therefore be the ultimate goal of antenatal education. According to Ratzan (2001), the term health literacy was first used in a 1974 paper entitled ‘Health Education as Social Policy’ (Simonds 1974), however agreement about its definition remains inconsistent (Sorensen et al. 2012).

**Health literacy: health-related information and antenatal education**

The Shanghai Declaration on promoting health in the 2030 Agenda for Sustainable Development (WHO 2016) recognised health literacy as a critical determinant of health; with WHO committed to investing in its ongoing development. Health literacy is the ability to access, understand, appraise and apply health-related information, with improved health literacy a key outcome of health promotion. The goal of antenatal education for this purpose is to empower participants with skills, and confidence to know where and how to find additional information and to develop their ability to analyse that information critically (Renkert & Nutbeam 2001). Studies have found that people with skills in health literacy take a more active role with respect to their health care (Berkman 2011; Nijman et al. 2014).

Several definitions are used to describe health literacy in the literature. In a systematic literature review by Sorensen et al. (2012) 17 definitions of health literacy were identified, with the most frequently cited from the American Medical Association (Ad Hoc Committee on Health Literacy 1999), the Institute of Medicine (2004) and Nutbeam (1998). All definitions share similar characteristics that concentrate on “individual skills to obtain, process and understand health information and services necessary to make appropriate health decisions” (Sorensen et al. 2012, p. 3).
Nutbeam’s definition of health literacy was selected for this project which defines health literacy specifically as “[t]he personal, cognitive and social skills which determine the ability of individuals to gain access to, understand, and use information to promote and maintain good health” (Nutbeam 2000). This was chosen as a broad definition which has previously been applied to antenatal education in Australia. In his seminal work, Nutbeam (2000) suggests three developmental levels of health literacy: functional, interactive and critical. The different levels of health literacy indicate the development of knowledge and skills that increasingly support independence and personal empowerment in decision-making related to health (Nutbeam 2008). A study by Renkert and Nutbeam (2001) explored the feasibility of using the concept of health literacy to guide the development of antenatal education programs and is explored in further detail below.

**Functional health literacy**

Nutbeam (2000) implies that many health education initiatives of the 1960s and 1970s were characterised by heavy reliance on the transmission and communication of information; however, they did not consider the economic and social circumstances of people and therefore, were only effective among the wealthy and well-educated individuals. These health initiatives improved in the 1980s with theory-informed programs focusing more on the social context and promoting behavioural change (Glanz, Lewis, & Rimer, 1997 cited by Nutbeam 2000). Functional health literacy refers to having the ability to comprehend health risks and services (Shieh & Halstead 2009). Educational interventions to improve functional health literacy include the transmitting of information, opportunistic interpersonal contacts and the use of multimedia (Shieh & Halstead 2009).

**Interactive health literacy**

Nutbeam (2000) describes interactive or communicative health literacy as “the social and personal skills and capacity that enable individuals to derive meaning from different forms of communication and to apply new information to changing circumstances” (p. 263-264).
Nutbeam (2008) provides further clarity to interactive health literacy and refers to advanced skills that “allow a person to extract information, derive meaning from different sources of communication, and apply new information to changing circumstances” (Nutbeam 2008, p. 2075). The term ‘interactive’ health literacy has also been used in literature to refer to the skills used to extract health information and derive meaning from different forms of health communication, and apply these to changing circumstances (Nutbeam 2000). Interactive health literacy consists of higher-level communicative and social skills required to extract and discuss information with others. Participants with high skills are characterised by the self-confidence and ability to act independently on information, and to interact successfully with the health care system and health care providers (Nutbeam 2008).

**Critical health literacy**

Critical health literacy necessitates an acknowledgement and better understanding of the socio-political aspects of education, in addition to improving self-efficacy to utilise health knowledge to engage in healthier behaviours for their own benefit (Nutbeam 2000). McLaughlin and DeVoogd (2004) suggest the ‘critical’ aspect of critical health literacy could be referred to as a higher level cognitive ability. Therefore, the term ‘critical’ in critical health literacy has an additional meaning and is identified by some authors as the ability to “identify bias and credibility of a source, differentiate fact from opinion, determine if a message is unrealistic, understand a message’s purpose, determine [the] truth and applicability [of a message]” (Bergsma & Carney 2008, p. 524). Therefore, while critical health literacy is the third step in the development of health literacy, there appears to be confusion over its scope within the current literature. While some researchers indicate that it is a higher order individual cognitive skill, others stipulate that it is a driver for social change (Chinn 2011; Sykes et al, 2013).

Recognition that health literacy is fundamental to good health and high-quality health care is not new in Australia (Australian Commission on Safety and Quality in Health Care [ACSQHC] 2014), having been added to Australia’s first set of national health goals and targets in 1993 (Nutbeam et al. 1993). Furthermore, the National Health and Hospitals
Reform Commission (2009) acknowledged health literacy as a key factor for enhancing consumer engagement.

The concepts of health promotion and its outcome, health literacy, provide an appropriate conceptual framework for the exploration of contemporary antenatal education. Examining the influences on women and their partners or carers developing health literacy in relation to birth and parenting is the overarching purpose of the study. This information can be used to guide future antenatal education strategies and policies. This is important in the context of forthcoming review of the national strategic approach to maternity services (NSAMS). The expected outcome of the NSAMS project is to produce a document that will guide national maternity services policy in Australia. Nutbeam’s (2000) conceptual framework of health literacy will therefore be used to guide this study. It will explore the implications of learning about antenatal care and helping consumers make meaning of information provided in classes to become health literate in terms of pregnancy, birth and parenting.

The current study: significance, research aims and objectives

Women use a diverse range of knowledge and skills to successfully navigate pregnancy, birth and parenting (Renkert & Nutbeam 2001). Antenatal education should support the development of knowledge, skills and empowerment through the improvement of health literacy so that participants can make informed decisions about their health and care. Antenatal education has been normalised in Australian maternity services and is currently delivered within antenatal care services or as formal stand alone educational experience for women and their partner or support person. The health literacy concept offers an opportunity to change thinking in antenatal education away from a simple didactic transfer of knowledge, to an active process of empowering women for pregnancy, birth and parenting. By defining health literacy as an outcome, women may once again become confident and empowered to make their own decisions (Barimani et al. 2018), with the insights they no longer gain from the ‘womens network’ and extended families (Nolan, 1997).
Research indicates that antenatal education programs can vary widely in length, instructor training, goals, focus and content and that most health professionals agree antenatal education is informative and is highly recommended for expectant parents (Shearer 1996; Zwelling 1996; Renket & Nutbeam 2001; Barimani et al. 2018). While the evaluation of antenatal education efficacy has been mixed, it remains a significant component of antenatal care. Little research has been conducted exploring the way in which antenatal education has been developed, the pedagogical approaches and practices used or the way that participants experience antenatal education in order to make learning meaningful. Thus there is little evidence of the influence of pedagogy and practice on women’s experience and satisfaction with antenatal programs. Given that antenatal education is integral to pregnancy care and that professional specialisation has evolved around its provision, it is important to address these issues. This is particularly important in the Australian context where the development and regulation of antenatal education as a professional enterprise has not occurred and that, while antenatal education is commonplace, little is known about the way it is designed and delivered by antenatal educators or evaluated by the participants. This research will significantly contribute to the body of knowledge and practice for antenatal educators in relation to the understanding of current curricula, pedagogy and practice. Furthermore, by exploring contemporary antenatal education this research has the potential to significantly influence developments in antenatal support and health education in order to achieve the outcomes of antenatal education as described.

This research aimed to explore:

- the predominant organisational cultural and social influences in antenatal education curricula;
- the pedagogy and practice of antenatal education in a range of contexts;
- consumers’ perspectives (class participants) of antenatal education in relation to developing health literacy; that is, the extent to which antenatal education provides meaningful and effective learning experiences.
Summary

Antenatal education aims to help women and their families prepare for birth and early parenting. This chapter introduced the study by providing a definition of antenatal education and considering antenatal education as a health education activity. It reviewed the historical background, considering the development and influences on antenatal education, including the professionalisation of antenatal education and educational preparation of antenatal educators. The chapter outlined the aims of the study and the conceptual framework that will be used to guide data collection and analysis.

Structure of the thesis

This thesis comprises six chapters. This first chapter has introduced the background, aims of this research and justification for conducting this study. Chapter two provides a critical review of the literature regarding antenatal educational pedagogy and practice and provides additional background information that relates to cultural, social and organisational influences. Existing gaps in the body of knowledge are identified in the literature review, including the limited studies relating directly to the process and practice of antenatal education that inform the specific research questions. Chapter three provides an overview of the research methodology and conceptual framework and establishes the rationale for using Interpretive Description. This chapter outlines procedures and methods used in the study. Issues concerning ethical conduct or rigour are addressed. Chapter four introduces the participants by providing relevant background information, which was discussed during their individual interviews. Chapter five presents the findings of this study. Chapter six provides a discussion and offers suggestions and recommendations for future research and practice related to antenatal education.
Chapter 2: The research literature

Introduction

The previous chapter provided the background, context and aims of the study. In this chapter, a critique of the research literature related to antenatal education is undertaken. This critique revealed that while knowledge in this area does exist, there is a gap in the evidence surrounding the processes and pedagogy underpinning the development of antenatal education. There is also a paucity of research investigating curriculum development and the perspectives of antenatal class participants of this education.

Literature search methods

A search of the literature was conducted to identify studies that explored contemporary antenatal education and to identify the gaps in the literature. Studies published between January 2000 and June 2017 were included in this review, to capture key factors influencing antenatal education over the preceding two decades. Inclusion of this publication period allowed the opportunity to capture relevant influences of antenatal education leading up to, and following, the publication of the Improving Maternity Services in Australia report in 2009 (Commonwealth of Australia 2009). This national report highlighted information and support for women and their families as one of the key issues for maternity services review (Commonwealth of Australia 2009). Databases including PubMed, CINAHL, MIDIRS and Google Scholar were searched to identify research articles published in English. A combination of text terms and medical subject heading (MeSH) terms were used to maximise the volume of literature retrieved. MeSH terms included: antenatal education, prenatal education, parenting education, antenatal classes, prenatal classes, parenting classes, childbirth education and mothercraft. These words were searched individually and in a variety of combinations (using Boolean operators and, or and not). The search results were limited to studies published in peer-reviewed journals. Duplicates were removed, and
titles and abstracts were screened for antenatal education and classes rather than a type of antenatal care that was provided. In addition, the references of the relevant articles obtained were reviewed, to locate additional literature that may not have been found during the original search. The search strategy revealed a plethora of literature relating to antenatal education; however, there were limited studies exploring the process and practices of antenatal education and the experiences of the class participants. The current study intended to address this gap by exploring antenatal education, including pedagogy and practices in the Australian context.

The review of the literature is organised in three parts:

- Part one addresses the organisational culture and educational approach to antenatal education curricula (Table 2).
- Part two considers influence of antenatal education in the preparation of women and their partners for labour and birth, preparation for parenthood and social support (Table 3).
- Part three critiques approaches to antenatal education (Table 4).

**Part one: Organisational culture and educational approach to antenatal education curricula**

Factors influencing the development of Antenatal Education (ANE) include the values of both educators and the institutions conducting classes as well as the availability of human and material resources. These factors can influence program design, process, group size and approach to teaching ANE. In meeting the needs of women and their support person, curriculum development requires an awareness of the diversity of participants and available resources. Table 2 presents studies related to the organisational influences in ANE curricula. Table 2 comprises a total of 15 studies. The number of participants in these studies ranged between 8 and 2284 women and/or their support person.

The key themes identified, and which will be discussed are the organisational approaches and the educational approach to antenatal education.
<table>
<thead>
<tr>
<th>Author/Year/Country</th>
<th>Research Aim</th>
<th>Sample Characteristics</th>
<th>Methodology/Method</th>
<th>Summary of Findings</th>
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<td>Armstrong 2000 USA.</td>
<td>To report on participant observation of prenatal education classes at a large urban tertiary-care hospital associated with a major research university.</td>
<td>n=8 low SES women who attended a set of ‘Baby and me’ classes. Researcher participation in a set of ‘Baby and me’ classes.</td>
<td>Qualitative study. Grounded Theory. Participant observation and interviews with class participants. Classes were 1.5 hours per week for 8 weeks with guest speakers and resource materials.</td>
<td>Classes demonstrated that they were designed to engage a variety of strategies to socialise women to comply with hospital routines and expectation. Hospital-based ANE is designed to meet the needs of the institution.</td>
<td>Study examines process of ANE and indicates that classes were provided according to dictates of the hospital, for low SES women. Only one cycle of classes was observed however, these prepared women for a medical birth.</td>
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<td>Barimani et al. 2018 Sweden</td>
<td>To describe topics presented by midwives’ during antenatal classes, amount of time spent on topics raised and discussed by first-time parents and amount of time spent on topics.</td>
<td>n = 3 midwives n = 34 course participants in 3 courses.</td>
<td>Qualitative study. Data were gathered using video or tape recordings and analysed using a three-pronged content analysis approach, i.e., conventional, summative, and directed analyses.</td>
<td>Childbirth preparation and pain relief consumed 67% of course time. Parents reflected on child issues, relationship, sex, and anxiety. Participants needed more time to ask questions and more information for managing various postnatal situations.</td>
<td>Provide more time for parents to talk to each other, allow time in courses so parents can bring up new topics. Need for measures to evaluate courses facilitator training and parent satisfaction surveys.</td>
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<td>Brixval et al. 2016 Denmark.</td>
<td>To examine effect of an antenatal education program in small classes versus standard auditorium-based lectures in use of epidural analgesia, other types of</td>
<td>n= 1766 women.</td>
<td>Randomised clinical trial. Women in intervention group received an antenatal education program which focused on parental resources important for the birth process and parenting.</td>
<td>Antenatal education in small groups versus standard auditorium-based lectures did not differ regarding use of epidural analgesia, obstetric interventions or other pain relief.</td>
<td>Participants generally had a higher university level of education than the general population. Of 8997 women invited to participate only 19.6% were accepted and randomised.</td>
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<td>Gagnon &amp; Sandall 2011 Canada.</td>
<td>To assess effects of ANE on knowledge acquisition, anxiety, sense of control, pain, labour and birth support, breastfeeding, infant-care abilities, and psychological and social adjustment.</td>
<td>Nine trials, n=2284 women</td>
<td>Cochrane review - Randomised controlled trials. Structured educational programs provided during pregnancy by an educator to either parent that included information related to pregnancy, birth or parenthood.</td>
<td>Effects of general antenatal education for childbirth or parenthood, or both, remain largely unknown.</td>
<td>Benefits of antenatal education for childbirth, and best educational approaches to use, remain unclear.</td>
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<td>Ho &amp; Holroyd 2002 Hong Kong.</td>
<td>To investigate Hong Kong Chinese women’s perceptions of the effectiveness of antenatal education in their preparation for motherhood.</td>
<td>n=11 married primiparous women. (Husbands not included in focus groups); in Hong Kong husbands seldom attend majority of antenatal classes.</td>
<td>Qualitative study. Exploratory descriptive mixed methodology including observations and focus group interviews. Participants interviewed in two 2-hour focus groups. Classes consisted of 5 ANE sessions with didactic teaching and 5-10 mins for questions. Class size ranged between 48 and 95 participants.</td>
<td>In respect to the structure of classes women revealed that large class sizes and didactic mode of teaching appears to inhibit learning. Participants felt unprepared for demands of motherhood and received conflicting advice from antenatal educators.</td>
<td>Antenatal educators did not seek practical feedback from participants to evaluate their classes. This study is limited to a small sample at one hospital and reports on feedback from one set of classes.</td>
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<td>Holroyd et al. 2011</td>
<td>To evaluate Chinese women’s perspectives on the educational</td>
<td>n=46 primigravida women completed all 3 stages of this study.</td>
<td>Mixed method. Case study approach, comparing 2 hospitals. 30</td>
<td>Antenatal knowledge was seen to improve at both hospitals. Importance of</td>
<td>Importance of regular evaluation to ensure antenatal</td>
</tr>
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</table>
**Hong Kong**

effectiveness of hospital-based antenatal education programs in preparation for pregnancy, labour and early postpartum period.

Chinese women in Hong Kong.

questions grouped under structure, process and content. Telephone interviews.

providing education about Chinese medicine in pregnancy and postnatal care (e.g. need for rest and recovery, and restrictions on their activities) was emphasized.

education programs meet Chinese women’s needs and expectations is suggested.

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<td>Kearney et al. 2015</td>
<td>Evaluation of a collaborative antenatal service.</td>
<td>Data were collected from students, midwives and mothers engaged with the service regarding their experience and perceptions (number of participants not reported).</td>
<td>Qualitative study. Evaluation involving a two-phase mixed methods study design.</td>
<td>Preliminary findings were overwhelmingly positive with all participants agreeing on the value of service.</td>
<td>Implications of these findings for policy makers are that community-based group antenatal care/education is both desired and achievable.</td>
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<td>Morton &amp; Hsu 2007 USA</td>
<td>To examine key dilemmas childbirth educators experienced as they made crucial decisions about content and format of their classes.</td>
<td>n=17 childbirth educators and observations of 65 childbirth classes, 9 class reunions (total 160 hours of observation).</td>
<td>Qualitative study. This ethnographic study included participant observation of 2-10 childbirth classes; in-depth interviews with childbirth educators, class participants, and key informants; review of printed materials; and an information-sources survey.</td>
<td>This study demonstrates that childbirth education is a cultural phenomenon with deeply embedded values regarding nature and importance of information, scientific evidence, and consumer choice.</td>
<td>Women access ANE information through pregnancy chat and email-list opportunities, the Internet and other mass media such as TV. It is unclear what information is used that constitutes informed choice in birth.</td>
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<td>Nolan 2009 UK</td>
<td>To determine which educational approaches are most welcomed by women and most helpful to them in learning about</td>
<td>n=13 studies identified in a systematic literature review.</td>
<td>A systematic review survey of peer-reviewed studies on antenatal education, published in English from 1996-2006</td>
<td>Studies identified confirm women’s preference for a small-group learning environment in which they can talk to each other, the</td>
<td>Small group discussion is important, so women can make their own choices rather than conforming to hospital policies. Midwives</td>
</tr>
<tr>
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<td>O’Sullivan 2014</td>
<td>To investigate educational preparation and practices of antenatal educators in Ireland.</td>
<td>n=84 antenatal educators, including midwives, public health nurses, physiotherapists, and private antenatal educators.</td>
<td>Mixed method study. Data were collected using a questionnaire structured on three components (abilities, opportunities, and means) of Stamler’s theoretical framework of enablement.</td>
<td>Varied educational preparation for ANEs. <em>Formal preparation</em> included attendance at parent education training courses. <em>Informal preparation</em> educators developed skills through alternative methods such as observation of colleagues.</td>
<td>Programs to prepare antenatal educators should include principles of adult learning and group facilitation skills, this could be incorporated into all midwifery programs. Large class sizes hinder delivery of ANE.</td>
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<td>Serçeku &amp; Mete 2010</td>
<td>To describe women’s perceptions of the effectiveness of ANE on pregnancy, childbirth and post-partum period, to describe their impressions on type of education received.</td>
<td>n=15 primiparous women.</td>
<td>Qualitative study. Data were gathered 6 weeks post-partum through semi-structured interviews and analysed using content analysis method. Eight women received individual education, 7 received group education.</td>
<td>Education could have positive effects on pregnancy, childbirth, breastfeeding, motherhood and infant care, and it could have a positive or negative effect on fear of childbirth. Group ANE is preferred type.</td>
<td>It is important for the ANE to gain feedback about their classes and to update them regularly. Interviewer was the ANE in this study which may have hindered the participants provision of honest opinions about ANE.</td>
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<td>Svensson et al. 2006a</td>
<td>To identify learning needs of expectant and new parents for antenatal education as perceived by health professionals.</td>
<td>n=53 midwives, nurses, and educators participated in 7 focus groups.</td>
<td>Mixed method study. Data collection methods were repeated in-depth interviews, focus groups, participant observation, surveys, and a review of program documentation.</td>
<td>It is not sufficient for educators to be provided a list of topics to cover, knowledge or expertise may be limited. Topics selected by ANE may not be ones required by</td>
<td>Training is required for antenatal educators, along with support and guidance.</td>
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<td>Svensson et al. 2006b Australia.</td>
<td>To determine whether a new ANE program with increased parenting content could improve parenting outcomes for women compared with a regular ANE program.</td>
<td>n=170 women birthing at the hospital. Ninety-one women attended the new program and n=79 the regular program.</td>
<td>Randomised-controlled trial. Self-report surveys of 7x2 hour sessions prior to birth and 1 following birth. All educators attended a basic group skills training program and an additional 4-hour workshop on objectives.</td>
<td>Postnatal perceived maternal parenting self-efficacy scores and perceived knowledge of women who attended ‘Having a Baby’ program was higher than those who attended the regular program.</td>
<td>Parenting knowledge is increased when information is provided using adult learning principles. Parenting programs that continue in the early postnatal period may be beneficial.</td>
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<td>Wiener &amp; Rogers 2008 UK.</td>
<td>To evaluate the prevalence of ANEs’ views that midwives believe women in antenatal classes cannot focus on postnatal issues.</td>
<td>n=83 hospital and community-based midwives in one NHS Trust.</td>
<td>Mixed method study. Postal survey of midwives to compare the client-centred/facilitative approach to antenatal education with the traditional directive/lecture type approach.</td>
<td>In written comments 54% of midwives thought primiparous women were not interested in postnatal topics. A large proportion of midwives agree that women are anxious about labour and that this can be a barrier to discussing postnatal topics in antenatal classes.</td>
<td>While this was a relatively small study there appears to be a need for ANE programs that support parents in the transition to parenthood. Group facilitation training should be an integral part of midwifery training.</td>
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</table>
Organisational approaches to education may influence the design and effectiveness of ANE. Factors influencing the development of ANE include the educational values of both educators and the organisations conducting classes, as well as the availability of human (educator) and physical (space, time) resources. These factors influence program design, process and group size. In meeting the needs of women and their support person curriculum development requires an awareness of the diversity of participants. Antenatal education classes appear to have their own specific cultures which have rarely been explored in any detail.

**Organisational culture and influences on antenatal education**

Limited research has been conducted into organisational or institutional influences on antenatal education curricula. However, available evidence indicates that institutional policies influence development of the curriculum (Kirkham 1999; Morton & Hsu 2007; Svensson, Barclay & Cooke 2007; Wiener & Rogers 2008). For example, researchers suggest that antenatal classes are offered by hospitals as a method to orientate the women to hospital policies (Armstrong 2000; Svensson, Barclay & Cooke 2007). In her participant observation study, Armstrong (2000) proposed that by offering antenatal classes, hospitals seek to bridge the gap between their institutional demands for birth and women’s personal expectations and that many classes offer institutions a method by which they can convince women to adopt the values and expectations of the hospital. This phenomenon is similar to ‘technocratic birth’ which was described earlier by Davis-Floyd (1992, p59) in her book entitled ‘The technocratic body and the organic body: cultural models for women’s birth choices’.

Another institutional influence that has important implications is how the content of the classes are delivered to participants. No studies could be found that investigated the resources that were made available by institutions to guide the conduct of classes. Evidence also suggests that there has been minimal preparatory education in teaching practice and pedagogy (Svensson et al. 2007; O’Sullivan, O’Conell & Devane 2014; Barimani et al. 2018).
These issues have the potential to impact on quality, satisfaction and outcomes of the classes.

There are several institutional and educational practices which may influence the design and effectiveness of antenatal education; for example, class size. Research by Nolan (2009), Ho and Holroyd (2002) and Lee and Holroyd (2009) all indicate that class size is particularly important. Nolan’s (2009) review of 13 studies on the provision of antenatal education found that antenatal classes are much more likely to be successful when “pregnant women learn about one of the most intimate and powerful experiences of their lives” (Nolan 2009, p. 27) in smaller groups. This finding mirrored earlier findings by Ho and Holroyd (2002) who found large class sizes and a didactic approach inhibited learning. In their exploratory descriptive study, Ho and Holroyd (2002) aimed to explore perceptions of the effectiveness of antenatal education in their preparation for motherhood in a sample of Chinese women who were resident in Hong Kong. Using a mixed methodology, the research team observed five antenatal classes in a public hospital in Hong Kong and interviewed 11 women. The discussions focused on the large class sizes and a didactic mode of teaching. They found that large classes inhibited group processes and impeded discussions of sensitive matters. Class participation varied but included 48 – 95 women; with topics of discussion influencing participation on the night. Results suggested that parents felt that some topics were more important, reflected by increased attendance numbers. The largest class size of 95 participants was for the subject of parenting issues discussed in ‘Care of the Newborn’, which may be an indication that this is the information class participants particularly wanted to receive. However, in a systematic review, Brixval and colleagues (2014) concluded that there was insufficient evidence to draw a definitive answer regarding the impact of small antenatal classes on obstetric and psycho-social outcomes including stress and postnatal depression.

In contrast to Ho and Holroyd’s (2002) study above, CenteringPregnancy has small classes; this model combines care and education. Institutional models similar to CenteringPregnancy tend to have approximately 8 – 12 women participating. A recent evaluation of a group antenatal care program that combined antenatal education with care was conducted by Kearney, Craswell and Reed (2015) in Australia. This evaluation demonstrated that high
levels of satisfaction were reported by class participants, student midwives and antenatal educators. In total 19 participants took part: five midwives, five student midwives and nine class participants. The classes that were evaluated consisted of seven sessions in the antenatal period followed by a reunion in the postnatal period. Sessions ran for 2 hours and were scheduled in advance at intervals when the women would have traditionally attended for antenatal care. The sessions consisted of 8 – 12 couples with two students and two educators supporting each group; one educator to complete a care assessment with a student and the other to facilitate the group discussion. Group facilitation that aimed to be responsive to the needs of the participants and small class sizes were key components of these classes rather than a didactic approach adopted by many health care facilities. While generalisability is limited given the single context and small sample, the findings suggest that group based antenatal care combined with peer support and education is both desired by women and their partners, and achievable by the health service (Kearney, Craswell & Reed 2015).

Combined care, which includes antenatal education with antenatal care, is becoming increasingly popular. For institutions, it is a more cost-effective way of delivering both care and education at the same time (Serçekus & Mete 2010) as well as supporting the principles of continuity of care by a midwife (WHO 2005). In determining whether group or individual antenatal education would be better in preparation for birth, a systematic review, originally published in 2007 and updated in 2011 (Gagnon & Sandall 2011) examined six randomised controlled trials that evaluated the effects of antenatal education given as either group sessions or individually. The review evaluated the effect of classes on knowledge acquisition, mode of delivery, experience of childbirth, breastfeeding and parenthood and concluded that the effect of antenatal education in general, whether through group or individual sessions, was unknown.

While there is limited research into the effect of educational values or organisational influences on the development of antenatal education programs, it appears that the orientation of the educator may influence the content of programs, and that programs are often focused on institutional needs to orient women to the facility. In addition, the literature suggests that class size and the style of program delivery influences satisfaction
with programs. Little research has been conducted into the views of contemporary antenatal educators, their values and philosophies of antenatal education, or any changes in practice that may have occurred, and thus influence what is presented and normalised today as antenatal education.

In summary, there are a range of influences on antenatal classes. Limited research has been conducted into organisational culture and its influence on ANE curricula, despite evidence indicating that organisational policies influence development of the curriculum (Morton & Hsu 2007; Svensson, Barclay & Cooke 2007; Wiener & Rogers 2008; Holroyd, Twinn & Yim 2011). Another major influence on ANE reported in the literature has been the educational approaches used in different contexts.

**Educational approach**

There has been little investigation into philosophy and pedagogical knowledge and practice regarding the influence on antenatal classes. This raises some significant dilemmas regarding the training and preparation of antenatal educators, as antenatal educators are key to developing and shaping antenatal classes. Several studies have shown that an educator’s philosophy and views can affect content and practice of antenatal classes (Wiener & Rogers 2008; Morton & Hsu 2007; Svensson, Barclay & Cooke 2007). For example, if an antenatal educator believes that women are not interested in postnatal topics then they would be unlikely to include these topics in their classes (Wiener & Rogers 2008). An evaluative study by Wiener and Rogers (2008) surveyed UK midwives on their opinions of parenting topics for first time mothers and if their training and experience made any difference. Of the 83 midwives that completed the survey, approximately half believed that women were not interested in postnatal topics during antenatal classes. Furthermore, they found that most midwives believed that women were unable or unwilling to be realistic about the changes and difficulties a baby brings during the transition to parenthood. The survey sought background information about the midwives’ experience in antenatal classes and if they had undertaken further training. The more experienced midwives who had training in antenatal education were significantly more likely to think women were
interested in postnatal topics than those who had not. The participants felt that training in facilitation should be an integral part of midwifery registration programs.

In an ethnographic study, Morton and Hsu (2007) examined key dilemmas faced by American antenatal educators. The research involved observations of 11 antenatal classes facilitated by both independent and health care facility based antenatal educators. Semi-structured interviews were conducted with 17 antenatal educators who had input into the program content to explore their experiences of teaching, their personal philosophy of birth and current trends in antenatal education. One of the main dilemmas faced was that too much information of questionable value was given to participants. Participants identified that women already had access to a wide variety of information using current technologies. Morton and Hsu (2007) concluded that antenatal education is “a cultural phenomenon, which has deeply embedded values held by antenatal educators regarding the nature and importance of information, scientific evidence, and consumer choice” (p. 36). They found that the individual antenatal educator’s philosophy and the cultural framework of choice for women shaped the content of classes. From this small study, it can be seen that individual educators have an impact on the curriculum content and how it is developed and delivered. This study provides insight into the context in which antenatal education takes place and suggests that the context may influence both the process and the outcomes of antenatal education. The authors highlighted a need for further research, to develop a greater understanding of what is happening in antenatal classes, from the perspective of the class participants and the antenatal educators (Morton and Hsu, 2007). A decade later, there remains a dearth of this type of study.

In summary the more experienced midwives who had training in antenatal education were significantly more likely to include topics that were relevant to the participants (Wiener & Rogers 2008) and that classes are shaped by the individual antenatal educator’s philosophy (Morton & Hsu 2007). Part two considers the impact of antenatal education on the preparation of women and their partners for labour, birth and parenthood. It reports the impact of antenatal classes on the development of social networks and the women’s satisfaction with antenatal classes (Table 3).
Part two: Influence of antenatal education in the preparation of women and their partners for labour and birth, preparation for parenthood and social support.

As discussed in the previous chapter, preparation for labour and birth and the management of pain are prioritised in the content of early antenatal education. These remain a key area in antenatal education programs, however, there is contradictory evidence on the effect of antenatal classes on many labour and birth outcomes, including labour, mode of birth, management of labour and epidural rates. The relationship between antenatal education and the development of coping strategies to alleviate fear and anxiety has also been explored, with contradictory results. Table 3 presents a large body of studies examining the influence of antenatal education in the preparation of women and their partners for labour and birth, preparation for parenthood and the development of social networks. Table 3 consists of 57 studies; the number of participants ranges between 8 and 9004.
Table 3. Studies exploring influence of antenatal education in the preparation of women and their partners for labour and birth, preparation for parenthood and social support.

<table>
<thead>
<tr>
<th>Authors/year/ Country</th>
<th>Research Aim</th>
<th>Sample Characteristics</th>
<th>Methodology/Method</th>
<th>Summary of findings</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Adams et al. 2012</td>
<td>To assess the association between fear of childbirth and duration of labour.</td>
<td>n= 2206 pregnant women with a singleton pregnancy and intended vaginal birth during the period 2008–10.</td>
<td>Mixed Method. A prospective study of women from 32 weeks of gestation through to birth. Self-administered questionnaires.</td>
<td>Fear of childbirth was present in 7.5% (165) of women. Labour duration was significantly longer in women with fear of childbirth compared with women with no such fear.</td>
<td>Fear of birth is an increasingly important issue, but knowledge of obstetric complications associated with fear of childbirth is still limited. Counselling may be beneficial for women who fear childbirth.</td>
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<td>Ahlden et al. 2012</td>
<td>To assess parents’ expectations concerning birth, parenting and reasons for participating in antenatal education.</td>
<td>n=1117 women and n=1019 partners.</td>
<td>Quantitative study. Descriptive cross-sectional. Questionnaires were used to collect data.</td>
<td>Participants believed that ANE would help them feel more secure as parents and to be better oriented toward birth and parenting. Women were more positive than men. Parents wanted more information about preparing for parenthood.</td>
<td>Parents wanted to learn about infant care skills, and that these expectations were not met by attending antenatal classes. Further research regarding needs and expectations of parents is required.</td>
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<td>Andersson et al. 2012</td>
<td>To investigate parents’ experiences of group antenatal care in four different clinics in Sweden.</td>
<td>N=11 individual interviews with parents; 5 group interviews (17 participants).</td>
<td>Qualitative study. 11 individual interviews at 4 antenatal clinics. Participants attended 2-hour sessions, continuity of care. Group sessions consisted of information-sharing and discussions.</td>
<td>Group-based antenatal care appeared to meet parents’ needs for physical assessment and screening. Parents identified that groups helped them prepare for birth but not for parenthood.</td>
<td>Midwife’s role in facilitating group-based antenatal care requires new pedagogical strategies and approaches.</td>
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<td>Artieta-Pinedo et al. 2010 Spain.</td>
<td>To assess the benefit of ANE during the process of childbirth, controlling for possible confounding effects of other variables.</td>
<td>N=616 nulliparous women aged 18 – 42 years who had attended at least 6 check-ups. Participants were allocated to three groups (a) women attending no ANE n=45 session, (b) women attending 1 to 4 n=62, and (c) women attending 5 or more sessions n=509.</td>
<td>A prospective observational study, compared women who had attended a different number of ANE sessions to see if they arrived in established labour, had an epidural, length of first and second stage, anxiety, type of birth, perineal injury, satisfaction APGAR scores at 5 minutes. Classes consisted of 8 X 2-hour sessions. Classes were based on Lamaze’s obstetric psychoprophylaxis method.</td>
<td>Women who attended ANE classes experienced less anxiety. Classes should be adapted to individual’s health requirements.</td>
<td>Only nulliparous women were enrolled. Some data regarding variables was missing from this study which may have impacted upon the results. Setting was highly medicalised and during birth women were expected to conform to expectations and protocols of the hospital.</td>
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<td>Bergstrom et al. 2011 Sweden.</td>
<td>To compare women’s and men’s satisfaction with two models of antenatal education.</td>
<td>N=1087 nulliparous women and n=1064 partners. Women: in the natural group n=544 standard group n= 543. Men: in the natural group n= 529 standard group n=534.</td>
<td>Randomised controlled multicentre trial. Both models of ANE had 2 X 4-hour sessions during pregnancy and one session in the postnatal period. In the standard care model, the group leader was free to choose her teaching approach, with an equal amount of time allocated to preparation for childbirth and for parenthood.</td>
<td>More women and men in the natural groups were satisfied with education compared with standard care groups. A structured manual-based model of antenatal education which focuses on childbirth preparation with psychoprophylaxis may better meet expectant parents’ expectations than standard antenatal education.</td>
<td>Group discussion with practice of psychoprophylaxis appears to be more satisfying to participants. However further research is needed to confirm higher satisfaction with a focus on childbirth in antenatal education.</td>
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<td>Byrne et al. 2014 Australia.</td>
<td>Pilot study to determine the acceptability and feasibility of Mindfulness Based Childbirth Education (MBCE) protocol.</td>
<td>n=12 Pregnant women (18-28 weeks’ gestation) and their support companions attended weekly MBCE group sessions over 8 weeks.</td>
<td>Mixed methods study. A single-arm pilot study of MBCE intervention using a repeated-measures design. Key outcome variables: mindfulness; depression, anxiety, and stress; childbirth self-efficacy; and fear of childbirth. Women and their partner attended 8 X 2.5-hour sessions. Decision-making practice using the BRAIN (benefits, risks, alternatives, intuition, nothing) model was used for decision making.</td>
<td>Mindfulness-Based Childbirth Education is connected with feelings of empowerment and confidence in women. Improvements in childbirth fear and self-efficacy after the program and improvements in anxiety after birth.</td>
<td>Participants in this study did not complete daily mindfulness practice as prescribed, further studies are required to explore barriers to home practice. Empowerment was a central feature and further studies exploring this should be considered.</td>
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<td>Catling et al. 2015 Australia.</td>
<td>To compare effects of group antenatal care versus conventional antenatal care on care provider satisfaction.</td>
<td>Cochrane review of n=4 RCTs (n=2350 women).</td>
<td>Cochrane review: a systematic review of 4 trials that compared effects of group pregnancy care versus conventional individual pregnancy care on psychosocial, physiological, labour and birth outcomes for women and their babies as well as on care provider satisfaction.</td>
<td>No statistically significant differences were observed between women who received group antenatal care and those given standard individual antenatal care. No differences in rate of preterm birth were reported when women received group antenatal care.</td>
<td>Additional research is required to determine whether group antenatal care is associated with significant benefits.</td>
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<td>Craig &amp; Dietsch 2010 Australia.</td>
<td>To uncover perceived usefulness of a contemporary antenatal education strategy for mother’s experience of breastfeeding initiation.</td>
<td>n=10 first time mothers, booked into an Australian private maternity unit for antenatal breastfeeding education, labour, birth and postpartum care.</td>
<td>A qualitative study. Exploratory, descriptive method using semi structured interviews. Attendance at a single 2.5-hour breastfeeding workshop facilitated by a lactation consultant. Teaching strategies were mainly didactic but also included, audio-visual resources, models and DVDs to appeal to participants who prefer a visual style of learning.</td>
<td>Antenatal education was beneficial for informing first time mothers of the practical skills required to positively initiate breastfeeding. However, this antenatal education strategy was not enough to reduce anxiety and foster participant’s sense of self-confidence in their ability to breastfeed their newborns.</td>
<td>This study consisted of a small number of participants from a private hospital. Further research is needed to ascertain what impact obstetric interventions during birth may have on breastfeeding and how women’s confidence and self-efficacy to breastfeed can be enhanced.</td>
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<td>Deave et al. 2008 UK.</td>
<td>To explore how first-time mothers and their partners could be better supported during the antenatal period, particularly in relation to the transition to parenthood and parenting skills.</td>
<td>n=24 nulliparous women, n=20 partners.</td>
<td>Qualitative study. Purposive sampling, semi structured interviews during the last trimester and 3 – 4 months post-partum.</td>
<td>Knowledge about the transition to parenthood was poor. Women generally felt well supported, especially by female relatives and, for those who attended them, postnatal groups. Men felt excluded from ANE and would like more information.</td>
<td>This study highlighted importance of including fathers in antenatal education and that inadequate preparation remains a concern to both women and their partners.</td>
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<td>De Oliveira et al. 2001 International.</td>
<td>Literature review on primary care interventions to extend breast-feeding duration (any kind of breastfeeding) during the</td>
<td>A systematic literature search finding n=37 studies.</td>
<td>Systematic literature review. Studies published between 1980 and 1999, 37 studies using experimental or quasi-</td>
<td>During prenatal care, group education was the only effective strategy reported. Strategies that had no effect were</td>
<td>There is a need for broad-based, well-designed studies, preferably spanning prenatal and postnatal periods.</td>
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<td>Dwyer 2009 New Zealand</td>
<td>To describe and compare CBE offered to women and their families or whānau by key CBE providers. Compare availability of CBE across different health regions. Find gaps between support that services aim to provide and what happens in practice.</td>
<td>Key informant interviews (n=8), contact with each DHB (n=21), focus groups with women (n=56), a brief questionnaire to women (n=878), a brief questionnaire to CBE providers (n=45), accessing the Plunket database to determine demographics and a literature review (n=67).</td>
<td>Mixed method. There were seven main methods used to answer 30 research questions. These were key informant interviews, contact with each DHB, focus groups with women, a brief questionnaire to women, a brief questionnaire to CBE providers, accessing the Plunket database and a literature review. This project identified 90 providers of CBE and 88 providers of Well Child services.</td>
<td>Across all survey respondents, 41.5 % of women attended antenatal education. The finding that women who participated in antenatal courses offered through Parents Centres rated classes as more helpful in their preparation for childbirth than women who attended courses through other providers (such as hospital-based classes).</td>
<td>Facilitators of antenatal classes are not necessarily trained in CBE or principles of adult education. The consequence of this is that childbirth educators generally rely on didactic teaching methods and focus on knowledge transfer. An important question is: Should facilitators be required to have a minimum qualification in CBE?</td>
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<td>Dyson et al. 2005 USA</td>
<td>To evaluate the effectiveness of interventions which aim to encourage women to breastfeed in terms of changes in the number of women who start to breastfeed.</td>
<td>Cochrane review included n=7 trials involving n=1388 women.</td>
<td>Cochrane systematic review, selection criteria included randomised controlled trials, with or without blinding, of any breastfeeding promotion intervention in any population group except women and infants with a specific health problem.</td>
<td>Five trials involving 582 women in USA found breastfeeding education had a significant effect on increasing initiation rates compared to routine care. Breastfeeding education was effective at increasing breastfeeding initiation rates.</td>
<td>This review showed that health education and peer support interventions can result in some improvements in number of women beginning to breastfeed.</td>
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<td><strong>Entsieh &amp; Hallstrom 2016</strong> Sweden.</td>
<td>To contribute to the existing body of knowledge about specific needs of first-time parents specifically for early parenthood.</td>
<td>Systematic review and meta-synthesis of n= 12 qualitative studies.</td>
<td>A systematic review and meta-synthesis of qualitative literature. Search method included databases PubMed, MEDLINE, PSYCINFO, CINAHL, EMBASE, Family Studies Abstracts, and Web of Science, were searched using search terms: prenatal, antenatal, preparation, education, parents, parenthood.</td>
<td>Studies indicated that first-time expectant and new parents report a need for antenatal education to actively include male partners pre- and postnatal. Participants wished for early and realistic information about parenting skills. They need to learn both from peers and other new parents as guest speakers.</td>
<td>Parenthood education classes could adopt adult learning strategies that are participatory, and experiential in nature. Equal emphasis should be placed both during prenatal and postnatal periods in antenatal education classes.</td>
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<td><strong>Escott et al. 2005</strong> UK.</td>
<td>To compare the use and effects of enhanced pre-existing coping strategies with the use and effects of coping strategies usually taught in National Health Service (NHS) antenatal education on women’s experience of pain and emotions during labour.</td>
<td>n=41 women n=20 women in the intervention group and n=21 women in the standard antenatal classes.</td>
<td>A between-group comparison group design of women who chose to attend NHS antenatal education (5x2 hour ANE classes) where courses of preparation were randomly assigned to include either a new method of coping strategy enhancement (CSE) or standard taught coping strategies. X3 questionnaires completed and a semi structured interview.</td>
<td>Women who attended CSE classes used enhanced coping strategies for a larger proportion of their labour than women who attended standard classes. Women attending standard classes found content to be more interesting, less difficult, felt more prepared for labour in terms of coping strategies and found the midwife teaching classes to be more confident than women attending CSE classes.</td>
<td>Little evidence from this feasibility study that CSE approach either improves or is detrimental to women’s experiences of labour further studies would be required to evaluate the effect.</td>
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<td>Fabian et al. 2005</td>
<td>To investigate first-time mothers’ views about antenatal childbirth and parenthood education.</td>
<td>n=1197 Swedish-speaking first-time mothers.</td>
<td>Quantitative study. Three postal questionnaires: during early pregnancy, 2 months, and 1 year after giving birth following attendance at 1-11 ANE sessions.</td>
<td>Participation in childbirth and parenthood education classes did not seem to affect first-time mothers’ experience of childbirth and assessment of parental skills but expanded their social network of new parents.</td>
<td>Further evaluation and testing of alternative ways of preparing women and their partners for childbirth and parenthood is suggested.</td>
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<tr>
<td>Fenwick et al. 2013</td>
<td>To examine dominant discourses that midwives draw on to present information on breastfeeding in group-based antenatal education sessions.</td>
<td>n=9 midwives employed as CBE 5 were also qualified lactation consultants. n=124 pregnant women and their partners/support person.</td>
<td>A discourse analysis was used to explore the language and practices of midwives facilitating group antenatal breastfeeding education sessions at two Australian maternity facilities. ANE breastfeeding education consisted of 60 – 140 mins. With 6 – 20 participants per session. Participants seated in rows classroom style, limited interaction in some groups, others had group activities. Questions only at the end of sessions. Midwives doing majority of talking, use of DVD/ video, handouts.</td>
<td>The analysis revealed four dominant discourses midwives used to promote breastfeeding. The predominant discourses ‘There is only one feeding option’: breastfeeding’ and ‘Selling the ‘breast is best’ reflected how midwives used their personal and professional commitment to breastfeeding, within supportive and protective policy frameworks, to convince as many pregnant women as possible to commit to breastfeeding.</td>
<td>Midwives may not be aware that they were potentially coercing women to breastfeed with the need to closely adhere to health service policies. A facilitative method using discussion for teaching may be of benefit to women.</td>
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<td>Fletcher et al. 2004 Australia.</td>
<td>To assess how well antenatal classes currently being offered are meeting men’s needs and to assess new fathers’ familiarity with and use of support services.</td>
<td>Couples who attended antenatal classes n=212 fathers n= 216 mothers.</td>
<td>Mixed method study. New father and new mother surveys 6 closed and 2 open question with multiple parts for fathers, 2 questions for mothers. Analysed using descriptive statistics chi-square analysis.</td>
<td>Mothers are more familiar with family-related services than fathers. Mothers accessed services significantly more often than fathers: antenatal classes helped them feel more confident during labour. 60% of the fathers expressed an interest in attending postnatal classes.</td>
<td>Some barriers to fathers’ use of the support services clearly exist, beginning with a lack of information directed specifically to fathers. Further consideration should be given to including partners in antenatal classes that extend into the postnatal period.</td>
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<td>Furey 2004 UK.</td>
<td>To review the evidence on what works in teenage parent support programs; to determine the key elements of successful teenage parent support and parenting programs and to determine the gaps in the evidence.</td>
<td>Literature review of interventions among teenage parents and their children.</td>
<td>Databases were searched, using a specific search strategy, for systematic reviews and randomised controlled trials, to ascertain whether social support, parenting programs, or both, are effective in improving maternal or infant outcomes.</td>
<td>The studies suggest positive effects of parenting and social programs for teenage mothers on child development maternal–child interactions. Only one systematic review specifically addressed teenage parenting and support.</td>
<td>Key questions remain for future support and parenting programs for teenagers. Further studies are needed of parenting and social-support programs for teenage parents in the UK.</td>
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<tr>
<td>Gagnon &amp; Sandall 2011 Canada.</td>
<td>To assess the effects of ANE on knowledge acquisition, anxiety, sense of control, pain, labour and birth support, breastfeeding, infant-care abilities, and psychological and social adjustment.</td>
<td>n=9 trials, involving n=2284 women, were included.</td>
<td>Cochrane review - Randomised controlled trials of any structured educational program provided during pregnancy by an educator to either parent that included information</td>
<td>The effects of general antenatal education for childbirth or parenthood, or both, remain largely unknown.</td>
<td>Benefits of antenatal education for childbirth, and the best educational approaches to use, remain unclear.</td>
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<td>Grady &amp; Bloom 2004 USA.</td>
<td>To describe the implementation and evaluation of a CenteringPregnancy program specifically designed to facilitate positive outcomes in an adolescent population.</td>
<td>n=124 women aged 17 years or younger.</td>
<td>Quantitative non-randomised demonstration study. Evaluation program, information collected through attendance sheets, prenatal records, and inpatient and clinic medical records. Participants completed two evaluations of the program during sessions 7 and 10.</td>
<td>Group care can have positive advantages. Adolescents often realize that they can change health behaviours and gain support from other young women in the group.</td>
<td>CenteringPregnancy model appears to be valuable in terms of consistency in and satisfaction with prenatal care. CenteringPregnancy facilitates adolescents to explore their feelings and concerns about pregnancy and parenting in a safe and supportive environment.</td>
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<td>Hanley et al. 2016 International collaboration (Canada, Germany and UK).</td>
<td>Review of the literature to examine definitions of labour onset and the evidentiary basis provided for these definitions.</td>
<td>n=62 studies.</td>
<td>Five electronic databases searched using predefined search terms. English, French and German language studies published between January 1978 and March 2014 defining the onset of latent labour and/or active labour in a population of healthy women with term births.</td>
<td>There is little consensus regarding definitions of labour onset. Most studies did not provide evidentiary support for their choice of definition of labour onset.</td>
<td>A limitation of this review is that a specific definition of labour could not be recommended. Further research seeking practitioners’ views on the most useful definition of onset of early labour would be useful.</td>
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<td>Hector &amp; King 2005 Australia.</td>
<td>To provide an overview of the potential interventions that address support for optimal breastfeeding practices.</td>
<td>n=4 papers reviewed.</td>
<td>An appraisal of meta-analyses and narrative systematic reviews.</td>
<td>Well conducted educational and support interventions have substantial and significant effects on breastfeeding</td>
<td>It is important that interventions are evaluated to provide evidence of effectiveness to fill many evidence gaps.</td>
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<td>Ip et al. 2008 Hong Kong.</td>
<td>To test the effectiveness of an efficacy-enhancing educational intervention to promote women’s self-efficacy for birth and coping ability in reducing anxiety and pain during labour.</td>
<td>n=60 women in the experimental group n= 73 in the control group.</td>
<td>Randomised controlled trial of an educational intervention based on Bandura’s self-efficacy theory.</td>
<td>The experimental group was significantly more likely than the control group to demonstrate higher levels of self-efficacy, lower perceived anxiety and pain and greater performance of coping behaviour during labour.</td>
<td>Pain management and anxiety are important. The efficacy-enhancing educational intervention should be further developed and integrated into ANE to promote women’s coping ability during birth.</td>
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<td>Isbir et al. 2016 Turkey.</td>
<td>To examine the effects of antenatal education on fear of childbirth, maternal self-efficacy and post-traumatic stress disorder symptoms following childbirth.</td>
<td>n=46 pregnant participants in the control group n=44 in the intervention group.</td>
<td>Quasi-experimental study. The Wijma Delivery Expectancy/Experience Questionnaire (Wijma, Wijma &amp; Zar 1998), Childbirth self-efficacy Inventory (Ip, Tang &amp; Goggins 2008) and Impact of Event Scale were used to assess fear of childbirth, maternal self-efficacy and PTSD symptoms following childbirth. Class size 5 – 8 women who attended 4 X 4-hour sessions (16 hours).</td>
<td>Compared to the control group, women who attended antenatal education had greater childbirth self-efficacy, greater perceived support and control in birth, and less fear of birth and post-traumatic stress disorder symptoms following childbirth.</td>
<td>ANE that includes role play, positive birth stories, and techniques for coping in a supportive environment, appear to alleviate fear of birth and PTSD symptoms following birth. ANE should be considered as a component of standard antenatal care.</td>
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<td>Karabulut et al. 2016</td>
<td>To determine the effect of antenatal education on fear of childbirth, acceptance of pregnancy and identification with motherhood role.</td>
<td>n=192 pregnant women, antenatal education group, n = 69 and control group, n = 123.</td>
<td>Quasi experimental pre- and post-education model self-evaluation questionnaire wijma questionnaire. Prenatal Self-Evaluation. Questionnaire (PSEQ) and Face to face interviews. Participants attended 5 X 3 hours sessions (total 15 hours). Use of models and figurines, visual instruments and videos.</td>
<td>Antenatal education appears to increase the acceptance of pregnancy, does not affect the identification with motherhood role and reduces the fear of childbirth.</td>
<td>ANE as part of routine antenatal care services, would help reduce the rate of interventional labour and facilitate women’s conscious participation during birth by reducing their fear of childbirth.</td>
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<tr>
<td>Klima et al. 2009</td>
<td>To evaluate the acceptability of CenteringPregnancy to the providers, clinic staff, and participants in a neighbourhood public health clinic.</td>
<td>n=110 predominantly African American women attending Centering-Pregnancy compared to n=207 women who did not attend.</td>
<td>A retrospective medical record review was used to compare outcomes for women enrolled in CenteringPregnancy and women who received individual care in this clinic. Focus group interviews, a small client satisfaction survey and medical records review of birth outcomes. Groups had 4 – 10 members. All staff were trained.</td>
<td>Higher satisfaction with prenatal care among CenteringPregnancy participants and increased rates of breastfeeding initiation among participants.</td>
<td>CenteringPregnancy Group facilitation skills are challenging to learn and the providers in this study identified that ongoing training is critical to the success of a group prenatal care program.</td>
</tr>
<tr>
<td>Kronborg et al. 2012</td>
<td>To assess the effect of an antenatal training program on knowledge, self-efficacy, problems related to breast feeding</td>
<td>n=1193 nulliparous women were recruited before week 21+6 days of gestation, 603 were randomised to the</td>
<td>Randomised controlled trial. Self-reported questionnaires 6 weeks post-partum and 1-year</td>
<td>No differences were found between groups according to duration of breastfeeding, self-efficacy score, or breast-</td>
<td>The antenatal training program should be followed by postnatal breastfeeding support. ANE alone is not sufficient</td>
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and duration. Using the ‘Ready for Child program’. 

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<tr>
<th>Lamminpää et al. 2012</th>
<th>A pilot study to describe the experience and assessment of maternity care services during pregnancy in Finland by post-40-year-old pregnant women.</th>
<th>n=11, 40-year-old pregnant women who were both primi and multiparous.</th>
<th>Qualitative study. Interviews with open-ended questions and themes which were planned. Data analysed using inductive content analysis.</th>
<th>Women were satisfied with the maternity care services. Fathers were unaware of support services support networks developed in class for fathers nearly 60% of fathers would like postnatal classes.</th>
<th>The needs of the fathers were not addressed during the antenatal visits or in ANE classes.</th>
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<tbody>
<tr>
<td>Little et al. 2013</td>
<td>To evaluate a group prenatal visit program for Japanese women in Michigan, with a limited proficiency with English.</td>
<td>n=42 pregnant Japanese women living in USA.</td>
<td>Mixed method study. An evaluation involving repeated survey administration (program evaluations, 4-item Patient Health Questionnaire, pregnancy distress questionnaire) and in-depth interviews. ANE groups consisted of 8 – 12 women, who met once a month for 5 months, each class was 2 hours. Session run by a</td>
<td>It is feasible to implement a group prenatal visit program for Japanese women in a family medicine setting culturally modifying the CenteringPregnancy program. In final evaluations, 96% to 100% of participants rated 7 educational topics as ‘covered’ or ‘covered well.’</td>
<td>Antenatal group visits that provided education and social support for Japanese women during the perinatal and postpartum periods are of value, women appreciated group facilitation.</td>
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<td>Lumbiganon et al. 2016   Thailand.</td>
<td>To evaluate the effectiveness of antenatal education on increased breastfeeding initiation and duration.</td>
<td>n=20 studies involving n=9789 women. Study has been updated and now includes n=24 studies (n=10,056 women).</td>
<td>Cochrane review. Selection criteria: All identified published, unpublished and ongoing randomised controlled trials (RCTs) assessing the effect of formal antenatal BF education or comparing two different methods of formal antenatal BF education, on the duration of BF.</td>
<td>No conclusive evidence to support antenatal breastfeeding education impacting either initiation or duration.</td>
<td>There is an urgent need to conduct RCTs study with adequate power to evaluate the effectiveness of antenatal breastfeeding education.</td>
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<tr>
<td>Lumluk &amp; Kovavisarach 2011</td>
<td>To compare self-correct diagnosis of true labour between a special education group and routine education group.</td>
<td>n=164 pregnant women &gt;36 weeks gestation. n=85 women in the special education group and n=79 in the routine education group.</td>
<td>A randomized controlled study.</td>
<td>There was higher significance of self-correct diagnosis of true labour onset between the special and routine education group (91.8% vs. 77.2%), respectively (p = 0.01).</td>
<td>It is unclear from this study what ANE was given to the women in the one session they attended. Teaching method and group size were not mentioned.</td>
</tr>
<tr>
<td>MacLeod &amp; Weaver 2003       UK.</td>
<td>To explore adjustment to pregnancy in an expectant teenage population.</td>
<td>n=99 first-time expectant teenagers aged 14–16 (n=21) and 17-18 (n=78).</td>
<td>Mixed Method Study. The psychological adjustment to pregnancy was assessed in a repeated measures design, the first measures being taken at 20 weeks gestation and the second at 37 weeks gestation. Demographic information (assessed at 20 weeks).</td>
<td>The results suggest most of the sample adjusted well to their pregnancies. The participants felt well supported by their families and many appeared to be in stable relationships. 83% did not attend antenatal classes and many had limited knowledge about</td>
<td>It is not clear if improvements in feelings of well-being after birth would be evident for young women who already feel well supported. Factors such as difficult terminology and insufficient information were barriers to communication with</td>
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</table>
Attitudes towards the pregnancy and foetus (assessed at 20 and 37 weeks). The Social Support Questionnaire (SSQ) Network size and composition (assessed at 20 and 37 weeks). Satisfaction with available support (assessed only at 37 weeks) and interviews. antenatal related issues. Antenatal classes were not perceived as an important component of antenatal care the majority (55%) reported dissatisfaction with the information provided by their midwives. health professionals. An improvement in health literacy may be of benefit to this population.

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<td>Maimburg et al. 2010</td>
<td>To compare the birth process in nulliparous women enrolled in a structured antenatal training program, ‘The Ready for Child’ program, with women allocated to routine care.</td>
<td>n=1193 nulliparous women recruited before 22 + 0 weeks gestation.</td>
<td>Randomised controlled trial. Women were randomised to receive 9 hours of antenatal training or no formalised training. Questionnaires were used to survey the women.3 X 3-hour modules, 30 – 35 weeks gestation, partner invited. Lectures and discussion and included transition to parenthood film. Midwives received a 3-day preparation, 1 day per module.</td>
<td>Women who attended the ‘Ready for Child’ program arrived at the maternity ward in active labour more often than the reference group and used less epidural analgesia during labour.</td>
<td>ANE offered to pregnant women is an important low-technology health promotion tool. Whether results from this study also apply to multiparous women requires additional studies.</td>
</tr>
<tr>
<td>Maimburg et al. 2016</td>
<td>To study changes in the woman’s perception of birth and explore the birth characteristics in women reporting a less positive</td>
<td>n=905 nulliparous women who had attended ‘The Ready for Child’ structured antenatal classes 5 years previously.</td>
<td>Longitudinal study. 5- year follow up of previous randomised controlled trial. Online questionnaire.</td>
<td>Reporting a good birth experience in the long term is more likely when attending a structured antenatal program and if Key areas in promoting a good birth experience include providing structured ANE programs</td>
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<td>Malata et al. 2007</td>
<td>To develop and evaluate a childbirth educational program for Malawian women.</td>
<td>n=250 pregnant women. Control group n=125 pregnant women &lt;30 weeks gestation. Intervention group n=125 pregnant women &lt;30 weeks gestation. Also, n=10 midwives.</td>
<td>Mixed method study. A quasi-experimental design with sequential sampling approach was used for this three-phase study. Needs assessment-focus groups. Program development. Evaluation using a quasi-experimental design with sequential sampling. Individual interviews with 10 midwives. Group sessions 6 X 2 – 2.75 hours. Four midwives with a teaching background were trained to implement the program they received a 1-day training session.</td>
<td>Results revealed no significant difference in knowledge in the control group between pre-test and post-test scores. For the intervention group, however, an overall significant increase in knowledge across all time periods was demonstrated.</td>
<td>This ANE program was associated with important increases in maternal knowledge about antenatal, labour and birth and postnatal topics. Cultural practices, poor literacy, younger maternal age and health services must be considered when developing education programs.</td>
</tr>
<tr>
<td>Mattar et al. 2007</td>
<td>To address the impact of simple antenatal educational interventions on breastfeeding practice.</td>
<td>n=401 low risk pregnant women 36 weeks gestation or greater, randomised into 3 groups.</td>
<td>A randomized controlled trial. Group A received breastfeeding educational material and individual coaching from a lactation</td>
<td>Mothers receiving individual counselling and educational material practised exclusive and predominant breast-</td>
<td>This study supports the use of an educational intervention such as face to face counselling and use of a video. Printed</td>
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<td>Matthey et al. 2002</td>
<td>To explore postpartum issues for expectant mothers and fathers’. n=201 women and n=182 men.</td>
<td>Mixed method study. A survey of expectant parents attending preparation for parenthood classes at a local public hospital. Participants completed a 17- to 19-item postpartum issues checklist devised for the study. Data were collected from couples during psychosocial session of a seven-session preparation for parenthood program. An average of nine couples attended each program. Men and women separated for half an hour to discuss checklist.</td>
<td>More than half of men and women had been thinking or worrying about their ability to cope as new parents. Approximately 40% of women had thought that they might get bored or lonely when at home with the baby, and an equal rate of men reported that their partner experiencing this sense of boredom or loneliness was an issue for them.</td>
<td>Checklists which focuses on parenting may be suitable for discussion of psychosocial infant care topics during ANE classes it would be a useful tool for antenatal educators to consider as discussion points.</td>
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<td>Group 1 n= 123, group 2 n= 132 group 3 n = 146.</td>
<td>counsellor. Group B received breastfeeding educational material with no counselling. Group C received routine antenatal care only. Participants received an information book and 16-minute video entitled ‘14 Steps to Better Breastfeeding’ and 15-minute individual session with a lactation consultant.</td>
<td>feeding more often than mothers receiving routine care alone at 3 months and 6 months.</td>
<td>material alone is not enough to promote ongoing breast-feeding. Consideration could also be given in future studies that compares group counselling/ANE with individual sessions.</td>
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<td>McLeod, et al. 2002</td>
<td>To explore factors influencing continuation of breastfeeding in a cohort of women.</td>
<td>n=490 women was surveyed at intervals during pregnancy and after giving birth.</td>
<td>Prospective exploration study. Data were collected on breastfeeding outcomes and experiences and analysed using multiple logistic regression.</td>
<td>Women were less likely to be still fully breastfeeding at 6 to 10 weeks postpartum if they believed they needed more breastfeeding information prior to birth or had experienced breastfeeding problems.</td>
<td>Improvements in prenatal education about breastfeeding and management of breastfeeding problems are likely to increase breastfeeding duration.</td>
</tr>
<tr>
<td>Mehdizadeh et al. 2005</td>
<td>To evaluate impact of birth preparation courses on the health of mother and newborn.</td>
<td>n=200 participants primigravid women under 35 years of age &lt;20-weeks’ gestation. N= 100 participants in trial group and n=100 participants in control group.</td>
<td>Randomised controlled trial. Questionnaires. Participants attended 8 x 90 mins sessions. Education included TV and video, counselling and questions and answer session. Exercises breathing and relaxation and a visit to birth suite were also included.</td>
<td>Trial group had less back pain, headaches and caesarean sections.</td>
<td>Use of exercises, orientation to hospital facilitates and staff and addition of ANE may play a role in health of mother during labour and postpartum. Further studies would be needed prior to introduction of ANE as a national health policy.</td>
</tr>
<tr>
<td>Mercer 2004</td>
<td>To present evidence for replacing term maternal role attainment (MRA), with becoming a mother (BAM).</td>
<td>Literature review.</td>
<td>A review of the evolution of MRA and a synthesis of research emanating from theory was done, followed by synthesis of current research on transition to motherhood.</td>
<td>A woman establishes maternal identity as she becomes a mother through her commitment to and involvement in defining her new self. Maternal identity continues to evolve as mother acquires new skills to regain her</td>
<td>BAM more accurately encompasses dynamic transformation and evolution of a woman’s persona than does MRA, and the term MRA should be discontinued.</td>
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<td>Miquelutti et al. 2013 Brazil.</td>
<td>To report the experience of labour as described by nulliparous women who participated and who did not in a systematic Birth Preparation Program (BPP).</td>
<td>n=11 women who participated in a BPP and n=10 women attending routine prenatal care.</td>
<td>Qualitative study engaging a phenomenological approach with semi-structured interviews. Participants attended ANE from 18 weeks gestation monthly up 30 weeks then fortnightly up to 37 weeks then weekly. At each class physical exercises consisting of general stretching and strengthening exercises, pelvic floor muscle training, breathing techniques and relaxation training were performed by trained physical therapists.</td>
<td>Women who participated in the systematic educational activities of the BPP reported they maintained self-control during labour used breathing exercises, exercises on the ball, massage, baths and vertical positions to control pain and reported satisfaction with their birthing experience.</td>
<td>A limitation of the study was the fact that spinal anaesthesia was routinely used. The decision about when spinal anaesthesia was performed in labour was made by anaesthetic and OBGYN staff and was not the women’s choice. It is unclear how women may have perceived labour and birth if they could feel what was happening.</td>
</tr>
<tr>
<td>Noel-Weiss et al. 2006 Canada.</td>
<td>To determine effects of a prenatal breastfeeding workshop on maternal breastfeeding self-efficacy and breastfeeding duration.</td>
<td>n=110 primiparous women expecting a single child, an uncomplicated birth, and planning to breastfeed.</td>
<td>Randomized controlled trial. Participants in intervention group attended a 2.5-hour prenatal breastfeeding workshop, designed using Bandura’s theory of self-efficacy and adult learning principles. These four sources were provided by</td>
<td>Women who attended workshop had higher self-efficacy scores and a higher proportion were exclusively breastfeeding compared to women who did not attend workshop.</td>
<td>Adult learning principles are important to consider in ANE and integrating them into workshop design may have contributed to improved self-efficacy. Balancing the size of class and quality of education provided needs to be researched further.</td>
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<td>Nolan 2009 UK.</td>
<td>To determine which educational approaches are most welcomed and most helpful to women in learning about labour, birth, and early parenting.</td>
<td>n=13 studies identified in a systematic literature review.</td>
<td>Systematic literature review. A systematic survey of peer-reviewed studies on antenatal education, published in English from 1996-2006 which sought women’s views and experiences.</td>
<td>Findings confirm women’s preference for a small-group learning environment in which they can talk to each other as well as the educator and can relate information to their individual circumstances.</td>
<td>Benefits of small group size and a facilitative discussion for ANE appear well received. Whether this improves birthing experience remains unclear.</td>
</tr>
<tr>
<td>Nolan et al. 2012 UK.</td>
<td>To explore how friendships made at antenatal classes preserve new mothers' well-being, postnatally.</td>
<td>n=8 women who had birthed their first baby.</td>
<td>Qualitative study. Interviews lasting 30 min – 1 hour.</td>
<td>Findings suggest that friendships made at antenatal classes are not only unique but also support women’s mental health and enhance self-efficacy because women give and gain reassurance that their babies are developing normally.</td>
<td>Postnatal support groups that grow out of contacts made at antenatal classes may have value in reducing demands on overstretched social and health-care services.</td>
</tr>
<tr>
<td>Petersson et al. 2004 Sweden.</td>
<td>To highlight experiences and expectations of Swedish parents with respect to general parental education within child healthcare.</td>
<td>n=25 parents who had attended parent education sessions, 2 of whom were fathers.</td>
<td>Qualitative longitudinal study. Semi-structured interviews conducted when the child was 2 years of age, qualitative content analysis. Interviews were 1 – 2 hours long.</td>
<td>Groups functioned well socially, first-time parents expressed a degree of uncertainty with respect to new parent roles and parent relation. They did, however, demand clearer structure and framework with respect to content.</td>
<td>Well-educated parents with good access to information sought parental education due to an uncertainty in their role. If parenting were adequately addressed in ANE classes that spanned into postnatal period</td>
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<tr>
<td><strong>Phipps et al. 2009</strong></td>
<td>To test effectiveness of structured antenatal education for pushing in second stage of labour versus normal care and its impact on birth outcome.</td>
<td>n=100 nulliparous women. Fifty women were allocated to an intervention group and fifty to a control group.</td>
<td>RCT. Intervention: Two 15-min structured education sessions, one week apart, utilising observation of perineum and a vaginal examination to teach correct technique for relaxing levator ani muscle and effective pushing. Sessions were carried out by a research midwife specifically trained to undertake interventions. Participants practiced pushing using Valsalva manoeuvre.</td>
<td>In both groups, 31 of 50 women delivered vaginally. Instrumental delivery and caesarean section rates did not differ. 62% of women found educational sessions helpful. A mean duration of active second stage for control group was 53.96 min compared with 57.26 min for intervention group.</td>
<td>While women may feel that ANE is helpful in increasing knowledge about labour and birth it has no effect on pushing. This study also included women that were coached to push during birth rather than allowing them to push naturally. Research is lacking in this area.</td>
</tr>
<tr>
<td><strong>Renkert &amp; Nutbeam 2001</strong></td>
<td>To report on a series of interviews with health care providers, pregnant women and new mothers to explore how both content and delivery of antenatal education could be improved to address some shortcomings.</td>
<td>A series of focus groups and interviews was conducted with n=8 health care providers, n=5 pregnant women and n=7 new mothers.</td>
<td>Qualitative study. Nine questions were developed using health literacy concept as a framework for enquiry. Specifically, questions sought to explore the extent to which both content and delivery of teaching and learning supported development of knowledge, skills and confidence to act, which</td>
<td>Majority of antenatal educators, thought that women in their classes were mainly concerned with getting through labour and birth. However, in a focus group discussion with a group of pregnant women, the need for more parenting information was expressed.</td>
<td>Health literacy concept offers opportunities to shift thinking in antenatal education away from a simple transfer of knowledge, to a more active process of empowering women for parenthood. There is a lack of research regarding the link between health literacy and antenatal education.</td>
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<td>Rouhe et al. 2013 Finland.</td>
<td>To examine effect of psycho-educative group therapy for primary fear of childbirth and to compare numbers of vaginal births and birth satisfaction among women with fear of childbirth.</td>
<td>n=371 women n= 131 women in intervention group and n=240 women in control group.</td>
<td>Randomised controlled trial. Women with W-DEQ-A ( \geq 100 ) were randomised to intervention (n = 131) (psycho-educative group therapy, six sessions during pregnancy and one after childbirth) or control (n = 240) (care by community nurses and referral if necessary) groups. Obstetric data were collected from patient records and birth satisfaction was examined by questionnaire. Participants attended 6 X 2-hour sessions during pregnancy and 1 session 6 weeks after birth. Groups comprised of 6 women led by a psychologist.</td>
<td>Women randomised to intervention group more often had spontaneous vaginal birth and fewer caesarean sections. Women in intervention had a very positive birth experience.</td>
<td>To decrease number of caesarean sections, appropriate treatment for fear of childbirth is important. With an increase in medicalised births fear of birth is an important area for antenatal educators to consider in their programs.</td>
</tr>
<tr>
<td>Schmied et al. 2002 Australia.</td>
<td>A pilot antenatal education program intended to better prepare couples for early parenthood</td>
<td>n=59 first-time parents, n=29 couples in pilot group, n=30 couples in comparison group.</td>
<td>Quasi-experimental study. Attendance at ANE followed by completion of a mailed questionnaire at 8 weeks postpartum.</td>
<td>Women and men in pilot program were significantly more satisfied with their experience of parenthood.</td>
<td>While response rate and number of participants were small, adult education principles and gender specific discussion were considered.</td>
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Participants attended 8 sessions. Standard groups consisted of 12-15 couples which was didactic in approach. Pilot groups consisted of 6–8 couples’ adult learning principles applied. Pilot groups had gender-specific discussions that were led separately by female and male facilitators.

Open ended responses indicated that 70% of women and 85% of men who were in pilot study felt prepared for early weeks of parenting.

To investigate socio-demographic, obstetric and psychological factors affecting self-efficacy in childbearing women.

Quantitative Study. A secondary analysis of data collected as part of the BELIEF study (Birth Emotions – Looking to Improve Expectant Fear). Questionnaires mailed to participants.

There were no differences for nulliparous or multiparous women on outcome expectancy, but multiparous women had higher self-efficacy scores. Those with unsupportive partners were more likely to report low self-efficacy expectancy.

Few studies have investigated childbirth self-efficacy according to parity. ANE that increases women’s knowledge about birth and parenting may improve self-efficacy and reduce fear however there is a dearth of research in these areas.

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<td>Schwartz et al. 2015 Australia.</td>
<td>To investigate socio-demographic, obstetric and psychological factors affecting self-efficacy in childbearing women.</td>
<td>n=1410 pregnant women.</td>
<td>Quantitative Study. A secondary analysis of data collected as part of the BELIEF study (Birth Emotions – Looking to Improve Expectant Fear). Questionnaires mailed to participants.</td>
<td>There were no differences for nulliparous or multiparous women on outcome expectancy, but multiparous women had higher self-efficacy scores. Those with unsupportive partners were more likely to report low self-efficacy expectancy.</td>
<td>Few studies have investigated childbirth self-efficacy according to parity. ANE that increases women’s knowledge about birth and parenting may improve self-efficacy and reduce fear however there is a dearth of research in these areas.</td>
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<td>Serçekuş &amp; Başkale 2015 Turkey.</td>
<td>To examine effects of antenatal education on fear of childbirth, maternal self-efficacy, and maternal and paternal attachment.</td>
<td>n=63 pregnant women 26–28 weeks gestation, and their husbands. Experimental group n=35, control group n=37</td>
<td>Quasi-experimental study. Study compared an antenatal education group and a control group. Demographic data forms, Wijma Delivery Expectancy/Experience Questionnaire, Childbirth Self-Efficacy Inventory, Maternal Attachment</td>
<td>Antenatal education was found to reduce fear of childbirth and to increase childbirth related maternal self-efficacy. However, antenatal education was found to have no effect on paternal attachment.</td>
<td>Further study’s that include parenting information as part of ANE would be valuable regarding woman’s self-efficacy and to reduce fear of birth. Research in this area is still relatively new.</td>
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Inventory and Postnatal Paternal-Infant questionnaires were used for data collection. Participants attended 8 X 2 hours a session (total 16 hours). A significant amount of parenting information was included in the program (8 hours).

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<td>Smith et al. 2011</td>
<td>To examine effects of mind-body relaxation techniques for the management of pain in labour on maternal and neonatal well-being during and after labour.</td>
<td>Cochrane review. n=19 studies (n=2519 women).</td>
<td>Cochrane review of literature. Selection criteria: Randomised controlled trials (including quasi randomised and cluster trials) comparing relaxation methods with standard care, no treatment, other non-pharmacological forms of pain management in labour or placebo.</td>
<td>Relaxation, yoga and music may have a role with reducing pain, and increasing satisfaction with pain relief, although the quality of evidence varies between very low to low.</td>
<td>The inclusion of relaxation and breathing exercises in ANE is not a new phenomenon however, it remains unclear if the techniques influence maternal and neonatal well-being.</td>
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<tr>
<td>Spinelli et al. 2003</td>
<td>To examine characteristics of women attending antenatal classes and evaluate the effects of these classes on mothers’ and babies’ health.</td>
<td>n=9004 women resident in 13 regions of Italy who birthed in a 4-month period.</td>
<td>Mixed method study. Observational study on care during pregnancy, birth and in postnatal period was carried out in 1995–96.</td>
<td>ANE attendees had a much lower risk of caesarean section, half as likely to bottle feed while in hospital, received better information on contraception, breastfeeding and baby care and had better birth experience.</td>
<td>ANE seems to improve women’s knowledge and competence about birth and parenting. Well-informed woman, with ability to make choices are less likely to experience obstetric surgery.</td>
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<th>Authors/year/ Country</th>
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<th>Summary of findings</th>
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<tr>
<td>Smith et al. 2011</td>
<td>To examine effects of mind-body relaxation techniques for the management of pain in labour on maternal and neonatal well-being during and after labour.</td>
<td>Cochrane review. n=19 studies (n=2519 women).</td>
<td>Cochrane review of literature. Selection criteria: Randomised controlled trials (including quasi randomised and cluster trials) comparing relaxation methods with standard care, no treatment, other non-pharmacological forms of pain management in labour or placebo.</td>
<td>Relaxation, yoga and music may have a role with reducing pain, and increasing satisfaction with pain relief, although the quality of evidence varies between very low to low.</td>
<td>The inclusion of relaxation and breathing exercises in ANE is not a new phenomenon however, it remains unclear if the techniques influence maternal and neonatal well-being.</td>
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<td>Spinelli et al. 2003</td>
<td>To examine characteristics of women attending antenatal classes and evaluate the effects of these classes on mothers’ and babies’ health.</td>
<td>n=9004 women resident in 13 regions of Italy who birthed in a 4-month period.</td>
<td>Mixed method study. Observational study on care during pregnancy, birth and in postnatal period was carried out in 1995–96.</td>
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<td>Toohill et al, 2014</td>
<td>To test an antenatal psycho-education counselling intervention</td>
<td>n=339 participants n=169 in a control group and</td>
<td>Randomised controlled trial.</td>
<td>Results indicated that women receiving intervention reported a lower level of anxiety compared to the control group.</td>
<td>Psycho-education by trained midwives was effective in reducing high anxiety levels.</td>
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<td>Stoll et al, 2014</td>
<td>To examine attitudes towards birth that may be common among young adults who have been socialised into a medicalised birth culture. Specifically, factors that might be associated with fear of birth and preferences for elective obstetric interventions among next generation of maternity care consumers.</td>
<td>Students from University of British Columbia (n=3680).</td>
<td>Quantitative study. Secondary analysis of an online survey of university students. A six-item fear of childbirth scale was developed, as well as a 4-item index that measures students’ concerns over physical changes following pregnancy and birth and a 2-item scale that assesses students’ attitudes towards obstetric technology.</td>
<td>Students who were more afraid of birth preferred epidural anaesthesia and birth by caesarean section.</td>
<td>Little is known about quality of information young adults receive and how they process that information. Studies exploring links between information about birth, critical appraisal of information, and health care decision making are needed.</td>
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<td>Svensson et al, 2006b</td>
<td>To determine whether a new antenatal education program with increased parenting content could improve parenting outcomes for women compared with a regular antenatal education program.</td>
<td>n=170 women birthing in hospital. Ninety-one women attended a new program and 79 the regular program.</td>
<td>Randomised controlled trial. Data were collected through self-report surveys.</td>
<td>Study showed that maternal parenting self-efficacy scores of women who attended ‘Having a baby’ program were significantly higher than those who attended a regular antenatal program. Perceived parenting self-efficacy of women and men in the experimental group was higher than those of the control group at eight weeks after birth.</td>
<td>This study incorporated use of adult learning principles small group facilitation and parenting knowledge was improved. Both parents were interested in parenting topics during antenatal period and recommended content in parenting should be increased in classes. ANE that continues into early postnatal period may be beneficial.</td>
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<td>Australia</td>
<td>by midwives in reducing women’s childbirth fear.</td>
<td>170</td>
<td>All women received a decision-aid booklet on childbirth choices. Telephone counselling intervention was offered at 24 and 34 weeks of pregnancy. Control group received usual care offered by public maternity services.</td>
<td>reduction in childbirth fear at 36 weeks compared to women in control group.</td>
<td>childbirth fear levels and increasing childbirth confidence in pregnant women.</td>
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<td>Wockel et al. 2007 Germany.</td>
<td>To investigate if an additional hour of antenatal education given by a male obstetrician made any difference to support given to women by their partners during labour.</td>
<td>223</td>
<td>Randomised prospective study. Participants attended preparation classes lasting 12 hours, including an hour of special training for men, attending the course (12 times) without further training was used for control. Data were collected by questionnaires.</td>
<td>Findings indicated that women whose partners had additional education felt better supported during labour. Men in intervention group reported a more positive birth experience and partners’ fears were minimised.</td>
<td>Study demonstrates that fathers can have a positive effect on birth experiences. A focus on partners and support people appears to have a useful place in ANE.</td>
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Table 3 examines the literature pertaining to the influence of antenatal education in the preparation of women and their partners for labour and birth. The key themes identified, and which will be discussed are; birth outcomes, the influence of antenatal education on fear, anxiety and coping strategies, antenatal education and preparation for parenthood, infant feeding, the impact of antenatal education on the development of social supports and women’s satisfaction with antenatal education.

**Influence of antenatal education in the preparation of women and their partners for labour and birth**

Research has indicated that antenatal classes may help to reduce either false labour admission to hospital, or the length of labour (Lumluk & Kovavisarach 2011; Maimburg et al. 2010; Artieta-Pinedo et al. 2010). Several studies have found a significant decrease in false labour admissions when women were provided with specific education about recognising true labour (Lumluk & Kovavisarach 2011; Maimburg et al. 2010; Artieta-Pinedo et al. 2010).

In a randomised controlled trial in Thailand, with a sample of 200 primigravida women who attended antenatal classes, Lumluk and Kovavisarach (2011) compared antenatal classes that specifically included content about self-diagnosis of the onset of true labour with a second group that had routine antenatal classes. They found a significant increase in correct self-diagnosis of the onset of true labour in the group of women who were given specific education about the onset of labour. The correct self-diagnosis of the onset of true labour was statistically significant \( p = 0.01 \) in their specifically targeted group (91.8%) compared with the routine antenatal class group (77.2%).

A randomised controlled trial in Denmark by Maimburg et al. (2010) researched structured ANE provided in class. The main objective was to enable labouring women to be empowered to arrive later at hospital, use less pain relief, receive less medical intervention, and that their experience of birth would be more positive than those who did not receive ANE. Nulliparous women who were enrolled in structured antenatal classes were compared with women allocated to routine antenatal care. The study included 1193 participants; 603 were allocated to a predesigned nine-hour course of ANE delivered in three, three-hour
modules between 30 and 35-weeks’ gestation and 590 women in the control group receiving normal antenatal care without the education. The content of the first module about birth included lectures on and discussion of labour onset, the birth process, the attending father, pain relief, birth interventions, fear of childbirth and a birth film. The second module about the newborn included lectures on and discussions of how to care for the newborn, breastfeeding, childhood diseases, vaccination and equipment and safety for the child in everyday life. The final module regarding parenting included lectures on and discussions of transition to parenthood, maternity leave, sexual relations, conflicts in the parental relationship, the role of the grandparents, family and friends, and postnatal depression. The antenatal educators attended a three-day preparation course, one day for each module. This study found that women in the intervention group who received the ANE were significantly more likely to arrive at the health care facility in active or true labour (RR 1.45, 95% CI 1.26–1.65, p < 0.01), use less epidural analgesia but not less analgesia overall, when compared to women who did not receive ANE. This study found that antenatal classes offer a cost-effective health promotion activity that improved women’s recognition of the onset of active labour.

There are contradictory findings regarding the relationship between ANE and medical management in labour, specifically the use of epidural analgesia (Levett et al 2016). Artieta-Pinedo et al. (2010) conducted a prospective observational study in two of their publicly funded hospitals in Spain to examine the benefits of antenatal classes, 616 nulliparous women who attended midwifery care participated in the study. Participants attended a varying number of antenatal classes and were categorised into three groups depending upon the number of classes they had attended: a) none, b) one - four, or c) five or more. Classes were based on Lamaze’s obstetric psychoprophylaxis method, the aim of which was to reduce fear by improving understanding of birth and parenting. Classes consisted of eight, two-hour sessions. These groups consisted of 45 women who did not attend antenatal classes, 62 women who attended one - four classes and 509 women who attended more than five classes. The purpose of this study was to assess the effect of attendance at antenatal classes on birth outcomes and the uptake and continuation of breastfeeding; however, the study also considered false labour admissions. Participants in the group who did not attend classes experienced a 39% epidural rate while only 20% of
those who attended five or more classes received an epidural. False labour admissions were also higher in the group who had not received antenatal classes (31%) compared to those who had attended antenatal classes (14%).

In contrast, the Swedish study by Fabian, Rådestad and Waldenström (2005) identified higher epidural rates in women who had undertaken ANE. The higher epidural rate (50%) in the ANE group was statistically significant (p = 0.03) compared with those who did not receive ANE (41%). However, the study only included primiparous women to remove influences of previous pregnancies, where they may have used epidural pain relief. The authors argued that the increased awareness of pain relieving methods, such as an epidural from attending classes, may have increased the number of participants who received one, rather than using alternative pain coping techniques.

An Australian randomised controlled trial conducted by Phipps, Charlton and Dietz (2009) aimed to test the effectiveness of structured ANE in relation to pushing in labour, mode of birth and rate of induction. This study involved 100 nulliparous women at a publicly funded tertiary teaching hospital and found that providing information antenatally on pushing during labour did not alter obstetric outcomes. Fifty women were allocated to an intervention group and fifty to a control group. The intervention group received special education on pushing in labour, consisting of two 15-minute structured education sessions, one week apart. Over several years there has been an increase in interventions relating to birth and operative delivery. The difference is not considered to be statistically significant (p = 0.56). The study also found that most of the participants in the intervention group found the information provided in class ‘very helpful’, possibly indicating that the women would like more information regarding labour throughout their antenatal classes. Physiological evidence (Orno & Dietz 2007) suggests that the Valsalva manoeuvre normally encouraged in directed pushing, and encouraged in this study, is frequently accompanied by a pelvic floor muscle contraction which would in turn slow down birth.

While there was no significant difference in mode of birth, or how ANE affected pushing, one of the key findings of the study by Phipps et al. (2009) was a higher rate in the induction of labour for postdates in the intervention group compared to the control group. This
finding was statistically significant ($p = 0.019$) with more women being induced for postdates in the intervention group (66%) compared with the control group (44%), which the authors argue may potentially have been an effect of the intervention.

**Birth outcomes**

In an evaluation of the impact of ANE classes, Mehdizadeh et al. (2005) conducted a randomised controlled trial with 200 primigravid women under 35 years of age in Iran. Participants were randomly allocated to two groups, a control group who received routine antenatal care and a trial group who were given a set of eight birth preparation classes in addition to the routine antenatal care. Findings demonstrated a higher incidence of vaginal birth rates amongst antenatal class participants (97%) compared to the control group (90%). While there was a high rate of vaginal births, there was also a high overall incidence of episiotomies in both treatment groups (52% intervention group Vs 46% control group). This finding may reflect assisted or instrumental delivery modes; however, no details were provided; or may possibly be specific to other midwifery or obstetric practices in Iran. The authors concluded that antenatal preparation could play a role in the health of the mother during labour and postpartum and encouraged the introduction of ANE as a national health policy. Findings in this study also indicated antenatal classes that provide support for parents can reduce the rate of some interventions and the need for caesarean section (Mehdizadeh et al. 2005). In contrast, Artieta-Pinedo and colleagues (2010) found that significantly fewer women gave birth vaginally when they attended five or more sessions compared to non-attenders (55.8% vs 75.6%, $p = 0.030$).

Given the conflicting results on the influence of ANE on aspects of labour and birth outcomes from the above studies, further research is required to understand what information is being promoted in ANE regarding normal birth, and how the participants of antenatal classes process the information that is provided so that they come to an informed decision and understanding that is relevant to them and may optimise labour and birth experience and outcomes.
The association between ANE and a range of birth outcomes, including fear of birth, rates of interventions and breastfeeding initiation, was examined in a Canadian study via secondary analysis of survey data (Stoll et al. 2014). Six hundred and twenty-four women, comprising 372 nulliparas and 252 multiparas, completed a survey in the antenatal period. Of these 311 nullipara and 32 multiparas attended antenatal classes. Following birth, the research team collected data from Perinatal Services of British Columbia regarding birth outcomes for these participants. Findings indicated that multiparas who attended ANE classes were more than twice as likely to attempt a vaginal birth after caesarean compared to multiparous women who did not attend classes. This potentially signifies that women who attended class had received information to make an informed choice about their options. However, the study did not indicate the length, type or content of classes the participants attended. In addition, the philosophy, experience, models, or format of delivery the antenatal educator used in providing the classes are not discussed.

The influence of antenatal education on fear, anxiety and coping strategies

The relationship between ANE on the development of coping strategies has been explored in the literature. Antenatal education provides the opportunity for participants to develop coping strategies for both pain and anxiety during labour (Escott et al. 2005; Smith et al 2011). Typically, these strategies include changing position and breathing and relaxation techniques. Escott et al. (2005) conducted a small UK study that researched the effect of enhanced coping strategies taught in antenatal classes and self-efficacy for use of coping strategies in labour, that is the person’s confidence and ability to cope with a particular situation (Bandura 1977). The study compared the outcomes of 41 women. Participants were allocated to two groups. One group (20 women) was assigned to classes that included coping strategy enhancement techniques, and the second group (21 women) were provided the standard coping strategies for labour such as ‘sigh out slowly’ breathing and postural change for first stage of labour. Participants were not randomly assigned to the groups. Women in the intervention group were 5.3 times more likely to use enhanced coping strategies for the first stage of labour than women attending standard classes. Self-efficacy was measured in both groups and no differences were found.
Several studies have found that ANE is important in the preparation for birth in relation to fear and self-efficacy. Fear of birth can have a negative impact leading to longer labour (Adams, Eberhard-Gran & Eskild 2012). Many studies including Serçekuş and Baskale (2015), Byrne et al. (2014), Karabulut et al. (2016) Toohill et al. (2014), Schwartz et al. (2015) and Isbir et al. (2016) have found that ANE classes are able to reduce the fear of childbirth. In their quasi-experimental and prospective study of 192 women Karabule et al. (2016) used a pre and post educational model when providing free ANE programs in a health care facility in Istanbul. Participants in this study self-selected into education groups (n = 69) and control groups (n = 123). Participants were between 24 and 28 weeks at the time of recruitment and those in the education group were required to attend five antenatal classes each lasting three hours in addition to their routine antenatal care. There were 6 – 10 couples in each class which were provided by a nurse/midwife who had attended an instructor training course. The authors describe the use of a variety of interactive educational methods in a specially designed room specifically allocated for ANE. Those in the control group attended routine care only. All participants were interviewed face to face using questionnaires for data collection. Findings indicated a reduction in fear of childbirth for those who participated in the classes (P < 0.005).

Coping strategies were also the main focus of a longitudinal Danish study by Maimburg, Væth and Dahlen (2016). The five-year follow up study compared the perspective of the birth experience of 905 nulliparous women who had attended “The Ready for Child” structured antenatal classes, to women who had not attended structured antenatal classes. The structured classes consisted of three content modules: labour and birth, the newborn and parenting; each module lasted 3 hours (Maimburg, Væth & Dahlen 2016). Women and their partners were invited to attend between 30 and 35 weeks’ gestation. Antenatal educators were midwives who attended a three-day course to prepare them for each module. Long term data for this study was collected through an online questionnaire. The findings indicated that participants in the intervention group who participated in the structured antenatal program prior to their first birth reported a more positive birth experience five- years postpartum, than those who had standard care (p = 0.0013). The
potential long-term influence of ANE on perceptions of the birth experience is illustrated in this study.

In a Turkish quasi-experimental study, Isbir et al. (2016) considered fear of birth and low childbirth self-efficacy as a predictor for post-traumatic stress disorder (PTSD) symptoms following childbirth. Two self-selecting groups were compared, the first an ANE control group (n = 46) which consisted of the usual care offered by the health care facility as well as and intervention group (n = 44) consisting of ANE based on the philosophies of Dick-Read’s “natural labor”, Lamaze's “psychoprophylaxis”, Balaskas' “active birth” and Mongan's HypnoBirthing” philosophy (Balaskas 1992; Dick-Read 1933; Lamaze 1958; Mongan 2005). Groups were small, consisting of five to eight women and included stretching and relaxation exercises as well as pregnancy and birth information, coping techniques, positive birth videos, and role play scenarios that target the reasons for fear. The second group received routine prenatal care as the control group (n = 46). The Wijma Delivery Expectancy/Experience Questionnaire (Wijma, Wijma & Zar 1998), Childbirth self-efficacy Inventory (Ip, Tang & Goggins 2008) and Impact of Event Scale were used to assess fear of childbirth, maternal self-efficacy and PTSD symptoms following childbirth. Findings indicated that related to the control group, women who attended ANE had greater childbirth self-efficacy, greater perceived support and control in birth, and less fear of birth and post-traumatic stress disorder symptoms following childbirth (p < 0.05).

Previous studies have indicated that women who fear childbirth attend ANE as a way to cope (Toohill et al. 2014). An Australian randomised controlled trial by Toohill et al. (2014) aimed to test an antenatal psycho-education counselling intervention in reducing women’s fear of birth. The outcomes measured included effect of the intervention on childbirth fear, depressive symptoms and decisional conflict. One thousand four hundred and ten women completed a questionnaire to identify high levels of fear. Participants who self-identified high levels of fear (339) were allocated into two groups, 169 in a control group and 170 into an intervention group. The control group consisted of standard antenatal care offered to all women, while the intervention group received two additional telephone psycho-education sessions from a trained midwife lasting an average of 58 minutes. This intervention provided support and a framework in which the women could work through any distressing elements.
of childbirth. Results indicated that women receiving the intervention reported a reduction in childbirth fear at 36 weeks compared to women in the control group. Both a reduction in depressive symptoms and lower levels of decisional conflict were noted but were not statistically significant. Another randomised controlled trial from Finland (Rouhe et al. 2013) offered women with severe fear, six antenatal and one postpartum group sessions with a psychologist (14 hours overall). The intervention reduced fear levels and improved vaginal birth rates (Rouhe et al. 2013).

In a Turkish quasi-experimental study of 63 pregnant women and their partners Serçekuş and Baskale (2015) found that ANE not only reduced fear but increased maternal self-efficacy. The aim of this study was to examine the effects of ANE on fear of birth, maternal self-efficacy and maternal and paternal attachment. Couples in the control group received routine antenatal care, while the experimental group received routine antenatal care and additional ANE over eight weeks for two hours at each class. A range of measures were used to examine the key variables: the Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ), the Childbirth Self-Efficacy Inventory (CBSEI), the Maternal Attachment Inventory (MAI) and the Postnatal Paternal–Infant Attachment Questionnaire (PPAQ) (Serçekuş & Baskale 2015). The mean W-DEQ score of the women in the experimental group was lower than that of the women in the control group, which indicated that their fear of childbirth was less than that of the women in the control group \( (p < 0.01) \) (Serçekuş & Baskale 2015). The mean CBSEI score of the women in the experimental group was higher than that of the women in the control group, which indicated that their self-efficacy was higher than that of the women in the control group \( (p < 0.01) \). The study also found that ANE had no influence on maternal and paternal attachment (Serçekuş & Baskale 2015). While the study did have some limitations in that the participants were not randomly assigned to groups, the program had been designed specifically for the purpose of reducing fear and increasing self-efficacy by including a variety of tools to help with the presentation approach such as using simulator mannequins, videos and slide presentations. This study demonstrated a reduction in the fear of birth and increased maternal self-efficacy and provides some evidence in support of specifically tailored ANE.
An earlier randomised controlled trial by Ip, Tang and Goggins (2008) aimed to examine the impact of a specific educational intervention, designed to enhance self-efficacy for birth with participants in Hong Kong. This study was a single-blind, randomised controlled trial of a Self-Efficacy Enhancing Educational Program (SEEEP). Outcomes that were measured included levels of anxiety, perception of pain during labour and coping behaviour during birth. Sixty women in the experimental group attended classes of six or fewer people and involved two classes of complex ANE and imagery. There were 73 participants in the control group who had the usual care and routine antenatal classes. Findings from this study suggest that pain and anxiety in labour can be significantly reduced by using a self-efficacy enhancing method. These findings confirm earlier research (Serçekuş & Baskale 2015; Byrne et al. 2014; Karabulut et al. 2016; Toohill et al. 2014; Adams, Eberhard-Gran & Eskild 2012) where studies have demonstrated how effective ANE has been in reducing women’s anxiety regarding birth.

In the early 1900s Dick-Read, Bradley and Lamaze all recognised the importance of having a support person. Preparing support people in the antenatal period has been the subject of investigation. Findings in several studies published more recently in the early 21st century (Wockel et al. 2007; Deave, Johnson & Ingram 2008) indicate minimal changes have occurred in response to the issues raised by Dick-Read, Bradley and Lamaze regarding the role of continuous support during birth. In their German study titled “Getting ready for birth: impending fatherhood”, Wockel et al. (2007) researched 223 couples in Berlin who agreed to participate in a randomised prospective study which aimed to investigate if an additional hour of ANE given by a male obstetrician made any difference to the support given to women by their partners during labour. Their birth experience and that of their partner was then evaluated. Findings indicated that the women whose partners had additional education felt better supported during labour (100%, p = 0.0001). Men in the intervention group reported a more positive birth experience (77%) and partners’ fears were minimised (12 male participants). Findings of this research (Wockel et al. 2007) demonstrate that partners can have a positive effect on the birth experience, therefore, a focus on partners and support people appears to have a useful place in ANE.
In contemporary antenatal classes it is usual practice for a partner or support person to also attend. The influence of this support has been investigated. Deave, Johnson and Ingram (2008) conducted a small qualitative study in the UK with a purposive sample of 20 first time fathers. The aim of this study was to explore the needs of first time fathers in relation to the care, support and education provided during the antenatal period. They were interviewed twice about their preparation for parenthood, once in the antenatal period and the second time three to four months after birth. The men in this study reported the lack of practical information about baby care in the classes which was a topic that they considered to be important. This study also found that not only was the content of the information provided important to them, but also how it was presented. On the whole they felt ignorant about the practicalities of actually what having a baby meant (Deave, Johnson & Ingram 2008).

Similarly Fletcher, Silberberg and Galloway (2004) conducted an Australian postnatal evaluation study in which 212 new fathers and 216 new mothers were recruited. Findings suggested that fathers felt poorly prepared by antenatal classes for relationship and lifestyle changes following the birth of their baby (Fletcher, Silberberg & Galloway 2004). No follow up studies have been conducted to demonstrate that these needs have been taken into consideration or whether antenatal curricula has been influenced.

**Antenatal education and preparation for parenthood**

Expectant parents often are full of anticipation in the lead up to labour and the birth of their baby. Many women however, are concerned about how they will manage after the birth and turn to antenatal classes for preparation for parenting (Entsich & Hallstrom 2016). As previously identified the lack of parenting preparation has been consistently criticised by parents (Svensson et al. 2006a; Barnes et al. 2008). In Australia Svensson et al. (2006a) identified the need for more parenting preparation in antenatal classes. She developed a new antenatal curriculum and completed a randomised controlled trial to evaluate the program using focus group interviews, indepth interviews and participant observation. The outcomes that were measured included perceived maternal parenting self-efficacy, worry about the baby and perceived parenting knowledge. Participants included 170 women and 167 support partners who were divided between an experimental and control group.
Results from the study showed that maternal parenting self-efficacy scores of women who attended the new ‘Having a baby’ program were significantly higher than those who attended the regular antenatal program and perceived parenting self-efficacy of women and men in the experimental group was higher than those of the control group at eight weeks after birth. The outcome regarding worry about the baby was not statistically different between the two groups. However, a significant difference was found in perceived parenting knowledge; both groups’ scores increased following the program however the increase for participants in the experimential group was greater (p= 0.002). Svensson et al. (2006) found that both parents were interested in parenting topics during the antenatal period and recommended that the content in parenting should be further increased in antenatal education classes.

Another area of particular interest to parents is that of infant care skills, which were traditionally learnt from close family members. In Sweden Ahlden et al. (2012) assessed parents’ expectations concerning birth, parenting and reasons for participating in ANE. The findings from the descriptive cross-sectional study of 1117 women and 1019 partners were that more than 90% of the participants had positive expectations about participating in antenatal classes, women were more positive than men in their expectations (96% vs. 92%, p < 0.001). However, parents reported that they mostly wanted more information about preparing for parenthood and to learn about infant care skills, and that these expectations were not met by attending antenatal classes (Ahlden et al. 2012). The reasons participants gave for attending classes were that they hoped to feel more secure as parents and reduce their fear of childbirth. Several studies (Deave, Johnson & Ingram 2008; Matthey et al. 2002) have indicated that during pregnancy, women and men have already reflected beyond birth and considered the transition to parenthood.

Infant feeding

The World Health Organization (WHO 2011) recommends that breastfeeding should be the ultimate disease preventing and health promoting action a new mother can do to protect herself and her newborn baby. Antenatal breastfeeding education has been recommended to support and promote breastfeeding practices (Hector & King 2005; Mattar et al. 2007;
Dyson, McCormack & Renfrew 2005; Noel-Weiss, Bassett & Cragg 2006; Britton et al. 2009; Kronborg, Maimburg & Vaeth 2012; Lumbiganon 2016). Education is argued to have a positive impact particularly on breastfeeding and formal programs on breastfeeding are recommended to expectant parents by health care providers in the antenatal period (Kornides & Kitsantas 2013).

Women tend to find the information on breastfeeding during antenatal classes of benefit and often report the need for more (Arora et al. 2000; Graffy & Taylor 2005). The effectiveness of ANE in relationship to breastfeeding has been the subject of research in many studies (Ho & Holroyd 2002; Binns & Scott 2002; Palda, Guise & Wathen 2004; Renfew et al. 2005; Lumbiganon et al. 2016; Kronborg, Maimburg & Vaeth 2012) and is found to have mixed results. A Cochrane review by Lumbiganon et al., (2016) which evaluated the effectiveness of ANE on increased breastfeeding initiation and duration in 20 studies involving 9789 women, found there was no conclusive evidence to support antenatal breastfeeding education impacting either initiation or duration.

While the literature is not consistent about the effect of certain aspects of antenatal breastfeeding education, there is evidence to suggest that education alone is ineffective (De Oliveira, Camacho & Tedstone 2001; Hector & King 2005; Craig & Dietsch 2010; Kronborg, Maimburg & Vaeth 2012). Therefore, available research suggests that education would include a range of breastfeeding topics and this information would be of additional use if it was also followed up in the postnatal period (Hector & King 2005). A New Zealand study (McLeod, Pullon & Cookson 2002) supports these findings, indicating that ANE about breastfeeding and management of breastfeeding problems is likely to increase breastfeeding duration. McLeod, Pullon and Cookson (2002) explored the influence of women’s experiences in preparing for and establishing breastfeeding. Of the 490 women surveyed they found women were less likely to be fully breastfeeding at 6 to 10 weeks postpartum if they believed they needed more breastfeeding information in the antenatal period. Kronborg, Maimburg and Vaeth (2012) support these findings in a randomised controlled trial conducted with 1193 women in Denmark. In this study, the aim was to assess the effect of ANE on knowledge, self-efficacy, breastfeeding duration and problems related to breastfeeding. The outcomes measured included the duration of breastfeeding at
both six weeks and one year postpartum. Participants were allocated to two groups, a control group (n=590) and an intervention group (n=603) who received additional information about breastfeeding. The antenatal educators delivering the program received an additional three days of training in breastfeeding education. Overall, the findings concluded that while ANE could increase breastfeeding self-efficacy and provide women with information about breastfeeding, it was not sufficient to increase duration or reduce breastfeeding problems after birth. However, the authors did recommend that ANE was an important health promotion tool that could be implemented at low cost in most settings. The initial ANE provides foundational knowledge which could be followed by postnatal support to increase duration and confidence in women who choose to breastfeed.

In an Australian discourse analysis involving nine antenatal educators and 124 women and their support partners, Fenwick et al., (2013) found that antenatal educators in their enthusiasm to promote ‘breast is best’ often tried convincing women of the benefits of breastfeeding, rather than engaging participants in a conversation. Breastfeeding was found to be framed within the institution’s policies supporting and promoting breastfeeding, such as the Baby Friendly Health Initiative (BFHI), which meant only breastfeeding and not artificial-feeding were discussed. There is a need for ANE sessions to be redesigned so that discussion can be facilitated regarding the individual needs of the woman, rather than the needs of the institution and global health policies that promote and support solely breastfeeding.

The impact of antenatal education on the development of social support

Facilitating social support networks is one of the aims of ANE programs. The development of social networks for support has been found to be a positive outcome of ANE, when classes are facilitated to support interaction (Renkert & Nutbeam 2001; Nutbeam 2008; Nolan et al. 2012). Key themes around social support from available research literature include social networking and peer group support. Social contact made between parents during antenatal classes is considered to be particularly beneficial (Petersson, Petersson & Hakansson 2004; Nolan 2009). Social support is recognised to play an important role in alleviating the strain
women often experience during pregnancy and the postnatal period. Women will often seek out others who are currently experiencing the same stages of pregnancy to validate their feelings and emotions and provide personal social support (Nolan et al. 2012). In their qualitative interpretative study Petersson, Petersson and Hakansso (2004) interviewed 25 parents in Sweden who had attended ANE classes; 17 of these participants were first-time parents. Interviews were carried out regarding the parents’ experiences and expectations of these classes. Findings suggest that the groups functioned well socially, the groups had given parents important support and that they enjoyed the exchange of different experiences throughout pregnancy. Participants reported continuing to meet after the ANE classes had finished. Parents in this study commented that they needed to hear information from other parents, not just the ‘experts’ (Petersson, Petersson & Hakansson 2004). The single parents in this study particularly found it beneficial because they missed the support of other adults.

Some women report feeling isolated when they are pregnant; with no one to turn to for support, help, or information and they find this support from other expectant mothers at antenatal classes useful (Nolan et al. 2012). In their UK study Nolan et al., (2012) researched friendship formation across the transition to motherhood. Interviews with eight women who were first-time mothers yielded rich data that found all participants were interested in making friends through antenatal classes; they also found that women preferred to ask questions of their peers rather than health professionals. These findings are supported in many other studies (Petersson, Petersson & Hakansson 2004; Nolan 2009; Renkert & Nutbeam 2001). There is evidence that social networks and support established antenatally are sustained. For example, one aspect of the study by Fabian, Rådestad and Waldenström (2005) was to explore first-time mothers’ contact with other class participants following birth. One thousand one hundred and ninety-seven participants completed three questionnaires during early pregnancy, two months and one year after giving birth. They found that one year after giving birth 58% of the participants had met with other mothers from the group thus expanding their social support networks.

Deave, Johnson and Ingram (2008) also found that support was important to fathers they surveyed who perceived that they had few support systems and no one to turn to. These
studies suggest that there is a need for adequate social contacts and role models to help
guide parents expecting their first baby. Furthermore, other studies have also consistently
found that the support women gain from participating in a small social group which meets
regularly over a period of four to eight weeks is one of the most valuable aspects of class
attendance (Schmied et al. 2002). Social support and particularly being part of a social
network has been shown to have a positive effect on preparation for motherhood (Gagnon
& Sandall 2011) with substantial benefits for class participants in the formation of ongoing
friendship and support groups for early parenting.

The needs and expectations of pregnant women are different and diverse and depend upon
many factors, such as age, social support and relationship with the father (Mercer 2004). In
relation to age a pilot study from Finland by Lamminpää and Vehviläinen-Julkunen (2012)
interviewed eleven, 40-year-old pregnant women who were both primi and multiparous
about their needs. Participants indicated that they would prefer separate ANE groups for
older women because they felt that younger women had different needs and life
experiences. These women also felt that fathers should be included more and that their
needs were not being addressed through the ANE that was currently on offer. These issues
have clear implications for future practice in that women are delaying childbearing with the
average age of having a baby significantly increasing in the last few decades. In Australia for
example in 1971, the median age of first-time mothers in Australia was 25.4 years. By 2016,
this had increased to 31.2 years (Australian Bureau of Statistics 2016).

Adolescents also have specific needs. In a UK study of 99 pregnant teenagers, MacLeod and
Weaver (2003) researched adjustment to pregnancy in teenagers, including social support.
Participants in the study reported feeling well supported by their partner, friends and family
although the support from their friends reduced during their pregnancy. Furthermore, other
studies (Mollart 1995; Dwyer 2009; Furey 2004; Tilghman & Lovette 2008) indicate that
having pregnant teenagers attending with others in the same situation is effective in
building support networks (Tilghman & Lovette 2008).

Women’s satisfaction with antenatal education
The content and structure of ANE has changed over time according to trends in society and within maternity services, and participants’ satisfaction may be influenced by what is considered to be the ‘right’ alternative at a certain time or in a certain context (Bergstrom, Kiele & Waldenstrom 2011). A significant correlation between information received and overall birth satisfaction has been found in several studies (Bergstrom, Kiele & Waldenstrom 2011; Miquelutti, Cecatti & Makuch 2013). In addition, studies have shown that ANE can positively influence maternal knowledge about birth, birth satisfaction, sense of control in birth and childbirth-related self-efficacy (Byrne et al. 2014; Malata et al. 2007; Spinelli et al. 2003; Toohill et al. 2014).

A Swedish randomised controlled trial by Bergstrom, Kiele and Waldenstrom (2011) compared women’s and men’s satisfaction with two models of ANE. The first was compared to natural childbirth preparation with psychoprophylaxis, and the second was compared to standard ANE including preparation for childbirth and parenthood but no psychoprophylaxis. The study included 1087 nulliparous women and 1064 partners. The two groups of antenatal classes consisted of a control group that received the standard Swedish class with information about birth and parenting and an intervention group considered the ‘natural’ group which focused more on teaching the participants about breathing and relaxation techniques. They found more women and men in the new ‘natural’ group were satisfied with the ANE compared to standard ANE. Furthermore, epidural rates, spontaneous vaginal births and caesarean rates were all very similar, leaving the researchers to conclude that using ‘natural’ techniques to prepare for birth had no measurable benefit over the standard classes offered in Sweden. In addition, the data collected from both groups indicated that they were not satisfied with their antenatal preparation for parenthood, which is similar to the findings in the research studies by Svensson et al. (2006a), Andersson, Christensson and Hildingsson (2012) and Ahlden et al. (2012).

One group-based model which integrates education with care is CenteringPregnancy (Catling et al. 2015). Evaluations suggest women are satisfied with this approach. From the literature, this model appears to be particularly well suited to adolescent mothers. To meet the antenatal educational needs of adolescents and their partners, specific programs have been developed. Grady and Bloom (2004) studied 124 women aged 17 years or younger,
participating in CenteringPregnancy group antenatal care at one hospital in America. The adolescents were compared to two other groups of adolescents who received routine antenatal care at the same hospital prior to the introduction of CenteringPregnancy; the first group (N = 144) gave birth in 2001 and the second comparison group (N = 233) birthed in 1998. The aim of this study was to assess group care satisfaction, attendance rates and perinatal outcomes. They found that most adolescent participants were satisfied with their care (99%). Potential power differentials may exist between antenatal educators and adolescent expectant mothers; however, any mitigation strategies to reduce this risk were not discussed by Grady and Bloom (2004). Regarding content 16% would have liked more information on postpartum issues but the majority felt that topics were ‘well covered’ or ‘covered’. Attendance was high with a mean number of 11.5 visits in the antenatal period and 87% of participants returning for a postnatal visit. Another finding was that fewer infants were born prematurely and fewer infants were underweight at birth, compared with adolescents attending traditional antenatal care alone (Grady & Bloom 2004). The authors suggested that group care can have positive advantages.

In a pilot study by Klima et al. (2009) CenteringPregnancy was used to follow a sample of 110 predominantly African American, low-risk, low income pregnant women. The study utilised focus group interviews, a small client satisfaction survey and medical records review of birth outcomes. An 11-item satisfaction scale was used in this study. Findings indicated that participants attending CenteringPregnancy had significantly increased satisfaction (p<0.05) with their combined care and ANE sessions when compared to the comparison group of 207 women who did not attend CenteringPregnancy but birthed at the same health care facility. It is unclear if the positive effects of CenteringPregnancy are due to how the class is facilitated or delivered.

CenteringPregnancy programs also appeal to a range of populations. In a cultural adaptation of the CenteringPregnancy program a mixed-method case study of Japanese women residing in Michigan, USA was conducted by Little et al. (2013). Researchers asked participants to complete a feedback survey following each of five antenatal classes. In-depth interviews were also conducted 6 – 10 weeks after the women had given birth. Both qualitative and quantitative data were collected and compared to identify the themes. It
was found that the participants considered that the classes were culturally acceptable and particularly relevant for them to understand. In the final evaluations, 96% to 100% of the class participants rated seven educational topics as ‘covered’ or ‘covered well’. In addition, 96% indicated that they had learnt a lot about antenatal care and felt well prepared for labour and birth. As has previously been highlighted by several studies (Petersson, Petersson & Hakansson 2004; Renkert & Nutbeam 2001; Nutbeam 2008; Nolan 2009; Nolan et al. 2012) social support was important with 84 % of the women answering that they were able to get to know other women.

Other research investigating elements of group-based care and education has identified potentially useful findings for the development of educator approaches. One Swedish study that considered group-based care and education combined, was that by Andersson, Christensson and Hildingsson (2012). Researchers investigated parents’ experiences of group-based care set at four antenatal clinics. In this study, most parents believed that the midwife should have the skills in facilitation to lead group-based care and were disappointed if the discussions were didactic in approach. This view was reported by both male and female participants in the study. The other negative that was expressed in this study was that the participants did not feel prepared for parenthood, which is a finding that concurs with other studies.

Overall women’s satisfaction with ANE is improved when classes are context appropriate for those participating (Kilma et al. 2009; Little et al. 2013). Research has consistently demonstrated that class participants are not satisfied with their antenatal preparation for parenthood (Svensson et al. 2006a; Andersson, Christensson & Hildingsson 2011; Bergstrom, Kiele & Waldenstrom 2011; Ahlden et al. 2012), it is therefore important to explore what consumers of the services (class participants) consider to be a meaningful learning experience. There is a lack of evaluation of both the processes and practice of ANE delivery, with an ongoing focus on content information and birth outcomes.

Part three considers the approaches to antenatal education. It reports the impact of antenatal classes on the development of social networks and the women’s satisfaction with antenatal classes (Table 4).
Part three: Approaches to antenatal education

It is unclear from most of the available research what particular pedagogies and educational practices are used by antenatal educators, which may have the potential to influence outcomes; minimal information exists to address this issue. Antenatal educators are responsible for the quality of their courses and have a vital role in helping develop the most appropriate resources to facilitate learning; some information does exist to address this issue. Table 4 summarises studies exploring the approaches to ANE, it consists of a range of 13 research studies that explore approaches to antenatal education.
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<tr>
<th>Authors/year/Country</th>
<th>Research Aim</th>
<th>Sample Characteristics</th>
<th>Methodology/Method</th>
<th>Summary of findings</th>
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<td>Ahlden et al. 2008 Sweden.</td>
<td>To describe perceptions of parenthood education among midwives and obstetricians</td>
<td>n=25 obstetricians n=12 and midwives n=13</td>
<td>Qualitative study. Four focus group interviews lasting 1 – 1.5 hours. Transcripts were analysed using the phenomenographic approach.</td>
<td>Contents should focus on awareness of expected child, confidence in biological processes and changes of roles. Pedagogies training, cost effectiveness, and development. Pedagogical methodology is crucial. ANE is important to parents in the transition to parenthood. Classes should apply to both men and women. Group activities were well received and there is a need for training antenatal educators to lead groups.</td>
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<td>Byrne et al. 2014 Australia.</td>
<td>Pilot study to determine acceptability and feasibility of a MBCE protocol.</td>
<td>n=12 Pregnant women (18-28 weeks’ gestation) and their support companions attended weekly MBCE group sessions over 8 weeks.</td>
<td>Mixed methods study. A single-arm pilot study of a MBCE intervention using a repeated-measures design to analyse data before and after MBCE intervention, key outcome variables include: mindfulness; depression, anxiety, and stress; childbirth self-efficacy; and fear of birth. Women and their partner attended 8 X 2.5-hour sessions. Decision-making practice using BRAIN (benefits, risks, alternatives intuition, nothing) model</td>
<td>Mindfulness-Based Childbirth Education is associated with feelings of empowerment and confidence in women, as evidenced by improvements in childbirth fear and self-efficacy after program and improvements in anxiety after giving birth. Participants in this study did not complete daily mindfulness practice as prescribed, further studies are required to explore barriers to home practice. Empowerment was a central feature and further studies exploring this should be considered.</td>
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<td>Berlin, et al. 2016</td>
<td>To investigate parents' experiences of parental education groups, including content.</td>
<td>n = 26 parents</td>
<td>Qualitative. 21 interviews. 3 content analysis approaches.</td>
<td>Parents expressed satisfaction and dissatisfaction with content, presentation of content, and the leader’s role. Social contact with other parents was important.</td>
<td>When designing future parental education consider expanding parenthood topics and group activities, this structure is considered to provide support to parents.</td>
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<td>Sweden.</td>
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<td>Carolan 2007</td>
<td>To highlight information-based dilemmas of first-time mothers over 35 years.</td>
<td>n=22 primiparas women over 35 years of age. n=15 health professionals (midwives and child health nurses)</td>
<td>Qualitative research. Using in-depth interviews mothers were interviewed over three junctures: 35 weeks gestation 10–14 days postpartum and six to eight months postpartum. Three focus group interviews of health professionals.</td>
<td>While women had access to large amounts of health information, many described feeling overwhelmed by the amount of information that was available.</td>
<td>Provision of large amounts of information does not improve empowerment and women find that over-consumption of literature is problematic and difficult to understand. This study was limited to well educated women aged over 35 birthing in hospital.</td>
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<td>Australia.</td>
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<td>Dumas 2002</td>
<td>To describe actual prenatal education opportunities presently offered to low-risk pregnant couples in each local community health centre of the region and design a program that is evidence-based, innovative and user-friendly.</td>
<td>n=15 focus groups of 2 – 13 participants.</td>
<td>Mixed method. A review of the literature, what was currently offered in the rest of the province (survey), and what was desired by parents and professionals in all health institutions (focus groups). Participants attended 7 classes. Topics were for</td>
<td>Antenatal education was beneficial for informing first time mothers of practical skills required to positively initiate breastfeeding. However, this antenatal education strategy was not enough to reduce anxiety.</td>
<td>Research involving an advisory group of parents and professionals in the development of ANE curricula is lacking. New programs that are creative, innovative and responsive to needs of parents are missing.</td>
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<td>Canada.</td>
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<td>Fisher et al. 2012</td>
<td>Participant experiences of Mindfulness-based Child Birth Education (MBCE), both of expectant mothers and their birth support partners.</td>
<td>n=12 expectant mothers and seven support partners. Pregnant women between 18 and 28 weeks gestation, over 18 years of age, nulliparous with singleton pregnancies and not taking medication for a diagnosed mental illness or taking illicit drugs.</td>
<td>Qualitative approach. Focus groups were undertaken approximately four months after the completion of MBCE. Approach taken included participants becoming active participants in antenatal classes, including experiential learning, role play and discussion.</td>
<td>A sense of both empowerment and community were experienced. Participants suggested that mindfulness techniques learned during MBCE facilitated their sense of control during birth. Pedagogical approach nurtured a sense of community among participants which extended into the postnatal period.</td>
<td>While this is a small-scale pilot study, education of health professionals may be needed to ensure that they respond positively to women and support partners who are active in decision making during birth.</td>
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<td>Kuhnly et al 2015</td>
<td>To develop and Implement a Prenatal Education Program for Expectant Parents of Multiples.</td>
<td>Discussion paper</td>
<td>Qualitative, pilot study. Participants attended 3 X 3-hour interactive sessions incorporating learner-based teaching style, participants were asked to explain their goals for attending.</td>
<td>Learner based teaching style which encouraged participants to explain their goals and stimulate questions was well received. They appreciated having time with other expectant multiple parents.</td>
<td>A program revision was made following participant feedback evaluation. Study supports incorporating more Internet-based education and support options, such as use of social media and website</td>
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<td>Renkert &amp; Nutbeam 2001 Australia.</td>
<td>To explore how both content and delivery of antenatal education could be improved to address some shortcomings.</td>
<td>A series of focus groups and interviews was conducted with health care providers n=8, pregnant women n=5 and new mothers n=7.</td>
<td>Qualitative study. Nine questions were developed using the health literacy concept as a framework for enquiry. Specifically, questions sought to explore extent to which both content and delivery of teaching and learning supported development of knowledge, skills and confidence to act, which characterise different levels of health literacy described by Nutbeam (2000).</td>
<td>Majority of antenatal educators thought that women in their classes were mainly concerned with getting through labour and delivery. However, in a focus group discussion with a group of pregnant women, the need for more parenting information was expressed.</td>
<td>Health literacy concept offers an opportunity to shift thinking in antenatal education away from a simple transfer of knowledge, to a more active process of empowering women for parenthood. There is a lack of research regarding links between health literacy and antenatal education.</td>
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<td>Schmied et al. 2002 Australia.</td>
<td>A pilot antenatal education program intended to better prepare couples for early weeks of lifestyle changes and parenting.</td>
<td>n=59 first-time parents, n= 29 couples in pilot group, n=30 couples in comparison group.</td>
<td>Quasi-experimental study. Attendance at ANE followed by completion of a questionnaire. Data analysed using descriptive statistics, chi-square and t-tests used to evaluate differences between two programs. Standard groups consisted of 12-15 couples which was didactic</td>
<td>Women and men in pilot program were significantly more satisfied with their experience of parenthood. Open ended responses indicated that 70% of women and 85% of men who were in the pilot study felt prepared for the early weeks of parenting.</td>
<td>While response rate and number of participants were small, adult education principles and gender specific discussion groups in ANE classes enhance parenting satisfaction. Further studies are needed to explore these concepts.</td>
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Pilot groups consisted of 6–8 couples' adult learning principles applied. Pilot groups had gender-specific discussions that were led separately by female and male facilitators.

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<td>Shia &amp; Alabi 2013 UK.</td>
<td>To investigate male partners' initial experience and associated factors that limit attendance.</td>
<td>n=69 male participants.</td>
<td>Mixed method study. Data were collected by means of a questionnaire using both open-ended and closed questions. This was given to 69 male ANE participants in North London. Participants attended 2 – 6 sessions.</td>
<td>In total, 49 male partners preferred to attend the same class with their partners even if all male forums were offered. Gender of the educator had no influence on their participation. Most participants obtained information about pregnancy and childbirth from both family and friends or books and websites.</td>
<td>Health-care professionals need to be encouraged to update preferable web-based sites for parents-to-be on information for pregnancy and childbirth. Further studies into views of ethnic minority male partners needs to be considered regarding those who would prefer a separate class for cultural or religious reasons.</td>
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<td>Svensson et al. 2007 Australia.</td>
<td>To identify learning needs of expectant and new parents for antenatal education as perceived by health professionals.</td>
<td>n=53 midwives, nurses, and educators participated in 7 focus groups.</td>
<td>Mixed method study. Data collection methods were repeated in-depth interviews, focus groups, participant observation, surveys, and a review of program documentation.</td>
<td>For antenatal education to be effective, it is not sufficient for educators to be provided with a list of topics to be covered, because they may not have knowledge or expertise to cover topics. Topics selected by health professionals may not be</td>
<td>Training is required for antenatal educators, along with support and guidance.</td>
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<td>Svensson et al. 2008</td>
<td>To identify learning processes that best suited expectant and new parents and to plan antenatal education.</td>
<td>First-time expectant and new parents (n=251 women and n=251 male partners).</td>
<td>A longitudinal, mixed-methods study. Data collection methods were in-depth interviews, focus groups, surveys, and participant observation. Sample: They were all first-time expectant and new parents scheduled to have their baby at one of two participating hospitals.</td>
<td>Results challenge the current approach to antenatal education in Australia, provision of programs were only in the final weeks of pregnancy. The Internet was used, need for a Web-based menu must be investigated. Cooperative learning, discussing fears and concerns of being a mother and a father were important.</td>
<td>Educative programs are the key to effective antenatal education, but they need to be greatly improved upon in terms of number offered, timing, structure, process, and purpose. In this study, problem-solving activities were identified as a preferred learning process. Participants require answers from experts as well as from peers.</td>
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<tr>
<td>Woolhouse et al. 2014</td>
<td>To explore feasibility of a randomised controlled trial of a mindfulness intervention to reduce antenatal depression, anxiety and stress.</td>
<td>n=20 women were recruited to the non-randomised trial, and n=32 to the RCT.</td>
<td>Randomised controlled trial. Study was designed in two parts 1) a non-randomised trial targeting woman at risk of mental health problems (a selected population) and 2) a randomised controlled trial (RCT) of a universal population. Participants attended 6-week X 2 hours ‘Mind Baby Body’ program run by a psychiatrist/psychologist.</td>
<td>Small pilot study provides evidence on feasibility of an antenatal mindfulness intervention to reduce psychological distress.</td>
<td>Due to small number of participants, intervention in this study cannot be generalised to a wider population. Of note is the educator who was trained in facilitation of groups.</td>
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Contemporary pedagogies involve including the women and their partners as active participants. Active participation involves decision making about content as an integral aspect of learning. The need for education that focuses on problem solving and addresses real needs of participants of ANE is evident (Gagnon & Sandall 2011). The following section considers approaches to antenatal education.

**Approaches to antenatal education**

In Australia, Svensson, Barclay and Cooke (2007) collected data through focus group interviews of 73 health professionals who used a problem-solving approach. The aim of this study was to identify what health professionals considered to be the learning needs of participants in antenatal classes. It was found that the educators placed an emphasis on the policies and procedures of the institution (Svensson, Barclay & Cooke 2007) rather than the learning needs of the parents. They also found that due to a lack of time, health professionals were reluctant to change their practice to facilitate group interaction and discussion. While this study did not investigate the learning styles and learning processes used by women, a later longitudinal study by Svensson, Barclay and Cooke (2008) found that the learning processes were of considerable importance by participants. This multi-method study used interviews and surveys of 251 participants. Questions were asked about the learning processes that the participants preferred. “Time to Catch Up and Focus,” “Seeing and Hearing the Real Experience”, “Practicing” and “Discovering” were the main themes identified. Problem-solving activities were acknowledged as another preferred learning process. According to Lee, Wong and Mok (2004) when implemented as a small-group learning activity, problem-solving not only inspires self-directed learning but also group exchange. Kemp et al. (2002) also found problem-solving activities to be effective in the uptake and retention of concepts in small group settings. These processes are important when planning ANE sessions and consider a pedagogy that may be more meaningful for learning. When developing a new curriculum Kuhnly, Juliano and Swider (2015) found a learner-based teaching style which encouraged participants to explain their goals and stimulate questions was particularly well received, when evaluating the pilot study of their program.
Another approach to ANE was to consider the gender of the antenatal educator who presented information to the class participants. In their Australian pilot study Schmied et al. (2002) compared the level of satisfaction of 19 couples who participated in a newly designed pilot program with 14 couples who attended a routine program of ANE. The routine hospital program consisted of two early sessions between 18 – 20 weeks’ gestation and a further six sessions starting at 28 weeks’ gestation. The groups in the routine program were relatively large consisting of 12 – 15 couples (up to 30 people). The content of these was delivered mostly in a didactic manner. The new pilot program was guided by adult learning principles and delivered over six weeks, with 6 – 8 couples participating. A key focus was the gender-specific discussion groups designed specifically for the male participants and led by a male facilitator. In addition, there were two early classes in the second trimester, two towards the end of the second trimester and two in the third trimester of pregnancy. The content of these classes focused on parenting and relationships. There was also an emphasis on adult education principles, which was quite different from the standard classes. Results indicated that both men and women who received information in gender-specific discussion groups that focused on their specific needs regarding relationship issues were more satisfied with parenting experiences following their birth. Participants valued the information and design of the program particularly the emphasis on the discussions about relationship issues held in gender-specific groups.

A UK study by Shia and Alabi (2013) completed an evaluation of male partners’ perceptions of antenatal classes. This mixed method study collected data through questionnaires. A convenience sample of 69 male participants were asked questions regarding their preference of the gender of the antenatal educator and if they preferred to attend the same class as their partner. Findings from this study indicated that they had no preference regarding the gender of the antenatal educator however, a small number, 14 of the 69 class participants would have preferred a male only class separate from their partner. It would appear from these studies that focusing on the needs of the participants and facilitating small groups improves the experiences of both men and women.
In an exploratory study conducted in Australia, Renkert and Nutbeam aimed to explore how both the content and delivery of ANE could be improved (2001). Data was collected from two focus groups, one with pregnant women and other with new mothers. In addition, five antenatal educators were interviewed regarding their views on the needs of new and expectant mothers. Using health literacy as a framework, questions were designed to explore how the delivery of ANE supported the development of knowledge, skills and confidence. Findings indicated that most antenatal educators believed women attended to find information about labour and birth. All educators were concerned about time restrictions of the classes and providing too much information. However, findings from the pregnant women indicated that they wanted to know more about parenting information; likewise, the new mothers would have also preferred more information about experiences following birth. Time constraints were cited in this study as the reason for the transfer of information rather than the development of decision making and practical skills. Renkert and Nutbeam (2001) concluded that if more of a focus is placed in antenatal classes on empowering women to make educated choices, educators will then have more time to include the information women require.

One approach antenatal educators take is to provide a large amount of written health information such as pamphlets, furthermore women also complete their own searches for information on the internet. An Australian longitudinal study by Carolan (2007) aimed to highlight the information-based dilemmas of first-time mothers over 35 years. Twenty-two primiparas women were interviewed at three-time points: 35 weeks, 10 – 14 days after birth, then at six to eight months postnatally. One of the key findings in Carolan’s (2007) research was that while these women had access to large amounts of health information, many women described feeling overwhelmed by the amount of information that was available. It has been recognised that the provision of information alone is insufficient to improve comprehension (Renkert & Nutbeam 2001). It is not clear from the literature what motivates extensive information gathering among the over 35-year-old age group, however Carolan (2007) suggests that women in this age group may have fewer social networks and peers whose children had grown up and therefore they seek health information to become well informed. The excessive need for health information, combined with poor health literacy, also produces greater anxiety amongst this age group when they have found
contradictory readings. The provision of vast amounts of health information does not empower women in the antenatal period. Literature and understanding of the antenatal health information requirements of women aged over 35 appears to be limited.

A Canadian study by Dumas (2002) surveyed the opinions, needs and feelings of health professionals and future parents concerning ANE. A program was then designed which had the specific aim to empower future parents. The teaching process used in Dumas’s study involved visualisation, relaxation, assertiveness, decision making, problem-solving in small groups, resource seeking and practising with other participants. Results indicated that participants believed the education should be focused on the participants’ needs and therefore, evolve with the group as their needs changed. The program was innovative and responsive to the needs identified by the author with the ultimate goal being the empowerment of couples.

When adopting a different approach to ANE, some antenatal educators and organisations have implemented mindfulness, a contemporary trend that claims to promote psychological resilience. Mindfulness-based childbirth education is an innovative approach that combines skills-based ANE with mindfulness-based stress reduction techniques. Interventions using mindfulness have been shown to be beneficial in preventing psychological dysfunction (Fisher et al. 2012). The use of experiential learning and the provision of a range of information for discussion was a pedagogical approach that contrasted to the more traditional didactic style of antenatal classes. In an Australian pilot study involving 12 expectant mothers and seven support partners qualitative research by Fisher et al. (2012) found that the pedagogical approach of mindfulness-based childbirth education enabled participants to be involved in decision making during birth while also fostering a sense of community. The approach taken included participants becoming active participants in the antenatal classes, where participants were encouraged to discuss issues and concerns, complete group work, role play and become involved in the experiential learning offered in these classes. This had a positive effect on the women’s birth and both the women and support partner reported feeling in control even if the birth did not go as planned (Fisher et al. 2012). A small number of international pilot studies have evaluated antenatal programs that include mindfulness within ANE (Byrne et al. 2014; Woolhouse et al. 2014). Evidence
from these and other studies would suggest that there is a need to investigate the educational approaches used in antenatal classes (Renkert & Nutbeam 2001; Svensson, Barclay & Cooke 2008; Ahlden et al. 2008; Fisher et al. 2012; Berlin, Tornkvist & Barimani 2016). Findings in these studies were published in the 21st century and there appears to have been minimal changes in response to the issues these studies have raised, and no consensus or position on the research has been reached.

**Summary**

In summary, this review of the literature has been organised in three parts. Part one addressed the organisational influences on antenatal education (ANE) curricula and critiqued the development and implementation of antenatal education (Table 2). Part two considered the influence of antenatal education on the preparation of women and their partners for labour, birth and parenthood. It reported on the impact of antenatal classes on the development of social networks and the women’s satisfaction with antenatal classes (Table 3). Part three critiqued pedagogical approaches to antenatal education (Table 4).

There are a range of influences on antenatal classes. Limited research has been conducted into organisational cultural influences on ANE curriculum, despite evidence indicating that organisational policies influence development of the curricula (Morton & Hsu 2007; Svensson, Barclay and Cooke 2007; Wiener & Rogers 2008). The research literature indicates that antenatal educators are key to developing and shaping antenatal classes; however, an educator’s individual philosophy and views can affect the development of antenatal classes (Morton & Hsu 2007; Svensson, Barclay & Cooke 2007). While some classes offer cultural sensitivity, typically they contained the same information for all cultures without concern to cultural practices or beliefs (Holroyd et al. 2011).

Evidence that supports the benefits of ANE include facilitation of social support (Berlin, Tornkvist & Barimani 2016) and length of labour (Mehdizadeh et al. 2005). There is also evidence that ANE positively influences women’s satisfaction with birth (Kilma et al. 2009; Little et al. 2013), reduces anxiety for women (Serçekuş & Baskale 2015; Byrne et al. 2014;
Karabulut et al. 2016; Toohill et al. 2014; Adams, Eberhard-Gran & Eskild 2012), improves self-efficacy and coping skills (Escott et al. 2005; Ip 2009) and enables women to make informed decisions about their labour and birth (Artieta-Pinedo et al. 2010). In most instances labour and birth remain predominant in ANE with inadequate consideration of some child care topics such as breastfeeding (Fenwick et al. 2013). However, there is evidence that the focus of antenatal classes has been on providing content information that prepares class participants for the needs of the institution (Armstrong 2000; Svensson, Barclay & Cooke 2006b; Rogers 2015). Available research does not provide evidence that meaningful learning is occurring, or a positive impact on health outcomes is achieved from content provision of information alone.

The amount, length and type of breastfeeding information being delivered in antenatal classes is unclear from the research literature; information which is a key part of preparing expectant women for infant care (Lumbiganon et al. 2011). Also, how women engage with this topic has been under-researched. Therefore, there is a need for further research to investigate the educative process and evaluate the effectiveness of ANE involving breastfeeding.

While there is a large body of work considering the relationship of ANE to a range of outcomes, there is a paucity investigating curriculum development, pedagogy and educational practice as it underpins this education. Pedagogy and practice are poorly investigated and the concept of ANE is assumed to have influence over outcomes, without interrogating how this is achieved. It is assumed that giving information on a topic will effect change or influence decision making and subsequently outcomes. Antenatal education itself intrinsically cannot influence health delivery or care. Furthermore, outcomes of ANE rely on the way that class participants make meaning from the learning.

Antenatal education has remained on the whole unchanged and unchallenged for several decades. Despite some positive evaluation of ANE and changes in development over time, little is known about the process and practices in antenatal classes. Due to the lack of research in the field many questions about the influences on the development of the curriculum have been left unanswered. In addition, there is little research exploring
women’s experience, or organisational factors that have an impact on birth and parenting. Further, the majority of existing literature focusses on educational strategies and programs most likely to be effective for participants with reasonable literacy and education levels with a similar cultural background to the antenatal educator. While there are some exceptions (Macleod & Weaver 2003; Grady & Bloom 2004; Malata et al. 2003; Little et al. 2013), the majority of research did not consider those who would be considered more vulnerable than the majority of antenatal class participants. Antenatal education that targets specific groups would be valuable, for example, participants who are incarcerated, socio-economically disadvantaged, identify as being First Nations or refugees. There is a need to explore further the needs of women and their families who are known to experience poorer birth outcomes, which may be addressed by specific targeted programs.

What is known, is that ANE is facilitated by a range of practitioners in both institutional and community settings, such as libraries and community halls. Despite ANE being a ubiquitous and normalised aspect of antenatal care, there is little evidence of the efficacy of the approach as a health education strategy. While debate continues about the content and aims of antenatal education, little is known about the way this education has developed or the processes and experiences of the antenatal educators or the views of class participants on the extent to which classes have adequately prepared them for birth and parenting.

The aim of the study underpinning this thesis is to explore the predominant social and organisational cultural influences in antenatal education curricula; the pedagogy and practice of antenatal education in a range of contexts; consumers’ perspectives (class participants) of antenatal education in relation to developing health literacy; that is, the extent to which antenatal education provides meaningful and effective learning experiences. Chapter 3 introduces the research questions relating to this study which emerge from the gaps identified in the literature. The methodology for the research study, Interpretive Description, will be discussed together with the research design and methods used in the study.
Chapter 3: Methodology and methods

Introduction

This chapter provides an overview of the research methodology, conceptual framework, and methods that were used in this study. Interpretive Description was selected as the most appropriate methodology to respond to the research questions. The study aimed to answer questions related to antenatal education with the aim of informing future antenatal education programs that provide optimal experiences and outcomes for women and their families. Health literacy was chosen as the conceptual framework in that the goal of antenatal education is to help mothers become empowered with the knowledge and skills that will help them achieve successful birth and parenting goals.

Research Questions

Having established a gap in the knowledge through the literature review in the last chapter, the following research questions were developed:

- What key factors influence pedagogy and practice of antenatal education in a range of contexts?
- To what extent does current antenatal education provide meaningful and effective learning experiences from the perspectives of both the educators and the consumers?

Methodology: Interpretive Description

Interpretive Description was chosen as the most appropriate design for this study, which aimed to describe and interpret the actual experiences of antenatal educators and consumers of antenatal education. This methodology is designed to address practice issues and inductively generate knowledge that is applicable to the health care context (Thorne 2016). It is therefore a qualitative method, described by Thorne (2016) as clinician driven inquiry. Interpretive Description aims for analysis at an interpretive, conceptual level and explores patterns and relationships among data, aiming to give an original insight regarding the phenomenon being explored (Hunt 2009; Thorne, Reimer-Kirkham & O’Flynn-Magee 2004). Furthermore, Interpretive Description provides a comprehensive, contextualised
interpretation that is clinically relevant (Hunt 2009), with findings that examine deeply what practitioners might ordinarily see. The in-depth exploration then adds insight to the phenomenon in a way that practitioners can apply it to practice (Hunt 2009; Thorne 2016; Thorne, Reimer-Kirkham & O’Flynn-Magee 2004).

Interpretive Description acknowledges that the researcher usually comes to the research with both a clinical background and with practice-informed questions. The researches personal and epistemological stances will be outlined in the section on reflexivity later in this chapter. These form pre-existing theoretical knowledge, argued by Thorne (2016) as crucial aspects of the methodology. An initial review of this knowledge by the researcher will inform the basis for sampling, design and early analytic decisions (Thorne, Reimer-Kirkham & O’Flynn-Magee 2004). In practice the researcher’s understandings from personal clinical practice and from reviewing the literature provide a framework for these design features (Thorne 2016). The methodology has been found to be useful in several previous studies (Novick et al. 2011, 2012, 2013, 2015; Nesbitt et al. 2012; Lasiuk, Comeau & Newburn-Cook 2013). In the study by Nesbitt and coinvestigators (2012), Interpretive Description was used to explore adolescent mothers’ perceptions of influences on breastfeeding decisions. One of the professional implications from this study was that the integration of tailored information into antenatal education services for adolescent mothers may be of benefit. Studies by Novick and colleagues (2011, 2012, 2013, 2015) used Interpretive Description to explore CenteringPregnancy group antenatal education and care. Interpretive Description was considered particularly useful due to its ability to capture distinctive features of experience which lead to developing understanding about the practical implications of the phenomenon (Novick et al. 2015).

Interpretive Description is aligned with an interpretive and naturalistic paradigm, in which human experience is understood as a constructed and contextual experience that, at the same time, allows for shared realities (Thorne, Reimer-Kirkham & MacDonald-Emes 1997). Naturalistic inquiry (Lincoln & Guba 1985) provides the philosophical underpinnings for Interpretive Description research. These principles as described by Lincoln and Guba (1985) include the following:
• There are multiple constructed realities that can be studied only holistically. Thus, reality is complex, contextual, constructed and ultimately subjective.

• The inquirer and the “object” of inquiry interact to influence one another; indeed, the knower and known are inseparable.

• No a priori theory could possibly encompass the multiple realities that are likely to be encountered; rather, theory must emerge or be grounded in the phenomenon.

Given these underpinnings it is clear that capturing subjective, shared and contextually developed personal experiences is the source of knowledge about a phenomenon. This knowledge is best interpreted by examining the findings from multiple sources of data to ensure a comprehensive picture. As a health promotion activity, antenatal education aspires to effect improved or optimal health outcomes for individuals and populations. The way antenatal education is developed, delivered and evaluated by consumers has been argued to require investigation in terms of the experience of educators and birthing women to see if and how antenatal education is a useful service to women. In this study, antenatal education was explored through capturing realities as constructed by antenatal educators and consumers of antenatal education. Using the Interpretive Description approach allowed the researcher to gather participants’ perspectives and interpret patterns that may be useful in planning future antenatal education.

The strength of studying antenatal education within this qualitative research approach is that it recognises that antenatal education is not a static phenomenon. It is a complex socially constructed phenomenon which is dynamic and interactive, non-replicable and engages numerous stakeholders. In addition, antenatal education occurs in several settings ranging from home based informal gatherings to structured hospital classes within a clinical health care system and environment, which may be public or privately operated and managed. The phenomenon of antenatal education can be illuminated, described and interpreted in ways that inform practice by using Interpretive Description. This study was guided by an exploration of the perspectives and experiences of antenatal educators and consumers of antenatal education, issues pertaining to these experiences, and the need to understand and generate knowledge that could inform clinical practice.
Conceptual Framework: Health literacy

The three aspects of Nutbeam’s (2000) health literacy framework have been used as a conceptual framework for this study. As discussed in Chapter 1, these levels of health literacy show the development of skills and understanding of health information that are required for decision-making related to health, which is particularly relevant during pregnancy, birth and throughout parenthood. Nutbeam (2000) describes a continuum of health literacy which includes the following three steps: functional, interactive and critical (see Figure 1).

![Figure 1. Levels of literacy](Adapted from Nutbeam (2000))

According to Nutbeam (2000) these increasing steps suggest that “the different levels of literacy progressively allow for greater autonomy and personal empowerment” (Nutbeam 2000, p264). The final level of health literacy - critical health literacy is reached when an individual can seek out information, consider the readability of the material and use it to make informed health choices (Renkert & Nutbeam 2001). Lori et al. (2014) found that the way antenatal education is conveyed needs to be considered so that it can be understood by class participants and they can make informed choices about their care. Headley and Harrigan’s (2009) study suggests that improvements in women’s antenatal health literacy is needed through more antenatal education. The intention of the antenatal educators is to begin at the level of functional health literacy; that is, with a determination of participants’
knowledge level so that they can provide appropriate information. In the context of the antenatal education sessions there will be an expectation of skills and knowledge development, which would be evident as interactive health literacy. An optimal expectation is that on conclusion of the sessions, participants would achieve empowerment or critical health literacy; that is, the ability to make birth and parenting decisions from a basis of in-depth knowledge and understanding. Using this framework, the researcher aimed to describe and interpret the experiences and influences that helped promote health literacy among participants, and any of the organisational, cultural or pedagogical influences that may have facilitated or constrained its development.

**Methods**

Research methods are the approaches and techniques used to conduct a research study, determine sampling strategies and then gather, analyse and interpret data. These methods are the basis for proposing responses to research questions, recommendations, conclusions or a new theory. The following section outlines the methods used to collect and analyse the data to answer the research questions.

**Research participants**

**Sampling strategy**

This research project used a purposive sampling strategy to select relevant participants who could provide information-rich data (Patton 2002; Morse 2007). Thorne (2016) describes sampling for ‘key informants’. They are participants with specific experience and knowledge of the phenomenon being studied. This involved identifying and selecting individuals who were knowledgeable and had experienced antenatal education. Given that this study was specifically about antenatal education, educators and consumers of antenatal education were appropriate key informants to recruit. Further information about sampling strategies used, is outlined in table six, in chapter four.

The selection criteria were designed to maximise the study’s descriptive credibility (Battaglia 2008; Guest, Namey & Mitchell 2013) by targeting individuals with experience relating to,
and who could inform, the research question. The inclusion criteria specifically required that participants:

1. were English speaking so that a translator was not required;
2. antenatal educators who were currently facilitating antenatal classes;
3. consumers who had birthed within the last 12 months so that they could recall their antenatal classes; and
4. all participants were over 18 years of age, so that additional consent from parents would not be required.

Women who had attended antenatal education for their first or subsequent pregnancy were recruited. The methods to recruit a sample required consideration of the size of sample that would be required as well as the strategy that attracted participants. Regarding the size of a sample, Sandelowski (1995, p. 183) points out that "determining adequate sample size in qualitative research is ultimately a matter of judgement and experience"; however, the sample size is almost always relatively small between five and 30 participants (Thorne 2016). In this type of research defining the sample size before commencing the research is a challenge because the sample is being sought to capture meaning rather than frequency (Morse 2007, p. 530). According to Hennink, Kaiser and Marconi (2016), many factors influence the sample size including the research design, available resources and characteristics of the research population.

**Recruitment**

Antenatal educators and consumers of antenatal education were recruited using a variety of convenience strategies. Convenience sampling is a way of recruiting a purposive sample of participants (Creswell 1998). It is used to recruit naturally-occurring groups of people within the population of study, in the case of this project, within the context of antenatal education. Antenatal educators and consumers of antenatal education were recruited from two states in Australia using the following strategies:
1. Invitations to participate in the study were distributed to antenatal educators at a conference, “The Passage to Motherhood”, which was held on the Gold Coast in 2013. This provided access to a wide range of antenatal educators who practised in a variety of settings (Appendix A). One antenatal educator was recruited using this method.

2. Advertisements were placed in antenatal clinics in the health service region where the study was conducted, to recruit consumers of antenatal education (Appendix B). Two consumers were recruited using this method.

3. From the invitations, educators and consumers of antenatal education were recruited using a snowballing technique (Liamputtong 2009); that is, all participants were asked to contact friends or colleagues who may be interested in participating in this study. This resulted in participants from both Queensland and Victoria being interviewed. Nine antenatal educators and seven consumers of antenatal education were recruited using this method.

All antenatal educators and consumers of antenatal education interested in being involved in the study contacted the researcher via email or phone to discuss the project and to organise an interview venue, date and time. All those who contacted the researcher met the criteria and were included in the study. Most interviews were conducted face to face although two consumers opted to have telephone interviews. All participants were provided with a detailed project information sheet and were asked to sign a consent form. An invitation to participate flyer, information sheets, consent forms, and interview topics and questions are included (see Appendices C, F, G, H, I and J).

Data collection

There were four data sources in this study, each consistent with Interpretive Description. The data sources included:

1. two individual, in-depth, interviews with each antenatal educator participant;
2. a single individual in-depth interview with each consumer of antenatal education;
3. learning materials used in antenatal education classes chosen by antenatal educators to elicit information in the first interview;

4. field notes constructed by the researcher.

Saturation is commonly used in some qualitative approaches to gather and analyse data until the point where no new insights are being observed (Francis et al. 2010; Llewellyn, Sullivan & Minichello 2004; Van Teijlingen & Ireland 2003). This suits an approach such as Interpretive Description whereby recruitment, data collection and analysis are iterative and concurrent. The initial intent of this research was to recruit ten antenatal educators and ten class participants. However, I kept in mind that sampling would cease once no new information was gained. Initially I interviewed ten antenatal educators with the intent to conduct ten interviews with class participants as well, however, saturation was reached by seven interviews, and I conducted an additional interview to be sure this was the case. At this point the decision to stop recruiting educators and consumer participants was made.

The point of saturation has been discussed by various scholars, although it is dependent on the individual study. Guest, Bunce and Johnson (2006) argue that this can occur between six and ten interviews, which is very similar to the more recent study by Hennink, Kaiser and Marconi (2016), which indicated that saturation was reached after nine interviews.

Interviews were transcribed and analysed iteratively, therefore I was able to identify when saturation had occurred. In addition to the initial ten interviews of the antenatal educators, I reinterviewed seven participants to clarify points and enrich the initial data.

**In-depth interviews**

In-depth face to face or phone interviews were conducted individually with each of the participants in this study. Kvale (1983) defines the qualitative research interview as "an interview, whose purpose is to gather descriptions of the life-world of the interviewee with respect to interpretation of the meaning of the described phenomena" (p. 174). Telephone conversations and face to face interviews via digital media such as Skype and other digital media are acceptable forums (Hanna 2012). In-depth interviews are useful when detailed information about a person’s thoughts or new issues are to be explored in depth (Boyce & Neale 2006).
The interviews provide context to the phenomenon being explored such as what happened and why. In-depth interviews are advantageous because they provide detailed information that can be obtained in a relaxed environment. Face to face interviews have the benefit of non-verbal elements of interaction. Meanings are more easily understood, such as facial expressions and gestures (Sullivan 1998) which are not observable in phone interviews. It was important that each participant shared their personal experiences and opinions and that I could seek clarification. Thorne (2016, p.119) recommends allowing time for information to unfold. Open questions were used to direct a participant’s experience and interests and collect information regarding antenatal education. Interviews allowed participants to provide in-depth responses. The analysis of all the interviews from various participants assisted to provide rich experiential data which facilitated in the construction of themes.

Prior to conducting the interviews, a list of topics to be addressed was developed (see appendices I and J). Questions were open ended and participants had the freedom to go into detail when choosing how to reply. Topics that may not have been included in the list were addressed as I was able to further probe and interrogate information that had been provided or investigate areas that were not initially offered by participants. Additional questions were also asked to encourage the participant to expand on the discussion. Interviews were digitally audio recorded and transcribed verbatim for analysis. Antenatal educators were asked if they would be willing to participate in a follow up interview to clarify points and discuss initial interpretation and findings. The length of time for interviews in this study was comparable to other Interpretive Description studies which have reported interview times of between 45 minutes and two hours (Thorne, Reimer-Kirkham & O'Flynn-Magee 2004; Maheu & Thorne 2008). This length of time was suitable for interviews so that the researcher could explore experiences in sufficient depth (Richards & Morse 2013).

Interview procedure with consumers of antenatal education
A single interview with consumers who had participated in antenatal education within the last 12 months was conducted at a time that was convenient for them. These in-depth interviews lasted approximately 30 to 60 minutes. Most interviews were conducted face-to-face in the participants’ homes. However, two participants opted to have a telephone interview due to their location. Informed consent was obtained with the two telephone interview participants emailing the consent form to me. Interview questions were prepared prior to the interview. These consisted of open ended questions and prompts to seek further clarification and improve credibility for example, and “would you give me an example? Can you elaborate on that idea?” and “Would you explain that further?” At the end of each interview participants were asked to contact me if they had any concerns. None of the participants contacted me following the interview to discuss concerns.

**Learning materials**

Thorne, Reimer-Kirkham and MacDonald-Emes (1997) contend that appropriate collateral data sources can be used for qualitative researchers interested in expanding the scope and depth of their inquiry. For example, print, media information as well as case studies and clinical information are often easily available and can provide a strong support for qualitative inquiries. Meaningful information is shared during interviews when learning material or objects are used to promote discussion (Becker 2000; Bell 2010; Reavey & Brown 2009). Thorne, Reimer-Kirkham and MacDonald-Emes (1997) argue that thoughtful “application of a variety of data sources can add considerable strength to the usual data sources of interviews and observations for the purposes of generating practice knowledge” (Thorne, Reimer-Kirkham & MacDonald-Emes 1997, p. 174). One example of this is the use of photovoice, a flexible method of data collection that provides the opportunity to strengthen public health research through the sharing of photographic images (Wang 1999). According to Wang and Burris (1997), the sharing and discussing of participants’ own photographs is a powerful means of communicating expertise and knowledge, which the antenatal educators in this study did with their class participants.
Teaching material used in classes has the potential to represent pedagogical practice (Westbrook et al. 2013). Therefore, antenatal educators were asked to bring to the first interview learning materials that they used for teaching in their classes to help prompt discussion about their teaching practice (see appendix K). Several participants in this study used photographic images or posters as learning material and these were reviewed by the researcher to articulate individual pedagogical practices. Learning materials were photographed with permission and included items such as photographic images, doll and pelvis, posters and other items of interest to the participant that they used in the process of facilitating an antenatal class.

Field notes

According to Thorne (2016) recording what is happening subjectively within the research engagement is a core element that informs an inductive analytical process. One of the mechanisms to achieve this is the use of field notes which can assist in creating an explanatory audit trail throughout data collection and analysis (Sandelowski 1986). In addition, Yin (2013) promoted the use of field notes to strengthen the validity of findings as they support triangulation of evidence. In this study, field notes were made contemporaneously following each interview to enhance credibility of the findings. Reflecting on these field notes regarding the interview as soon as possible after the event helped to capture contextual information as well as the content of the interview. Mulhall (2003) suggests that this ensures details of the interview are not lost to memory and provided a textual translation of personal impressions about each interview. These field notes included comments about the environment, observational behaviours of the participants within the interview, personal thoughts, feelings and reflection on key points. These were considered in subsequent interviews.

Interview procedure with antenatal educator participants

The data from ten antenatal educators was collected in individual face to face interviews. Most of these participants chose to be interviewed in their work environment, while four
were interviewed in their homes. Offering participants, the choice of location and flexibility of timing for the interviews assisted them to feel valued within the research process. These are considered essential qualities when conducting individual interviews (Kvale 1996; Denzin & Lincoln 2011) because the quality of research is improved when participants feel valued and have time to participate in the research. Each of the first interviews took between 40 – 75 minutes. At the commencement of each interview I went through the consent form and the purpose of the study and the research information sheet was discussed (see appendix H). The interviews facilitated the participant’s exploration of experience and perspective about their experience in developing and delivering their antenatal classes, which was explored further when they were asked about their learning material. A second interview with the antenatal educators was conducted approximately 12 months later, and these were useful to further enrich the data. Questions in the second interview were based on the aims of antenatal education to clarify points and discuss interpretations of what had been said at the first interview. Two of these interviews were conducted by telephone.

**Data management**

Each interview was recorded using a digital voice recorder. These recordings were then transcribed verbatim by the researcher and using a transcription service which was engaged for approximately half of the interviews. On return each transcript was then read while listening to the recording to check the transcript and to immerse myself in the data. The immersion process enabled me as the researcher to reread, take notes and annotate the transcripts to get to know the data well and take account of meaning inferred by intonation of voice.

To store and manage the data, the transcribed interview data, photographs of learning materials and field notes were entered into NVivo 10. NVivo is a tool used for organising data, but it does not decide what to code, or how to code it (Bazeley 2007). The software allowed for ease and coding of interviews, photographs of the learning materials and field notes that were collected during this study. This enabled constant comparison and analysis of the material and facilitated identification of early themes. This software provides the
ability to create nodes for emerging themes and to link, cut and paste and easily move quotes into each node for analysis.

Data analysis

Data analysis in Interpretive Description seeks to generate understandings of clinical phenomenon that illuminate characteristics, patterns and structure in the phenomenon, in a theoretically useful manner. Data analysis was guided by the Interpretive Description methodology and used an inductive procedure to construct meaning from participants’ experiences (Thorne, Reimer-Kirkham & O'Flynn-Magee 2004). This method involved constant comparison of all data by noting any similarities or differences between them (Thorne 2016). NVivo was used in the first case to identify, label and compare data within and across sources. It is recommended by Thorne (2016) that data analysis commences as soon as data collection begins which is what happened in this study.

Analysis and interpretation was framed by using Morse’s (1994) cognitive processes of analysis. The four processes outlined by Morse enabled me to use an inductive approach to examine and comprehend the elements of the data, synthesise by testing and challenging initial assumptions and findings, to then make further propositions, represented in themes and finally to recontextualise and produce the conceptual description. The following four steps summarise the processes, both cognitive and practical, which facilitated systematic analysis and interpretation. Figure 2 summarises the processes, both cognitive and practical, that facilitated systematic analysis and interpretation.
To comprehend the data, I used an inductive approach. I broadly considered the data by listening, reading and then rereading transcribed interviews. I managed the data using NVivo 10 software and coded phrases and passages by linking them to nodes in the software. Initially, I collated and grouped data with similar characteristics, first within and then across interviews.

To synthesise meaning from the data I examined collated data and questioned what information fitted and why. I then went back to the data with this analysis to test and challenge my preliminary groupings and analysis.

To theorise and develop relationships I organised collated data into themes which revealed characteristics, patterns and structures that provided depth and coherence to the phenomenon of antenatal education.

Finally, I recontextualised a coherent and conceptual description produced from the themes into a product that was applicable to the practice of antenatal education and
located within the literature. These are presented as the research findings in chapter five.

**Credibility**

The trustworthiness of studies with qualitative approaches can be assessed based on the interrelated concepts of credibility, of which reflexivity and moral defensibility are included (Lincoln 1995). Credibility is a widely-accepted term in qualitative research and was first described by Lincoln and Guba (1985) who suggest that credibility be the criterion for evaluating the truth value of qualitative research. “A qualitative study is credible when it presents such faithful descriptions or interpretations of a human experience that the people having that experience would immediately recognize it from those descriptions or interpretations as their own” (Sandelowski 1986, p. 30). The use of participants’ voices to illustrate the findings enhances their trustworthiness and credibility. Credibility relies on a reflexive engagement in all aspects of a research study by the researcher. In this study participants are firstly introduced in chapter four and then direct quotes from the participants are used throughout the findings. The research engaged actively with the data through the process of comprehending, synthesising, theorising and re-contextualising (Morse 1994) the data; this helped to identify key themes throughout the study.

Credibility refers to the basic concept that readers and participants of the research can view the design process and that it will make sense (Jensen 2008). It involves a clear linking between the aims and objectives of the study with the design. Attention to credibility and rigour in the process and the reporting of that process is critical to an Interpretive Description study. Interpretive Description is intended to expand beyond what a person might ‘see’ in their given situation and it enables an understanding of commonalities within the phenomena of antenatal education. The processes I used in this study were transparent and suitable information, through the participant information sheet, was provided to all participants involved in the study.
The credibility of the findings will derive largely from the way the specific analytic decisions are presented and contextualised within the larger picture (Thorne, Reimer-Kirkham & O’Flynn-Magee 2004). Several researchers argue that having the participants ‘validate’ findings can be misleading (Sandelowski 1993; Thorne, Reimer-Kirkham & O’Flynn-Magee 2004). Therefore, in this study I returned to the antenatal educators with questions derived from the initial aims of antenatal education as described by Gagnon and Sandall (2011), to ensure that I had included the main points. By doing this I acknowledged a responsibility to reflect the complexity of the phenomenon without omission or deception.

**Reflexivity**

According to Willig (2001, p. 10), there are two types of reflexivity, personal and epistemological. Personal reflexivity involves reflecting on own experiences and values that shape the research and how the research may have changed the researcher as a person. Epistemological reflexivity requires the researcher to engage with the questions and how the research questions could have been investigated differently. This study could have been quite different if it had been a national study and time and resources were available to undertake such a study. Equally it would have been quite different if it had been a quantitative research design. Willig (2001) goes on to argue that by understanding the theory of the reflexive process, the researcher is encouraged to reflect upon the assumptions that have been made about knowledge and about the world, while undertaking research.

Interpretive Description acknowledges the theoretical, practical and experiential knowledge that researchers and participants bring to the study (Thorne 2016). As the researcher, I have experienced antenatal education both as a consumer and an antenatal educator so consequently, have pre-existing personal, theoretical and clinical knowledge regarding antenatal education. Therefore, my previous experience has influenced my interest in the topic, approach to the study aims and interpretation of the data. Thorne (2016) cautions about superficially linking data that may have been developed from the literature or from previous clinical experience, based on preconceived ideas. Accordingly, it was important for me to ensure that my own personal beliefs did not affect the outcome of the research.
I have brought knowledge of the phenomenon, derived from a range of experiences to this project. It is acknowledged that my professional and personal perspectives as a former antenatal educator, and a mother who has participated in antenatal classes, will have impacted on this research. This was addressed during the data collection phase by keeping field notes reflecting on the interviews, which I discussed with my supervisors. I attempted to position myself as a researcher rather than an educator or consumer of antenatal education and made every attempt not to influence information provided by the participants to produce a credible account of research.

**Research ethics**

Low risk ethical approval was given (USC S/13/506) prior to commencement of the study, based on guidelines for ethical conduct of research provided by the National Health and Medical Research Council (NHMRC) (Australian Government 2015). Based on these guidelines risks for this research were identified and values and principles were adhered to throughout the study. The main potential risk identified was psychological risk to the antenatal educators and consumers of antenatal education. The NHMRC (Australian Government 2015) describes psychological risk as: “**psychological harms: including feelings of worthlessness, distress, guilt, anger or fear related, for example, to disclosure of sensitive or embarrassing information, or learning about a genetic possibility of developing an untreatable disease**”. The risk highlighted above was minimised in the following ways:

- Transcripts were de-identified using pseudonyms and by removing any information that could identify an individual.
- Digital recordings and transcripts of interviews were kept in password protected software. All data were kept secure in accordance with NHMRC guidelines.
- A follow up phone call with any participant who recounted an upsetting experience or who became distressed would have been made by the researcher if the participant agreed to this contact.
- Referral to counsellors were offered to any participant identifying the need for counselling.
Informed consent was a vital part of this study, and participants were fully informed of the details of this research. Participants were able to ask questions prior to giving consent which was obtained from all participants in writing. Each participant’s consent was given freely, without coercion, and was based on a clear understanding of what their participation in the study involved. Participant information and consent forms that were used are available in appendices E and G. According to Josselson (2007), it is important to protect participants as well as the organisations and people they mention in the interview. The current study achieved this through removing the names of the institutions which the participants mentioned and replacing it with the generic term health care facility; this protects the organisation from any negative comments that were mentioned during the interview. Data were de-identified and provided with a pseudonym provided as codes for each participant to protect their privacy.

In this study, no participant required counselling following their interviews and no incidents occurred that required reporting. No participants found the interview process distressing and there was no need to cease any interviews; the women enjoyed talking about their experience and sharing their experiences.

**Moral defensibility**

Thorne (2016) defines moral defensibility as one of the vital credibility criteria that requires researchers to justify the need for the study, the selection of specific participants, and the need to protect them from harm (Thorne 2016, p. 236). In this study the criterion of moral defensibility was achieved by providing the study purpose, a sound rationale for why the knowledge generated was necessary, and possible risks and benefit to study participants, and by attending carefully to ethical considerations and requirements. In addition, I framed my interpretations and recommendations of how ‘knowledge development’ about the delivery and evaluation of ANE, could be used by antenatal educators and professional organisations who train antenatal educators. The purpose of this study, and the ethical considerations considered in this study and described in the last section of this chapter, meet the moral defensibility criterion.
Summary

In this chapter the underpinnings of Interpretive Description as the research methodology for this piece of work were considered. The methods used to explore the phenomenon of antenatal education were described and the conceptual framework outlined. This chapter also outlined how participants were selected and recruited based on sampling and each of the four selection criteria. Consistent with the principles of Interpretive Description methodology, four data collection methods were used to gain rich, qualitative data. They included in-depth interviews with antenatal educators and consumers of antenatal education, the use of learning material and field notes. The following chapters introduce the participants and present the findings from this research.
Chapter 4: Introducing the participants

In this chapter the study participants are introduced, followed by the findings which are reported in chapter 5. Initially, I interviewed ten antenatal educators from a variety of backgrounds, eight of whom were midwives and two of whom were doulas. Antenatal educators were from Queensland (n=7) and Victoria (n=3). I then interviewed eight women, consumers of antenatal education who had given birth within the last 12 months; six from Queensland and two from Victoria. During data analysis I returned to most of the educators (n=8) and interviewed them for a second time to discuss and build on my initial findings. The remaining two educators were lost to follow up having changed positions or phone numbers. Pseudonyms were given to all the participants and used throughout this research to protect their identity.

The antenatal educators

The antenatal educators had a variety of backgrounds, training and experiences in antenatal education. A summary of each participant’s role, years of experience, antenatal educator training, and the number of study interviews is provided in Table 5.
<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>No. Years’ Experience as ANE, &lt; 1, 1 – 5, 6 – 10, &gt; 10</th>
<th>ANE Training</th>
<th>No. of Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anna</td>
<td>Public Hospital Midwife</td>
<td>1 - 5 year</td>
<td>1-day workshop</td>
<td>2</td>
</tr>
<tr>
<td>Brooke</td>
<td>Independent Midwife</td>
<td>1 - 5 years</td>
<td>Attended 2-day class run by health care facility during her training</td>
<td>2</td>
</tr>
<tr>
<td>Clara</td>
<td>Independent and Public Hospital Midwife</td>
<td>&gt;10 years</td>
<td>2-day course run by hospital Attended conferences</td>
<td>2</td>
</tr>
<tr>
<td>Dawn</td>
<td>Public Hospital Midwife</td>
<td>1 - 5 years</td>
<td>No formal training has observed other midwives</td>
<td>2</td>
</tr>
<tr>
<td>Emma</td>
<td>Public Hospital Midwife</td>
<td>&lt;1 Year</td>
<td>No formal training midwife ran through some PowerPoints Attended conferences</td>
<td>1</td>
</tr>
<tr>
<td>Faye</td>
<td>Public Hospital Midwife</td>
<td>6 - 10 years</td>
<td>Weekend antenatal course</td>
<td>2</td>
</tr>
<tr>
<td>Gail</td>
<td>Public Hospital Midwife</td>
<td>&gt;10 years</td>
<td>Weekend course</td>
<td>2</td>
</tr>
<tr>
<td>Helen</td>
<td>Private Hospital Midwife</td>
<td>6 - 10 years</td>
<td>No formal training</td>
<td>1</td>
</tr>
<tr>
<td>Irene</td>
<td>Doula</td>
<td>6 - 10 years</td>
<td>6 months training as a doula Training as a hypnobirth practitioner Childbirth Ed course at local hospital Attended conferences</td>
<td>2</td>
</tr>
<tr>
<td>Joy</td>
<td>Doula</td>
<td>6 - 10 years</td>
<td>6 months training as a doula Ran classes voluntarily Attended 2-day antenatal course</td>
<td>2</td>
</tr>
</tbody>
</table>
Anna

Anna was a midwife employed in a public hospital/health care facility. She had been working in the antenatal clinic for three and a half years prior to commencing her new role as an antenatal educator in an outreach clinic. Anna’s preparation for the role included a one-day professional development workshop offered by her employer. She stated she had not been in the role for very long as the opportunity had not arisen before as part of her role as a midwife:

“We have the support of each other (laugh). We were fortunate to go and spend the day with X who is fantastic at group antenatal care.”

At the time of the interview Anna was co-facilitating a group antenatal education class in an outreach clinic. The classes she co-facilitated usually consisted of eight to twelve participants and ran over eight sessions. Seven of the sessions were held in the antenatal period while the last class was a postnatal reunion. Classes were free to participants who booked to birth at the local public hospital.

Brooke

Brooke was a privately practising midwife who had been providing antenatal education for two years since qualifying as a midwife. Brooke’s preparation for the role included attending a condensed two-day antenatal class as a student midwife, and conference attendance. She also personally reflected on her practice after each birth. Brooke was interested in pursuing formal qualifications in the area:

“I haven’t received any specific training in antenatal education, it’s something that I had thought about a while ago but I would really, that I would maybe like to do some, become a certified childbirth educator.”

Brooke offered her clients several different models of antenatal education, either individual one on one sessions, or sessions with the family members and birth support people, e.g. partner/grandmother/friends. As an independent midwife Brooke offered information to women during each antenatal visit. Women paid for Brooke’s service and costs included her fees as a midwife providing full care throughout the pregnancy journey. As Brooke was not an endorsed midwife the costs were not refundable by Medicare, but some may have been covered by the woman’s personal health insurance.
Clara

Clara had 14 years of experience as an independent midwife and antenatal educator. She was currently working as a privately practising midwife and had been in that role for two years at the time of the interview. Her preparation to become an educator included a two-day course run by the health care facility where she was employed at the time, and through observing midwives providing antenatal education. She frequently attended conferences and does her own research for continuing professional development:

“When I was in the hospital system the training was if you had an interest in antenatal care and worked in the antenatal clinic and then went and observed other midwives and looked at the education and did like two formal days of training about the topics that were covered.”

Clara had worked in several different models of antenatal education, providing public hospital classes, some specifically for adolescents, weekend intensive classes, and group antenatal classes, which combined antenatal education and antenatal care as well as providing social support. She also worked as an independent midwife providing homebirth services, and educating women as required on her visits to them at home.

Dawn

Dawn had been an antenatal educator for four years. She had no formal training in group facilitation but learnt how to provide antenatal education by sitting in on a set of four classes with another midwife at the hospital. She stated that she did not do much to keep up to date:

“Nothing formal so when I first showed an interest in doing antenatal classes I sat in on a group of four classes that another midwife was facilitating and then the next set of four classes I took with the other midwife in the room providing support for me and so that’s basically it for formal stuff....um the rest of it I’ve just done myself.”

Dawn had experience in two styles of antenatal education in a public hospital setting. The first included classes of four sessions lasting two hours with women and support people attending from around 30 weeks of pregnancy. The second was based on combined antenatal care and education in a group setting at an outreach clinic. Women attended
seven antenatal classes and one postnatal reunion class. Each class lasted two hours and there were usually eight to twelve women in each group; birth support partners were able to attend with the agreement of the group, but usually attended only one or two sessions. In both models, classes are free for the women who birth at the health care facility.

Emma

Emma was a public hospital midwife who had been providing antenatal education for six to twelve months. She had no formal training although an antenatal educator talked her through the class presentations. Emma commented that she ran through some PowerPoints that were out of date and had found an old manual in the store cupboard to read. She kept up to date by attending conferences, reading and through online blogs, e.g. Midwife Thinking:

“I had some time with another midwife. I didn’t even sit in on her classes. I just received her PowerPoint presentations and they just talked me through what to do and just threw me in basically, which was fine because I don’t mind public speaking. That’s not an issue for me because I’m a talker. That didn’t concern me at all. I wasn’t nervous about that. It was just more the content. I needed to get my head around the content. The slideshows of the slides I was given were very wordy and so it did throw me a little bit.”

Emma provided intensive classes over two Saturdays, combining the hospital’s prescribed content usually delivered over four classes into two four-hour sessions. There were up to 30 participants who attended the classes, 15 women and their support person; the women were usually around 37 - 38 weeks’ gestation. There was no postnatal reunion, and classes were free to women birthing at the health care facility.

Faye

Faye was a public hospital midwife who had been an antenatal educator for seven years and a midwife for 20 years. Faye had attended several formal training courses in antenatal education and was currently studying a master of midwifery degree. She also subscribed to a journal to keep up to date with regards to continuing professional development:
“So that was a three day one and then I have actually been to a couple of weekends through the, I think Queensland branch of the childbirth education, and then I actually did the HypnoBirthing course as well.”

Faye facilitated two models of public hospital-based classes: a set of four classes that ran for two and a half hours in the evening, or two consecutive Saturday morning classes that lasted four hours each. The weekend classes were a condensed version of the weekly model. Women attended antenatal classes from 30 weeks’ gestation. There were usually ten couples so approximately 20 people consisting of the woman and her birth support partner. Partners or support people were all welcome and women often brought grandparents along, as partners often worked away. There was no postnatal reunion. Classes are free for the women who birth in the health care facility.

Gail

Gail has been a midwife for 11 years and an antenatal educator for nine years. Antenatal education training included completing a weekend course as well as attending a series of classes run by the health care facility in which she worked. She kept up to date by attending conferences as part of her continuing professional development:

“When I was doing my graduate midwifery year in 2003 at the end of that I had a baby and then I was interested in doing some childbirth ed when I was still on maternity leave so the place where I was working paid for me to do a course through the National Association of Childbirth Education which is now CAPEA so I did their weekend course.”

The classes Gail ran were for primiparous women and their birth support partner. She held evening courses which ran over seven weeks, each class lasting for two hours. She also held a postnatal reunion once the babies had reached 6 weeks, therefore there were eight meetings in total. Women attended the classes from around 30 weeks’ gestation and a physiotherapist was invited to facilitate one of the classes. Women paid the hospital for classes which could be claimed on private health cover for those who had insurance.
Helen

Helen had been a hospital midwife for ten years. Her position included the full scope of midwifery practice which involved providing antenatal education classes as part of her role. She has had no formal training in antenatal education and no training in group facilitation; she stated that she did not see the need as she followed hospital policies. Helen kept up to date with her professional development by attending the hospital run professional development meeting every three months. She did not attend any external continuing professional development:

“I guess from high school I’ve done that [facilitation], just high school and education, and just through university, like you facilitate a group. So, I felt I was well versed in doing group work. So, it’s just a life thing that I’ve probably had, more than anything, facilitating bits and pieces, and bringing people together. The role that I took with childbirth education is that I see a midwife as part of an educator, so I don’t feel that I needed to do any further education apart – I mean the childbirth ed here at X Health Service is focused on our polices and our guidelines.”

She facilitated two models of antenatal education in a health care facility, firstly weekly classes for seven consecutive weeks. Participants included four to ten couples of 8 - 20 people usually the woman and her birth support partner, for two hours at each session. The other classes were weekend classes where four to ten couples attend an intensive version of the seven-week class. The women pay the hospital for the classes.

Irene

Irene worked as a doula and ran Beer and Bubs classes for men. She trained for 6 months to become a doula and attended a childbirth education course at a major teaching hospital. She had also completed training as a HypnoBirthing practitioner six to seven years ago and had also completed an additional course which was run by an experienced antenatal educator. This training involved a two-day program with a further two-day follow up. Irene had been running her own business for nine years. Irene attends conferences to keep up to date with childbirth education practices. She reads a lot around the subject and participates in online forums in the birth world:
“I think it was about four years ago, I thought I would do the childbirth ed qualification because I was doing it with my couples, and I just thought, if I ever want to get into an arena where I - just to go bigger whether workshops or whether I got job in a hospital. I just thought I would do the course. After doing the course, life continued. I started mentoring a lot of doulas, younger or inexperienced doulas coming through.”

Irene worked in several different models of antenatal education. She had been holding Beer and Bubs classes in the pub for expectant fathers for two and a half years. Between 15 and 30 men attended once a month for a single three-hour antenatal class in which they had the opportunity to socialise and network with other expectant fathers. Working privately as a HypnoBirthing practitioner she would see women approximately four to five times during their pregnancy which included two sessions as a couple with the birth support partner. Participants paid for the classes as they were part of a privately-run business and a franchise.

Joy

Joy worked as a doula, and provided antenatal education classes as a privately-run business. She trained in antenatal education through National Association of Childbirth Educators (NACE) and ran classes voluntarily for some time prior to facilitating her own classes. She felt there was a need in the community when she found it difficult to find suitable classes when she was having her own children:

“I trained with what was NACE at the time and I found that was really helpful, but I was already running classes voluntarily so before I started running my own classes I facilitated classes for the maternity coalition just voluntarily and then I just through doing that. I just developed those classes into something a bit bigger and offering a bit more information so I kind of, just sort of evolved and developed a lot of the work myself just in terms of what I was doing there and then I went onto run my own classes.”

Joy worked in several models of antenatal education. She facilitated a series of four evening classes that usually have 34 participants or 17 couples. These classes were held in the local library. She also worked as a doula taking on one birth a month with individuals in their home, as well as holding intensive 3-hour classes with 10 - 12 people for multiparous
women and their support partner. Women paid independently for the classes which are at a set rate for the business.

**The consumers of antenatal education**

The class participants were a diverse group of women whose experience of classes ranged from between one intensive class, to a set of eight classes, that included a follow up postnatal reunion. All participants had a support partner attend their classes with them for at least one class. One of the women, Fern, attended private classes to supplement the classes provided by the institution where she had chosen to birth, while other women had individual classes provided for them by private midwives. Four of the women in the study were primiparous while the other four were multiparous who had birthed two to three babies within their family; one woman had birthed at home. A summary of the type of classes they attended, how many children they had and whether the interview was face to face or via phone is presented in Table 6.
### Table 6. Consumers of antenatal education

<table>
<thead>
<tr>
<th>Name</th>
<th>Parity (P)</th>
<th>Age of Children at time of interview</th>
<th>Type of Classes</th>
</tr>
</thead>
</table>
| Amy  | P3         | 5 years 3 years 3 months             | 1. Calm birth and separate lactation classes  
|      |            |                                      | 2. International classes  
|      |            |                                      | 3. Independent midwife |
| Bella| P1         | 3 months                             | Private hospital classes |
| Claire| P2        | 2 1/2 years 3 weeks                  | 1. Public hospital classes (5 or 6)  
|      |            |                                      | 2. Public hospital midwife (each visit) |
| Dee  | P1         | 9 months                             | 2-day intensive classes over the weekend |
| Ella | P2         | 2 years 3 months                     | 1. 1 full day and separate evening lactation class  
|      |            |                                      | 2. Public hospital midwife |
| Fern | P1         | 9 months                             | 1. Private hospital classes  
|      |            |                                      | approximately 7 - 9 classes  
|      |            |                                      | 2. 2-day intensive classes over the weekend |
| Gina | P1         | 7 months                             | Group ANE including care (8 classes including 1 PN class) |
| Hannah| P2       | 2 ¼ years 3 months                   | 1. 1-day intensive  
|      |            |                                      | 2. Group ANE including care with second baby (8 evening classes including 1 PN class) |

**Amy**

Amy was a mother to three children and had attended a variety of antenatal classes. With her first baby, she attended Calmbirth classes and separate lactation classes with the Australian Breastfeeding Association (ABA). Prior to having her second baby she attended a doula course run by an obstetrician, Michel Odent, in the UK and commented:
“As for antenatal education. We did with my first baby; we did a Calmbirth course. Also with that pregnancy I did, antenatally, I did a breastfeeding course, a one-day course with the ABA ..... with my second baby I went and did a doula course with Michel Odent.”

With her third baby Amy had a private midwife and she commented:

“Although one of the things that [my midwife] really helped me to get a grasp on was that, I guess, was that I was normal and that therefore anything I experienced was normal and not to be feared, so I didn’t have to fear my own fear. I could be scared and that would be okay and I didn’t need to change anything about who I was or what I was experiencing.”

With her last baby she had an independent midwife who visited her at home and provided support and education prior to her homebirth. Amy particularly enjoyed watching videos and linking with friends on Facebook and other internet groups and sites. Amy recommended that all women should attend a lactation class because she found it especially beneficial following the birth of her first baby.

**Bella**

Bella was a first-time mother who had attended antenatal classes run through the private hospital where she gave birth. Doctors advised Bella to have her baby by caesarean section because it was breech presentation. Classes consisted of what she described as three regular classes which were very much like a lecture where the antenatal educator stood at the front of the class and talked through PowerPoint slides. This was followed by one active birth class which was an inclusive class and included demonstrations around using a fit ball and TENS machine and remarked:

“There were three classes. The first one was just for mothers. It was aimed at around the 14-week stage, so to make sure you’re eating the right foods and - pretty much mothers’ wellbeing during pregnancy. Then there was the second one, which fathers could come to, which was all about planning for delivery and - it was more about planning for it. Then the third one - which happened at about 32 weeks I think it was, or 34 weeks for us - that was about active birth, about how you’re going to get that baby out.”
Even though she mentioned to her antenatal educator that she was having a caesarean, this method of birth was not expanded on during the antenatal classes, and Bella stated that there was a huge emphasis on normal birth.

Claire

Claire is a mother to two children and attended different antenatal educational sessions with each of her pregnancies. With her first pregnancy, she attended classes run through the health care facility in which she was birthing; these consisted of six evening sessions run by one of her team midwifery members. In-between pregnancies she moved to a different health care district. With her second pregnancy, she visited her local health care facility for care and education:

“I’d have to say X was better because - well, for me I felt anyway, because I had the same midwife over and over again. So here I had - and I started late, because I was doing so much home birth research and thought I was going to home birth, I didn’t start my midwifery program until 20, 22 weeks. So I’d been to my GP, I’d started shared care but I found, I think I probably had five or six appointments. I’d have to check that and it was a different midwife each appointment and then when I went to the birth it was different again, whereas in X I had the same midwife.”

She found it difficult seeing a different midwife at each visit and was given conflicting information and found there was a lack of information about postnatal support and there was no advocacy for child health services. While she would have liked a natural homebirth with continuity of care she could not afford the expense of employing a midwife. She did enjoy watching many videos, connecting with women on Facebook and looking at information linked to apps on her phone.

Dee

Dee was interviewed by phone, and she reported that she planned to birth her first baby at home with an independent midwife, however she transferred into the local health care facility. Apart from all the antenatal education Dee received from her independent midwife she also attended private antenatal education sessions with a doula, which consisted of two full days of education over one weekend she stated:
“I did do a course actually way back in December called X. It was a private course just recommended to me by my sister.”

She said this was useful in getting to socialise and know the other participants who all lived within the area. There were 13 couples at her class, facilitated in a comfortable circle by an experienced doula. Key things that Dee felt she learnt included how to navigate the health care facility and to stand up for herself by questioning those who believed they were in authority. She particularly appreciated the additional postnatal support from her independent midwife.

**Ella**

Ella attended different models of antenatal education during her two pregnancies. With her first baby she attended an intensive full day class with her partner as well as a lactation class as she commented:

“We were doing midwife care up at the hospital so, yeah, it was just arranged through, yep..., I went just wanting to learn more about labour was going to be like, just with my different options for child birth with the full-day one. Then with breastfeeding I had no idea, so I was just going to learn as much as I could... and what we were getting into.”

The class was set up in rows in a lecture style; she did not get to know any of the participants. All she remembered from these classes was how to get her baby home safely. With her second pregnancy she attended individual sessions with a variety of midwives that combined care and education.

**Fern**

I interviewed Fern by phone due to convenience and distance. Fern had her baby under obstetric care in a mixed private and public hospital. She initially attended the antenatal classes run by the health care facility of which there were approximately seven classes for 12 couples. She described these as very basic:

“It was run by a midwife from the hospital and it started out with a very basic introduction about conception which I thought really interesting considering we were all pregnant by then.”
Fern also attended a weekend intensive class run by an experienced doula:

“We also did some private…I guess you’d call it a workshop. It was like a Saturday, Sunday intensive sort of course. That was more of a private thing that we sought out and paid for.”

These classes were run in the local library with nine participants. Here she linked in with a group of women with whom she was still socialising after the birth.

**Gina**

Gina, a first-time parent, had a normal birth at a public health care facility. She attended eight evening classes, seven in the antenatal period and one as a postnatal reunion. She mentioned:

“I think there was like eight or 10 of the classes. I think it started off as a monthly thing then became a fortnightly thing as I got closer to due date. I guess it was information prenatal care as well, because we did all our check-ups and things as well, which was convenient. So you’re getting information doing one thing and you don’t have to fuss with a lot of other things.”

Her partner attended one of the classes with her, which was specifically aimed at birth. There were eight regular participants and occasionally the partners would come as well. She felt that there was not enough postnatal information provided during her classes such as nail trimming, co-parenting or co-sleeping and infant care. She felt that the health care facility policies were not explained fully with regards to waterbirth and felt pressured to attend the classes by the health care facility despite them being quite some distance from where she lived. Overall, she really enjoyed the classes and the socialising.

**Hannah**

Hannah has had two pregnancies and attended antenatal classes with each pregnancy. For her first pregnancy she attended an intensive one-day class with 10 – 12 couples as well as an afternoon lactation class. She had no social support after the birth of her first baby and felt very isolated for the first 10 weeks until she joined a mothers group. She noted:

“So with (my son) - we went just to one Saturday class, down at the Child Health Clinic in (X town) - yeah, it was a full day. Me and my partner both went. We sort of
went, oh, lots of information, wonder how much of that we’ll remember? That was it, because I used to go there every month or however often the midwife check was. But then, with (my other son), I went to the (X) one, which...combined the midwife visit as well. I think that was much better, really.”

With her more recent pregnancy she attended group antenatal care combined with classes, which consisted of eight evening classes, seven in the antenatal period and one as a postnatal reunion. She really liked the social support and is still in touch with many of the women from this group.

Summary

This chapter introduced the two groups of study participants: the antenatal care educators and the consumers of antenatal care. These snapshots were provided to share the training and experience of the antenatal educators and the models of antenatal education experienced by women who attended. Only seven of the ten antenatal educators had formal training in antenatal education, while the other three had observed classes run by midwives. The seven who attended formal education felt well prepared for the role, attended professional development, and were engaged with the profession. In particular, the two doulas had attended several courses and were experienced antenatal educators. The combination of education and experience appeared to increase the educators’ confidence and adaptability when accommodating class participants’ needs. Half of the consumers attended either a postnatal reunion or met up with others from their antenatal classes after they had birthed. They found this very rewarding, especially the networking and social support from others going through the same experience. Chapter 5 describes the findings from this study in the context of the five themes and nine subthemes that were generated from the analysis.
Chapter 5: Findings

The previous chapter introduced the reader to the two groups of study participants. The narratives outlined the training and experience of the antenatal educators and the models of antenatal education that the class participants attended. This chapter presents the findings that respond to the research questions, namely:

- What key factors influence pedagogy and practice of antenatal education in a range of contexts?
- To what extent does current antenatal education provide meaningful and effective learning experiences from the perspectives of both the educators and the consumers?

The findings are presented as five core themes of ‘balancing provider influences with participant expectations’, ‘accommodating participants’ learning styles and preferences’, ‘influence of the environment on pedagogy and practice’, ‘empowering participants for decision-making’ and ‘reflections on what is, and is not, meaningful and effective’. These themes and corresponding subthemes are derived from analysis of data provided by both educators and class participants, with illustrative quotes included with each theme. Table 7 below provides a summary of the main themes and subthemes that address the research questions.
### Table 7. Summary of themes and subthemes

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**Theme 1: Balancing provider influences with participant expectations**

This theme identifies findings related to the style and delivery of information to participants in classes, with a focus on the content required to be provided by the health care facility. Two subthemes ‘ensuring adequate information to meet participants’ needs’ and ‘meeting the expectations of managers/supervisors’ are described.

**Ensuring adequate information to meet participants’ needs**

To inform women and their partners about pregnancy, birth and parenting, educators were often focused on ensuring that adequate information was provided to participants. The volume of information needing to be ‘covered’ in classes was a concern for several of the antenatal educators. Often the content was determined by the health facility responsible for the classes, and the educators felt that they were under pressure from managers with the “need to cover” (Clara, educator) specific information. There was also an imperative to verify that information was discussed with participants, as well as recorded in their health care notes. Clara, who practised in an independent practice and for a health facility, described how she attempted to meet the facility’s policy and requirement to meet these requirements when providing education for the facility:
“...it’s a very structured format that you need to cover this, this and this in this session and it’s sort of not much leeway to go off track. You... feel that there is pressure to cover the discussion topics and the information at each point without getting off track and then ...you’ve gotta sign that you’ve passed that information onto the women and then...the next week there’s a ticky box for all the checklist that you’ve got to go through and it’s then filed in their chart to say that you have discussed it and you’ve signed it as the midwives so there is that pressure.” (Clara, educator)

Clara was concerned that this pressure to meet institutional requirements may have been given priority over consumers’ learning needs, which was expressed above in her statement about being reluctant to ‘go off track’. However, in her private practice, she believed that getting to know the participants makes a difference to class participation:

“We are led on down a different path more directed by the women once they get into that sort of comfortable zone after about two weeks. I find that they are then quite comfortable speaking out whereas in the hospital led system a lot of people really didn’t unless there were really quite confident and strong personalities - a lot of women just were really quiet.” (Clara, educator)

For one educator, discussion with new parents was thought to detract from the expectation to cover content, which used too much of the allocated time for the class. Joy appeared conflicted about having parents come back and talk about their experience with the group. When asked about recruiting parents to return with their baby, Joy stated:

“I would really like to do that and I used to when I was running it voluntarily, but I found that it takes up so much time and I only got the two-hour slot. I find that it’s really hard to balance out what I need to do with that. I used to have couples coming in and telling their birth stories when I ran it voluntarily and I think that’s really valuable, I think that’s great, but I haven’t quite yet worked out how to do it where, it could potentially take up a whole half of the night and then that’s really hard when I feel like then I haven’t been able to give them information that I’m trying to be able to give them so yeah, it’s tricky.” (Joy, educator)
Clara and Joy’s comments above suggest not only a predetermined focus in the content but a crowded curriculum to cover, and this was also noted by consumers. Hannah and her partner attended an intensive and rushed one-day class for their first pregnancy. This proved to be a barrier to their learning as it was hurried, content driven and not very meaningful to either of them. Hannah recalled:

“Me and my partner both went. We sort of went, oh, lots of information, wonder how much of that we’ll remember?” (Hannah, participant)

To overcome the issue of information overload one of the participants decided to take notes to help her gather information. Dee attended a one-day class with her partner and found that the class was quite detailed and like Hannah’s class, she perceived it as rushed. Dee and her partner took notes which formed a resource for them to review later to improve their understanding. Dee described how quickly they had to write to keep up with the lecture style transmission of information:

“I think it was all pretty detailed actually. There was a lot of information. I just remember my husband and I, taking turns in... quick, write that down, write that down. She did give us a lot of handouts as well.” (Dee, participant)

Some consumer participants were not given the opportunity to have input regarding the content of classes and its relevance to them. Participants’ preferences for specific topics were often ignored and comments about the inclusion of irrelevant information were also made. For example, Fern who was approximately 28 weeks’ gestation at the time of her first class, commented specifically about the topic of conception:

“In the first hospital class I thought to myself my goodness, if you don’t know how babies are conceived by now you’re really in trouble.” (Fern, participant)

The inclusion of a topic such as conception perhaps indicates the static design of some programs and the lack of input from class participants or response to evaluation.

Breastfeeding was a content topic almost universally covered, and it was identified as an important topic though class evaluations. Both the educators and participants commented on breastfeeding as a topic. Several participants commented on the activities that they had participated in regarding breastfeeding in their classes; the antenatal educators used these
activities to provide content around the topic. Consumers typically identified antenatal class topics as pregnancy, labour positions, birth, parenting and breastfeeding. Two participants identified the topics covered in class as being useful:

“Then it sort of - week by week it just covered a different topic through pregnancy, then breastfeeding, safety at home and a few other topics.” (Fern, participant)

And from another:

“So the first one (course) that we went to together was all about parenting and dad’s involvement and what you do once you get home, and changing nappies and breastfeeding." (Bella, participant)

She went on to explain about how detailed the information was about breastfeeding:

“It covered everything right from when the baby first comes out and how it starts moving towards the breast and things like that, to attachment, and then about your milk development. They went through that colostrum is very important and the importance of feeding the baby. Then what they do on day three, essentially, when your milk comes in, how to manage that as well. Yeah, tips on how to position your baby when feeding and how long I should feed for and how often. So it was quite detailed in that middle one about feeding.” (Bella, participant)

Ella would have liked more information about a topic specific to her situation, tandem breastfeeding:

“I was still breastfeeding (daughter) when I fell pregnant with him and so I was a bit nervous, a bit overwhelmed. Because I was already breastfeeding - still breastfeeding, they just crossed through and said, no, you’re already breastfeeding, you’re right; you don’t need to know any of that stuff. They just ticked off that they’d done it, but they didn’t talk to me about any of it, they just put a line through it. I was a bit disappointed about that, because I was - I especially wanted information, because I was willing to tandem feed, if I needed to.” (Ella, participant)

Ella was assumed to be experienced and so not needing information about how to breastfeed. The reference to the topic being “crossed out” and “ticked off” suggests that this content did not align with content considered necessary to cover.

Educators were also concerned about what they were teaching regarding parenting topics,
particularly breastfeeding, especially if they were expected to defer this information
because the health care facility ran separate breastfeeding classes:

“I don’t go into breastfeeding too much in class because we do have our own
breastfeeding class. If they’re interested, I will talk about breastfeeding and how it
works and hopefully there’s a few light bulbs that go on up there.” (Emma, educator)

Sometimes breastfeeding information was also omitted if it was available to participants as
a written resource provided following birth:

“We have quite a good resource book at the end of each bed in relation to
breastfeeding, so in that parenting part of the antenatal class I do talk about the
importance of skin to skin to start breastfeeding within the first hour, sort of hands-
on hands-off sort of thing, so like breastfeeding is quite reduced in that there is an
awful lot of resources for them on the ward and we do actually at X hospital offer a
breastfeeding class separately.” (Faye, educator)

Antenatal educators commented about the style of teaching which situates them as the
expert, while class participants take a passive or receptive role. For some it was the way
they had been directed to present the information by their managers at the health facility.
This may have been the most economical method of transmitting information. Narratives
about how antenatal educators met the needs of their managers are presented in the
following subtheme, ‘meeting the expectations of managers and supervisors’.

**Meeting the expectations of managers/supervisors**

Working to conform and comply with the institutional policies, antenatal educators faced
difficulties trying to meet the needs of women and were caught between the policies and
procedures of the institution and class participants. At times, the focus on required content
led to the adoption of a didactic approach, which often involved the use of predetermined
PowerPoint presentations. Didactic methods of classroom practice were commented on by
several antenatal educators and class participants, primarily as being a one-way, teacher
focused style rather than responsive to learner needs. Others questioned the approach and
favoured a more facilitative style or learner-centred approach, which aimed to develop
independent learners by developing skills in constructing meaning from previous experiences and new information.

A structured presentation approach was used in practice by half the antenatal educators, most using PowerPoint as the presentation. The PowerPoint slide presentations contained the content or were used to display images, link to websites and to encourage discussion. Some educators developed their own slides for presentation, but a similar number used a generic slide presentation developed by the health facility. Dawn explained the rationale behind the use of generic structured presentations, highlighting the emphasis on information transfer or transmission:

“So that’s a generic PowerPoint presentation that you know has the standard session that everybody can just... it’s a stand-alone session 1, 2, 3, 4 and you can just pick it up and teach it from that session; however, I try not to use it all the time. I mix it up a little bit. However, when you’ve only got four sessions you don’t know the woman, you know, sometimes it’s easier, or the information can get across easier, if you sort of stick a bit more to the didactic approach.” (Dawn, educator)

When asked what she would like to change in her health facility run course Gail stated that she would like to be able to develop and use a PowerPoint for presentations, not to deliver content, but rather, to facilitate discussion and highlight resources:

“I would love to be able to use PowerPoint presentations to be able to go, actually go to the website via PowerPoint and say you know this is what the website has, the Australian Breastfeeding Association, it’s got the... and actually show them where to find information on expressing and storing breastmilk, for example.” (Gail, educator)

Gail’s approach while based on structured presentation of information was more facilitative and learner centred in the way the information would be presented in class.

Dawn used a generic presentation with PowerPoint but identified tools she had at hand to encourage engagement:

“We have to use a PowerPoint presentation there and there are also whiteboards and other interactive hands on stuff.” (Dawn, educator)
However, a combination of time limitations, health facility requirements and not knowing the class participants led Dawn to focus more on the didactic approach to cover the content. Alternatively, Clara who is an independent, a health facility antenatal educator and a group facilitator pointed out that didactic presentations using PowerPoints were not what the women wanted, but they contained the factual content that staff at the health facility wanted the participants to know. Of this “important information” covered, Clara’s comment suggested that the information was probably more important to the health facility than the class participants:

“It’s usually a PowerPoint, it’s a big one and the other parts are in leaflets and handouts for the mums to take home, so it does cover a lot of information and it’s very important information, but it doesn’t then identify what they actually want, so it’s very driven by the hospital system and what they feel is important to the women to know, to prepare them for birth and the postnatal period and breastfeeding.”
(Claras, educator)

As mentioned above, some antenatal educators used a mixture of didactic and facilitative styles when teaching, depending on the expectation of the employer as well as personal preference. Faye conducted antenatal classes in a health care facility and commented that the participants did not like PowerPoint adding to the dilemma she faced when the health facility required her to use this method of teaching rather than the facilitative and learner centred approach she had chosen. How to best present material in classes therefore caused her some conflict. Having recently attended a conference for professional development she appreciated that it was not best practice to use the structured style of a PowerPoint for presentations. However, she also thought she may be “a bit behind the time” by not using this technology during her antenatal class. She discussed her approach to delivering the course content while incorporating the presentation slides:

“Just talk off the cuff, I do know at times when to break to show some DVDs. What I gained from going to the childbirth education which was with (x educator) so it stayed with me, but I do have it on a USB, but they said they don’t like PowerPoint so like that’s how I sort of kept going. I do have it as a prompt... just sort of out of my eye to make sure that I mentally, oh yes! I touched on that and then after feedback is
there anything that they want. I suppose I might still be a bit behind the times in not having a PowerPoint.” (Faye, educator)

Despite her concerns, Faye managed to use both facilitative and didactic styles in her practice. She achieved this by including both a learner centred approach and incorporating the slides into her classes, as requested by the health care facility.

Several of the antenatal educators agreed that a didactic approach was not the best method for teaching:

“It has been great for me to experience both ways, a bit more of a didactic way and then you know more of another sort of whole woman led discussion using a lot more practical or visual demonstrations and things like that, and also I can see the benefit of education more as a group.” (Dawn, educator)

Clara’s comments reflect her knowledge of more facilitative teaching approaches:

“I think that would be really lovely to have a lot more group facilitated antenatal care rather than the structured and didactic, not that it’s not a positive way to pass on information, it depends on the person running it on whether the mums enjoy it, but I think looking at all of the feedback and the research done around the facilitated group care it had the outcomes for the women and their experiences when they have been in that model have been overwhelmingly positive.” (Clara, educator)

This study clearly identified that some educators were using the PowerPoint as a didactic tool for teaching while others used it as a prompt and were able to facilitate a more meaningful discussion with their participants. This accommodated a preferred learning style and pedagogical approach to teaching. The expectation of managers and supervisors to see content delivered, for example by PowerPoint, overlaps with the needs of the participants which are addressed in theme two.

Theme 2: Accommodating participants’ learning styles and preferences

This theme interprets pedagogical approaches and processes used to accommodate participants’ learning styles and preferences in the range of antenatal education contexts
described in the study. Two subthemes ‘Adjusting teaching strategies’ and ‘Recognising alternative sources of information’ are presented.

**Adjusting teaching strategies**

A two-way process of learning was discussed by participants attending antenatal classes and clearly, they became actively engaged in their classes. One example was given by Dee who participated in an activity that involved trying out positions in labour. She commented:

“It's very different to your standard hospital kind of course. Basically, trying out different positions through labour and how the support people can help out with those positions and stuff. It was rather embarrassing but at the same time when everybody's doing it it's not quite so bad.” (Dee, participant)

Similarly, Bella enjoyed the session using the fit ball and appreciated that the physio and midwife both joined in the session and became part of the group:

“So they were saying how the fit ball works and how to use the fit ball and how to sit on a chair when things are starting at home. So, they were involved that way. There were two then as well. There was the midwife and the physio, so they took it in turns. It wasn't more to teach us. They were more interactive and more a part of the group, so they did take turns in sitting with the group and getting into different positions.” (Bella, participant)

Antenatal educators also enjoyed an active approach to teaching. One antenatal educator brought along a belly dancing scarf to illustrate her teaching practice (see Appendix K). She found it particularly useful to help lighten the mood of the class and to overcome her shyness, at the same time as demonstrating what she believed to be ways to improve optimal fetal positioning:

“I suppose to overcome my shyness or whatever I tried to make everyone laugh... I have done belly dancing ...so for different phases like... mal position or optimal foetal positioning just telling them for labouring like slow dance you know show them how...
Using objects for teaching can be fun and provides an educational experience that is quite memorable to assist the class participants when in labour. Another technique used by the educators was touching, which was also appreciated by class participants.

Several of the women in this study explained how they learnt best through touching and having a hands-on approach to learning. Two antenatal educators chose to bring a doll and placenta as their learning object for discussion (see Appendix K). Brooke, an independent midwife, described how she found using this activity particularly helpful for women to touch and visualise “how it all works”. While Clara also used a doll and placenta as both a tactile and visual cue when she engaged participants in a discussion about the placenta and membranes:

“I found this little tool and I thought it actually works quite well with the kind of work that I do anyway because I’m working just mainly one-on-one and with couples, rather than in a big classroom environment. I’ve got a little miniature doll and pelvis and a little placenta with cord and membranes and then a little knitted uterus as well... Having a little placenta and membranes can be a really good visual tool of just how it all works and where the baby sits in there and just gives them a scene that’s tactile and very easy to visualise and to understand that process of how it all works.”

(Clara, educator)

Teaching with objects uses the sense of touch and provides the ability to visualise what is being discussed. The antenatal educators using this object were able to demonstrate how the baby is born and provide additional information about the placenta and membranes. Participants were able to pass the objects around and touch, use and discuss them to clarify understanding. The objects and images used in antenatal classes were used to stimulate further questions and engage participants in their learning. Clara elaborated on the effectiveness of her doll:

“It keeps the mums a bit more focused about they’re actually going to have a beautiful baby and that there are all the discomfort of pregnancy and concerns they might have about their growing babies that we know that they are going to get
something really special in the end and I think the visual of the baby is a real positive. When we are talking about the placenta and the membranes and the amniotic sac and the waters and about managing their third stage this is a great example of what is actually happening inside the uterus.” (Clara, educator)

Claire, a class participant, particularly appreciated having the opportunity to touch and “play with” artefacts used in the classes she attended. Learning became an innovative and enjoyable experience for the individual participants who were able to use the objects. Several women made comments about their perceived learning styles and really appreciated the use of objects/models for demonstrating points that were being made; being able to touch these objects appeared to have added to the learning experience. Claire and Gina both spoke about how they were visual, kinaesthetic or tactile learners:

“So that was good because I’m [a] kinaesthetic and visual learner so that was quite good and they had the models of the hips and the pelvis.” (Claire, participant)

“Everything was hands on, there was tactile things to use.” (Gina, participant)

Claire believed that having the tactile objects was especially important for the men and she made the following observation:

“You could see a lot of the dads, I should say, just finish work, coming out and then zoning out, so it was good for them to break it up and be given something to play with and look at and wake up again.” (Claire, participant)

Many participants commented that they learnt through kinaesthetic means of touching, feeling and experiencing the activity hands-on. Through this method of actively engaging in the activities learners became absorbed in the material which prompted further discussions.

Dawn preferred to use photographic images to illustrate and encourage discussion about childbirth rather than presenting previously prepared information, through the PowerPoint she was required to deliver by the health care facility. Dawn provided an example of the images she used to facilitate discussion with the class (see Appendix K):

“When you’re talking about progress of labour or the stages of labour using the pictures is really great because the woman can see actual women, you know, in the
early parts of labour and the later parts of labour and they can compare. It’s quite hard to sort of tell a woman that without actually seeing a picture of it or when you’ve just got a sort of PowerPoint presentation with words about each stage of labour it’s kinda hard to speak about it.” (Dawn, educator)

This approach encouraged discussion amongst the participants who could relate to and compare the progress of labour through the images she used.

Other educators brought objects to stimulate discussions about labour. One of the learning objects that Helen brought along to the interview was a poster of progress in labour which showed the size of the cervix as it opened. She found it a very useful learning object for providing stimulating conversation with the class participants (see Appendix K):

“...the cervical poster, because it can actually trigger conversation, a lot of conversation. That’s the one I used for the cervical stuff. I mean I draw the uterus on the board, and I actually show what contractions are doing, with the uterus, and how it’s pulling it all up.” (Helen, educator)

This activity was specifically designed to enhance participants’ knowledge about bodily changes during labour.

Faye, Helen and Joy all used posters in their antenatal classes as a trigger for group discussion and described their use in detail. The posters appeared to generate in-depth discussions about many aspects of pregnancy, childbirth and parenting and prompted conversations with the participants about their changing circumstances:

“So I often have the pregnant abdomen to show them the fetus. We have a couple of posters on mechanisms of labour for them and a poster describing the stages of labour. I mean like time, length, contractions, what their count looks like, it’s really quite basic.” (Faye, educator)

Posters were also used in Helen’s class to generate and direct discussion about the changes that occur in breastmilk, during breastfeeding:

“...posters [were] talking about watery looking milk and that’s actually okay. So that watery looking milk at the end, like everyone says my milk’s no good because it looks like water, we’ll talk about it.” (Helen, educator)

Joy explained her poster as a stimulus for discussion:
“I’ve got one poster which is one that’s called I think something like ‘do not disturb, we’re just getting to know each other’. It’s a big photo of a baby skin to skin with its mother and I put that up in the breastfeeding class because that’s what I mainly talk about when I am talking about breastfeeding you know just soon after your baby is born kind of thing, so I talk a lot about skin to skin contact and the benefits of that so that’s the only one that I put up.” (Joy, educator)

It was evident that the learner centred approach and provision of information in a more facilitative style was expected to improve the classes through interaction and sharing of experiences. On the other hand, classes that are too content driven were perceived as rushed, leading antenatal educators who are pressed for time to use a didactic approach, which was not their preference.

Antenatal educators who used a facilitative active learning style enabled the participants to actively contribute in a meaningful way to the class discussion. They felt able to lead the class in discussions about aspects of pregnancy, childbirth or parenting that the participants were interested in, on that day. Participants’ specific concerns were addressed immediately with the support of the group and the facilitator as a guide who worked in partnership with the women. For the participants in this style of class, it was possible for them to observe that others were also experiencing the same sort of issues, at a similar time in their pregnancy journey and this normalised their pregnancy experiences.

Clara described how she facilitated classes. The starting point was educator determined content themes, however she tried to avoid structured presentations, and facilitated discussion, with women by ‘guiding’. She said:

“I found that it [the group] does facilitate discussion. So, there’s themes that are presented at each different session every two weeks and every month across the eight sessions there’s themes to discuss. But there is flexibility in the women guiding that theme and how it might lead to say if a mum has been talking about complications that arise during labour and we talk about caesarean section and another mum might discuss how that impacts on breastfeeding and then that might lead to that discussion about skin to skin. So, it wasn’t just about complications and pain relief and management and then it goes up to the postnatal period so there is
flexibility and the difference is that there isn’t PowerPoint used. A lot of it is just driven by picking up on cues that the women are following, and it really feels like everyone sitting down and having a cup of tea.” (Clara, educator)

This approach of having topical themes but following the flow of the participants’ interests and discussion was experienced by one participant, Hannah, who commented:

“The beginning of every week she’d say [the educator], is there anything anyone wants to talk about in particular? This is what I had planned for today, but if you want to change you can, which was great. Because then someone would say, oh I have been thinking about this or I’m worried about that.” (Hannah, participant)

Emma, a public hospital antenatal educator, adapted what she was supposed to teach; she discussed letting the women lead the conversation. Emma felt that they had “missed the boat” when required to talk about diet in early pregnancy, especially when the women who were attending were in their final trimester. Women at 37 weeks had clearly passed the stage where they would be able to make meaning from learning about diet in early pregnancy especially as it was no longer relevant or useful to them. This could have led to negative feelings if the participant had not followed the recommended guidelines. By encouraging participants to take the lead on the topic of diet they were able to discuss things that were relevant to their stage of pregnancy and what they wanted to know about at a specific point in time so that they were able to make meaning from the information:

“I brushed over some things, which we already know a lot about. For example, diet early on in pregnancy. Women are at 37, 38 weeks, sometimes at classes, but I still discuss diet, but that’s gone. We missed the boat there. I don’t focus the whole half an hour about diet. I try and judge it on what they want to do and let the class lead where it goes.” (Emma, educator)

Antenatal educators in this study believed it was necessary to trust that participants would let them know what they wanted to learn about in the classes. Joy actively involved the participants in classes that she held and encouraged them to ask questions of the health care providers where they had booked to birth:
“Well, one of the key things that I emphasise in my classes is the - women actually being actively involved in their care, so that they actually ask questions and engage with health care providers about what is being offered to them and how their health is progressing and all of those things.” (Joy, educator)

Antenatal educators in this study play a role in the care and education of expectant women and their support partners. The ability to use information to respond, adapt and control life events and having the knowledge and confidence to do so is an important skill to develop. In her practice as a group facilitator Clara is very much guided by what the women specifically want and encourages sharing of previous experiences and is responsive to the groups’ needs:

“...So I use a lot of hands-on equipment, so we always have a box of tricks and today for example we were doing breastfeeding so we had a box of boobs and some babies and talked about positioning and all of the lovely things and patterns of feeding and that lead on down to tracks of mummies sharing their previous experiences so it definitely feels a lot more flexible...” (Clara, educator)

In her private practice as an Independent midwife, Clara facilitates the provision of information so that women can make their own decisions based on current evidence:

“It’s really refreshing to be able to have a mum that’s really empowered and can search for themselves and make their own decisions......for example say they are not sure if they want physiological or active management for their third stage I just give them the information around the evidence and the management and outcomes and then let them decide.” (Clara, educator)

This participant led approach incorporated the active learning principles which Clara skilfully facilitated. In this study women also sourced information for themselves narratives about how and what they sourced are presented in the following subtheme, ‘recognising alternative sources of information’.

**Recognising alternative sources of information**

This subtheme identifies the sources from which participants sought information about birth and parenting. During pregnancy women acquire and are provided with a large
amount of information aimed at preparing them for labour, birth and parenting. Women do not rely solely on classes for this information as many come to classes prepared, having gathered information for themselves. Most study participants had sourced information prior to attending antenatal classes and continued to do so throughout their pregnancy. Resources found on the internet such as pregnancy related websites and social media were important, as was contact with other women in both real and virtual spaces. Together, these provided continuing information and support.

Most antenatal educators did not include references to other sources of information accessed by those attending the classes; however, they did mention sources of information that they accessed to show to class participants. The women were forthcoming in identifying how they gathered information to become well informed about issues that were of interest to them, including information about pregnancy, childbirth and parenting. Many chose to take ownership of their learning by accessing available media, such as reading books, researching on the internet and watching YouTube clips and DVD/videos about a variety of different topics. This information and resources were independent of, and complementary to, antenatal education class information or used to confirm class information. Bella, for example, mentioned that she was glad that the health facility was providing the same information as she was reading at home, but if she did not have that information at home, she would have liked some material to take home with her to read:

“I guess it all married with what I was reading at home. Maybe if you didn't have the literature at home to back it up, what they were saying, then maybe some take home information might have been good for others. For me it was fine because it went along with what I was reading at home.” (Bella, participant)

Participants identified various books that were useful to them. Claire, Gina and Fern all read Kaz Cooke’s book, “Up the Duff” (Cooke 2009), which they found useful:

“I just read a few books, Up the Duff by Kaz Cooke.” (Claire, participant)

and

“Up The Duff, that's it, I'm trying to think what's the most Australian way to say that you're pregnant. You've got a bun in the oven, no you're up the duff, yeah I read that one.” (Gina, participant)
Participants revealed the opportunities and the challenges for knowledge about childbirth and parenting, while living in an information rich environment. They were cautious about information available on the internet. Gina and Fern, both first time mothers, preferred to read books about birth and parenting written for parents, rather than surfing the internet for information. They had concerns that there was just too much information on the internet, which they found overwhelming:

“I think also there is so much information out there on the internet and perhaps with the first baby you don't know what you're looking for so it's good to go to classes.” (Fern, participant)

and

“I'd prefer to read a book about things as opposed to just going on line and trying to find information. Because there's too much information online, to me it's overwhelming. Give me a book that I can peruse of my own free will in bed, wherever.” (Gina, participant)

Fern was quite clear about her reason for going to the class as well as using the internet as a source, while Gina liked the freedom to pick up a book in her own time.

Amy remarked that she “likes to have loads of information” and is particularly motivated and active in educating herself:

“She (her sister) was a doula and so she gave me loads of videos and things like that that I could watch and look at, so I had Sue Cox's breastfeeding, crawl videos and things like that, and I was very active in my own education.” (Amy, participant)

A mother of three, she found that the internet and support groups on the internet were very helpful if she had specific questions about anything:

“So, I get a lot of incidental education, just the articles that pop up and I see, so I will read and go, oh, I didn’t have any idea about that, that’s really interesting. Then if I need support or information, I'll just ask other women in that forum in those kinds of places where it’s quite - where people have a specific interest in that stuff.” (Amy, participant)
The internet has provided unprecedented access to audio visual material including birth videos. Ella commented on the usefulness of birth videos and mentioned her ongoing need for more information in relating to the postnatal period:

“I watched loads of birth videos. YouTube. I watched loads of those and then after I had her I had done reading on attachment parenting and looked up websites like that. But before it was, yeah, probably just birth videos and whatnot, yeah.” (Ella, participant)

Claire also watched videos and found those that were shown in the class very useful. As videos and YouTube clips are free and readily available on the internet, she was inspired to seek out and gather more to watch outside of the antenatal classes:

“I found the classes really good and even the videos. I don’t know we didn’t think about just googling videos ourselves the first-time round but once we’d seen one or two we came home, and we did. We...watched more live births and, again, just normalising the process. I think it’s so - I hate the use the word again - institutionalised. It’s still a medical drama whereas it should just be this nice calm relaxing - you know, we’re mammals, let’s just birth in the dark and let it happen.” (Claire, participant)

Hoping to normalise the birthing process Claire commented about her reason for watching the videos:

“The process of birth I think, because even though you read about it in books and people tell you about it, I think to see it in a video and to see it in diagrams and through hips and out, twisting up and out just makes a lot more sense.” (Claire, participant)

Claire also mentioned a website that she found useful especially when she was in pain during early labour at home. This ‘just-in-time’ form of information was freely available and easily accessible:

“Spinning Baby (a website) seemed to help when I thought I was getting - is it prodromal labour? My back and hips were really severe for a few days really early and I tried one of their positions and that seemed to fix him right up. Whether it was that or he just turned himself, who knows?” (Claire, participant)
Claire used a variety of ‘just-in-time’ resources websites and web applications, CDs and soundtracks appropriate for her needs:

“A pregnancy app which - I can’t remember which one it was, Baby Centre I think it was.” (Claire, participant)

“The HypnoBirthing [approach] was fantastic for me, the second-time round. It just makes birthing a whole lot less painful, a whole lot more relaxing, a lot more calm for both of us. It was just a completely different labour. Whether again, second time round it could have just been that too but...I read the book basically and the website, so I read the book and just listened to the CDs and downloaded a few of their sound tracks and just listened to those. I tried to but fell asleep every time so…” (Claire, participant)

In summary, many women in this study attended classes well prepared with many of their own life experiences gained from what is now an information rich environment. In many cases women provided examples of information they had researched online and gathered through reading and discussions with friends or online acquaintances. Importantly, they were well prepared, accessing information from a wide range of sources to meet individual needs.

The next theme considers how the antenatal educators attended to the environment to create a positive experience for class participants while they were sourcing information from the class.

**Theme 3: Influence of the environment on pedagogy and practice**

This theme interprets the approaches and practices used to teach antenatal classes which were influenced by the various environments in which classes were undertaken. Some antenatal educators provided classes in the woman’s home while others were in the local school library, the local tavern, a community based multipurpose room, or a space allocated in the health facility. In most instances, antenatal educators attempted to create a positive learning environment enabling class participants to feel comfortable, safe and engaged.
Educators identified the layout of the room, seating arrangements and restrictions placed on the environment by those in charge of the location. In addition, and intersecting with the physical characteristics of the education environment, was the time allocated and the number of class participants. Two subthemes organise the presentation of the findings in this theme, ‘organisation of the learning space’ and ‘influence of class size and number of participants’.

Organisation of the learning space

The design, organisational factors and size of the class were all influential in the decisions antenatal educators made when planning their classes. The physical environment was important to both the class participants and the educators and each of them had their own ideas regarding how the environment should be set up. Anna and Dawn, who both worked in health facility environments, organised their own classes each week and chose to arrange the class so that all participants were on an equal level and facing each other:

“Classes are in a multipurpose room and we set it up when we do the group antenatal care, we have everyone in a circle... it’s important to have that circle because it gives women that bond straight away and everyone can see each other, no one is in a powerful position.” (Anna, educator)

and

“The room is set up in the waiting area of the hospital antenatal clinic, so it’s a reasonably big space and I do try and set the room up and pretty much horseshoe shaped circle almost going into a circle depending on what we are doing.” (Dawn, educator)

The layout of the chairs has the potential to influence how the class is taught; being on the same level and facing each other helps participants to interact. Some antenatal educators stood at the front due to limited availability of space. Participants commented on the contrast between the didactic or teacher-centred approach created by the physical environment. However, this arrangement was a fixed feature of the environment in some classes. Emma who was a health facility antenatal educator commented:

“They don’t like us to change the room around, so our room is very much everyone sitting down in rows and I’m standing at the front. I often sit on a chair though to try
and stay at their level. There have been times when I’ve rearranged the room into a circle when it’s been a smaller group because my room’s not that big.” (Emma, educator)

These comments by Emma illustrate the expectation and constraints of the health facility, and efforts of antenatal educators to work around the health facility requirements. Both Faye and Emma, who were health facility antenatal educators, had concerns with chairs being arranged in rows for classes. Faye went to the extent of rearranging the room in a semicircle against the request of staff in the health facility:

“They have to come up to the third floor which is the education floor. It’s quite a large room usually, the chairs are always in rows cos that’s how the Education Centre want them set out, so we have to rearrange them to being like a semicircle, I usually get them to sit like that.” (Faye, educator)

While some educators attempted to rearrange the physical space, others did not understand the relationships between layout facilitation and teaching approach. For example, Clara used a circle layout for the hospital facilitated classes, but she felt the need to stand at the front and commented that this put her on a different level to the participants. Clara used a very didactic and one-way teacher centred style in giving health information at these classes:

“The majority of it was didactic teaching where I was at the front standing up, the mums and dads were sitting in a sort of a circular motion, but I was always at a different level to them and talking about the main phases throughout the antenatal period.” (Clara, educator)

Clara also provided antenatal education in the client’s home environment, and her comments demonstrated her flexibility and adaptability with a focus more on support than information transmission:

“We’re going to the people’s homes and meeting their families and I think it brings another level of intimacy about getting to know women and what they want and understanding their.... how they come to make decisions during the antenatal period but about their future and how they’re going to [be] parents it’s really lovely and it’s really different see and I’m only just starting to be able to settle with not wanting to
pass on information which I feel is important because it might not be important for the mum.” (Clara, educator)

Brooke also commented on the difference of support and education to clients in the home:

“Another difference would be it’s just talking about the preparation of that birth space and things that they might have at home to support them through that process.” (Brooke, educator)

Class participants also reflected on the class environment, highlighting the influence of layout and seating arrangements, location and comfort. Bella attended classes that were run by several antenatal educators. She clearly highlights the difference that the seating arrangements made:

“The first one we were put like theatre style, so all facing the front, with your couples. I think there would have been about six couples maybe in the room. Then, on the last one, we were actually in a circle, which was nicer I thought because we were more - we’d built a relationship with each other and things like that, so it was more talking to the group rather than just listening to the presenter, which was good.” (Bella, participant)

The theatre like style prohibited much interaction amongst the participants and placed the antenatal educator clearly at the front and at a different level to those participating, potentially establishing a power dynamic with the class participants as suggested by Gina:

“Because I think sometimes you need to have the attention of people......obviously if someone’s standing up it’s very direct, so they’re more like talking down to you.” (Gina, participant)

Educators also raised the issue of comfort for the women. Helen used beanbags to bring the participants closer together in a circle shape when there was a large class and provided chairs and fit balls for the women to sit on. Clearly, most educators and those attending the sessions preferred the circle shape. Bella believed that the circle shape encouraged the participants to have a more open discussion rather than just listening to the facilitator.

“The environment was lovely. There were fit balls that you could sit on; especially in that last one, when people were getting on. There were people that were only a
couple of weeks off delivering really. Yeah, fit balls and cushions. You were made to feel very comfortable.” (Bella, participant)

The environment clearly made an impact on the comfort of the pregnant women and how they felt about the classes. It is important for participants to be able to move and change position and feel welcomed into a learner centred group where discussion was encouraged. Fern had also attended private classes conducted in a library and her comments highlight the different influence of the seating arrangement as more conducive to learning:

“The private classes were held at a library room, so it wasn’t specific to this lady’s classes. She just hired the space, but we actually sat around in a circle and there were beanbags, cushions and things in the centre area. If you were a little bit uncomfortable sitting in a seat for too long you could sit in different positions which was quite handy if you were in advanced stage of pregnancy…” (Fern, participant)

Participants in this study preferred the inclusivity of a learner centred approach, however that was not always possible due to the size of the class environment and number of participants.

Influence of class size and number of participants

This subtheme identifies findings related to the influence of the class size, and number of participants on their teaching practice. The educators explained that large class sizes and the didactic mode of teaching could inhibit learning and reduce the interactive nature of the group. Joy, a doula and private practice antenatal educator, commented that in her classes there were “just too many people”. Joy ran her classes as a business and presented them in the local library. She needed to consider the economic influence on the class size and required many participants to be financially viable, so having smaller class numbers was not an option. The number of participants influenced how Joy presented the information in her antenatal class.

The large number of participants in Joy’s class also limited how the class could be set out within a relatively limited teaching space. She chose to operate by delivering the classes in a
lecture style to help her to manage the audience; it was teacher centred and didactic in its approach. When she facilitated smaller classes, she was able to encourage more interaction amongst the participants and facilitate discussion to improve knowledge and understanding:

“So that’s more like a lecture style class, whereas other classes I try to get them up and doing things…. So they sort of spread out in the room and sort of do it like that. I tend to try and mix up a bit of sitting down with moving around, but I can’t do a yoga style class for the whole night kind of thing because there’s just too many people.”

(Joy, educator)

In contrast, in the smaller intensive classes she facilitated up in a circle, which she described as being casual with more talking and discussion that was learner centred. This is a facilitative style of teaching, indicating that number of the class participants and the size of the environment perhaps dictates the content and information the class participants engage with and share:

“I also run an intensive for couples that have had babies before, so I do a three-hour class, which is coming back once you’ve had your baby and you just want something together sort of to get ready for your next baby. So that one tends to be… we just sit, because that one’s a smaller group, we usually have about 10 or 12 people in that so then we sit in a group and have a circle and sort of tend to be it’s a bit casual bit more talking.” (Joy, educator)

Like Dawn, Helen set up the class in either a single horseshoe shape or two horseshoe rows depending upon the size of the class. She commented:

“Yes we are, standing up the front, we’ve got a whiteboard and a DVD and TV, and often it’s set up in that horseshoe shape in here. Sometimes, if it’s a full, full class, we’ll do two horseshoes, just to bring them in that little bit closer. We’ve got some beanbags; they don’t always utilise those. You’ll find that the ones that do the seven-week course, become more comfortable with the use of beanbags and those sorts of things, but you often find the weekend class will just sit there. We’ve also got some birth balls, that some of them utilise.” (Helen, educator)

Irene facilitated male partner classes at a local pub. The number of participants dictated how the seating was arranged; Irene identified eight to 10 as the ideal. Along with a lecture
style presentation the men also had an informal meal together where the class discussion continued. As a business proposition, small classes were good for the participants’ engagement but not viable. Joy outlined her perceptions of the advantages of classes with smaller numbers:

“The nights where we have the really little numbers, where it’s not viable for me to be doing it, are the best. If we have a group of eight or something like that, eight to 10, it’s perfect, because what I do is actually - I set up a table that we just sit around a big table and our meals are served and we stay in the one place. It’s like going out to dinner with friends. So, the conversation of the guy sitting opposite and the talking is really enhanced. Once the numbers get up, it’s a bit more to get through. It’s a bit more like a formal presentation as such. So that’s - it changes depending on my numbers, how I do it, yeah.” (Irene, educator)

Gail conducted classes in her health care facility. She discussed the environment and class sizes and how she attempted to facilitate the classes:

“Unfortunately, we got moved out of the room that we used to be in so it’s not an overly large room. I used to sort of set them up in rows but then, because I didn’t think I would be able to fit them in, but I try and do a bit of a sort of semicircle. I do have some beanbags in the room. So if people do want to sit on a beanbag or something they can. They never do in the first class but sometimes as the weeks progress you might get often one of the mums will sit in a beanbag in front of her partner, once someone does it then a few others feel more comfortable to do it, so I set the chairs up in a semicircle. I’m up the front. I try not to stand the whole-time sort of be like a teacher, so I do sit down a bit.” (Gail, educator)

Gail was aware of her influence over the participants but seemingly constrained by the environment she had been given by the health facility and the number of participants who attended the class. By using the semicircle for seating, she was helping to promote an environment that encouraged interaction and the learner centred approach of group discussion.

Comments from antenatal educators indicate how class size can influence the behaviours and attitudes of participants. Large classes can have a negative impact on the participants’
experiences, with participants feeling intimidated and teachers feel they are not able to reach everyone adequately. As a result, they may be less likely to have their learning needs met. Small classes lend themselves to pedagogical activities that improve learning, such as hands-on activities, discussion and interaction.

**Theme 4: Empowering participants for decision-making**

Empowerment leads to developing confidence, which is an ultimate goal of education and skills development. Many of the participants spoke about developing the confidence for informed decision making. They considered antenatal educators as gatekeepers of information, however some participants identified gaps in information that, if addressed, would have better enabled informed decisions. For example, Claire, as a second-time mother who received antenatal education from a midwife, appeared very confident in her knowledge and ability to birth and was empowered further by her personal reading and research regarding birth and parenting. While she did not attend specific classes, she discussed information with a midwife during her antenatal care visits. Therefore, antenatal education provided by her midwife and from her own readings was adequate for her. When asked why she chose not to go to group held classes for her second baby she responded:

> "You know you can do it. I think, for me personally, well I can do that. I felt refresher-wise I was happy to do that via my books and whatnot and I was looking for a less institutionalised way of birthing as such. So, for me I was trying to avoid words such as pain and contractions and drugs and whatnot." (Claire, participant)

It is clear that Claire perceived that it was her individual responsibility to inform and empower herself as comprehensively as possible regarding her care and felt confident to trust the birthing process.

Several other women in this study felt empowered and confident with their personal decision making. This was apparent in their ability to say no to health facility staff based on evidence they had sourced during their pregnancy, which sometimes went against the facility’s specific policies. Being able to say no was important to Gina. With the support and information provided by her antenatal educator, Gina had developed a birth plan which
included the request not to have pain relief and had written explicit instructions regarding this. However, having just given birth Gina was offered nitrous gas for pain relief while she was being sutured. She did not hesitate to say no to her health care provider when she was offered nitrous gas for pain relief:

“I did not use gas at all. I didn’t even use gas when they stitched me up. I was like nah, I’m doing this, I’ve just given birth I can do this.” (Gina, participant)

Empowerment was promoted in many classes using a variety of practice models. For her second birth Amy relied on her own strength. She felt empowered and was confident that she could birth having interpreted the information she had been provided in her antenatal classes about undisturbed birth. She found the classes “profoundly helpful” and used her intuition to guide her during the birth of her second baby. By doing things to make her feel good about herself she was empowered to birth naturally following a caesarean with her first baby. Her intuition guided her as she was left undisturbed during the birth. Here she discusses what she learnt in one of her antenatal classes:

“What he really taught was about undisturbed birth and what happened in birth if you didn’t disturb it, so if you just completely left it alone, you know, how that changes things and even how a lot of the things that we try to teach women about birth disturbs birth, because we try to teach them how to cope with the realities of it. Women know how to breathe; they know how to do all this stuff. If you tell them that they just need to rely on their own strength...Yes, that was really, really profoundly helpful and it - yes. It changed everything for our second birth. Our second pregnancy and - yes I just did things that made me feel good. That was one of the things that I took away from his teachings was to do things that made me feel good as a mother and as a woman and if I did those things then my intuition would guide me.” (Amy, participant)

In their attempts to normalise birth, many educators believed that their classes built confidence in the women’s knowledge about normal physiological birth, which reflected in their teaching practices and their personal philosophy for birth. Brooke commented:
“I guess we generally come together with a shared philosophy that birth is a normal physiological process…. So, I guess kind of trying to reinforce that, yeah this is something that women are able to do.” (Brooke, educator)

Like Brooke, Dawn also emphasised the normality of birth in her classes which she felt improved the participants’ confidence:

“The classes are very much focussed on normal birth, and we very much do emphasise that women can do it and give them confidence and things, so I think by doing the classes, generally, people do believe they do increase their confidence.” (Dawn, educator)

Brooke explained that she felt the women came to her classes with a variety of experiences and many had only seen birth as the media portrayed it on television in a dramatic and sensationalised way. Therefore, she used a range of videos of natural birth to help improve women’s understanding of the normal process and install confidence in their ability to birth:

“For first time mothers that maybe don’t – have never seen a birth or have maybe quite skewed perceptions of what birth is like from the media and movies and things like that. Sometimes just seeing other ways that women are able to birth can be really positive for them.” (Brooke, educator)

In supporting empowerment Gail also believed that a good antenatal educator could really influence participants’ levels of confidence in their ability to birth which enables them to overcome fear:

“If you’ve got a good educator that believes in birth and can really believe in normal physiological birth and provide education to influence and build that confidence in their ability and their body’s ability to be able to do that…. Also, in my experience, I’ve found there’s a lot of fear related to pain of childbirth. I think the antenatal education can help with that by - I know the classes I’ve taught I talk about the purpose of pain. That pain is a good thing and pain helps women get to their safe place to birth and that pain makes women assertive and the positivity of pain which I think can help build confidence.” (Gail, educator)

By providing education surrounding normal physiological birth Gail was giving information that enabled the participants to make personally informed decisions that were relevant to them and their individual circumstances. In normalising pain Gail hoped to relieve fear and build confidence in the women who attended her classes. In the process of providing
learner-centred education those running the classes provided the women with the opportunity to contextualise and process information they had been provided, therefore, they were able to make informed choices and decisions about their care. This ensured that they felt comfortable in making decisions based on information about the advantages and disadvantages of following a particular path of care and required that the participant understood the information they had been given and the implications involved.

Informed choice was also described as important by one antenatal educator, who provided information not only about what care the health facility provided, but also alternative, holistic care. One example she gives women regards choices that are available for breech birth:

“If the baby’s ...... is maybe in breech, they’re using the chiropractic Webster technique to help turn the baby. So, there’s a huge focus on all the tools that are a possibility in the health of a women, versus the medical model which is pretty much only what the hospital will do in this scenario..... they don’t tend to promote the other more holistic options.” (Irene, educator)

Irene, a doula who also provided classes specifically for men through the local pub and to individual clients in their own homes, aimed to improve knowledge surrounding risks. Her intention was to generate discussions that would convey the importance of dealing with fear to promote informed decision-making for a safe birth:

“So, when I have my first consult with clients, I have a suitcase I would take as a doula, with all this stuff in it and say, look, birth is incredible, but 85 percent talk about birth in the realm of normal. Fifteen percent need assistance, even though we know in Australia, 85 percent are going to have interventions. So, there’s great facilities in our country if we need them. But birth predominantly is very simple and it’s about fear, releasing fear, and feeling safe and being nurtured, and it’s all these little tiny things on their own, which look so ridiculously insignificant, but if they make you feel safe, babies come. Babies really do come.” (Irene, educator)

By providing a balance of information and addressing her class participants’ issues through discussion surrounding risk, participants received the information they needed to improve their knowledge and to make an informed choice. The intervention rate in Australia is high and, in some classes, participants are being led to believe that they will have a normal birth.
This is very confusing, particularly for those who birth in the private health sector where the intervention rates are much higher than the public sector.

Three of the antenatal educators used a partnership, rather than an expert approach to encourage class participants to feel empowered to take ownership of the class and share their stories and experiences with each other. Brooke described her partnership approach with the women as not wanting to be considered the expert in charge of classes:

“I think you know that one of the other values that I spoke about this a little bit earlier is really wanting to get away from I’m the person that is ‘the expert’ and I’m going to give all this knowledge to you, really you. I see it as [a] kind of learning partnership between the woman and myself and often partners are there as well or mothers or support people that often it tends to be a fairly social event a lot of our session. So just a whole lot of discussion-based learning as well, like sharing their stories and experiences.” (Brooke, educator)

Her approach to facilitating partnership was to use discussion-based learning and to foster participants to share stories of their experiences. Clara also recognised that all participants bring experience and knowledge and as an educator, she needs to trust the process of women led learning. She said:

“I thought that women, even if it’s for their first-time mummies, have so much to offer and so much to teach us as midwives as well. I think midwives learn so much from women that previously I hadn’t felt like that, so it’s been really really nice to be able to be confident enough just to trust that women will let you know what they need to know...” (Clara, educator)

While women in this study attended antenatal classes to access information, they indicated that the opportunity to contextualise and process the information they had been given was sometimes limited. When the participants were given the chance to take the lead in their learning this enabled them to set the agenda and become engaged in the activities.

Gail explained the empowering effect of using a learner-centred, facilitative method of teaching where the participants were involved in their learning. She held one activity that was a session where new parents brought along their baby to class:
“I forgot to mention one of the other parenting classes. I think it was the week six, I usually try and get a couple of couples from a previous series of mine to come back with their baby and actually talk about life as a new parent. Quite often people want to hear their birth story as well and it’s an opportunity for them to share their labour and birth story, but it’s also really good because quite often the mums will be talking about the labour and birth story and the dads are the ones that are holding the baby or caring for the baby.” (Gail, educator)

This approach facilitated the opportunity for parents to meet others who had recently birthed, to share the experience and to facilitate the development of understanding about life with a new baby, during the transition to parenthood. The support partner of all consumer participants in this study attended at least one class. Narratives about how they were involved in antenatal classes are presented in the following subtheme, ‘being inclusive of partners and significant others’.

**Being inclusive of partners and significant others**

This subtheme presents the findings that demonstrate how antenatal educators included and involved partners in their classes. Fern enrolled in privately run weekend intensive classes and wanted her partner to attend so that he would understand what was happening and could help her during labour as a couple. This was particularly meaningful as the classes provided helpful instructions on how her partner could assist whilst she was in labour and they would have some knowledge about what to expect:

“I actually enrolled in the private one, my husband came as well and I was keen for him to feel a little bit more comfortable during the labour and have a bit more of an idea about what was going on and how he could help me.” (Fern, participant)

Fern appreciated that the antenatal educator was skilled in facilitating classes that included partners.

Another method of involving partners described by consumer participants was using role play and simulation to demonstrate on each other where specific pressure points were located. This was considered particularly helpful in planning pain relief. Claire commented
that having her partner know where to locate and apply acupressure while she was in labour would likely reduce the need for alternative forms of pain relief:

“Demonstration would be fantastic, just to get the husbands there - these are the two points on the back and these are the ones on the wrist and just a bigger bag of options I guess. So, take what you want whether it's an epidural or whether it's acupressure but here's the entire bag and yeah, demonstrating all of them would be great…. we didn't even get told about that first-time round which, again, educate yourselves.” (Claire, participant)

This activity provided a whole range of options for pain relief, rather than immediately starting with a demonstration of the epidural. Demonstrating was a popular method of teaching that the class participants appreciated and actively involved them in the class.

Ella found it helpful having her partner attend class particularly when it came to information about parenting and especially breastfeeding. Ella’s partner could recall information they had been given during the class to provide her with help and support during the early stages of breastfeeding:

“I also did a lactation class with them as well, so we did both. Definitely it was worthwhile him coming, because when we were in the thick of it with her, he was able to remember some of the things that I wasn't able to remember, so that was good.” (Ella, participant)

Bella spoke about learning the practicalities of comfort and encouragement whilst breastfeeding which was important for her so that she could encourage her partner to be involved with parenting their new baby:

“There was a lot about the father's support, emotional support, with breastfeeding; so how fathers should encourage mums to breastfeed if possible and to say what a good job they're doing and to get their wives when they're feeding a glass of water and to make sure they're comfortable and put a cushion behind their back, and dad's involvement, which is good.” (Bella, participant)

Both women were glad that their partners had attended classes with them because they were able to provide appropriate physical support, help with breastfeeding and offer emotional support, an important aspect of care in the postnatal period, contributing to a meaningful learning experience for the participants.
In this study, all women’s partners attended and became involved in at least one antenatal class. An external barrier for all participants was their ability to attend antenatal classes which depended upon the availability and flexibility of classes. Several partners needed to look after the first child (babysit) and others worked a great distance away. The timing and convenience of the classes was important for several of the participants, especially when they had other children to consider. Hannah’s partner was unable to attend the classes due to looking after their first child, Hannah commented:

“It was six until eight in the evening and he had to babysit. That’s bath time, bedtime for my toddler, so he was at home.” (Hannah, participant)

Several women in this study had partners who worked away from home in a Fly In Fly Out (FIFO) arrangement. Gina’s partner was one of those who worked away; however, he did attend one class where birth was discussed. This class concluded by showing a birthing video which the antenatal educator had been instructed to show the participants. Gina and her partner chose not to watch the video and left the class early:

“He came to one, he came to the one that actually described what happened during birth, which they did the video and he’s like I don’t want to watch. It’s cool I don’t want to watch either, because I want to have a strong mind going into labour. So yeah he only went once, which was fine, but he also works away, the likelihood of him having good timing is very minimal.” (Gina, participant)

Some antenatal educators controlled which classes the partners could attend or were deemed to be more appropriate, in the educator’s opinion, for them to attend. Hannah agreed with the antenatal educator and thought that the partners may feel a bit awkward with some of the topics that were discussed during the classes. She believed that partners would not be involved in breastfeeding after birth and that they did not need to know about breastfeeding information:

“But some of the partners came with the girls. [Laughs] I think they might have felt a little bit awkward when it was - when certain topics came up. But at the beginning they were told what weeks were the best ones to come, so that they knew the right things. There’s obviously so much of it they’re not going to be involved in anyway, like
breastfeeding. Well, they don't really need to know - it doesn't concern them, really.”

(Hannah, participant)

Irene, who held men’s antenatal classes, believed that having a new dad come back and talk with the participants was very important and did not seem at all concerned if the allocated time for this part of the class ran over because it was so well received:

“We have a new dad come back and just speak. That’s usually 10 to 15 minutes, but it will often end up being half an hour, because it’s such a great part of the night.”

(Irene, educator)

Discussions in class can be rich, meaningful and empowering when they actively engage participants and focus on their specific needs.

Theme 5: Reflections on enablers and barriers to meaningful learning

Findings presented in this final theme provide reflections from the educators and class participants about their perspectives of what they considered were barriers and enablers of meaningful learning. It includes the subthemes ‘disempowerment and policies’ and ‘social networking and support’. Tensions seemed to exist between the information provided by educators and the women’s subsequent experience. Meaningful learning, refers to the way in which new knowledge is acquired, related to and integrated with previous knowledge. This definition fits well with antenatal education where educators and participants attend classes with different levels of knowledge and choose what is meaningful for them. Through the process they can apply how it relates to their personal lives and integrate it with the information they already know. This theme considers the enablers and barriers for meaningful learning in antenatal education.

Anna, who practised in combined antenatal care and education, commented that in terms of women learning about pregnancy, birth and parenting, “they learn more from all the other women”. Anna’s practice was to facilitate their learning and help guide participants if needed:
“I think they probably learn the least from us. I think they learn more from all the other women who are there. We are just there to be a bit of a guide really. If someone’s saying something that isn’t, or a bit of a myth, then that’s not really the right thing. Then kind of say, well we don’t say, that’s wrong. We say have you got any other ideas how this might be different? This might work for someone else. It’s all about giving the power back to the women and letting them work things out.”
(Anna, educator)

By understanding the characteristics and needs of the class participants a more meaningful learning experience can be achieved. A facilitative style of teaching enables participants to take the lead and be actively engaged in directing their learning.

Reflecting on what was meaningful and effective, Amy believed much of her confidence and empowerment during her second pregnancy stemmed from her mental preparation following the traumatic hospital birth of her first baby. Amy’s second birth was a home Vaginal Birth After a Caesarean (VBAC) and she believed her mental preparation was one of the “biggest things” in dealing with labour:

“I think, with my second one I came away just going it’s just hard work and it’s women’s work and I’ll just get settled in for a hard slog and a bit of a marathon and I’ll be right, which I did and I was fine, because mentally, I was prepared for that. I think your mental preparation is the biggest thing.” (Amy, participant)

Being able to manage, understand and critically evaluate information on health issues indicates that there is more to preparation for birth than simply attending classes. The participants determine what preparation they feel they need as individuals and prepare accordingly.

Information about parenting was a topic that drew reflections from class participants and was often seen as a barrier to their learning particularly concerning parenting topics. When asked if there was enough information about parenting, both Gina and Claire commented that they would have liked further information:

“A little, I think I wanted more, well now that I look at it I probably want more.”
(Gina, participant)
and

“I think they were very good at providing resources, so the breastfeeding help line, the 13 health, all of those links - all of those lovely links but not actual parenting, no. They had a very, very brief - they mentioned relationships and focusing on your relationships and that will change but really no relationship coaching as such, which I know is really hard to do in a big group but no, definitely not parenting.” (Claire, participant)

While some information had been provided both Gina and Claire reflected that it was too brief, and they would have liked more. Fortunately, Claire had been given the help line number and had a resource she could use if she needed additional help and support. Ella would have also liked information on parenting and sourced further classes to help as her baby developed. When asked about parenting information she replied:

“Well, not that I can remember, which would be really helpful. When she was about six or eight weeks I did [so-called] security parenting over at the (X health centre) and that was really helpful.” (Ella, participant)

Other participants actively sought the information they required by attending additional classes when their needs were not met by the original antenatal class. Hannah commented:

“Well I went to a lactation class, so it must have been mentioned, yeah. I must have got the information from somewhere. Because I was determined to breastfeed, so I - yeah, I was trying to get as much information as possible.” (Hannah, participant)

Amy also attended an additional course to help develop her knowledge and understanding about breastfeeding:

“Also with that pregnancy I did, antenatally, I did a breastfeeding course, a one day course with the ABA.” (Amy, participant)

To fill in the gaps in the information, women actively sourced information that was meaningful to them. For example, Dee illustrated information on other standard parenting topics:

“They did the standard how to change nappies, how you go about breastfeeding, where you can find help for different problems, support networks and stuff like that that are official. Then we did some exercises in time management where they have a circle which is your 24 hours and then they say okay, fill in your naps. Fill in your
feeds. Fill in doing the washing. Fill in making dinner - all of this kind of stuff - just to give you an idea of how little time you actually have.” (Dee, participant)

The content focus and emphasis in the classes caused concern. Bella reflected that in her class her options were brushed over and the information was inadequate for her circumstances:

“By the time I went to the third class - which was more about active birth - we were told that [we] might need to have a caesarean because [the baby] was breech. [in the class] they made caesarean like oh, we’re going to aim for everyone to have a natural delivery because that’s what everyone wants; which is, of course, what everybody does want. For other people, I thought they would have really missed that link, that it’s okay to have a caesarean. But the way they didn’t really touch on it made it feel like if you end up that way it’s not preferable.” (Bella, participant)

Bella would have liked to have discussed caesarean birth with the class as it would have been meaningful to her and possibly for others. This was a significant barrier to Bella’s needs and the potential for appropriate and focused ‘just-in-time learning’, that would have helped her navigate her subsequent caesarean section.

Joy received feedback from her participants that they found their ability to make informed decisions meaningful. She reported:

“I also emphasise that they also have the right to make choices based around the information that they get. So I feel like that’s my aim. The feedback I get from women is that - and their partners - is that some women - that does work for them. They do come back to me and say I found your classes really helpful and, guess what? I refused the [unclear], something that they feel quite empowered about.” (Joy, educator)

Feedback is valuable in helping antenatal educators decide what information to include in their classes regarding choices. Unfortunately, at times educators were constrained by health facility policies aimed at risk reduction.
The disempowering effect of health facility policies

Antenatal educators and participants in this study demonstrated many characteristics when developing their health knowledge and information skills, for example informed decision making, effective interaction between service providers and users, as well as empowerment which includes political activism. However, they were often constrained by health facility policies and therefore prevented from enacting many of the points mentioned above. Furthermore, as health facilities become more complex with the introduction of policies and procedures aimed at risk reduction, their constraints would intensify. If class participants are required to understand more complex health information to navigate these policies to enable them to make informed decisions, a critical level of understanding will be required so that they do not become disempowered.

Challenging the contradiction between hospital policies and supporting women’s choices and informed decision making was difficult for the educators. Faye for example reinforced in the classes she facilitated that it was okay for women to say “no” to any procedure they were not comfortable with and it was fine for the woman to refuse interventions:

“I mean for other classes I often try and point out you can say no to vaginal examinations. It may be part of how we assess your birth, you know what I mean, but you can say no…” (Faye, educator)

However, she was not completely comfortable with providing information in that manner and she went on to say that she was a “bit naughty” (Faye, educator) and that she did try to respect the wishes of the health facility that employed her. This clearly demonstrated tensions surrounding health facility expectations regarding implementation of policies and her feeling of disempowerment. She had to balance her level of knowledge developed through continuing professional development with conforming to institutional policy:

“….I suppose I’m a bit naughty like I do know…I do know what I’m supposed to be doing but…and I do respect my employer.” (Faye, educator)

As a result, there was a lack of autonomy or empowerment for both childbearing women and antenatal educators.
Clara, an experienced antenatal educator, explained how she prepared for each hospital antenatal class by reading the hospital policies. The information she provided and health facility policies she discussed with the class participants was intended to prepare them for birthing within the hospital system:

“It was a lot of reading and it was reading from what the policies were in the hospital to prepare the women for what they would expect their care to be, so for example, if they were birthing in the hospital, my role was to talk to them about what policies are enacted in [the] birth suite and talk to them about what they would be offered ... for example vaginal examinations and how there is quite a tight policy around monitoring their progress in labour. So, to pass that information on we would say that of course it is their choice but this is what happens, this is how the carers will enact it, if there is any deviations they will increase monitoring in labour, this is when you would be put on a CTG. So it was it was all really about preparing them to be birthing in in the hospital system.” (Clara, educator)

Clara’s comments also highlight a potential contradiction for women, and how she supported their preparation for childbirth. On the one hand she talked about them making choices. On the other she highlighted the restrictions on choice that the system would impose when they came to childbirth. Another educator’s comments, demonstrate how some of the educators approached preparing women’s expectations and the importance of complying with policies. Helen stated:

“We really do have to keep to guidelines and bits and pieces, so we can’t talk about anything that’s, you know, we wouldn’t probably go into the use of doulas. We’d mention them potentially but wouldn’t go into that. We wouldn’t go into calm birthing, we wouldn’t go into any alternative medicines, and we really can’t advertise anywhere.” (Helen, educator)

Tension is clearly evident in some narratives between the participants’ antenatal knowledge and expectations and their actual birth experiences. The women provided examples of aspects of antenatal education that had been helpful in navigating their childbirth and ones that had left them unprepared or compromised and disempowered.
Amy reflected on the birth of her first child. She had prepared in classes using one of the more recent commercial approaches to birth. Her birth did not follow her expectations as she required transfer from the expected birth centre environment to the maternity unit, and medical intervention, with the baby birthed via a caesarean section. Amy commented that this particular method had not prepared her well for coping with pain in labour or the stresses and tensions that she had experienced:

“I probably wouldn’t have done the X-birth, yes, in hindsight. I just don’t think it gave me skills, … It was just don’t fear, if you don’t fear, then you’ll be fine, and that was really common, or that’s what I had got left with five years down the track, you know, that’s what I remember was just that that wasn’t particularly helpful when you were stressed out, fearful and tense, that didn’t help you get back to a better place and it didn’t teach you how to do that. It didn’t say, if you get to a state where you’re in fear and you’re tense, here’s what to do.” (Amy, participant)

The tension and fear that Amy experienced has remained for several years since the birth of her first child. She believed that her experience with the first set of antenatal classes had set her up for failure, and did not give her the help she required to realistically cope with the pain and she blamed herself:

“it really sets women up for a, a sense of failure if what they’re trying to do doesn’t work, like there’s a sense of, if you’d have just - if you’d have relaxed enough properly then you wouldn’t have had that so it’s your fault because you just didn’t do it well enough if that makes sense.” (Amy, participant)

On a positive note, Amy felt she had been well prepared to receive her newborn, and was able to negotiate a breast crawl with the infant:

“So I had her skin to skin.... They were supposed to do it immediately, but they didn’t, but I did the breast crawl and videoed that in recovery, yes, because I knew to do it, though, if I hadn’t had that antenatal education about it... and also my sister provided loads of information.” (Amy, participant)

Her reflection on this interaction demonstrates women’s ability to gather information from a variety of sources antenatally and apply it as they navigate childbirth. However, she also commented on the difficulty she experienced and her sense of disempowerment when she
was transferred from the hospital birth centre to the maternity unit before her caesarean birth:

“I went to 42 weeks before I started into labour, and because I was, they forced me to transfer from the birth centre and we had all of these dynamics about being concerned about protecting the midwife, so not wanting to rock the boat, wanting to be well behaved. So - but all of that created tensions and worry and all of that stuff.”

(Amy, participant)

She perceived that trying to navigate the mainstream institutional system required her not to make demands – or “rock the boat” as she said and she went on to articulate that her antenatal classes did not prepare her to birth within this system.

“I think what it didn’t teach us was how destructive the hospital system was and that you really can’t step out of that once everybody’s interfering with you and making you tense and creating all of those issues.”

(Amy, participant)

Misleading information was another issue some women identified. They perceived that they were being misled by the educator who represented the facility where they were to birth. Their narratives included comments and stories about how they were told one thing in class only to find when they presented in labour that the information they had been given was not accurate. Waterbirth was a clear example of where tensions occurred. For example, some of the women were provided with information that contradicted the health facilities’ policies surrounding noises they could make in labour, waterbirth and length of pushing time, leaving them feeling that they had to compromise.

Noises in labour was an antenatal education activity women raised as a concern regarding what they had been told in class and what actually happened when they were birthing. Ella’s antenatal educator demonstrated the range of noises women made from the beginning of labour, to the middle and at the end. Ella believed this had a way of telling her when to go into hospital for the birth of her baby:

“The midwife demonstrated the sounds and she’s like - and I clearly remember her saying at the beginning you’ll be able to talk through your contractions, but as you’re getting closer you won’t be able to talk through them. If you can’t talk through them
then it might be time to go to the hospital, so those little things were helpful for us first time around with when to know - when to go to hospital.” (Ella, participant)

and

“Then the other one was probably just the different stages of labour, like what is labour going to look like? This is what it’s going to sound like at the start. This is what it’s going to sound like in the middle, this is what transition is. Yeah, that was really helpful I thought.” (Ella, participant)

The most helpful and meaningful information was perceived as that generated from women’s involvement in learning activities, where they had the opportunity to discuss the activity as it related to their situation. Despite having discussed topics such as noises in labour, Gina found that the reality in labour was that she was expected to suppress her vocalisations during labour to avoid upsetting the hospital midwife:

“But honestly the midwife at the hospital was like ‘don’t scream’, I’m like ‘I’m trying not to’.” (Gina, participant)

Gina recalled her experience:

“I was trying to remember okay keep it calm, keep it low, keep it mooing like a cow as they always say. It’s so hard to do, so I think leading up to it, actually vocalising those sounds more with other women, might actually encourage you to do it when you’re actually in the room. As opposed to going, I didn’t really practise oh my goodness, or you know if you do something once, you kind of - it gets easier the second time and then third time.” (Gina, participant)

Both Ella and Gina appreciated the time the antenatal educator took to discuss and demonstrate the sounds women make in labour. The different noises the antenatal educator made and examples that were given have clearly stuck with them both. Gina reflected that she would have liked more opportunity to actively practise the vocalisations in class.

Another example regarding where information in classes contradicted what women were told in labour was from Claire. Claire was told in her antenatal classes that waterbirth was an option at the birthing facility she chose however, policies surrounding waterbirth were not discussed:
“I started discussing water births and whatnot they were, yes it’s here. We’ve only got one so it’s first in best dressed but it’s not used very much. We’re all trained in it basically, so they were very pro that but then when I got to labour they did not want to start the tub for me at all.” (Claire, participant)

There were significant omissions in the narrative given in the class about waterbirth. For example, the mandatory requirements of the facility requiring invasive procedures prior to entering the water. Claire reflected on the following:

“They basically wanted to do an internal to check where I was at before getting into the tub to see whether it was worth doing the tub and I didn’t want an internal because I felt that’s what stalled with him (first baby). So, it was a compromise and I wasn’t willing to compromise on the internal, so I didn’t get the tub.” (Claire, participant)

Therefore, while Claire had researched, attended class and made what she believed was an informed decision based on that information, the choice of birth that she had wanted was taken out of her hands when she arrived at the facility in labour and neither she nor the health care facility were willing to compromise. She was compromised by the inconsistency and absence of information that would have informed her choices more thoroughly.

The contradiction between expectations and childbirth choices conforming with hospital policies and protocols was further highlighted in one educator’s reflections about waterbirth. She had recently supported a woman who had a planned water birth:

“She had traumatic previous births, so it was always such a high, but it was all very fast and it was so calm. She brings this baby out and it was lovely.” (Emma, educator)

However, Emma went on to describe the consequence for her “… well I got an incident report put in about me”. The hospital policies did not ‘allow’ waterbirth at that time. Emma discussed this popular birth option in her antenatal classes and suggested that the way to navigate the restriction on a choice based on the policy was to take the attitude that “you can’t force a woman out of the bath”. Other antenatal educators also found that despite teaching about waterbirth in class the possibility of giving birth through water despite the compelling evidence for its safety depended very much upon which health care facility the woman birthed and the staff who were present at the time in the birth suite:
“I've had women in the past, dragged out because they were crowning in the bath and someone's pulled the plug and they've hoisted her out. It was - turned it completely traumatic and so that's just wonderful that the X (health care facility) have it. At the X (another health care facility) actually, they, in the last few years, staff were forced to fill in an incident report if a baby was born in water, because the head paediatrician was very against water births and they had to give evidence of what happened...” (Irene, educator)

Claire would have liked more information regarding hospital policies and the evidence behind them during the antenatal period, specifically about pushing and the limitations imposed by a health facility policy surrounding the timing of pushing. This caused a tension at a time when she was at her most vulnerable, during labour. Claire reflected on information that may have helped her navigate her childbirth in the hospital:

“Probably more on the hospital policies too because I didn't know about things like we only let you push for an hour and a half - well, hang on, why? Until you're there in the moment and you go, hang on, what? And then that starts creating thoughts in the back of your head and things like that. So at least you go in with an awareness that they're probably going to say this at about an hour and a half, maybe it's time for me to advocate for myself and whatnot.” (Claire, participant)

Learning to say ‘no’ was another navigation strategy, raised by Dee. She attended antenatal classes focused on knowing and interrogating maternity services policies and procedures so that she could learn how to navigate the hospital to support her childbirth choices:

“Yes. It was definitely something more alternative. More about how to say no in certain situations in the hospital if they were doing things that you didn't like. So just questioning so-called standard procedures in hospitals.” (Dee, participant)

Dee had originally planned a homebirth but transferred to hospital for the birth. She wanted the continuity of care of her known midwife who had provided support and education throughout her pregnancy. Dee wanted to consult with her in the hospital but did not want to ‘rock the boat’ or cause problems for her independent midwife so she asked the health facility midwife to leave the room each time she needed to make a decision:
“But obviously in the hospital she can’t make any decisions or advise us as a midwife in there. So that was basically when we got to implement the - okay, you’ve told us what you want to do. Can you just leave the room and give us a chance to discuss it? She would give her opinion on what it was and the situation - whether it was necessary and - then we would just make our decision and call the hospital midwives back in.” (Dee, participant)

By involving her private midwife with whom she had built up an ongoing relationship and as someone who she felt she could trust, Dee navigated her way through the birth and made informed decisions that suited her:

“We ended up refusing antibiotics, vitamin K injections and we left hospital after five and a half hours and came home much to the disgust of the hospital. But - yes. When you know that you can say no, we’re being looked after and you’re comfortable with that care - I don’t know, it just made it a bit easier.” (Dee, participant)

Dee believed it was the independently run antenatal course she had attended, that contributed to her confidence, empowerment and decision making:

“I mean, we had decided that earlier and then that course kind of just reinforced - well, gave us confidence with what we were doing.” (Dee, participant)

Fern, gave an example of a tool she was provided with in her antenatal class that was designed to help her negotiate care in the maternity service. The acronym BRAIN was used and included the following statements (Anthro Doula 2011):

B: Benefits - What are the benefits of doing this procedure? How might this help me, baby, labour?
R: Risks - What are the risks involved? How might this negatively affect me/baby/labour?
A: Alternatives - Are there any alternatives?
I: Intuition - What is my gut feeling? Does this procedure make sense?
N: Nothing/Need Time - Can I delay to take some time to think about this/Discuss with my partner? What would happen if we did nothing or waited a while?

While Fern had a straightforward birth, and did not use this tool specifically, she was pleased that it was at the back of her mind in case she needed it and she believed that just having that tool gave her confidence and the ability to take ownership of her care:
“Yeah, I did. I did, I found it really useful.....I fortunately had a fairly straightforward labour and birth so I didn't really have much intervention but yeah, it was in the back of my mind, a lot of the things that we learnt so it did stay with me. It gave me confidence I think. I think that's a really important tool to give someone who's never had a baby before.” (Fern, participant)

Participants found this tool empowering and it provided them with the ability to challenge health care policy and improve their confidence and feelings of empowerment. Another need and central aspect of antenatal education is the role of social networking and support that participants in antenatal classes bring to each other.

Social networking and support

One of the main reasons women in this study attended antenatal classes was to socialise and meet other women who were experiencing the same life event and for support. Having a tea or coffee break is a common social and cultural practice and method of bringing people together in antenatal classes. They provide opportunities for people to come together to socialise and discuss topics of interest away from the formality of directed learning, particularly if this interaction occurs in smaller groups. In this study not only tea and coffee but also food appeared to be a common theme in each class. Using food as a method to help women mix and socialise with others was particularly appreciated when the classes were in the evening and the participants had rushed from work to attend:

“Each time they had tea, coffee biscuits, fruit juice. So they had breaks for each of them. The first one was like a supper because it was in the evening. It was, I think, 5:30 through until maybe eight o'clock or something like that. They had sandwiches and things like that.” (Bella, participant)

Claire mentioned the evening supper and her group antenatal educator encouraged the participants to “bring a plate”, giving the participants time to socialise with each other:

“So there was an evening tea or supper so we all had to bring a plate as well and then we had a break halfway through and it was for about 20 minutes so that was - if you have any social skills you could socialise.” (Claire, participant)

However, the provision of tea and coffee did not enable all participants to mix. In the classes
Fern attended participants often kept to themselves rather than socialise during the break. When asked if socialising was encouraged in the health facility classes Fern attended she responded:

“No, not really. There was a tea and coffee break halfway through the two-hour sessions each week and some people socialised, some people kept to themselves.”

(Fern, participant)

For Fern the provision of tea and coffee did not amount to the encouragement of socialising or support with many of the participants keeping to themselves. An antenatal educator who was skilled in group facilitation would have supported and encouraged participants to socialise by introducing them to each other and commencing conversation.

Comparing the private workshop and the hospital classes Fern summarised how the use of food encouraged socialisation and helped the women to develop a bond which was something she didn’t experience in the hospital classes she attended initially:

“Just using, I guess, food as a starting point for conversation just leads you on so many directions, so I think at the end of the intensive weekend we all felt like we had a bit of a bond. Whereas with the hospital classes I couldn’t even - because we were all facing the front - as well we sat in the front row and I couldn’t even tell you - describe the people who were in the classes often because I wasn’t looking at them.”

(Fern, participant)

Many of the above-mentioned factors have clearly influenced how the antenatal classes are facilitated; much comes down to the personal belief of the educator rather than the needs of the class participant. Everyday activities such as the sharing of food enhance interactive methods of health education. In this study socialisation amongst participants was encouraged in some classes while in others classes little thought or consideration was put into social networking or activities to promote group interaction. Also important is the postnatal reunion where class participants meet following the birth of their baby to share their experiences.

Whilst networking was considered very valuable by the class participants, facilitating connections between participants was one of the main aims of most antenatal educators in
this study. Specific class activities were one way that the antenatal educators encouraged social interaction which is defined in this study as the interaction between participants within the classes. These activities included icebreakers, group work and quizzes.

Both Dee and Ella talked about the initial introductions to each participant in their classes. In Dee’s class the ice breaker was designed to help participants get to know each other:

“We did all the standard introduction name games and introduce - the person sitting next to you and all that kind of stuff as well.” (Dee, participant)

While Dee considered her introductions to be fairly standard, Ella’s classes appeared to have a more contemporary twist using the theme of Mythbusters, a popular television program:

“They did do one activity, yeah, but we had to answer some questions together, a myth buster sort of thing, like was it fact or fiction? So some little thing about birth and then we had to ask the whole group whether they thought it was - what we thought it was and then she answered us and told us whether it was true or false, or whatever. So yeah, that got us talking to other people. I think that’s the only one we had where we - we introduced ourselves at the beginning, that was when I socialised, yeah.” (Ella, participant)

These early introductions can be an effective way of commencing classes and initially introducing participants to each other to build an element of trust and therefore aid in interaction. They also help participants to get to know each other and break down barriers that exist inherently. Hannah discussed that in her classes she particularly liked the quizzes which encouraged the participants to discuss and expand on relevant topics of interest, she also mentioned that her group was catching up and socialising in-between classes, having made a connection within the group:

“The midwife always did lots of little quizzes and that was really good too, because it got us chatting to each other. I know a lot - a couple of the other girls in the group, they see each other far more regularly than the group.” (Hannah, participant)
I'm a bit older than them all as well though, so [laughs] - they sort of - yeah, they're all in the same age bracket I guess and then, yes, I'm up here. But it certainly made it more social, yeah and more interactive.” (Hannah, participant)

As a positive addition to the class the quizzes helped participants to warm up to each other and start the conversation. They are great way to encourage participants to get involved in the topics each week.

Dawn who facilitated both hospital based antenatal classes as well as combined antenatal care and education classes found that the women received much more support from the combined classes which were aimed more towards socialisation. She mentioned that hospital classes did not appear to foster the building of friendships. Talking about the combined model of care she stated:

“I think the women get a lot more out of it. It’s certainly the support that they get from the other women by the end of it. It’s so great and you don’t get that after four sessions at the hospital they usually walk away not really knowing the other people very well.” (Dawn, educator)

Clara, an experienced midwife, described the model of antenatal education in which she worked where classes were combined antenatal care and education. In this model socialising and building of trusting relationships was considered to be an important aspect and was fully facilitated by the antenatal educator:

“The most recent model that I’ve been involved in is group antenatal care, where we provide and work with another midwife and provide the full scope of antenatal care for the mums, so it’s education as well as care, as well as supporting group socialisation.” (Clara, educator)

For her second pregnancy Hannah attend combined antenatal care and education classes and really highlighted that despite some differences between her and the other class participants (she was “the only second time Mum”), how important being with other women experiencing pregnancy at the same time and socialising with them was to her:

“Well the social interaction was good. It was nice to - even though I was the only second time mum, it was just nice to be with other girls that are going through the same thing.” (Hannah, participant)
Important to Clara, an antenatal educator who facilitated combined care and education sessions, was that her participants were due to birth in the same month. She believed that the combined classes had more to offer in the way of support when they were all due at the same time and that the women connected well and supported each other:

“I think it, when you’ve got the mums that are all due around in sort of the same month they really do have that connection.” (Clara, educator)

and

“We are always running over time because the mums want to keep talking and they love it, the social group.” (Clara, educator)

Meeting others going through the same or similar experiences was also important to participants following birth. Claire experienced contrasting practices having moved to a different health district between her births. She found the access to child health services and postnatal support very different between the two health service districts which created a degree of anxiety regarding her ability to meet other mothers going through the same stage especially, as she had moved to a new house and left her support network behind. She contrasted the different services:

“Then after birth, you were encouraged to join the mothers group that started at six weeks and that was fantastic so they really encouraged you in hospital to make sure you went to the Child Health Clinic in X (town) and there they were really encouraging. Not pushy but they really encouraged you to go to the mothers group, you know, just try it, if it’s not for you it’s not for you, but at least just come and try it. Get out of the house, meet mothers of your own - you know, having the same thing and it was one of the best things I did. It was really fantastic whereas here I found it’s a lot harder to get a hold of the information.” (Claire, participant)

Without the face to face support network Claire turned to the internet for advice and support. She was concerned about the accuracy of the information being provided, however it was a place where she could communicate with women going through similar experiences:

“You don’t know where the references are coming from most of the time which is, as you know, not probably the safest way to get information, but having women going
through the same thing. So, I’ve got haemorrhoids at the moment, what are you girls
doing for that? So that was really good but that was more of, I guess, a social
support thing really which is funny because it’s online.” (Claire, participant)
Likewise, Amy also turned to the internet for the support of others going through a similar
experience:
“I’m a bit of a homebody so I like to be at home, so it allows the online world to be a
real support to me, which I find it really is.” (Amy, participant)
Social networking is important to women who prefer communicating with others going
through like experiences.

Postnatal groups and reunions were discussed by all the participants in this study and often
suggested or integrated as part of the set of classes. In Dee’s class, postnatal support was
considered to be essential:
“It was mentioned that support is almost an essential part, not only through the
labour and birth but also afterwards in terms of keeping things sane around the
house once you’ve got a new baby.” (Dee, participant)
Gina and Hannah found the friendships they had made at the antenatal groups were
particularly beneficial in the immediate postnatal period when breastfeeding or
experiencing other postnatal issues and they needed postnatal support from peers:
“At the beginning I did, once again, because at the start you really need support.
That never-ending breastfeeding, you feel you’re a tap and there’s always somebody
attached to it, which is not what you first expect. You’re like oh yeah you’re going to
breastfeed, it’s easy, you’ve got boobs you can do it. It’s not.” (Gina, participant)
and
“It’s good because if there - there are issues with the first few weeks that you just
don’t know the answers to. You can ask the others and - is anyone else experiencing
this, am I the odd one out? So yeah - no, I think it’s - it certainly should be pushed as
an antenatal care option.” (Hannah, participant)
Reunion groups are often recommended to facilitate discussion between women about
their birth experience and help them to discuss their birth in a supportive environment.
Several antenatal educators in this study encouraged group discussion by holding a reunion
after the women had birthed their babies. Both Gail and Clara held a reunion with the
groups they facilitated. Gail held one around four weeks after the last person had birthed and Clara invited both parents along to the reunion to encourage the family units to meet with each other:

“Usually about at least four weeks after the last person of the class was due that we arrange prearranged a reunion date and I will send them an email leading up to that date, letting them know where and when it is. It’s usually at a cafe that I prearranged beforehand. I always ask if they can let me know beforehand when they’ve had their babies just so, I just like to know that it’s all good to go.” (Gail, educator)

and

“We have one reunion for all of the mums and dads which was really lovely to see them in the postnatal period.” (Clara, educator)

While Faye knew that reunions could be successful in encouraging long term friendships they were no longer offered at the health facility where she worked:

“When I did work with our first maternity team I do know a particular group who are still friends. So that’s nice. I think it can be hit and miss whether they continue that friendship but no we don’t offer a reunion.” (Faye, educator)

The postnatal reunion was very popular with the women in this study; however, like the antenatal classes, location, distance of travel and convenience appeared to be a concern for some participants. Dee who lived near several mothers from her group caught up with them regularly, while Gina didn’t see her group as often due to the distance, nevertheless she caught up with them and socialised on Facebook:

“We’ve had a reunion. Once all the bubs were born. So we went into the botanical gardens and had a lunch in there. I actually live literally five minutes away from two of the other couples, so we see each other quite regularly.” (Dee, participant)

and

“So, having initially I went out with everybody, but I think we only meet maybe up every fortnight and stuff now. But once again they’re all 10 minutes away from each other, whereas I’m 40 minutes away. So, it’s harder to get down to the coast for me. We’re still on Facebook though.” (Gina, participant)
Not all antenatal classes offered a reunion as an option. For some health services funding proved too costly; however, some educators went above and beyond what was required for their role and chose to hold a reunion in their own time. Helen described what happened in her district:

“Unfortunately, funding doesn’t allow us to attend on a paid day, for us to do that reunion, so it’s personal choice. If the educator feels that she would like to do a reunion for those couples, and attend, she can, but she does it in her own time. But we also set up a contact list, and the most predominant person in the class is often the one that takes that list with everyone’s permission and organises the catch-up themselves afterwards.” (Helen, educator)

When asked if antenatal classes developed social support networks Dawn was clear and proud of the fact that many of her class participants were still meeting:

“I think the groups have definitely shown that that’s a strength. Your testament to that is the group’s still meeting two years from when we first started. I would say most of the groups that have gone through here are actually still meeting together.” (Dawn, educator)

Several women in this study had attended classes where socialising was not encouraged. Experiencing the opportunity for postnatal support facilitated by the antenatal educator varied depending upon where the women birthed and the type of classes they had attended. Ella made no contacts antenatally in the health facility run classes but had proactively sought community parenting classes since the birth of her baby. When asked if she had caught up with other class participants following birth she commented:

“No, not at all. No, we didn’t exchange contact details or anything…” (Ella, participant)

Having not made any connections at the classes where participants were not encouraged to exchange numbers, Ella sought out and found local child health parenting classes which were very useful and helped her develop a social support network:

“I went and joined the local child health - the community - the parent classes there. So that was, yeah, that was good. But I didn’t make any connections at the actual hospital.” (Ella, participant)
Hannah attended a one-day hospital class where socialisation was not encouraged, and she
could not remember any of the women. However, from the group classes where
socialisation was encouraged, a successful and supportive mother’s group had been formed:

“I enjoyed going because, yeah, talking to other girls as well. So that was nice. So
we've now continued to see each other......as a little mothers' group. Yeah and so -
and whereas, I wouldn’t even remember any of the faces from the previous one,
because it was only a one-day thing. I don’t think we even talked to anyone else.”
(Hannah, participant)

Social networking and support are clearly important in antenatal classes. They can have long
term benefits reaching into the postnatal period. Unfortunately, they rely very much on the
funding at the health care facility, the philosophy of the antenatal educator to coordinate
and facilitate successful follow-up activities and sharing of contact information. This enables
successful support in the postnatal period for class participants.

Summary

The five themes inclusive of the nine subthemes presented in this chapter illustrate the
experiences and reflections on antenatal practice provided by antenatal educators and how
class participants sought and used that information. Findings from the educators show that
some educators preferred a facilitative or active style of teaching however, a pre-
determined curriculum often addressing specific institutional protocols and guidelines
constrained their practice. The emphasis for many educators was on the transmission of
information, often through didactic teaching methods. Findings revealed challenges
presented by the environments in which classes were conducted and the way educators
worked within these environments to organise their classes. Antenatal educators also
acknowledged that they had much to learn from class participants and that they wanted
more autonomy over the content and style of their teaching. Four of the antenatal
educators held reunions with their participants, a further three would have liked the
opportunity to offer this service, but this had been cut from the health facilities budget.
Active learning, in the context of antenatal education in this study, is a process in which class participants engage in activities, with the aim of providing opportunities to think critically about pregnancy, childbirth and parenting. Antenatal educators in this study rarely used a single model to guide their practices, rather they used a variety of learning and teaching approaches they had learnt through experience and in some instances through additional education. Many used a facilitative style, recognising that this approach is appropriate in this context. Most antenatal educators had a range of practices they drew on when providing antenatal classes, and the consumer participants commented about their use of teaching methods and activities.

The findings revealed that class participants were well prepared and expected to use the class as an information clarification and checking mechanism. Some of the participants found the information useful to support their decision making. Antenatal classes provide the opportunity for participants to develop social networks which are sustainable. In these classes, women socialise and learn from each other in supportive environments that facilitate discussion and provide meaningful learning for their changing circumstances. Also identified was that class participants both challenge, confirm and interpret information they had been provided to make informed decisions about their care. This study established that often women were asked to make decisions without knowledge about the health facility policies and procedures. In contemporary society, pregnant women are not only being asked to accept responsibility for their learning, but also to make informed choices about their pregnancy and birth, at a time when they are least able to do so, such as in labour. Women appreciated their support partner being present in the class when discussions were focused on parenting information. They particularly enjoyed the hands-on approach to learning and group discussions, where they could discuss and debate ideas with others who were also pregnant. However, they often found that information that was not meaningful or relevant to them. In these situations, they actively sought the information they required by attending additional classes that targeted information relevant to their needs.

Both antenatal educators and class participants recognised shortcomings in their classes such as predetermined and inadequate content and overstructured classes. Antenatal educators can help women to develop confidence that enables them to make informed
decisions; this confidence can facilitate women’s navigation of the health care system. Both antenatal educators and class participants agreed that there is a need for a responsive teaching style.

The final chapter of this thesis discusses the findings in the context of antenatal education in relation to the conceptual framework of health literacy. It answers the two key questions: What key factors influence pedagogy and practice of antenatal education in a range of contexts? To what extent does current antenatal education provide meaningful and effective learning experiences from the perspectives of both the educators and the consumers? It then highlights the strengths and limitations of the project and provides recommendations for policy, practice, education and future research.
Chapter 6: Discussion, recommendations and conclusions

Introduction

The findings presented in Chapter 5 represent an Interpretive Description of contemporary antenatal education classes provided in an Australian setting. They are derived from the accounts of antenatal education classes provided by a sample of educators and women who attended these classes. The study was conducted to develop our understanding of issues that have been identified within current antenatal education in the Australian context. This included the various influences on programs, the pedagogical approaches and practices used by antenatal educators and the way participants experience antenatal education to make learning meaningful and useful for pregnancy, birth and parenting.

In this chapter, evidence to inform the two research questions is discussed within the context of current scholarly literature and the conceptual framework of health literacy. The research questions proposed were:

- What key factors influence pedagogy and practice of antenatal education in a range of contexts?
- To what extent does current antenatal education provide meaningful and effective learning experiences from the perspectives of both the educators and the consumers?

In answering these questions, the findings showed that there are important issues impacting on antenatal education that are relevant to developing health literacy, as conceptualised within the health promotion literature by Nutbeam (2000). Nutbeam (2000) has described a continuum of health literacy which includes three levels: functional, interactive and critical. As discussed in Chapter 1, the different levels of health literacy show the development of skills and understanding of health information required for decision-making related to pregnancy, birth and throughout parenthood. The second part of this chapter provides a summary of the contributions made by the study to our understanding of the phenomenon of antenatal education as a meaningful learning experience during pregnancy, in preparation for birth and parenting a newborn. Limitations of the study are addressed and recommendations for practice, education, policy and future research are made. Throughout
this discussion I will use Nutbeam’s (2000) health literacy framework to situate these findings within the current literature (see Figure 1 below).

![Figure 1. Levels of literacy](Adapted from Nutbeam (2000))

### Part 1: Response to research questions

**Influences on antenatal education pedagogy and practice**

Health literacy is involved with both the way the information is delivered and the way it is received. In their study which examines the concept of maternal health literacy, Renkert and Nutbeam (2001) promote the idea of shifting thinking in antenatal education away from a simple transfer of knowledge, to a more active process that empowers expectant parents in their preparation for birth and parenthood. The process begins with transmitting information to develop functional health literacy and extends to empowering participants to make their own decisions. The functional level involves foundational knowledge from which class participants seek further information through interactions, which can then lead to developing self-advocacy skills and the development of critical health literacy. Data from the current study suggested that women attended antenatal education with an initial level of health literacy regarding pregnancy, birth and parenting, most often at a functional or interactive level. Some women used their engagement with the antenatal educator during
classes to confirm their understanding of information they had sourced or had been previously provided with, as they developed their confidence in applying information to their individual circumstances to make informed decisions.

**Pedagogical approaches of the educators**

This section of the discussion will discuss the key influences on antenatal education pedagogy and practice, which included pedagogical approaches of the educators to ensure that the information needs of the participants were met. The style and content helped to develop health literacy skills through the three levels using various approaches. The didactic approach, in which the educators transmitted information, provided a functional level of health literacy, whilst those who had a facilitative approach which actively involved the participants provided the potential for an interactive level of health literacy. Finally, those antenatal educators who incorporated group discussion and provided opportunities in which class participants were empowered to seek further information to apply to their situation, were promoting critical health literacy.

Antenatal educators in this study taught classes in a variety of models and had their own unique and diverse styles in teaching and modelling pedagogical approaches. Bainbridge (2009) suggests that high-standard antenatal classes should be offered to everyone by the health care facility. Some educators in this study felt caught in a system that required specific information to be delivered, to suit the needs of the health care facility, rather than the women. Educators were also concerned that by providing activities that promoted responsiveness to the concerns of those attending the sessions, they would have been unable to transmit all the compulsory information. Their concerns may have been linked to inadequate preparation for antenatal education. In a study of midwives’ approaches to teaching, Nolan (2009) found that limited training in leading groups for adult learners was provided for midwives; a decade later it is still evident that this is an issue (Berlin, Tornkvist & Barimani 2016). Numerous research groups have highlighted the difficulties some midwives face when they are asked by their managers or supervisors to undertake the role of antenatal educator without any training in group facilitation (Bainbridge 2009; O’Sullivan, O’Conell & Devane 2014; Hardie et al. 2014; Berlin, Tornkvist & Barimani 2016). These
authors also considered how the antenatal educators were prepared, described how the content was presented, and considered the antenatal educators’ skills and confidence in presenting information (O’Sullivan, O’Conell & Devane 2014; Hardie et al. 2014). In achieving a high standard of antenatal education, antenatal educators would ideally have training and be interested in leading and facilitating groups; however, in the current study only a few antenatal educators had any formal training in either group facilitation or teaching. As other researchers internationally have found, antenatal educators require continuing professional development on group facilitation, adult education approaches, and evidence-based practice approaches to ensure their skills in teaching remain contemporary (Fyrenius, Bergdahl & Silen 2005; Ahldén et al. 2008; O’Sullivan, O’Conell & Devane 2014). This study concurs with the findings from the collective literature and found that participants who attended classes that were facilitated well to incorporate group discussion were preferred.

Svensson, Barclay and Cooke’s (2007) study of effective antenatal education reported that in many cases, the education was limited to the transmission of information; a common practice amongst antenatal educators. Svensson and colleagues’ findings were consistent with results from this study, which demonstrated that antenatal educators focus largely on providing parents with information instead of engaging participants in discussion. For example, some of the women attending sessions reported that there was very little support when addressing or answering their questions. This was evident when one woman requested information about a caesarean for her baby who was in the breech position and the antenatal educator did not address her needs, focusing instead on normal birth. This may limit a person’s feeling of social inclusiveness, which antenatal classes are designed to support. In addition, this approach limits both the woman and the class to a functional level of health literacy where information is provided but there is no discussion regarding the topic to help participants understand what they have been told.

Another approach used by nearly all the antenatal educators in this study involved using a common presentation technology such as PowerPoint. Half of the antenatal educators interviewed in this study were using a predesigned PowerPoint presentation provided by managers from the health care facility in which they worked, as directed by their supervisor.
PowerPoint has attracted comment in the literature, with some educators rejecting it in
favour of purposely developed teaching presentations that engage their participants. In his
paper, Jones (2009) highlights a culture of exclusion about refusing to use PowerPoint:
“Anyone who refuses to use PowerPoint risks being treated at best as if they are odd and
old-fashioned and at worst as some sort of pariah” (Jones 2009, p. 23). One antenatal
educator in the study encountered this view in a professional development program, where
the use of PowerPoint was discouraged, which created a dilemma because the health care
facility where she worked insisted that staff use the predesigned PowerPoint to ensure all
the essential points the participants should know about had been covered. Ironically, all
class participants interviewed in this current study preferred to be engaged in an interactive
group discussion rather than passively watching a PowerPoint presentation. By discussing
topics of interest to the participants, a level of interactive health literacy can be achieved.

It is well known that when a PowerPoint presentation is used lights are usually dimmed and
people watch and attempt to read the PowerPoint slides while at the same time trying to
listen and process what the antenatal educator has to say (Isseks 2011). Taylor (2007), in an
amusing paper, stressed that PowerPoint is “another device for avoiding verbal, as well as
visual, contact with the audience” (p. 395) and that it distracts from learning. It has been
argued in the literature that the use of PowerPoint is not always appropriate for presenting
and teaching, due to its failure to engage participants (Adams 2006; Jones 2009). It takes the
focus off the learner and creates a didactic, lecture format of teaching (Noel-Weis, Bassett &
Cragg 2006). Vallance and Towndrow (2007) debate the issue, and argue that used well,
PowerPoint presentations can be developed to facilitate conversational dialogue. This study
clearly identified that some educators were using the PowerPoint as a didactic tool for
teaching while others used it as a prompt and were able to facilitate a more meaningful
discussion with their participants who enjoyed the active learning. In the final analysis,
group discussion is desirable, reflecting a facilitative style of presentation where participants
are actively engaged in a learner centred two-way conversation.
Ensuring the information needs of the participants are met

This study found that what women prefer is up to date, accurate information about their pregnancy, birth and parenting choices from which they can make meaningful decisions about their care. This is consistent with critical health literacy which empowers participants to make informed decisions about their care. The National Institute for Health and Clinical Excellence (NICE) review (2010) provides evidence that women’s overall experience of childbirth may be improved if they attend client-led classes rather than didactic educator-led antenatal classes. The duration and number of sessions is also important and it should be established with each group regarding what format suits most participants.

Little has changed since the 1990s where several studies in different countries also reported that the antenatal classes did not always meet participants’ informational needs (Holroyd et al. 1997; Leung 1996; Lumley & Brown 1993; O’Meara 1993). In their UK study Thomson and colleagues (2013) found that inequities in the provision of antenatal information persist, with participants continuing to express that their needs are not met. One problem may be too much information being provided in a short period of time wherein participants would have little time to process and assimilate the information. If class participants are unable to process a large volume of information in limited periods of time they may have problems identifying their needs. Without appropriate supportive resources or guidance for self-referral to topics of interest, they will have a reduced capacity in developing appropriate skills to successfully engage with the health care system in which they are to birth. If classes were provided that were collaborative and incorporated group discussion, participants would be more likely to actively and confidently seek the information to meet their needs regarding pregnancy birth and parenting.

In those cases where the antenatal educators were trying to provide all the content required by the health care facility the sessions tended to be reduced into a one-day intensive class. Several of the antenatal educators in this study commented on the fact that they were concerned about the amount of information there was to cover during classes. Several participants also stated that the content of classes was often rushed and there was
too much to learn in such a short time, similar to the finding by Belin and colleagues (2016). Findings from a UK study by Lavender, Moffat and Rixon (2000) also concur with this study and revealed that classes were often condensed into too short a timeframe to be meaningful and did not consider what information participants would have preferred during antenatal classes or in what format they would have liked it to have been presented. Several of the participants in this study had difficulty in applying information provided by the antenatal educator to their situations. This may have been due to a lack of discussion with antenatal educators needing to rush through the content which was presented for a functional level of health literacy.

Several women in this study attended combined antenatal care and education classes similar to CenteringPregnancy groups. Andersson, Christensson and Hildingsson (2012) found that the group model created a forum for sharing experiences and helped participants to normalise their pregnancy symptoms. Other studies have also found that group antenatal care was positively viewed by women with no adverse outcomes for themselves (Catling et al. 2015), and that women and antenatal educators were satisfied with combined antenatal care and education (Rising 1998; Maier 2013). Participants in this study who attended the combined antenatal care and education, viewed the classes positively, and commented on how the antenatal educator who led their class facilitated social interaction.

One class participant in this study mentioned that her group members were catching up and socialising in-between classes; however, she also suggested that the age difference within the group made socialising more of a challenge. Similarly, studies (Howie & Carlise 2005; Smith & Roberts 2009; Brown 2011) have found that teenagers benefitted from taking part in classes within their own age group as they felt less stigmatised and self-conscious (Rozette et al. 2000). Classes that are geared towards specific age groups have also been found to provide an atmosphere which is more conducive to making friends (Howie & Carlise 2005). Furthermore, group antenatal care has been recommended in the NICE guidelines (2010) for other specific groups such as obese women, or those from a particular nationality (Potter 2010; Trudnak 2014).
Social networking is clearly an important part of antenatal classes that can have long term benefits. By providing women with the opportunity to network with others who have common interests, friendship and peer support groups can be formed to help throughout pregnancy and into the postnatal period. This research has also shown that class participants appreciated being able to connect with each other in the postnatal period. Nolan et al. (2012) found that for women to meet in the postnatal period certain conditions had to be met. Conditions include the need for antenatal educators to facilitate the circulation of participants’ contact details, have a facilitative style of teaching and provide regular opportunities for the participants to talk. Compared to Nolan’s (2012) study, the current study also found that by attending antenatal classes, friendships could develop and preserve new mothers’ well-being postnatally. Several authors from Australia and Sweden (Svennson, Barclay & Cooke 2006; Berlin, Tornkvist & Barimani 2016) identified that peer group learning was an effective way for parents to validate their understanding of topics and clarify their points of difference to construct new meaning and understanding from the information; engagement that involves critical review of information received clearly demonstrates a level of interactive health literacy.

Another aspect of this study was the importance of being inclusive of partners and significant others so that partners could support each other; for example, with infant care and breastfeeding. One participant commented that partners were excluded from classes, which consisted of breastfeeding education. Including partners would be more desirable for a number of reasons that have been supported in the literature (Maycock et al. 2013; Sherriff et al. 2014). Partners are better prepared to provide more practical support for breastfeeding postnatally when they attend antenatal classes. Inclusivity is supported in research by Brown and Davis (2014) who found that partners often felt left out of the breastfeeding education and felt helpless to support their partner. Several studies in a number of different countries (Brown & Davis 2014; Sherriff et al. 2009, 2014; Tohotoa et al. 2009) have indicated that fathers described how they required more information about breastfeeding so that they could be involved in the care of their infant. Maycock et al. (2013) also found an increase in breastfeeding rates when fathers attended a two-hour antenatal class and postnatal support was provided. Furthermore, Sherriff and colleagues (2014) found overwhelmingly that fathers can have a considerable influence on the decision
to initiate and continue with breastfeeding, especially when they are meaningfully engaged. This could easily commence during the antenatal period by attending classes.

Several participants were grateful that their partners had attended the antenatal classes with them as they were able to support them with breastfeeding and were able to offer suggestions that the women may have forgotten. This finding has an implication for health literacy of both parents and may be an important predictor of healthcare outcomes such as breastfeeding. The needs of both parents can be addressed when they attend classes together and can discuss the information that was provided about birth and parenting. Men who attended antenatal classes reported wanting to hear what their partners were learning and wanted to be aware of their own changing roles so that they were able to make meaning from the experience. An individual’s capacity to contextualise health knowledge for her or his own health, is reflected in critical health literacy. Actions regarding their health are only taken after they have evaluated what that action means for them “in their own world” (Rubinelli et al. 2009, p. 309), which often incudes input from their partners.

The need to address fear was another issue raised by both educators and class participants in this study. Many studies (Serçeküş & Baskale 2015; Byrne et al. 2014; Karabulut et al. 2016; Toohill et al. 2014; Schwartz et al. 2015; Isbir et al. 2016) from international authors have found that antenatal classes are able to reduce the fear of childbirth and improve maternal self-efficacy (Serçeküş & Baskale 2015; Isbir et al. 2016). The literature supports normal physiological, undisturbed birth (Buckley 2003; Odent 2008) due to the production of birthing hormones by the mother. One class participant in this study mentioned that she was advised in her classes to do things to make her feel good, which has been shown to improve the production of oxytocin, an important birth hormone (Buckley 2003). In addition, an antenatal educator highlighted an interesting point that she discusses hormones with her class participants in the hope of reducing fear, a topic that other educators in this study did not mention. Another class participant believed if women were able to practise exercises in the class then they would feel more ‘confident and in control’ and it would take away some of the fear. These comments are also supported by several international and Australian studies (Adams et al. 2012; Andersson et al. 2012; Storksen 2012; Ferguson, Davis & Browne 2012; Dahlen et al. 2012; Karabulut et al. 2016) which found that women who attended antenatal education classes experienced less anxiety. This
is important as studies have shown that fear is linked to adverse maternal outcomes such as increased rates of epidural, caesarean and postnatal depression (Dahlen et al. 2012). By involving women in their care and addressing their concerns through strategies that aim to promote an interactive health literacy, and ultimately critical literacy, antenatal classes that specifically target fear have demonstrated that anxiety and fear are reduced (Rouhe et al. 2013; Toohill et al. 2014) and maternal self-efficacy is increased (Serçekuş & Baskale 2015; Isbir et al. 2016).

In contemporary antenatal care, evidence has clearly demonstrated the need to evaluate practice (NICE 2014). The evidence-based Quality Maternal and Newborn Care (QNMC) framework developed by Renfrew et al. (2014) is frequently employed to conduct this evaluation. The philosophy of the QMNC framework describes an approach to care which involves strengthening women’s own capabilities, a part of which is respecting women’s rights to participate in decisions about their own care (Symon et al. 2017). With models of antenatal care and antenatal education now overlapping through the increase in continuity of care services, midwifery group practices and caseload midwifery care (Tracy et al. 2013) the provision of consistent information in the antenatal period is imperative. Despite attending combined care and education, some participants in this study still sought classes that focused on specific parenting information such as breastfeeding; perhaps indicating that their needs were not being met by the combined care model alone. Careful evaluation of antenatal classes and their content is important if the information needs of the participants is to be met.

Meeting the expectations of managers/supervisors

This study found that while some educators were obviously still focusing on rigid techniques and content imposed by the health care facility, others embraced the learning needs of their class participants. The philosophy surrounding childbirth appears deeply entrenched in the institutions, with values and beliefs defining how services are organised and how choices for a woman regarding birth are offered (Rogers 2015). Sandler et al. (2011) identified the lack of a theoretical base to many programs and noted that a theoretical base is required to
identify the learning objectives of the participants. Likewise, many educators in this study came with their personal philosophy about teaching and facilitating antenatal classes. Similarly, Schneider’s (2001) study found that “Some childbirth-parenthood educators spoke about the philosophy underlying midwifery and feminist models in their classes, and encouraged the women to behave accordingly, that is, to ask questions, question procedures, and be aware of their choices and options” (p. 33). Several educators in this study also encouraged class participants to do the same. Some felt the need to protect the woman from the institution. They achieved this through providing and practising tools such as the acronym BRAIN during the classes that specifically dealt with methods of becoming more assertive and buying time to consider options during birth. This was found to empower women to ask questions about their care and changing circumstances.

Some antenatal educators in this study were dissatisfied with the information they were required to provide, which conflicted with their own beliefs. When this happened, they felt the need to provide alternative information that went against what the health care facility recommended. They did this so that participants would be informed and hoped that it would enable them to navigate the system to achieve the birth they preferred; this was particularly evident when it came to waterbirth. This approach met the needs of the institution that required signed paperwork from the educators to state they had provided the information, thus transferring responsibility for health outcomes from the health care facility to the woman. It also met the needs of the antenatal educator who could provide alternative options for the class participant which she hoped would enable participants to make an informed decision. Antenatal educators who created an environment that promoted interaction helped class participants interact effectively with their healthcare provider (Weiss 2007; Kuhnly et al. 2015).

Privately practising antenatal educators in this study clearly recognised that the hospital antenatal educator did not always offer the best options or provide accurate information to women birthing in the health care facility, especially relating to information around interventions. Once women have had an opportunity to consider available evidence, informed decisions can be negotiated with their health care provider (Symon et al. 2017). Several participants considered interventions unnecessary, but these interventions were
required by health facility protocols under which they were required to birth. In attempting to empower women with the skills to navigate the discord, antenatal educators at times provided limited information about the health care facility policies. Unfortunately, not providing the full information sometimes led to a misunderstanding by the class participants who were then unprepared for interventions during birth. Several participants were disappointed that they had not received correct or full information regarding policies relating to birthing; for example, for women who wished to explore the option of birthing through water, which denied the women choice in their care. A similar situation was revealed in a Canadian study by Stamler (1998), who showed that all participants wanted to be aware of the procedures and policies of the institution. They also wanted to know if they had control over any decisions and the knowledge and information they may require to make those decisions. While Stamler’s study was conducted 20 years ago, it appears that little has changed in some respects, relating to what participants wanted to get out of antenatal education. Providing information builds confidence in the class participants and enables them to make informed decisions that are consistent within the limitations and requirements of the health facility.

Women in this study were often well informed, having researched and critiqued appropriate information and developed opinions for themselves, demonstrating a critical level of health literacy. Despite having this knowledge, several International and Australian studies have suggested that participants’ decision making may then be directed by antenatal educators and health care staff to ensure that they comply with local preferred policies. In this situation adequate knowledge for personal decision making and choice is not being achieved (Graham & Oakley, 1981; Perry 1992; Armstrong 2000; Docherty, Bugge & Watterson 2012; Svennson, Barclay & Cooke 2007; Furber & Thomson 2008; Snowden 2011). Antenatal education should be responsive to the informational needs of the class participants adjusting what is delivered to suit their needs.
Influence of the environment on pedagogy and practice

Well-designed facilities not only enhance interest in learning, but also encourage active class participation (Watson 2007) and develop a positive learning environment. Unfortunately, many antenatal classes lack a learning environment that supports optimal engagement due to the large number of participants. Class sizes continue to be an issue. According to the international literature (Ho & Holroyd 2002; McMillan, Barlow & Redshaw 2009; Nolan 2009; Holroyd, Twinn & Yim 2011; O’Sullivan, O’Conell & Devane 2014; Brixval et al. 2016; Koushede et al. 2017), large class sizes can inhibit learning and reduce the collaborative nature of the group. Participants can feel intimidated by large numbers and are less likely to have their learning needs met when involved in a large class. A manageable number of participants and an appropriate size of the environment not only enhance interest in learning, but also encourage active class participation.

The physical environment was important to all participants in this study. All educators in this current research described how they elected to set up their class seating environment. Seating arrangements varied from a circle, semi-circle/horseshoe or they left the chairs in rows that had been previously set up by health care facility staff. For example, one educator commented that she was required to leave the chairs in rows, due to the constraints of the health care facility where the classes were held. Yet, the layout and shape of the class can encourage or inhibit interaction between class participants (Atherton 2013; Watson 2007). According to Oliver and Kostouros (2014), having desks in rows is an archaic and ineffective strategy that does not support learning and reflects the educational philosophy of the institution. While this style allows the antenatal educator to make eye contact with the women it does not allow the women to see each other; an arrangement that is very much educator centred. However, if the chairs are set up in a circle or horseshoe shape, all participants can see each other and contribute to the discussion with their peers. The antenatal educators in this study discussed how they elected to arrange the seating in the class environment which encouraged women to participate, while the participants commented on the comfort of their surroundings, and clearly preferred the inclusive learner centred approach that a circle provided.
Meaningful and effective learning

Meaningful learning in this study refers to the way in which new knowledge is acquired, related to and integrated with previous knowledge. When antenatal education is meaningful, participants develop their knowledge and skills to the extent where they can apply new information related to their personal lives. The development of new knowledge, and discovering its usefulness in one’s own life, reflects critical health literacy. This level of health literacy is a process in which women become aware of issues, participate in discussions, and become involved in decision making for their personal health (Zarcadoolas, Pleasant & Greer 2005). Critical health literacy also refers to having the advanced skills needed to analyse information and the ability to use the information so that the individual or group has more control over life events and situations (Shieh 2009; Matthews 2014). In this study several women reported how they had applied information they had learnt during their births. If the goal for class participants is to become autonomous and responsible for managing and evaluating health information, this can be achieved through the use and appropriate application of evidence-based practice (Chinn 2011).

One of the main aims of antenatal education is to develop social support networks (Fabian, Rådestad & Waldenström 2005; Svensson, Barclay & Cook 2006a; Svensson et al. 2008; Department of Health Pregnancy Care Guidelines 2018). Over a number of years both Australian and international studies have emphasised the importance of developing social support networks among class participants (Berlin, Tornkvist & Barimani 2016; Brady & Lalor 2017; Fabian et al., 2005; Murphy Tighe 2010; Nolan 2009; Svensson et al., 2006, 2008). Breustedt and Pukering (2013) found that reducing social isolation and being provided with opportunities to share experiences of pregnancy and to address issues that arise in a group setting were important to participants in their study, similar to findings in this study. However, the most recent Cochrane review on antenatal education concluded that relationships between antenatal classes and general social support "remain largely unknown" (Gagnon & Sandall 2011, p. 2). An assumption is often made that by attending antenatal classes the participants will connect and relationships will develop to provide social support networks into the postnatal period and beyond. The New Zealand Families
Commission Report (Dwyer 2009) also described how increased social support is one of the main benefits of antenatal classes, especially as this support frequently extends into the postnatal period. While this did occur with most class participants in this study when there were multiple classes, those participants who attended single or intense classes found them to be rushed and not at all conducive to making friendships or providing lasting friendships and support. In their Swedish study Berlin, Tornkvist and Barimani (2016) investigated parents’ experiences of antenatal education groups, and class participants reported that interactions with other parents were more meaningful than the information the antenatal educator provided.

In the current study one of the main reason’s women attended antenatal classes was to socialise, network and meet other women for support. In the study by Stamler (1998), when asked if they would change anything about their classes, participants consistently asked for more socialisation. This is a common finding from many international studies (Stamler 1998; Nolan 1999; Petersson, Petersson & Hakansson 2004; Nolan 2009; Nolan et al. 2012; Wedin, Molin & Crang 2010). For example, Nolan (2012) found that women attended antenatal classes to meet others who were also pregnant and to share similar experiences. While this opportunity to socialise with others occurred with most class participants in this study, for a few participants this was not the case; for example, when they were required to sit in rows and all they could see was the backs of other class participants heads. When this occurred, most found additional classes to meet their needs either educationally, socially, or both, and for some this was in the postnatal period as previously mentioned.

**Empowering participants for decision making**

Autonomy transfers power from the expert, such as the antenatal educator, to the woman or class participant (Lothian 2008b). Eames (2004) acknowledges the need to recognise the value of the knowledge a woman already has, both her knowledge of self and her ability and intuitive knowing, which could be used to encourage the development of confidence to take charge of herself, and ultimately achieve empowerment. When developing confidence to make decisions about their care, women require accurate information. In many cases, access to health information and the ability to use it effectively, fosters empowerment.
Feste and Anderson (1995) describe empowerment as an educational process designed to help individuals to develop the knowledge, skills, attitudes and degree of self-awareness that is necessary for them to successfully accept accountability for personal decisions regarding health. Symon et al. (2017) found that one of the main drivers of contemporary antenatal care is to empower women. In this study those women who attended privately run classes were provided with more information and skills to challenge the health care facility in which they were going to birth. This gave them more options during labour and they were able to question the institution by saying no to specific procedures and interventions. However, in doing so they ran the risk of having some birth options denied, such as birthing through water.

In guiding women and their partners toward decisions some of the educators also became more confident. This was evident in supporting women’s decisions beyond the perceived restrictions of the health care facility. The educators were sensitive to the effect they had on women and their partners. Many antenatal educators in this study offered support to participants and built confidence through encouraging them to participate fully in classes and contribute during meaningful group discussions using their previous experiences. The reciprocal nature of this interaction continued with an antenatal educator reporting that she had learnt from the class participants. The concept of being aware of self and of being selfless emerged from the data with one educator reporting that she thought the class participants learnt more through sharing information with each other, thus inspiring confidence and building autonomy.

Several participants in this study attended antenatal classes that could be considered a commercial product; that is, they are classes designed and sold by businesses to individuals to generate a profit. In antenatal education practice an increasing number of commercial antenatal classes are now available throughout the community for example, Calm Birth, Active Birth and HypnoBirthing. As well as providing antenatal education, some of these antenatal classes also help participants to develop the skills to analyse information and challenge health facility policies. The complexity of trying to find and understand pregnancy, birth and parenting information can be perceived as a barrier to obtaining information that participants need. Findings in this study indicate that the majority of independently run
classes were learner centred in approach and antenatal educators facilitated discussion amongst the participants to encourage and confirm understanding for meaningful learning. The reflective conversations encouraged class participants to obtain information and plan their care, thus increasing autonomy and confidence.

A way to encourage both communication and cooperation among caregivers and informed decision-making by childbearing women is to develop a birth plan in the antenatal period (Simkin 2007). This was also recommended by the educators who suggested that a birth plan would help participants to understand the health care system. Several participants had the opportunity to develop and discuss birth plans in their antenatal classes. They were used as a form of communicating their preferences for birth which participants had actively researched prior to labour. In their book which is devoted to the creation of a meaningful birth plan, Wagner and Gunning (2006) consider how this may guide women towards a safe and empowering birth. In relation to critical health literacy having the advanced skills needed to analyse information and the ability to use the information to develop a birth plan helps those attending antenatal classes to make informed decisions, which they can then share with their peers and care givers. Lothian (2006) suggested that the development of a birth plan was an informed method that was clear to all those involved in the woman’s care during birth. Half of the participants in this current study completed birth plans and found them useful and helped them to develop confidence during birth when it came to make informed decisions. When developing these plans participants were able to discuss their options with both their care givers, family and other class participants to make meaningful decisions about their care.

**Enablers and barriers to meaningful learning**

In the 21st century information is readily available through multiple sources, with the Internet one of the most pervasive. Participants in this study came to class having gathered much information, and typically this was from sources of media such as the Internet and their friends and family. Several studies (Petersson, Petersson & Hakansson 2004; Lima Pereira et al. 2011; Fredriksen, Harris & Moland 2016) also found that the Internet was a
popular source of information by class participants. This demonstrates that participants frequently seek information from sources other than the classes they attend.

Petersson, Petersson and Hakansson (2004) found that women needed to seek information from other parents, not just the ‘experts’, indicating that while the educator is seen as the expert, women also prefer to hear from their peers who are going through a similar experience. This concurs with this study where class participants stated that they enjoyed hearing from their peers. It also indicates that class participants appreciate the shared experience of learning and includes a sense of belonging to a new role in their lives, of becoming a mother. A number of authors across several decades of research have recognised that class participants enjoy learning from their peers and that there is substantial benefit from interacting with fellow learners (Mezirow 1983; Robertson 1994; Schott & Priest 2002; Henderson 2005; Brown et al. 2008; Nolan 2009; Illeris 2009; Fredriksen, Harris & Moland 2016). Consequently, antenatal educators need to suppress claims of ‘knowing all’ and instructing participants on what they believe women and their partners should be told but rather empower participants by facilitating class participants to explore the information they seek as individuals. It is evident that there is a need to further investigate a pedagogy that allows participants to focus on their own knowledge and to share their understanding with others who are currently experiencing the same life event.

Implications of the disempowering effect of health facility policies have meant that antenatal educators have been required to work within limited resource settings in terms of time and with health policies that require the delivery of set content. Findings indicated tensions between antenatal educators who predominantly provided information at a functional level of health literacy (Nutbeam 2000), and consumers who came to antenatal classes well prepared having accessed information from a wide range of sources. In addition, discord was evident between the information provided about birth choices, options available, and health service policy.

With technology rapidly advancing, changes in the health care industry would suggest that the Internet will increasingly become more central as a source of health information. Several studies indicate the use of the Internet as a major source of health-related
information (Carolan 2007; Lagan, Sinclair & Kernohan 2007; Larsson 2009; Fredriksen, Harris & Moland 2016; Grassley et al. 2017). In their study involving game based online antenatal breastfeeding education Grassley and colleagues (2017) found that the Internet may improve breastfeeding rates by increasing women's access to antenatal breastfeeding education. Furthermore, studies by Lagan, Sinclair and Kernohan (2007) and Larsson (2009) both found an increasing use of the Internet to search for pregnancy related information. Their findings also indicated that women perceived the Internet to be a reliable source of information. Research suggests that most expectant couples would appreciate suggestions of relevant websites from health care providers who could help them to assess the quality of information available on the Internet (Larsson 2009; Lima-Pereira 2012; Gao, Larsson & Luo 2013; Grimes, Forster & Newton 2014). The immediacy and convenience of information provided by the Internet was particularly useful in the early part of pregnancy (Declercq, Sakala & Corry 2006; Larsson 2009). Fredriksen, Harris and Moland (2016) found that web-based discussion forums influenced maternal health literacy. Of note was the increase in health-related knowledge and increased system navigation, which improved their ability to access pregnancy related information, empowering women with knowledge in which to make informed decisions and choices. Additionally, both Larsson (2009) and Fredriksen, Harris and Moland (2016) investigated whether pregnant women discussed this information with their midwife or health care provider and found that many hid the origins of their knowledge, and that participants both appraised and selectively applied information they had sourced indicating a critical level of health literacy. Some antenatal educators in this current study suggested appropriate websites. Ideally, they would encourage participants to investigate and confirm information they had been provided in class by providing referrals to quality Internet sites and phone apps.

While many women attend antenatal classes for information, it is clear from the study findings that meaningful learning did not stop there. Lima-Pereira et al. (2012) argue that the Internet should be used strategically to reinforce content covered in class thus improving participants’ understanding and interactive health literacy. Nationally, governments have invested in health information websites (Hill & Sofra 2017) and have more recently involved consumers in the development of these sites. There are many digital initiatives currently available including online antenatal education classes. However, it is
important to remember that class participants with sound literacy skills may still find that understanding healthcare information is challenging (Carolan 2007). Often participants do not understand medical vocabulary, how to navigate the healthcare system (Cornett 2009) or find appropriate websites.

All class participants in this study used the Internet, not only for information but they extended its use to contacting each other through Facebook and through email communications providing opportunity for social contact. Further, most educators in this study offered class participants the option of exchanging email and Facebook identities. On some occasions, however, the educator retained the information until the last class, rather than allowing the women to have access to the information earlier in pregnancy, which prevented them from easily contacting each other. Whether deliberate or unintentional, many researchers (Furber & Thomson 2008; Svensson, Barclay & Cooke 2007; Stapleton et al. 2002; Rowe et al. 2002) suggested that antenatal educators can attain a position of power over class participants through factors such as controlling access to choices. An important aspect of the current study was that class participants found it useful to have access to each other’s emails throughout the weeks of classes, so that they could exchange ideas and concerns with each other, rather than the educators controlling the timing of providing contact details.

**Implications related to the conceptual framework of health literacy**

The three aspects of Nutbeam’s (2000) health literacy framework have been used as a conceptual framework for this study: functional, interactive and critical. As discussed in chapter 1, these levels of health literacy show the development of skills and understanding of health information that are required for decision-making related to health, which is particularly relevant during pregnancy, birth and throughout parenthood. Using this framework, the experiences and influences that helped promote health literacy among participants have been interpreted and described.

Functional health literacy focuses on more than basic skills in reading and writing (Nutbeam 2000), but also includes the transmission of information to improve knowledge about the
health service. Skills in facilitation, rather than a more didactic approach of conveying information provided by the institution, could be considered by antenatal educators and is preferred by participants (Andersson, Christensson & Hildingsson 2012; Wiener & Rogers 2008). Nutbeam (2000) proposes that transmitting educational information in a clinical setting often fails to consider the social or educational circumstances of the participants. Enabling the participants to take the lead and direct their own learning through a facilitative style of teaching, many barriers can be overcome. Discussions can be rich and meaningful when they focus on the participants’ specific learning needs and leads to skills at a level of interactive health literacy.

Interactive health literacy refers to advanced skills that allow a person to take information, develop meaning from a variety of different sources and apply new information to individual changing circumstances. Literacy skills at an interactive level, such as applying information provided by the health care facility, are described by Nutbeam (2000). In applying information that makes meaning to participants, Bainbridge (2009) posed an interesting question, asking if anything could prepare women for childbirth, given that every person was unique, and each pregnancy journey would be different. Yet even class participants who had good literacy skills may face challenges when attempting to understand information provided by some educators, such as interpreting information (Carolan 2007; Cornett 2009). This can cause them unnecessary anxiety and tension during their pregnancy. Several class participants in this study experienced anxiety when they were provided with a large amount of information, in a short amount of time. To overcome this problem some chose to take notes for consideration at a later period.

It is possible that participants may not be fully prepared for birth and parenthood if they do not understand or have an opportunity to discuss and apply information provided in class. Effective interactive health literacy can help participants to review and act on health information and therefore improve decision-making and health outcomes (Nutbeam 2000). Antenatal education that facilitates social support for class participants is a good example of interactive health literacy as it helps participants to develop skills in a supportive environment (Nutbeam 2000). Interactive health literacy offers the opportunity to move current practice and thinking about antenatal education away from a simple transfer of
knowledge, such as in functional health literacy, towards a more active process of empowering women, such as in critical health literacy.

Today, antenatal educators are required to be not only innovative and resourceful in how they provide education to help develop personal empowerment of class participants, but they are also required to incorporate evidence into their practice which entails an understanding of research synthesis (Thielen 2012) and a critical level of health literacy. Nutbeam (2008) provides clarity regarding aspects of critical health literacy that include the advancement of “cognitive skills which can be applied to critically analyse information, and to use this information to exert greater control over life events and situations” (p. 2075). Through formal education and informal personal experiences these skills can be developed. Antenatal education provides a perfect opportunity for educators and participants to come together to reach a critical level of health literacy. When empowering participants to make decisions, several antenatal educators in this study encouraged participants to discuss topics amongst each other and draw their own conclusions from what was being said. By combining information participants had researched and discussions about that information from their classes, participants had the capacity and confidence to make informed decisions regarding their care. According to Shieh and Halstead (2009), addressing health literacy has the potential to influence how women seek information to improve their health knowledge and self-advocacy skills.

**Part 2: Contributions of this thesis**

This study contributes to the existing body of research through an Interpretive Description of antenatal education. Specifically, the study provided a unique insight for viewing participants’ experiences and acknowledging their views, concerns and emerging tension as they approached birth and parenting. The aim of Interpretive Description is to generate knowledge relevant for the clinical context. In using the three aspects of Nutbeam’s (2000) health literacy as a conceptual framework and a basis to situate the findings, this study has contributed to our understanding of the experiences and perceptions of expectant parents and antenatal educators.
There are several areas where this thesis supports existing research, and many of these aspects have not been adopted routinely in Australian settings of antenatal education practice. For example, previous researchers have found that the amount of antenatal education content can be overwhelming to the class participants, and rather than active learning occurring, some approaches to teaching have been non-inclusive (Svensson, Barclay & Cooke 2006b). This study has findings that extend beyond other research and proposes a number of components of good and best practice. These include antenatal educators working towards developing health literacy using the following techniques:

- consider the level of health literacy which the participants have already obtained
- encourage questioning and active participation in all classes
- develop skills in negotiation so that participants can navigate the facility in which they are to birth
- encourage social interaction to develop friendships and support networks
- ensure women are comfortable and can see each other which enables discussion of key concepts
- provide examples of quality websites so that participants can research and consider information in more detail that has been discussed during the class
- ensure content is evidence-based and current
- include partners and/or family wherever possible to reinforce and support the educational content and understanding
- Provide opportunities for participants to evaluate programs.

These strategies would be both feasible and economic to introduce in the Australian context and would support better outcomes for participants of antenatal education. They may also represent a set of propositions to be tested in a broader context as a nascent theory of best practice in antenatal education.

Limitations and strengths
The contribution that this study makes to the literature on antenatal education provision for expectant parents needs to be considered in context. There are several limitations with this study which include the sample size, limited demographics, and the generalisability of the findings. The participants were recruited through the snowball sampling technique which increased the chance that both class participants and antenatal educators with similar views were interviewed. Their views and perspectives may not represent all the views that exist on this issue, even from those practising in the same state or health service. Nevertheless, this was balanced by the fact that educators and class participants were recruited from both Queensland and Victoria, two very different states regarding models of antenatal education and geography, such as distance from health care facilities.

The small number of educators and class participants interviewed means the findings cannot be generalised and their experiences may not be relevant to other countries. However, the findings produced may resonate as meaningful to others and the study could be replicated in other settings. Data regarding the level of education, socio-economic status, cultural background, marital and employment status of educators and class participants were not collected. Upon reflection, this information may have provided an alternative lens in which to view the results.

The identification of a gap in the literature surrounding the process and practices of antenatal educators and what class participants found to be meaningful learning, generated the research questions for this study. One of the major strengths of this research is that Interpretive Description methodology which allowed the researcher to draw on personal experience as a former antenatal educator in a health care facility, and as a mother and consumer who attended antenatal classes, as discussed earlier in the reflexivity section in chapter 3. Therefore, the reader needs to appreciate the researcher’s particular world view. It is possible that the data would provide different interpretations by other researchers. There are a wide variety of antenatal classes offered across Australia which are not standardised in terms of content, setting or delivery style. Although I am familiar with many of these, I did not interview participants and educators from every model of classes that are offered.
Another strength of this study is that not only midwives were interviewed, but doulas who had trained as antenatal educators as well; which added an alternative dimension which has not been previously explored. With regards to class participants both primiparous and multiparas women were recruited. Therefore, a broad range of experiences were discussed, from those women who opted to have an independent midwife and homebirth to those who had no option and were birthing in the only health care facility available for them. Additionally, this study has explored how antenatal educators and the participation of class participants contributed to a meaningful learning experience.

Finally, by using the three aspects of Nutbeam’s (2000) health literacy as a conceptual framework and a basis to situate the findings, this study has illuminated an area of antenatal education which has not generally been explored, particularly critical health literacy.

Recommendations

Based on study findings the following recommendations which are applicable to antenatal practice have been developed to ensure best practice in antenatal education. These recommendations have implications for 1) education, 2) practice, 3) health policy, and 4) further research. Table 8 below provides a summary of the main recommendations.

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<th>Recommendations for education</th>
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<tr>
<td>Antenatal educators would be better prepared by undertaking formal educational training in health literacy.</td>
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<tr>
<td>Antenatal educators would be better prepared by undertaking formal educational training in group facilitation.</td>
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<tr>
<td>Antenatal educators should present information in such a way that participants feel empowered to make informed decisions about their care.</td>
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<th>Recommendations for practice</th>
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<td>Tailored, flexible classes should allow time to build social and informational support.</td>
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<tr>
<td>The setup of the class would be more beneficial if arranged in a formation that encourages talking and interaction between participants such as a circle.</td>
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<tr>
<td>Participants prefer facilitated teaching.</td>
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</table>
PowerPoints as a tool for presenting should be limited and replaced with facilitated activities.

**Recommendations for health policy**

Antenatal educators should evaluate and contribute to the development of health care policies that underpin programs they deliver.

The Competency Standards for Childbirth and Early Parenting should be implemented to enable evaluation and compliance of antenatal education programs.

Policy development should routinely encourage feedback from participants as a two-way process.

**Recommendations for further research**

Investigations into the pedagogy of current antenatal classes and examine how the Internet is used by class participants.

Identify new strategies to increase health literacy.

Development of strategies that would comprise elements of a formal theory to guide antenatal education, including a focus on social support and health literacy for class participants.

Investigate the pedagogical processes of learning about birth and parenting.

**Recommendations for education**

Overall, antenatal educators have little training in health literacy, although many are already unknowingly improving the level of functional health literacy amongst their class participants by providing information, printed material and links to appropriate websites (Wilmore et al. 2014). Health outcomes may be improved by tailoring antenatal education to meet the needs of class participants at their level of health literacy. Antenatal educators would be better prepared by undertaking formal educational training in health literacy and group facilitation. Group facilitation is particularly important. It was evident from data in this research that women attended classes having already researched topics of interest in which they were knowledgeable. If antenatal educators were to present information in such a way that participants felt empowered, participants would be able to make informed decisions about their care. According to O’Sullivan, O’Conell and Devane (2014), facilitation skills should be incorporated into all midwifery education programs at the undergraduate university level which this study also recommends.

**Recommendations for practice**
Antenatal education classes that are tailored to the needs and expectations of the participants and offered in a variety of flexible models and flexible times would be of benefit to class participants. One practical implication is tailored, flexible classes that allow time to build social and informational support. With regards to the issue of information overload, when facilitated, classes provide adequate information and allow time for participants to network with others going through the same experience. On the whole participants in this study preferred to sit in a room that was set out with comfortable chairs placed in a circle. Therefore, the setup of the class would be more beneficial if arranged in a formation that encourages talking and interaction between participants. Participants also made it clear that they prefer facilitated teaching. Therefore, antenatal classes would be improved by limiting the use of PowerPoints as a tool for presenting and replacing them with facilitated activities. The most useful tools were those that empowered class participants to better understand the hospital process, including how to say no to various procedures. However, no amount of preparation will protect class participants from the restrictive policies and obstetric protocols of the health care facility.

To ensure that learning in antenatal classes is applicable and unforgettable, antenatal educators who employ a variety of teaching and learning strategies will be in a stronger position to maintain participants’ interest and attention during antenatal classes. When considering increasing class participant engagement in their healthcare, simply focusing on functional health literacy is not sufficient. A more effective approach is to focus especially on their interactive health literacy, for instance by increasing the communication skills between the participants as well as antenatal educators through group activities and discussion.

**Recommendations for health policy**

Antenatal educators are in a position to action change in policy and through support and adequate mentoring are able to assess, evaluate and contribute to the development of health care policies that underpin the antenatal education programs they deliver. The future of antenatal education lies with a shift in approach towards what is termed critical antenatal
education. This is an approach which is focused on the development of skills to critically analyse information to inform individual decision making and to build class participant confidence. This aligns with Nutbeam’s (2000) health literacy framework, in which critical health literacy focuses on the ability of the participants to seek out information and assess the reliability of that information to make well informed and empowering health choices. Critical health literacy is not only a means to improve control over personal decisions but is also a set of skills that enables women to participate more actively in political and social decisions affecting their health (Wise & Nutbeam 2015). A critical antenatal education pedagogy would have the advantage of helping women to become more aware of the determinants of health and enable them to make informed, autonomous decisions.

The Department of Health Pregnancy Care Guidelines (2018) propose that antenatal education would include the following; building women’s confidence; preparing women for pain in labour; and contribute to reducing perinatal morbidity and mortality. Currently there are no recommendations regarding how to achieve these aims, or to evaluate antenatal education programs nationally. Therefore, it is recommended that the Competency Standards for Childbirth and Early Parenting, developed by CAPEA (2011) in collaboration with the Australian College of Midwives (ACM) should be implemented to enable evaluation and compliance of antenatal education programs, that meet the needs of class participants and the aims of the Department of Health. Policies should also be developed that encourage regular feedback from class participants as part of a two-way process.

**Recommendations for further research**

The development of new antenatal pedagogies would be possible with a foundational understanding of theory to underpin the current concepts and models of delivering antenatal education. Further research is recommended to help develop new antenatal pedagogies and could include the following:

- development of evidence-based strategies to include training and professional development for professional staff in relation to facilitation, communication and health literacy;
• investigations into the pedagogy of current antenatal classes and examine how the Internet is used by class participants in today’s society;
• identify new strategies to increase health literacy amongst class participants and evaluate the retention of health information to inform decision making;
• development of strategies that integrate social support for class participants into a formal theory of antenatal education;
• investigate the process of learning about birth and parenting as central objectives of antenatal education;
• development of case studies to capture best practice in antenatal education; and
• identify best practice through the design, implementation and evaluation of antenatal programs, to ensure that education practice and standards are consistent throughout Australia.

Conclusion

This study is highly relevant to the practice of antenatal education and has presented a number of challenging concepts for both antenatal educators and class participants. This study examined the experiences of antenatal educators and class participants with a view to understanding issues that were identified within contemporary antenatal education. An Interpretive Description approach was used to obtain rich data from the participants, using the lens of health literacy to gain further insight into antenatal educational practices. This chapter has drawn together the findings of this study and discussed them in relation to the current literature. This chapter has also summarised what this thesis contributes to the current knowledge base and has provided recommendations for clinical practice and further research.

This research used an innovative design approach and has made an important contribution to existing knowledge. This Interpretive Description study has revealed new insights into best practice in antenatal education from both the perspective of the antenatal educators and the class participant perspectives. These key insights regarding the role of the antenatal educator include that antenatal educators should be responsive to participant needs for the
stage they are at in pregnancy. They should build confidence and allay childbirth fears through appropriate use of context and content. The needs and desires of childbearing women need to be considered by birthing institutions if antenatal education is to become more meaningful and that meets expectations in the preparation of women and their families for birth and the early postnatal period.

This research has made an original and significant contribution to the body of knowledge and practice for antenatal educators in relation to the understanding of current curricula, pedagogy and practice. Antenatal education is firmly embedded within our culture as a way of preparing for pregnancy, childbirth and parenting. A pedagogy that is inclusive and flexible in delivery will empower participants to make meaning from the information they seek and share with each other.
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Appendix A: Example advertising flyer – participants

What was your experience of Antenatal Education?

To help develop best practice in parenting and birth preparation we are currently conducting a research study. We would like to talk with you about your experience in antenatal education classes.

The findings will help antenatal educators prepare and deliver effective educational support to meet your needs.

Would you like to be involved in research?

For further information on this project contact:

Terri Downer RN RM
PhD Candidate
Phone: 07 5466 5785

Email tdowner@usc.edu.au

USC ethics no: XXXX

Have you had a baby in the last year?

Are you over 18 years of age and English speaking?
Appendix B: Example advertising flyer – antenatal educators

Are you an Antenatal Educator?

To help develop evidence based best practice in parenting and birth preparation I am currently conducting a research study. I would like to talk with you about your practice in providing antenatal education.

The findings will help antenatal educators prepare and deliver effective educational support to meet the needs of contemporary women.

Would you like to be involved in research?

For further information on this project contact:

Terri Downer RN RM
PhD Candidate
Phone: 07 5456 5768
Email: tdowner@usc.edu.au
USC ethics no: XXXX

Do you currently facilitate antenatal Classes and speak English?
Appendix C: Antenatal educator invitation

Invitation to Participate in Research

Antenatal Educator

Project: Process, Practice and Pedagogy in Antenatal Education

USC Ethics Approval No. S/13/506

I am conducting research exploring antenatal education pedagogy, practice and learning experiences as part of my PhD. The reason for this study is that while there is a lot of information about antenatal education content, there is very little research which looks at the educational process. This is important to investigate in order to have the best evidence for services which support women’s health care and outcomes during pregnancy, birth and the postnatal period. Therefore, in this project I will talk to antenatal educators about their processes, practice and pedagogy of teaching antenatal classes, and class participants who have attended antenatal education.

Involvement in the project as a participant is voluntary and will involve being interviewed about your practice as an antenatal educator. I expect that the interview will take between 30 to 60 minutes and can be arranged at a time and venue to suit you. The interview will be audio recorded so that I can accurately recall what we discussed. You can ask that the recording devise be turned off at any time.

The research has been approved by the University of the Sunshine Coast Human Research Ethics Committee. The findings of this study will help antenatal educators to understand the processes of curriculum development for antenatal classes.

To be eligible to participate you would be:

- An antenatal educator
- English speaking
- Currently providing antenatal education classes

I am very keen to include you in this research, if you are interested and would like further information please contact:

Terri Downer

Phone: 07 5456 5765

Email: tdowner@usc.edu.au
Appendix D: Consent antenatal educator

Consent to Participate in Research

Antenatal Educator

Project: Process, Practice and Pedagogy in Antenatal Education

USC Ethics Approval No. S/13/506

Principal Researcher: Terri Downer
Phone: 07 5456 5765
Email: tdowner@usc.edu.au

Project Overview

There is very little research looking at how antenatal educators develop and convey their programs. Therefore, this project aims to talk to antenatal educators and class participants about processes, practice and pedagogy in antenatal education. The findings of this study will help antenatal educators to understand what they are doing and why in order to improve practice in the future.

I understand that:

- I do not have to participate in this research study if I do not want to; and
- I understand the contents of the Research Project Information Sheet for the research study “Process, Practice and Pedagogy in Antenatal Education” and this Consent to Participate in Research form. I agree to participate in the project and give my consent freely. I understand that the project will be carried out as described on the Research Project Information Sheet, a copy of which I have kept. I realise that whether or not I decide to participate is my decision. I also realise that I can withdraw from the study at any time and that I do not have to give any reasons for withdrawing. Any questions I had about this research project and my participation in it have been answered to my satisfaction.
- I understand that if I have any concerns about the ethical conduct of the project I can contact the Chairperson of the Human Research Ethics Committee at the University of the Sunshine Coast: telephone (07) 5459 4574; facsimile (07) 5430 1177; email humanethics@usc.edu.au

Participant’s Name (please print) ………………………………………………….

Signature …………………………………..   Date: ………………

Note: All parties signing the form must date their own signatures.
Appendix E: Consent class participant/support person

Consent to Participate in Research

Class Participants/Support Person

Project: Process, Practice and Pedagogy in Antenatal Education

USC Ethics Approval No. S/13/506

Principal Researcher: Terri Downer
Phone: 07 5456 5765
Email: tdowner@usc.edu.au

Project Overview

There is very little research looking at how antenatal educators develop and convey their programs. Therefore, this project aims to talk to women, their support person and antenatal educators about their experiences in antenatal classes. The findings of this study will help antenatal educators to understand what they are doing and why in order to improve practice in the future.

I understand that:

- I do not have to participate in this research study if I do not want to; and
- I understand the contents of the Research Project Information Sheet for the research study “Process, Practice and Pedagogy in Antenatal Education” and this Consent to Participate in Research form. I agree to participate in the project and give my consent freely. I understand that the project will be carried out as described on the Research Project Information Sheet, a copy of which I have kept. I realise that whether or not I decide to participate is my decision and will not affect my care or treatment. I also realise that I can withdraw from the study at any time and that I do not have to give any reasons for withdrawing. Any questions I had about this research project and my participation in it have been answered to my satisfaction.
- I understand that if I have any concerns about the ethical conduct of the project I can contact the Chairperson of the Human Research Ethics Committee at the University of the Sunshine Coast: telephone (07) 5459 4574; facsimile (07) 5430 1177; email humanethics@usc.edu.au
- I am (circle which participant)
  a) A new mother
  b) Significant support person
  and give my consent freely.

Participant’s Name (please print) ………………………………………………….
Signature …………………………………..   Date: ……………….
Appendix F: Invitation class participant

Invitation to Participate in Research
Class Participant/Support Person

Project: Process, Practice and Pedagogy in Antenatal Education

I am conducting research exploring the processes, practice and pedagogy of antenatal educators as part of my PhD. The reason for this study is that while there is a lot of information about antenatal education content, there is very little research which looks at the educational process. This is important to investigate in order to have the best evidence for services which support women’s health care and outcomes during pregnancy, birth and postnatal period. Therefore, this project aims to talk to antenatal educators, women and their support person about their experiences in antenatal classes.

Involvement in the project as a participant is voluntary and will involve being interviewed about your antenatal classes. I expect that the interview will take between 30 to 60 minutes and can be arranged at a time and venue to suit you. The interview will be audio recorded so that I can accurately recall what we discussed. You can ask that the recording device be turned off at any time.

The research has been approved by the University of the Sunshine Coast Human Research Ethics Committee. The findings of this study will help antenatal educators to understand the processes of curriculum development for antenatal classes.

To be eligible to participate you would:

- Be English speaking
- Have given birth
- Have taken part in an antenatal class in the last year
- Be over 18 years of age

I am very keen to include you in this research, if you are interested and would like further information please contact:

Terri Downer

Phone: 07 5456 5765
Email: tdowner@usc.edu.au

USC Ethics Approval No. S/13/506
Appendix G: RPIS class participant

Research Project Information Sheet

Class Participants/Support Person

Project: Process, Practice and Pedagogy in Antenatal Education
USC Ethics Approval No. S/13/506

Principal Researcher: Terri Downer
Phone: 07 5456 5765
Email: tdowner@usc.edu.au

Dear Participant,

Thank you for considering being involved in this project. Please take your time to think about whether you wish to participate. If you are interested, please contact Terri Downer via phone or email.

Most importantly, involvement in this project is voluntary and if you decide not to participate, this will not lead to any penalty. You may discontinue your participation at any time without penalty and with no need for explanation.

If you have any complaints about the way this research project is being conducted you can either raise them with the Principal Researcher or, if you prefer an independent person, contact the Chairperson of the Human Research Ethics Committee of the University of the Sunshine Coast: (c/o The Research Ethics Officer, Office of Research, University of the Sunshine Coast, Maroochydoore DC 4558; telephone (07) 5459 4574; email: humanethics@usc.edu.au)

About the project.

I am conducting research exploring the processes, practice and pedagogy of antenatal educators as part of my PhD. The reason for this study is that while there is a lot of information about antenatal education content, there is very little research which looks at the educational process. This is important to investigate in order to have the best evidence for services which support women’s health care and outcomes during pregnancy, birth and postnatal period. Therefore, this project aims to talk to antenatal educators, women and their support person about their experiences in antenatal classes.

What your participation in the project will involve

Participation in the project will involve being interviewed about your experience in an antenatal class. I expect that the interview will take between 30 to 60 minutes and can be arranged at a time
and venue to suit you. Recordings of the interviews will be deleted as soon as transcripts become available.

The research has been approved by the University of the Sunshine Coast Human Research Ethics Committee. The findings of this study will help antenatal educators to understand the processes of curriculum development for antenatal classes.

To be eligible to participate you would:

- Be English speaking
- Have given birth
- Have taken part in an antenatal class in the last year
- Be over 18 years of age

Benefits and Risks

The results of this research will help antenatal educators to understand the processes of curriculum development and pedagogical practices that women find most engaging. This will benefit women and antenatal educators in the future. You may benefit as a participant, by having the opportunity to discuss issues and concerns at the time of the interview.

All information collected during the interview will remain confidential. Information (tapes and transcripts) will be coded so that your identity will not be evident, and all data, transcripts and tapes will be securely stored at the University of the Sunshine Coast. Data collected will only be used for the purpose of this research or directly related research. If you decide to discontinue your involvement in the project all data collected from you will not be used in the project.

Results of the research will be disseminated via a PhD thesis, conference papers and published articles. In these documents there may be extracts from your taped interview, however these will remain anonymous. Feedback about the project will be provided to you through a summary report.

The research is being conducted as part of a PhD undertaken at the University of the Sunshine Coast. The study has been approved by the University of the Sunshine Coast Human Research Ethics Committee. The researcher does not anticipate there will be any commercial exploitation from the research.

The research team comprises Terri Downer a nurse/midwife and PhD student supported by academics with experience in the research method being used.

On behalf of the University of the Sunshine Coast and the research team we truly appreciate your assistance and contribution to this research. If you have any further questions or concerns about the research, please contact the Principal Researcher Terri Downer – 07 5456 5765 or email: tdowner@usc.edu.au
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Appendix H: RPIS antenatal educator

Research Project Information Sheet

Antenatal Educator

Project: Process, Practice and Pedagogy in Antenatal Education

USC Ethics Approval No. S/13/506

Principal Researcher: Terri Downer PhD Candidate

Phone: 07 5456 5765

Email: tdowner@usc.edu.au

Dear Participant,

Thank you for considering being involved in this project. Please take your time to think about whether you wish to participate. If you are interested, please contact Terri Downer via phone or email.

Most importantly, involvement in this project is voluntary and if you decide not to participate, this will not lead to any penalty. You may discontinue your participation at any time without penalty and with no need for explanation. The interview will be audio recorded so that I can accurately recall what we discussed. You can ask that the recording devise be turned off at any time.

If you have any complaints about the way this research project is being conducted you can either raise them with the Principal Researcher or, if you prefer an independent person, contact the Chairperson of the Human Research Ethics Committee of the University of the Sunshine Coast: (c/o The Research Ethics Officer, Office of Research, University of the Sunshine Coast, Maroochydore DC 4558; telephone (07) 5459 4574; facsimile (07) 5459 4727; email: humanethics@usc.edu.au

About the project

I am conducting research exploring the processes, practice and pedagogy of antenatal educators as part of my PhD. The reason for this study is that while there is a lot of information about antenatal education content, there is very little research which looks at the educational process. This is important to investigate in order to have the best evidence for services which support women’s health care and outcomes during pregnancy, birth and the postnatal period. Therefore, this project aims to talk to antenatal educators, women and, where agreed, their support person about their experiences in antenatal classes.
What your participation in the project will involve

Participation in the project will involve being interviewed about your practice as an antenatal educator. I expect that the initial interview will take between 30 to 60 minutes and can be arranged at a time and venue to suit you. A follow up interview will be arranged, in person or by phone, once the interview has been transcribed and the main ideas summarised. The follow up interview is to clarify with you the content of your interview and ask for further thoughts about your practice as an antenatal educator. If you would like a summary of the key findings this can be provided when the project has been completed. The research has been approved by the University of the Sunshine Coast Human Research Ethics Committee. The findings of this study will help antenatal educators to understand the processes of curriculum development for antenatal classes.

To be eligible to participate you would be:

- An antenatal educator
- English speaking
- Currently providing antenatal education classes

Benefits and Risks

The results of this research will help antenatal educators to understand the processes of curriculum development and pedagogical practices that women find most engaging. This will benefit women and antenatal educators in the future. You may benefit as a participant, by having the opportunity to discuss your practice, issues and concerns at the time of the interview.

All information collected during the interview will remain confidential. Information (tapes and transcripts) will be coded so that your identity will not be evident, and all data, transcripts and tapes will be securely stored at the University of the Sunshine Coast. Data collected will only be used for the purpose of this research or directly related research. If you decide to discontinue your involvement in the project all data collected from you will not be used in the project. Recordings of the interviews will be deleted as soon as transcripts become available.

Results of the research will be disseminated via a PhD thesis, conference papers and published articles. In these documents there may be extracts from your taped interview, however these will remain anonymous. Feedback about the project will be provided to you through a summary report.

The research is being conducted as part of a PhD undertaken at the University of the Sunshine Coast. The study has been approved by the University of the Sunshine Coast Human Research Ethics Committee. The researcher does not anticipate there will be any commercial exploitation from the research.

The research team comprises Terri Downer a nurse/midwife and PhD student supported by academics with experience in research.

On behalf of the University of the Sunshine Coast and the research team we truly appreciate your assistance and contribution to this research. If you have any further questions or concerns about the
research, please contact the Principal Researcher Terri Downer – 07 5456 5765 or email: tdowner@usc.edu.au

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Maroochydore DC 4558
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Email: jrowe1@usc.edu.au
Appendix I: Example interview topics educators

Example Interview Topics for Antenatal Educators

1) How long have you been providing antenatal education?
2) How many participants are usually in the class? And how many sessions are offered?
3) Thinking back to the last group you facilitated can you describe the class to me.
4) How do you plan and prepare for an antenatal class?
5) Tell me about your class environment.
6) What methods/approach do you use when facilitating an antenatal class?
7) What sort of learning experience do you want the participants to have?
8) Describe your role as an antenatal educator.
9) What values do you consider are important when providing antenatal education?
10) Who controls or influences the curriculum of the antenatal education classes?
11) What message is it that you want participants to take away from the classes?
12) Is there anything you wish you could change about the classes?
13) What support or training do you receive in group facilitation?

Use of probes as needed. These include:

• Would you give me an example?
• Then what happened?
• Can you elaborate on that idea?
• Would you explain that further?
• I’m not sure I understand what you’re saying.
• Is there anything else?
Appendix J: Example interview topics class participants

Example Interview topics for Class Participants/Consumers

1) Tell me about your experience in the antenatal class.
2) What were your expectations?
3) Describe the environment.
4) How was the information presented?
5) Would you have preferred the information presented in a different format?
6) Could your learning have been improved? If so how?
7) How did the antenatal educator encourage social support?
8) Was the social support of other participants of benefit?
9) Was there enough information on parenting topics?
10) Did the antenatal educator discuss any appropriate internet sites that you visited?
11) Was the information useful?
12) In hindsight, would you like to change anything that was provided in the class?

Use of probes as needed. These include:

• Would you give me an example?
• Can you elaborate on that idea?
• Would you explain that further?
• I’m not sure I understand what you’re saying.
• Is there anything else?
### Appendix K: Full list of learning objects

<table>
<thead>
<tr>
<th>Learning objects brought to the interview by antenatal educators</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Object 1" /></td>
</tr>
<tr>
<td><img src="image3.png" alt="Object 3" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mixture of objects</th>
<th>Labour scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image5.png" alt="Object 5" /></td>
<td><img src="image6.png" alt="Object 6" /></td>
</tr>
<tr>
<td><img src="image7.png" alt="Object 7" /></td>
<td><img src="image8.png" alt="Object 8" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Book</th>
<th>Image used in class</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image9.png" alt="Object 9" /></td>
<td><img src="image10.png" alt="Object 10" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stomach balls</th>
<th>Cervical poster</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image11.png" alt="Object 11" /></td>
<td><img src="image12.png" alt="Object 12" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Double jointed stethoscope</th>
<th>Doll and membranes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pocket uterus set</td>
<td>Belly dancing scarf</td>
</tr>
</tbody>
</table>