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GROUP BASED ANTENATAL CARE

- expectations, attitudes and experiences from parents´ and midwives´ perspective

GRUPPMÖDRAVÅRD -

förväntningar, attityder och upplevelser från föräldrars och barnmorskors perspektiv

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ABSTRACT

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Group based antenatal care (GBAC) is a model of antenatal care that has been implemented in Sweden since year 2000. Sparse research has been conducted in Sweden but in the USA, where the model is more common, the research has found that women´s satisfaction with GBAC is higher than with standard individual care (SC).
The purpose of this thesis was to study women's´ expectations of antenatal care and parents' experiences of GBAC in Sweden. Midwives attitudes and thoughts about GBAC and their work in SC were also investigated.
Method: In **Study I**, 28 parents who received GBAC were interviewed about their experiences and qualitative content analysis was used to understand and describe their responses. **Studies II** and **III** are based on the controlled clinical trial (CCT), which was conducted in 12 clinics in different geographical areas in Sweden between 2008-2010. The design of the study consisted of midwives who were randomized to GBAC or SC and women in both groups evaluated the given care. **Study II** compared 700 women´s expectations of antenatal care before the intervention in the CCT with 3061 women in an earlier national cohort (KUB) and also compared expectations in women who later received GBAC or SC. **Study III** was based on two questionnaires given to women before the intervention in the CCT and six months after birth. The study explored differences in mothers' satisfaction with the two models of antenatal care. Descriptive and comparative statistics were performed in **studies II and III**. In **Study IV** structured interviews were used to explore 56 midwives attitudes to GBAC. Descriptive statistics and quantitative content analysis were used.
Results from **Study I** showed that parents valued that their medical needs were fulfilled, and they felt prepared for childbirth but not for parenthood. Parents appreciated their midwives for their medical knowledge but were critical of their awareness of gender issues. In GBAC parents had opportunities to socialised with other couples and when sharing their situations with each other, they felt more normalized. They also recommended this model for all parents. The expectation of content of care in **Study II** showed changes since the National cohort 10 years ago. Currently women have lower expectations in health related issues and in attending parental classes but higher expectation about information. They also have a higher expectation that during antenatal care midwives will treat them with respect and support their partner's involvement. Two significant differences were found between GBAC and SC in the CCT: women who later received GBAC had higher expectations about information on breastfeeding and the importance of attending parental classes. Regardless of model of care, women in CCT had lower expectations of continuity of caregiver and there were also fewer women who preferred more visits then recommended compared to women in the national cohort.
In comparison between GBAC and standard care in **Study III**, there were no significant differences in general satisfaction between the two models. In GBAC, women reported significantly less deficiencies with all information, except information about pregnancy.

Women in GBAC reported more engagement from the midwives, that they were taken more seriously and that they had more time to plan the birth. Women in GBAC was also more satisfied with antenatal care in supporting contact with other parents and that the care helped them in initiating breastfeeding. Women reported deficiencies in almost 50% of antenatal care content regardless of model. Midwives in **Study IV** weighed pros and cons of initiating GBAC and considered the model inappropriate for immigrants and well-educated parents. They also expressed organisational barriers to implement the model. The majority of the midwives reported high work satisfaction and 55% requested to run GBAC. **In conclusion**, the findings of this thesis found few differences in women's expectations about the content of care between GBAC and SC, but expectations have changed over the last ten years. Parents who experienced GBAC appreciated the group model. Similar overall satisfaction in both models of antenatal care suggests that GBAC can be introduced without altering women´s satisfaction with antenatal care but midwives viewed constraints to implement GBAC.
Keywords: Antenatal care, group based antenatal care, midwives, parents, patient satisfaction, women.

INCLUDED PUBLICATIONS

Avhandlingen är baserad på följande del arbeten, vilka kommer att refereras till i texten enligt följande romanska siffror.

I. Andersson E, Christensson K, Hildingsson I. **Parents' experiences and perceptions of group-based antenatal care in four clinics.** Midwifery 2012, **28**:502-508.

II. Hildingsson I, Andersson E, Christensson K**. Swedish women`s expectations about antenatal care and change over time – A comparative study of two cohorts of women.** Sex Reprod Healthc. Accepted 13 January 2014.

III. Andersson E, Christensson K, Hildingsson I. **Mothers' satisfactions with group antenatal care versus individual antenatal care - a clinical trial.** Sex Reprod Healthc. 2013, **4**: 113-20.

IV. Andersson E, Christensson K, Hildingsson I. **Swedish midwives´ perspectives on group based antenatal care**. Resubmitted 24 april 2014, International Journal of Childbirth.

PREFACE

The subject of group-based antenatal care has come to be “my” subject for a number of years. I have studied this subject in practice in Sweden, England and the USA in parallel with my theoretical studies. This has led to an increased understanding of the complexity of antenatal care and research within this field. It has enabled me to gain a bird's-eye view of care in Sweden. It has also led me to reflect on the Swedish word “mödrahälsovård” [antenatal care], which is also sometimes referred to as “mödravård”. This title remains since the emergence of this form of care in the 1930s. “Mödrar” [mothers] and “vård” [care]. In the same way, the term “gruppmödravård” [group-based antenatal care] can be understood to consist of care that is only given to mothers in a group. Where is the family that the midwives are to care for, and where do we look for everything non-healthcare or care-related.

There have however been certain changes in terminology, as in the 1990s the term *mödravårdscentral* in Sweden became *barnmorskemottagning*. Both refer to antenatal clinics, though the latter is more literally “midwife clinic”.

The term *mödrahälsovård*, however, is still used as an overall definition of healthcare and parental support during pregnancy. These are the terms that exist today and which are in use, including in this thesis.

Perhaps in the future we will see the emergence of new terminology that better describes antenatal care, and which better reflects its content and purpose.

CONTENTS

ABBREVIATIONS AND ACCEPTED TERMS

MVC	*Mödravårdscentral* [antenatal clinic]
BVC	*Barnavårdscentral* [child welfare clinic]
GBAC (GV)	Group-based antenatal care, (gruppmödravård)
SC (SV)	Standard antenatal care, (individuell standard mödrahälsovård)
Cohort study	A follow-up study with a defined study population.
KUB	Women's experiences of childbirth (National cohort study)
CL	Confidence interval
OR	Odds ratio
RCT	Randomised controlled trials
CCT	Clinical controlled trial without randomisation
WHO	World Health Organisation

1 BACKGROUND

1.1 Antenatal care and its development in different societies

Antenatal care has developed based on different countries' history and population. In some countries, traditions have been a strong steering force in the development, whereas political decisions have steered the development in others. Consequently, antenatal care has different organisational structures in different parts of the world. One example of this is that the scope of parent education and the number of appointments differ. Furthermore, the father's participation in the care is not a given in all countries (Draper 2002). The care provider's profession in antenatal care can vary, and in many parts of the world a doctor is often the care provider during a pregnancy. The Nordic Countries and the United Kingdom are two exceptions, as midwives there have a more independent responsibility for the pregnancy (Sandall et al. 2013).

It can be problematic to evaluate and compare antenatal care between countries as they differ in terms of both organisation and content. When comparing research findings on the matter of patient satisfaction, this is obvious, as standard values have different conditions and prerequisites in different parts of the world. Evaluations are needed, however, in order to compare clinical and cost-effective alternatives. The economic impact of alternative antenatal care programmes is particularly significant in low and medium income countries where the resources are most scarce, but it is also relevant in high income countries. The evaluations should also include information on women's expectations and care providers' perspectives. Satisfactory treatment can have consequences which should be taken advantage of in the care process. This has been noted in a number of low income countries where home births without professional help is preferred over institutional childbirth, as a result of unsatisfactory treatment from healthcare personnel. Missed appointments have proven to be a contributory factor to high maternal mortality rates in these countries (Graham 2002; WHO 2003)

In the 1980s and 1990s, the need to evaluate maternal healthcare was noted. Researchers studied the number of visitors, organisational aspects and effects related to various screening programmes (Hall & Campbell 1992; Villar et al. 2001a; Villar et al. 1998). The results of this research revealed that there is an uncertainty regarding the effect of screening programmes and these must be studied in more detail. Interventions

with increased social support from care providers for women with risk pregnancies did not reduce the proportion of premature births or low birth weight (Hodnett, Fredericks, Weston 2010). In the same way, preventative measures for pre-eclampsia have been studied with uncertain and varied results (Villar et al. 2004; Bezerra, Lopes, Murthi, Da Silva Costa 2012).

There are large differences in the countries' maternal and infant mortality rates. The differences may be a result of poverty and shortcomings in preventive care such as antenatal care. According to WHO, 99 per cent of women who die during pregnancy and childbirth live in low income countries (WHO/UNICEF 2010). In low income countries and in the USA, problems have been identified in getting women to seek care. Steps are therefore being taken to get pregnant women to come to established care providers. A multicentre trial has revealed, however, that a lower number of appointments does not have an impact on mortality or morbidity rates (Villar et al. 2001b), which in turn has led to a reduction of the number of appointments in large parts of the world. However, recent studies show that models with fewer appointments can be linked to a higher perinatal mortality rate (Dowswell et al. 2010; Vogel et al. 2013; Hofmeyr & Hodnett 2013).

Antenatal care has been studied in Europe, and a study that included 13 European countries revealed that all of these countries have different organisational systems (Hemminki & Blondel 2001). Despite the fact that expectant mothers are cared for in different ways, there is no proof that one way is better than the other to encourage women to take advantage of antenatal care. Nor did researchers find any evidence of a particular form of care providing a protective effect on perinatal mortality (Hemminki & Blondel 2001). In a case control study of 10 European countries, it was discovered that most countries see their antenatal care as equal (Delvaux, Buekens, Godin Boutsen 2001). However, the researchers in this study found that the countries had different healthcare insurance systems, which has led to certain women not always receiving adequate help. There are a number of groups who have difficulties asserting their right to receive adequate care, for various reasons. This may be down to personal problems, socio-economical problems, the organisation of the healthcare system and cultural differences. (Delvaux et al. 2001).

1.2 The development and growth of antenatal care in Sweden.

The formation of antenatal care in Sweden began during the interwar period, based on

the British model. This time constitutes a transition period in which the social democratic government of the time was planning social politics with visions of welfare; namely public health in the Swedish welfare state (Milton, 2001). Originally, the goal of antenatal health care was solely somatic health, but with increased knowledge of the significance of psychological and social factors in pregnancy and childbirth, antenatal care has developed a psychosocial working method (Gunn et al. 2006).

In 1937, the Riksdag decided that government grants would be given to the county councils in order to conduct antenatal and child health care. The next year, antenatal clinics were established in certain places so as to become a nationwide operation in the 1940s. In connection with the establishment of antenatal clinics, the view of the pregnant woman also changed. No longer was pregnancy simply the woman's business; it was a matter of social importance. The antenatal care of today and the associated parent education are based on an ideology from the 1930-s in which Alva and Gunnar Myrdal's ideas were of great significance. (Myrdal A, Myrdal G 1934). The idea was for parenthood to be seen as a profession that required an education. Parents would receive education at a number of different institutions in society, including antenatal care. In the beginning, Swedish antenatal care only covered urine and blood pressure checks, checks of foetal position and foetal souffle. The midwife made home visits and the mothers were individually trained in childcare, diet, hygiene and dental hygiene. Antenatal care was developed, and led to contact with the midwife being concentrated to the clinics attended by expectant mothers. Geographically speaking, this field was one of the most decentralised in the health and medical care system, and remains so today. In 1940, the proportion of people registered in antenatal care was 15.6 per cent (SOU:1979:4) and this quickly increased. In 1954 the proportion was 71.2 %, and today almost all expectant mothers are registered for antenatal care. (SFOG 2008). In the 1980s, previous work methods based on Medicinalstyrelsen's (defunct; previously the authority responsible for health and medical care and pharmacies in Sweden) standard instructions for antenatal care from 1955 and the standard regulations of 1969 were replaced with the National Board of Health and Welfare's “Allmänna råd och anvisningar” [general advice and guidance] (SOU 1979:4). This new advice from 1979 emphasised that parents should be prepared for childbirth and parenthood. The instructions also stated that the midwife's work should encompass the entire family and no longer focus solely on the pregnant woman (SOU 1979:4). Since 2007, the National Board of Health and Welfare has had no commission to provide directives for antenatal

care. It is now the trade organisations that write directives and proposals.
The organisation of Swedish antenatal care has been in place since the mid-1970s. Healthcare has changed and new procedures and directives have been introduced, sometimes without scientific evidence (Villar 2001a; SFOG 2008). Since the introduction of antenatal clinics in Sweden, the content of the care has changed, though the organisation remains the same.

1.3 Antenatal care in Sweden today

Arney & Bergen (1984) liken the development of today's medicine to a pentimento; a painting in which previous images are seen through layers of newer images, which have not yet taken form. This is also applicable to the development of antenatal care in Sweden, where the underlying painting care be seen with traditions of various medical approaches and the willingness to educate women to become sound individuals who generate a new generation of healthy individuals. Since the introduction of a national medical base programme for antenatal care, changes have taken place. Going from previously meeting the midwife 13-14 times during pregnancy, the base programme now recommends 8-9 midwife appointments during a normal pregnancy. The intervals between appointments are long in the early stages of pregnancy, becoming shorter towards the end (SFOG 2008). Studies of women's experiences of antenatal care in Sweden reveal that they are often dissatisfied with the number of appointments in the early stages of pregnancy and the intervals (Hildingsson, Waldenström, Rådestad 2002; Hildingsson & Thomas 2007). This may be explained by the fact that women have an increased need for support and acknowledgement early on in the pregnancy, as everything is new and overwhelming (Raphael-Leff 1991).
It is also clearly pointed out in previous guidelines from the National Board of Health and Welfare that certain expectant mothers need a greater number of appointments due to psychosocial issues (SoU 1996:7).
In Sweden, the risk is minimal that women and children will die in connection with pregnancy and childbirth (Swedish Medical Birth Register 2012). This means that antenatal care does not have to be focused solely on preventing deaths; it can also facilitate development in other areas such as psychosocial health during pregnancy. Today, the purpose of antenatal care is to focus on both medical and psychological aspects. In recent times, a medical technology perspective has come about with the advent of new screening methods such as ultrasound.

1.4 Alternative models in antenatal care

There are different models of care within antenatal care internationally, such as team midwifery (Biro, Waldenström, Brun, Pannifex 2003), caseload midwifery care (McLachlan 2012 et al.; Tracy et al. 2013) and group-based antenatal care (Rising 1998). Team midwifery and caseload midwifery entail continuity with the same care provider/group during pregnancy, childbirth and aftercare and have proven to result in greater patient satisfaction compared with the fragmented care entailed by having different care providers during pregnancy, childbirth and aftercare (Waldenström et al. 2002).

A qualitative study from the UK reveals that midwives in caseload models are closer to the ideal of being "with the woman" than the midwives in the study who worked in conventional care. It is clear from this analysis that the midwives working with the caseload model felt less limited than midwives in other models. The work involved greater independence in terms of the possibilities to make decisions and individually develop a flexibility in the relationship with the woman (Mc Court 2006).

In Sweden, there are two alternative forms of care within antenatal care; one is a modified model of team midwifery at a clinic (Tingstig, Gottwall, Grunewald, Waldenström 2012) and the other alternative is a model of group-based antenatal care, which has been employed by the majority of clinics in Sweden since 2000 (Wedin, Molin, Crang Svalenius 2010).

1.5 Group-based antenatal care

One group model, CenteringPregnancy©, originates in the USA and was created by midwife Sharon Rising Schindler in the 1990s (Rising 1998).

CentreringPregnancy© is a brand and means that care providers must pay a fee to use this model. CentreringPregnancy© is based on the concept of giving women more knowledge and power over their pregnancy and health. The group model is based on three points: health assessment, education and support. The model entails the woman independently carrying out checks under the supervision of the midwife. All examinations take place in a private room during group sessions. The group remains the same throughout the pregnancy. The group consists of 8-12 women with the same gestational age, along with their partner or other relative. Those leading the group may be nurses, midwives or other personnel that take on the role of facilitator (listen to

everyone involved to give space to everyone, and without a hierarchy). CenteringPregnancy© has been implemented in many countries with great success (Jafari, Eftekhar, Fotouhi, Mohammad, Hantoushzadeh 2010; Teate, Leap, Rising, Homer 2009; Benediktsson et al. 2013). It has been pointed out that this model entails time savings for care providers (Rising 1998; Homer et al. 2012).

Group-based antenatal care (GBAC) has been implemented in Sweden inspired by a Danish model, and has not been evaluated from the women's nor the midwives' perspective (Wedin et al. 2010).
GBAC in Sweden entails monitoring a group of parents from the middle of the pregnancy and carrying out individual health examinations (Wedin et al. 2010). GBAC involves the midwife meeting the woman and her partner in groups of around six couples for around two hours. The first hour is used to gain in-depth knowledge of various subjects, but can also involve breathing and relaxation techniques. In the second hour, the midwife meets with the women individually whilst the group continues its activities. It has been reported that women often stay behind on their own initiative and exchange experiences with one another (Wedin et al. 2010).

The international research into group-based antenatal care has most often included socially vulnerable women and these studies have found that satisfaction was higher with antenatal care in comparison with standard care (pregnancy tests without parent groups) (Grady & Bloom 2004, Klima 2003; Ickovics et al. 2007; Robertson, Aycock, Darnell 2009). There is evidence to suggest that these groups make more frequent antenatal care appointments when they participate in group-based antenatal care (Lathrop 2013). Only one study has been found in which the group model with individual care has been compared with parental groups (Benediktsson et al. 2013). The study found that women with psychosocial problems had better psychological health at four months after childbirth than women in standard care. No previous study of fathers and group-based antenatal care have been identified. The research has focused primarily on medical and social outcomes, as well as satisfaction with the group model. A systematic survey article and meta-analysis, which included two randomised controlled trials and five cohort studies, revealed that only two were of a high quality (Manant & Dodgson 2011).
The conclusion from these two studies was that group-based antenatal care led to a lower incidence of premature births and higher levels of patient satisfaction.

However, the authors recommend that more high-quality studies should be conducted before any general conclusions are drawn. The conclusions from international studies on the effects of this form of care are difficult to translate into a Swedish context as standard care is organised in a different manner. However, discussions are currently underway, both internationally and nationally, regarding whether antenatal care in groups would be more effective both medically and psychosocially (Lathrop 2013; Homer et al. 2012).

1.6 The midwife in antenatal care

The work of the midwife with pregnant women/expectant parents involves carrying out medical checks, conveying knowledge of pregnancy, childbirth and parenthood and providing psychosocial support and providing general health education (SFOG 2008). All of these activities must promote three different perspectives: the child's health, the health of the parents/family and public health.

Hermansson and Mårtensson (2011) suggest that the social process between midwife and parents is a form of support in which a trusting relationship develops. This means meeting the couple's needs, solving problems together and finding different ways of helping the expectant parents to feel a sense of control over their lives. Support can also involve a process that entails helping the couple to gain control over various factors that affect their health. Support can be used on two different levels; micro and macro. The micro level entails the midwife using their professional knowledge and experience to support the parents. This should result in the woman and her partner feeling safe and able to reflect on their own situation and make responsible decisions on their own. The macro level is about the midwife's work on an organisational and societal level in order to improve conditions for the parents (Hermansson, Mårtensson 2011; Mc Court 2006).

Midwives in antenatal care play two roles. They have to switch between the role of being active in carrying out certain tasks and being a passive recipient as a listener. Part of antenatal care involves monitoring health, and this task has been formulated within the medical sphere. This can contribute to expanded work procedures. Repetition creates routine, which simplifies and increases efficiency; a structured approach that is governed by time. It is asserted that via repetition, this builds on evidence without needing to have grounds for this. One example of such a routine that is based on small amounts of empirical evidence is the symphysis fundus measurements, which measure the growth of the unborn child (Robert, Ho, Valliapan, Sivasangari 2012). However,

this does not necessarily mean that the midwife consciously strives to work with this approach and the associated routines (Bredmar 1999). It has also been claimed that antenatal care methods in the western world are not evidence-based but are instead based more on traditions and rituals (Villar et al 2001a).

1.7 Psychosocial support and information in antenatal care

The parental preparation has changed from an oral tradition, woman to woman, to a political reform whereby the goal was increased knowledge and population growth. In the 1930s there were powers in society that did not feel parents were competent to take care of their own children without guidance. Experts such as Barnavårdsnämnden (the Child Welfare Committee) had an ideology that meant confidence in the parents' own power and competence was disregarded. Stearns (1991) believes that the idea from the beginning was for the experts to reassure anxious parents. Since then, there has been a development from maternal education in which the midwives began working from a purely medical perspective to a more psychosocial view from the 1970s and on, in which fathers were also invited to parent groups. Parental courses should provide support to the parents in terms of their integrity, competence and ability. Parent education is described as a form of education that is equally valuable but not necessarily with the same formulation (Drakos & Höjer 1981, SoU 1984:12). Furthermore, the content should be primarily based on parents' own questions and interests (SoU 1997:161).

Today, the advice given is more permissive in official publications. Parents are even advised not to rely on experts but to rely on their own judgement, whilst emphasising the responsibility that parenthood entails. According to the National Board of Health and Welfare's guidelines, the purpose of parent education is to prepare the parents for the birth and for parenthood, and to help create a network between expectant parents. Over the past ten years, the parent education has been reduced in terms of the number of meetings, and many clinics only offer group meetings for first-time mothers on two to three occasions (SoU 2008:131). The report on parental support commissioned by the Government resulted in recommended improvements in accordance with the following: more Family Centres or similar operations, preparation for changes in the couple relationship and parenthood in antenatal care.

The authors of this report also suggested skills development for personnel in antenatal care (MVC) and child health care (BVC), as well as a model whereby parent groups

that start in MVC continue through to BVC, including parents with several children. They also advocated special initiatives to reach and motivate parents who often refrain from participating in parent groups, as well as a greater range of structured and evidence-based programmes at MVC (SoU 2008:131).

There is a lack of evidence regarding the benefits of parent education in the outcome of childbirth, impending parenthood and satisfaction. Published Swedish studies reveal that participation in parental groups does not affect first-time mothers' experience of childbirth (Bergström, Kieler, Waldenström 2009; Fabian, Rådestad, Waldenström 2005). Other findings from e.g., a randomised controlled trial (RCT), are available, which indicate that education programmes that focus on parenthood improved the mothers' confidence in their own ability as well as their knowledge of parenthood (Svensson, Barclay, Cooke 2009). Parent education also provides the opportunity for parents to meet other parents in the same phase of their life. Parents may need new friendships as existing friends who do not have children or who are working become less central in their lives (Deave, Johnsson, Ingram 2008). Previous research has emphasised the important role that parent education groups can play in forming friendships (Ho & Holroyd 2002; Nolan 2008). It has also been described in Swedish qualitative studies that parents wished to participate in parent groups in order to meet others to exchange knowledge (Norling-Gustafsson, Skaghammar, Adolfsson 2011). Well-being in the transition into parenthood can promote health among the parents (Martins & Gaffan 2000; Burke 2003; Barlett 2004; Plantin 2007).
Parental meetings are a part of both the psychosocial and the preventive work in antenatal care. There is, however, a lack of evidence of the relationship between parent education and increased social support (Gagnon & Sandall 2007). We do know, however, that women's perception of motherhood is strongly influenced by feedback from members of their social network (Deave et al. 2008; Mercer 1985).
The psychosocial work within antenatal care is especially important for women with behavioural risk factors, including mental ill health, violence, or the use of addictive substances (Chapman & Wu 2013; Jahanfar et al. 2013). It has however been reported that midwives have difficulties balancing the medical and psychosocial elements of their work (SOU 2008:131).

Current information for parents

The parents of today have a habit of using and seeking information via sources other than care providers. In the post-modern society, there is an intensive flow of information due to the development of information technology. The internet has developed rapidly and a number of studies on expectant parents' usage highlight the fact that the internet is a complementary information source to the more general information found in the care sector (Plantin, Danebäck 2010; Larsson 2009). Different studies unanimously show that a large proportion of today's first-time parents in the West turn to the internet as a primary source of information on parenthood (Mac Mullan 2006).

The need for information has increased, and there is a strong belief that information should provide guidance. It has been said that internet usage has also expanded the social contact network in the real world (Scharer 2005; Sarkadi & Bremberg 2005). The new information sources can entail changes in information from one generation to the next. The rapid development may result in knowledge from midwives and other sources being seen as outdated.

1.8 Expectant fathers and the partner in antenatal care

According to studies, antenatal care and parent education should pay more attention to expectant fathers and partners' need of knowledge on pregnancy and childbirth (Boyce, Condon, Barton, Corkindale 2007; Fägerskiöld 2008). If parent groups can help men with the transition into parenthood, they can also benefit their partners and children (Buist, Morse, Durkin 2003). Paternal groups have existed in Sweden since the mid-1990s-. The group can meet regularly during the pregnancy, and then on a number of occasions after the birth. This type of group has often been run as an experiment or as a complement within the scope of antenatal care. SPRI has evaluated these activities and found a positive effect via an increase in fathers taking out their parental insurance. The groups were also seen as a way of enhancing the attachment between father and child (Blom 1996). In a report on fathers' participation in paternal groups, the majority (64.6 per cent) say that the paternal group meant a great deal to them as a parent, and a large proportion of the participants report that the paternal groups were important in developing their couple relationship as well as the relationship with the child (Schiratzki, Berggren 2009).

Previous research has found that fathers consider parental education during pregnancy to be a form of ritual and that they took part for the woman's sake. These studies also

revealed that the fathers had no expectations of the parental education but expressed disappointment over the strong focus on women in the groups. (Hallgren, Kihlgren, Forslin Norberg 1999; Olsson, Sandman, Jansson 1996). According to a review article of qualitative studies into fathers' participation in care related to pregnancy and childbirth, fathers feel excluded. They perceive themselves to be neither patients nor close relations. The fathers attempted to balance their experiences of the transition to fatherhood with their desire to provide support to their partners (Steen, Downe, Bamford, Endozien 2012).

1.9 The term “patient satisfaction” and methods of gauging it

Patient satisfaction has been the subject of studies going back many years, but despite this there is no uniform definition of or consensus on what the term covers (Redshaw 2008;
Sitzia & Wood 1997). Research findings have identified this lack of consensus and proposed different terms (Sofaer & Firminger 2005). It has been suggested that the patient's view of quality in care and patient satisfaction are synonymous (Vukmir 2006). Sitzia and Wood (1997) assert that theoretical questions should form the basis of the design and construction of methods of gauging satisfaction. They also point out that the complexity of the term is often lost when presenting the results. The argument concerning the lack of consensus regarding satisfaction with care and the means of gauging this was also backed in a Cochrane Review on continuity in the care associated with childbirth (Sandall et al. 2013). There was found to be an inconsistency in terms of the instruments and scales used to gauge satisfaction, which made a meta-analysis of the patient satisfaction variable impossible.
The complexity of measuring patient satisfaction has been noted by Van Teijlingen (2003a); that on the whole women rate care very highly as they are dependent on and grateful for the care they receive. This can lead to overestimation in their assessments of the care in patient surveys. Another problem has been identified with surveys which only contain a general question; this can lead to positivity and overestimation in the response (Van Teijlingen 2003a). Redshaw (2008) has identified that the majority of surveys focus on satisfaction and has proposed that methods of gauging also include questions regarding dissatisfaction.

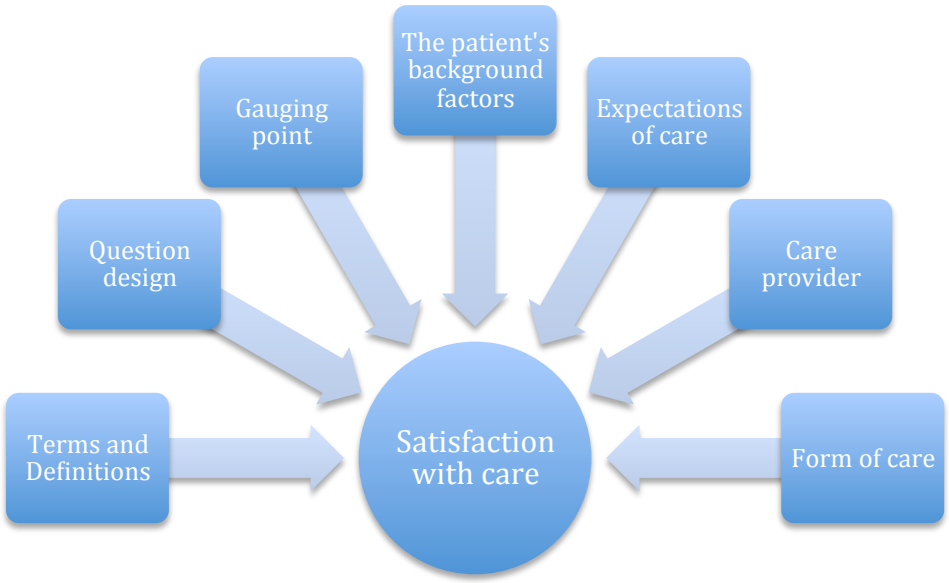


Figure 1. Factors that affect gauging and the results of patient satisfaction

Women tend to be careful when assessing care providers (Fitzpatrick 1991) and the point in time when the questions are posed can be crucial. There is certain evidence that women are more inclined to express negative feelings in terms of their experiences of care when a longer period of time has passed following childbirth (Erb, Hill, Houston 1983; Bennett 1985; Waldenström 2003). Erb et al. (1983) found that women are more likely to express negative feelings about the experience of childbirth seven to twelve months after birth than during the first six months.

1.10 Women's expectations and satisfaction with antenatal care

Contact with antenatal care may be the first contact with health and medical services for both the pregnant woman and her partner (Alexander, Sandridge, Moore 1993). The perception of this contact may be crucial to the parents' future health appointments. Women's expectations on the care provider are based on what they think care will be like, unlike a subjective perception, where women rate care based on how they want it to be. Expectations of antenatal care have previously been studied in Sweden in a nationwide survey carried out 10 years ago. Women's expectations were part of this survey, *Kvinnors upplevelse av barnafödande* (KUB)[Women's experiences of childbirth]. When the women in this study were asked about their expectations of antenatal care, the majority (70%) stated that they wanted to follow the recommended base programme (Hildingsson et al. 2002).

The women rated medical aspects as the most important, followed by their partner

feeling included in the care. The least important aspect was participating in parent education (Hildingsson et al. 2002). When the women themselves had to write comments on what they considered to be important in antenatal care, the desire for more frequent check-ups in the early stages of pregnancy often came up. The women also expressed a desire for the parent education to also include parents who already had a child, as they wanted to meet and get to know other expectant parents (Hildingsson & Thomas 2007). Women's assessment of care is closely related to what they believe is possible to achieve instead of what may be the best alternative (Van Teijlingen 2003a). Expectations and satisfaction have also proven to be positively correlated (Berentson-Shaw, Scott, Jose 2009). It has become increasingly common to gauge and assess patient satisfaction in connection with childbirth, as women today are considered more as consumers than care recipients (Redshaw 2008). There is strong evidence that women are more satisfied with the care provided by midwives than that provided by doctors (Harvey et al. 2002). The majority of studies suggest that satisfaction with antenatal care is related to a lack of communication between care providers and women (Redshaw, Rowe Hockley, Brocklehurst 2007; Berg & Lundgren 2007). It has also been suggested that the fulfilment of expectations is one of the most significant factors for satisfaction with care (Christiaens & Bracke 2007). Gauging satisfaction with antenatal care is further complicated by the fact that a healthy child can affect the assessment so that negative perceptions of care can be overlooked. It is important that studies of human phenomena always adopt a holistic perspective. The term patient satisfaction is no exception. In this thesis, the following definition of patient satisfaction has been used: satisfaction with care means that the patient rates the care as they want to see it and perceives themselves to be satisfied with the quality of care. Their evaluation of care and the midwife has been performed based on both intellectual and emotional aspects.

2 PROBLEM FORMULATION

Group-based antenatal care is a new form of care that exists in Sweden, but there is a lack of knowledge as to how this form of care affects parents' satisfaction with care. Group-based antenatal care has previously been studied in the USA with results that support the idea that this form of care leads to greater satisfaction among women. Expectations are also linked to satisfaction with care and there is a lack of knowledge of whether women's expectations of antenatal care have changed over time. Midwives play an important role in Swedish antenatal care, but there is a lack of studies into midwives' attitudes towards group-based antenatal care in Sweden.

3 PURPOSE

The overall purpose of this thesis is to investigate women's expectations of antenatal care, and to look at the experiences of parents and midwives' attitudes when it comes to group-based antenatal care in Sweden.

The overall purpose has the following specific aims:

Paper I. Investigating parents' experiences and perceptions of group-based antenatal care at four clinics.

Paper II. Comparing pregnant women's expectations of antenatal care between two periods over the course of 10 years, and comparing differences in expectations between pregnant women in groups and individual care.

Paper III. Comparing women's satisfaction with group-based antenatal care to that of individual care.

Paper IV. Looking into midwives' attitude to group-based antenatal care and satisfaction with antenatal care work.

4 MATERIAL AND METHOD

Group-based antenatal care is a new care model not previously studied in Sweden, which motivated the choice of using both qualitative and quantitative methods in this thesis. The method and materials for the papers will be described below.

Table 1. Overview of the material and methods of all papers

Paper	Approach	Focus	Participants	Point of data collection	Method of data collection	Method of analysis
I	Qualitative	Parents' experiences of group based antenatal care	20 women and 8 men	2007-2008	Semi-structured interview in a group or individually	Content analysis
II	Quantitative	Women's expectations of antenatal care and comparison over time	700 women in the clinical trial and 3,061 women in the older cohort study	2008-2011 1999-2000	Survey in the first trimester	Descriptive and comparative statistics
III	Quantitative	Comparison of women's satisfaction with two different forms of care	228 women in group-based antenatal care and 179 women in standard care	2008-2011	Survey six months after childbirth	Descriptive and comparative statistics
IV	Quantitative	Midwives' attitudes to group based antenatal care	56 midwives	2013	Structured telephone interview	Descriptive and comparative statistics. Content analysis

4.1 PAPER I

This qualitative study is based on parent interviews, group-based or individual, and content analysis is used as the method of analysis.

4.1.4 Data collection

Recruitment of and inclusion criteria for parents

With the purpose of obtaining information on which clinics ran group-based antenatal care in connection with the planning of the study, all coordinating midwives in Sweden were contacted. For paper I, parents were recruited from four of the seven clinics that had experience of group-based antenatal care. These four clinics were found in three different geographical areas and were localised to two major cities, one smaller town and the suburb of a major city. The midwives at the four clinics recruited women with partners that had participated in group-based antenatal care in the past year. The inclusion criteria for the parents were that they could speak Swedish and that they had experience of group-based antenatal care throughout the pregnancy. The invited couples were provided with written and oral information on the study and the interviews. The parents that gave their consent to participation notified of their acceptance and were later contacted by the research group.

Participants

For paper I, 34 parents were invited to participate in the study. Of these, 10 fathers and 24 mothers consented to participation in the study, six of which later declined to participate. In autumn 2007, 5 group interviews and 11 individual telephone interviews were conducted. The number of parents interviewed totalled 28. All participants had experiences of group-based antenatal care in the past year, and all 7 of the participants that had previously had children also had experience of individual care during previous pregnancies. The parents had the opportunity to choose the interview method; either in a group or as a telephone interview. All fathers chose to be interviewed by telephone due to difficulties setting aside time during the day as group interviews took place daytime. Three women chose to be interviewed by telephone due to lack of time and illness.

Carrying out the data collection

An interview guide was used as support for focusing on the purpose of the study. It contained questions about the participants experiences and perceptions of group-based antenatal care.

Two people from the research group carried out the group interviews. One of the researchers interviewed and the other observed. The length of the interviews varied but the telephone interviews took 30 minutes on average and the group interviews 60 minutes. Clarifying questions were asked so as to minimise misunderstandings. The interviews were recorded and the recordings were transcribed word for word by the author the next day. The observer's notes provided support for future analysis.

4.1.2 Method of analysis

Content analysis was used as the method of analysis, according to Elo and Kyngäs (2008). This analysis is a step by step process of categorisation based on the expression of emotions, thoughts and actions described by the respondents.
In the present paper, the approach was both inductive and deductive (Elo & Kyngäs 2008).
The transcript was read and compared with the digitally recorded interviews with the purpose of checking the accuracy of the text and identifying the content that related to the purpose of the paper. The interview text was read separately by the members in the research group. Parts that were seen to capture important thoughts were highlighted. The next stage was to create sentences, phrases that belong together and which were based on the content; "units of meaning" that were coded. The codes were compared based on similarities and differences and sorted into eight categories with subcategories. The process meant that the analysis went back and forth between text - categories - themes. The final step was to create themes based on the categories produced. Throughout the process, the research group worked together to achieve consensus in the analysis of the text, the categories and finally the themes. Quotes were chosen to support the description of subcategories and categories.

4.2 PAPER II

This cross-sectional study includes data from the clinical controlled trial (CCT) (Higgins Green 2011) *and a historical national cohort study, and the method of analysis was descriptive and comparative statistics.*

4.2.4 Data collection for papers II and III

Recruitment of and inclusion criteria for midwives

Midwives that worked in antenatal care were recruited for papers II and III via an

advert in the Swedish Association of Midwives' magazine, “Jordemodern” [Earth Mother], and via contact with all coordinating midwives in Sweden. Inclusion criteria were as follows: midwives working in antenatal care who were prepared to be assigned to one of the care models at random. At least two midwives per clinic were required for participation in the study as both care models would be offered at each clinic.
Papers II and III included 48 midwives from 16 clinics. After assigning the care models, 4 clinics withdrew their participation in the study. The reason for this was a heavy workload and illness.
The midwives that had shown interest in participating in the clinical trial were invited to a meeting. At this meeting, information on the study and the associated requirements during the study period was provided. Participating midwives were then assigned to one of the care models at random, either group-based antenatal care or standard care.

Recruitment of and inclusion criteria for women

Pregnant women who contacted the antenatal clinic to be registered were informed of the study and invited to participate in an evaluation of the care. The women received both verbal and written information. Inclusion criteria for women were that they could speak Swedish.

Participants

The participants consisted of 700 women who were given some form of care by 31 midwives, who were randomly assigned to provide either group-based antenatal care or standard care. Data was compared in the matter of 3,061 women from a historical cohort study of women from 1999-2000; a national survey of women's expectations of antenatal care.

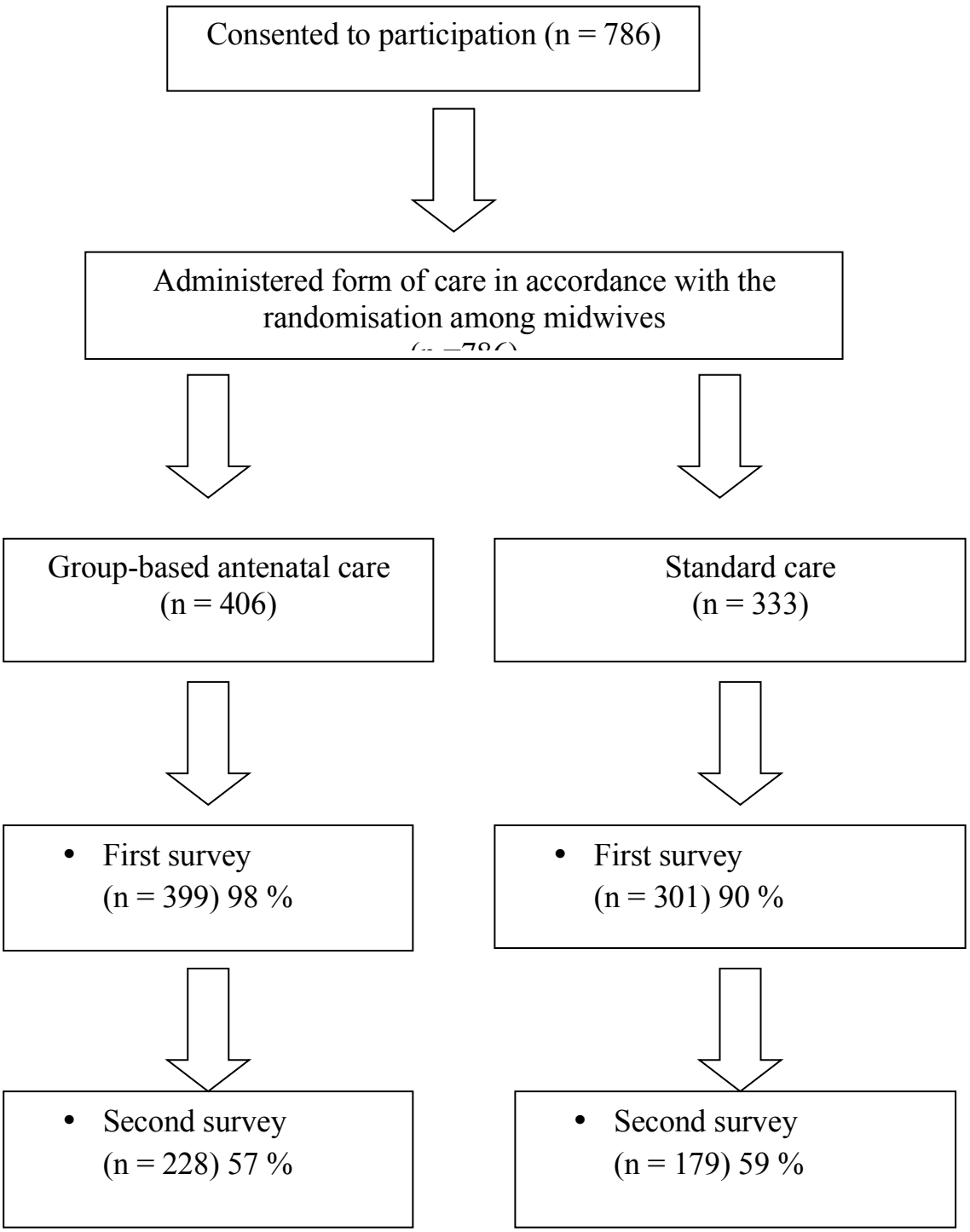


Figure 2. Flow-chart of participants in papers II and III.

Implementation of data collection

An initial survey together with written information on the study was handed out to women by midwives in connection with their visit to the clinic to register.

The women that decided to participate in the study sent the completed survey and contact information to the research group, either directly or via the midwife, in a sealed

envelope. This constituted formal consent and the researchers then notified the women that their completed survey had been received. The women were then allocated one of the two care models in accordance with a predetermined schedule: large clinics with many women recruited women according to due date (day 1-15 to group-based antenatal care and 16-31 to standard care) and small clinics with fewer women recruited every other woman to group-based antenatal care.

The first survey in the clinical trial and in the historical cohort study contained the following questions:

- Background questions such as age, parity, marital status, country of birth, level of education, perceived financial situation (not in the national cohort study), use of tobacco, chronic illness and whether the pregnancy was planned or not (papers II and III).
- Anxiety during pregnancy was gauged using the Cambridge Worry Scale (Statham, Green, Kafetsios 1997), which measures anxiety during pregnancy owing to work, finances, relationships, health, pregnancy, childbirth and early parenthood, hospitalisation and the risk of miscarriage. The scale contains 16 statements and the answers are given on a scale of six degrees from 0 (not a worry) to 5 (major worry), on which 4 and 5 are deemed to be a high level of anxiety. The answers were dichotomised to represent either a "high level of anxiety" or all other alternatives (Öhman, Grünewald, Waldenström 2003).
- Women's depressive symptoms were identified using the Edinburgh Postnatal Depression Scale (EPDS), (Cox & Holden 2003). EPDS contains ten self-assessment questions on perceived emotions during the past week. The questions are formulated as statements and there are four alternative responses (0-3). The questions relate to areas such as depression, anxiety, fear, loss of interest, guilt, difficulties coping with daily life, sleep and thoughts of self-harm. A high point score (12 – 30 points) indicates symptoms of depression, according to researchers who evaluated the scale during pregnancy (Rubertsson et al. 2011).
- There were 12 questions relating to expectations of antenatal care which were assessed on a Likert scale of five degrees from "not important at all" (1) to "very important" (5). The women were asked to mark their opinion on the scale. The responses were dichotomised to reflect either "very important" or all other alternatives (Hildingsson et al. 2002).

4.2.2 Methods of analysis

Descriptive statistics were used to present results relating to the women who were included in the clinical trial and who were later allocated either group-based antenatal care or individual standard care, as well as the results of the historical cohort study (Hildingsson et al. 2002). The mean value was presented as a measure of central tendency and standard deviations as statistical dispersion and frequencies with percentages. Chi2test was used to calculate differences in proportions between women's expectations. The T-test was used to calculate statistical differences in the mean value between women allocated group-based antenatal care and standard care and in comparison with the cohort study. Odds ratios with a 95 per cent confidence interval were used to study associations between the two groups and the analyses were adjusted for parity and level of education.

All analyses were based on a significance level of 0.05 per cent and were performed using IBM Statistical Package for Social Sciences (SPSS) versions 19 and 20.

4.3 PAPER III

This paper is based on data from the clinical controlled trial (CCT) and the method of analysis was descriptive and comparative statistics.

4.3.1 Intervention and data collection

Recruitment of and inclusion criteria for midwives and women

Inclusion criteria have already been described in paper II.

Participants

31 midwives from 12 clinics that recruited 786 women from 2008 to 2010 participated in the study. Of the 700 women that responded to the first survey, 228 in group-based antenatal care and 179 in standard care responded to the second survey.

Intervention

A clinical trial protocol was drawn up before the trial commenced and was followed throughout the process. Midwives that were allocated to group-based antenatal care were invited to two meetings over the course of the study. At one of these meetings, a workshop was held by the research group in order to introduce and guide the midwives in the work with this care model. In order to ensure the parents in this group received equal care, the midwives in group-based antenatal care worked in accordance with a manual. The manual was developed based on the results of paper I and how group-based antenatal care was organised in Sweden at this point in time (Rissanen 2007;

Wedin 2010). This manual also formed the basis of the schedule that was later distributed among the parent couples in group-based antenatal care. The intervention began with the woman's second antenatal care appointment around week 20-24 of the pregnancy. During this group session, the participants also agreed that there would be confidentiality within the group. The groups consisted of around 6 women along with their partners and one midwife. The difference in the women's gestational age was no more than one month and the composition of the group remained unchanged during the entire period of care. Each appointment lasted two hours and was initiated with one hour of information and discussion, in accordance with the manual. Each session also included an individual health examination with the midwife. The midwives in GBAC were also encouraged to describe all activities that were not followed in accordance with the manual. Both forms of care were governed by national guidelines, and in the standard care the parents met with the same midwife at each visit. All the first-time mothers in standard care were offered some form of parent education, which is standard practice in Sweden. SC was not manual-based and differs in the matter of how much time is allocated to different topics of conversation. All participating midwives also had the possibility of getting support from the research group throughout the study.

Implementation of data collection

The first survey used has been previously described in paper II. A follow-up survey was sent six months after childbirth. Those participating in the study were able to choose their preferred means of responding to the survey; either in paper form or online. A password and website address for the survey were mailed to those participating in the study who had chosen to respond to the survey online. If the survey was not completed, a first reminder was sent after two weeks, and a second reminder after another two weeks.

Content of the follow-up questionnaire:

- Questions relating to satisfaction with the content of the care were assessed from two dimensions: the woman's perception of different aspects of the given care, and how important these aspects were for the woman. One example of how the questions were posed:

	Strongly agree	Mostly agree	Agree somewhat	Strongly disagree	Not applicable
a) This is my experience	❒	❒	❒	❒	❒
b) This is how important it was for me	Of utmost importance	Very important	Quite important	Of little or no importance	Not applicable
	❒	❒	❒	❒	❒

Based on a person's points from the assessment of the experience of the administered care and its importance, a personal quality index was calculated. The results of the response index can assume three values: inadequate quality, a 'neutral' opinion and exceedingly good care A response index which is calculated on a group level identifies questions which may be important areas for quality improvement work. There should be a focus on the questions where > 20 per cent of the patients responses indicate inadequate care. Inadequate care is when the patient sees the statements as important but the perceived care is deemed to be of lesser quality (Wilde Larsson et al. 2002). In the analysis, the answers are dichotomised to inadequate quality (1) and everything from a 'neutral' opinion to exceedingly good care (0)

- The survey also contained an overall assessment of satisfaction with antenatal care and questions on social interaction with other parents, breastfeeding and preparation for parenthood. In the analysis, the answers were dichotomised to very satisfied/satisfied (1) and neutral, somewhat dissatisfied and dissatisfied (0).

4.3.2 Methods of analysis

Statistical analyses

Data analyses conducted using the software IBM Statistical Package for the Social Sciences (SPSS) version 19 and 20. Analyses were performed based on how women had been administered care by the midwives (Intention to treat (ITT) analysis). Descriptive statistics were used to describe background data relating to participants in paper III. This is presented as mean values, quantities and percentages. To make a comparison between women's satisfaction with care in both forms of care, the "Student's t-test" was used for continuous data and Chi2test for categorical data. Unadjusted and adjusted odds ratios for parity and level of education with a 95 per cent confidence interval were used to study associations between women in group-based antenatal care and standard care and their background data (Pallant 2011). A statistical significance level of 5 per cent was chosen in all analyses and reliability tests of questions on the content of antenatal care were assessed with Cronbach's Alfa, a coefficient which can be used to measure the degree to which the different questions in a scale measure the same property.

Power calculation

The strength of a study is a measure of the likelihood that the study will show an effect.

The power calculation estimates the size of the study group and is used to achieve sufficient statistical safety and strength. One calculation was based on an eight per cent difference in the primary outcome, satisfaction with care which was based on the results of the national cohort study "*Kvinnors upplevelse av barnafödande*" (KUB) (Hildingsson et al. 2005). This study revealed that 87 per cent of women were satisfied with the care. A two-tailed test with an effect of 0.80 and a significance level of 5 per cent revealed that 400 women were needed for the study; 200 women in each care model (Kelsey 1996)

4.4 PAPER IV

This paper includes quantitative and qualitative data analysed with two quantitative methods.

4.4.1 Data collection

Recruitment and inclusion criteria for midwives

Information on the study was given to coordinating midwives and unit managers, who then forwarded the information to midwives in their area. The coordinating midwives provided the research group with contact details for 205 midwives.

There were 182 midwives who consented to participation. Of these, 90 did not answer when called at the arranged time and 36 changed their mind. The remaining 56 midwives responded to the invitation and were interviewed.

The research group then contacted these midwives to provide additional information and make an appointment for an interview. The inclusion criteria were only that the midwives were willing to participate in a telephone interview and in the study itself.

Participants

Recruitment was done from 52 antenatal clinics from various geographical areas in Sweden and 56 midwives were included in the study.

Implementation of data collection

The telephone interviews took 15 minutes and a structured interview guide was followed. This structured interview contained 20 closed-ended questions with the possibility of adding a comment to the responses. An assistant to the research group and a member of the research group carried out the interviews. The text from comments in the interviews were transcribed after each interview and responses from the closed-ended questions were input into the software IBM Statistical Package for the Social Sciences (SPSS) version 20.

4.4.2 Methods of analysis

In this paper, a combined method of analysis was used (Creswell, Fetters, Ivankova 2004), which consisted of quantitative content analysis (Berelson 1954) and descriptive and comparative statistics.

Statistical methods

Descriptive statistics and Chi2test are used in the analysis of the closed-ended questions (Machin, Campbell, Walters 2007).

Quantitative content analysis

A quantitative content analysis was carried out on data material from comments on the question of midwives' attitude to working with group-based antenatal care.

The first stage of the content analysis entailed repeated run-through of the entire text in order to gain a sense of the whole. Sentences and phrases that contained information relevant to the question were picked out, though the surrounding text was kept so as to maintain the context. The text was then compressed from the comments with the purpose of shortening the text whilst retaining the content. The compressed text was coded and arranged into categories.

The categories could contain several codes, but in several categories there was no code. The next stage was for other people in the research group to compare all categories with the text material. The research group discussed categories and texts until they reached a consensus. Comments in each respective category were calculated, and finally themes were created based on the decided categories.

5 ETHICAL ASPECTS OF THE PAPERS

According to the guidelines of the Declaration of Helsinki, the research must adopt fundamental ethical principles, which entails special undertakings in respect of individuals and the population. This applies not only to those participating in the study, but also others whose health can be preserved or improved by applying the results. In this thesis, consideration has been given to this and the notion that the research should have a beneficial effect on the entire population.

The clinical trial is registered at Karolinska Institutet's Clinical Trial Registration: Id, KCTR CT20120059 and ClinicalTrials.gov, Id: NCT01224275. Ethical approval of papers I, II and III have been given by the Regional Ethical Review Board in Stockholm at Karolinska Institutet, ref: 2007/553 and further approval of paper IV, ref: 2013/1597.

Voluntary consent was obtained from those participating in the study and they were informed of their right to withdraw from the study without any

Papers II and III were registered in Karolinska Institutet's survey register, registration number: 7011/10-631. All surveys in papers II and III were anonymised and allocated a code.

6 RESULTS

6.1 RESULTS OF THE FOUR PAPERS INCLUDED IN THE THESIS

In response to a general question concerning satisfaction with care and work satisfaction respectively, both women (irrespective of which form of care they were receiving) and midwives indicated a high level of satisfaction with antenatal care. When questions concerning the content were posed specifically, the women stated that half of the areas in antenatal care had shortcomings (in both forms of care). The women participating in group-based antenatal care (GBAC) were more satisfied with the majority of the various parts of the information provided than women in standard care (SC). Furthermore, the women in GBAC reported a higher degree of satisfaction regarding the midwife's dedication; they felt they were taken seriously and that there was time to plan the birth with the midwife. It was more widely appreciated among women in GBAC that the care helped them to make contact with other parents and provided support in starting with breastfeeding. The parents and midwives had different opinions on which women would be suitable for GBAC. The midwives considered highly educated women and foreign nationals to be inappropriate candidates, whilst the parents felt this form of care would be suitable for all. More than half of the midwives showed an interest in starting group-based antenatal care but felt that introducing GBAC would pose organisational obstacles. The parents remarked that the group helped to normalise thoughts and experiences, but were disappointed when the midwife did not encourage participation from the fathers' side. Women's expectations of the content of the care of changed over the past decade. Today, women have higher expectations of information, respectful treatment and the partner's involvement in the care than they had ten years ago. Few differences were identified in the women's expectations between those in group-based antenatal care and those in standard care.

6.2 PAPER I

In paper I, 28 parents were interviewed six months after the birth, concerning their experiences and perceptions of GBAC in Sweden. The majority of parents were born in Sweden, but four of the women were born in other countries (Finland, Turkey, Iraq and Tunisia). All participants spoke Swedish. Among them, there were twice as many first-time mothers as parents who already had children.

Table 2. Participants in the study for paper I.

Clinic	I	II	III	IV	All
Number of women interviewed in a group	2	9	2	4	17
Number of women interviewed individually			3		3
Number of men interviewed individually		4	2	2	8
Total number of interviews	2	13	7	6	28

Three themes emerged in the text analysis of the transcribed interviews: *Care – combining individual physical needs with preparation for parenthood*, *Group – an assembly of care providers* and *Midwife – a professional leader*.

The theme *Care – combining individual physical needs with preparation for parenthood* includes the context, organisation and content of the form of care. GBAC with parental education was appreciated, but the parents remarked that they felt unprepared for the first weeks following the child's birth. They were however satisfied when it came to the women's medical needs, such as health checks. In the interviews, the parents explained that they gained access to care quicker than what they would otherwise have had as per the individual care model. A common opinion among the parents was that the midwife's way of presenting the care model made them curious about it and interested in the idea of getting to know other parents. The parents also said that they appreciated the continuity in the sense that the group retained the same members and that the predetermined content for each group session was followed.

The majority of fathers expressed disappointment in the fact that the group meetings had the same medical focus as the individual sessions. They expected that the midwife would adopt a different strategy in the group meetings, with less focus on medical issues and more on parents' perspectives.

The theme *Group – an assembly of care providers*, showed the participants' roles and experiences in the group. The parents could be passive recipients who felt comfortable listening to others, especially when other parents brought up questions about situations similar to their own that they did not feel they could ask themselves.

The analysis revealed that the parents saw themselves as active participants and emphasised that the discussions were more lively during the last hour, when the midwife was not present in the room. There were however mothers who felt they were obligated to speak. The participants clearly described that participation involved being able to openly discuss expectations, apprehensions and experiences. This was however a more common perception among women than men. Both fathers and mothers expressed that participation in the group gave them strength and self-confidence, as it helped them to feel normal. The group helped the women to normalise their symptoms, and for the men, the group helped to alleviate their concerns when they had to share their thoughts.

The theme *Midwife – a professional leader* revealed that the midwives did not involve the father in the discussion to the extent the parents desired but were appreciated for their medical expertise.

The majority of parents felt their midwife focused all too little on the expectant father, both in group meetings and in individual appointments.

The midwife explained the schedule and encouraged or ignored the activity in the group. Some parents noted that the midwife adopted a didactic teaching style in the groups. The majority of parents felt that each midwife should have the skills necessary to lead group-based antenatal care. The parents felt that the midwives needed more competence and/or training in leading groups. Many fathers expressed a desire for the midwives to be better prepared for group meetings.

The parents recommended that GBAC be offered to all pregnant women and wished for this form of care for their next pregnancy as well.

Table 3. Overview of women's characteristics in papers II and III

	Group-based antenatal care	**Standard care**	
	n=399 n (%)	n=301 n (%)	p- value
Average age	29.7 (19-44)	29.5 (17-44)	0.507
First-time mothers	292 (73.6)	169 (57.3)	<0.000
Married/Co-habiting	377 (95.0)	284 (94.4)	0.722
Born in Sweden	359 (91.6)	276 (92.6)	0.619
University education	235 (60.3)	146 (49.2)	0.004
Very good finances	299 (72.9)	215 (76.7)	0.257
Use of tobacco	29 (4.4)	13 (7.4)	0.106
Chronic illness	56 (14.2)	30 (10.1)	0.097
Planned pregnancy	378 (97.4)	289 (97.6)	0.860

6.2 PAPER II

Expectations of the content of antenatal care were part of the survey taken by 700 pregnant women (in their first trimester) in a clinical controlled trial during the period 2008-2010 as well as in the historical national cohort study from 1999-2000, where 3061 women responded to similar questions on expectations.

6.2.4 Women in the clinical controlled trial

Women in the clinical trial consisted of a majority of first-time mothers aged 25-35. The majority lived together with their partner and were born in Sweden. Over half had a university education and few used tobacco.

11% of the women in the clinical trial scored 12 or more on the EPDS scale. Around 30 % expressed great concern about the prospect of problems with the child and the risk of miscarriage, and 23 % reported a high level of anxiety leading up to the birth.

The majority wished to observe the recommended number of appointments and felt it was important to have the same midwife throughout the pregnancy.

Other important aspects mentioned in the clinical trial included being treated with respect (74.6 %) and that the approach would be such that the partner felt involved in the care (69.5 %). The least important aspect was being able to participate in parent education (24.9 %) and attention being paid to emotional well-being (22.6 %).

In the clinical trial, first-time mothers rated certain aspects higher than parents who had already had children, such as aspects of information ($p < 0.001$), the child's health ($p < 0.001$), involving the partner ($p < 0.001$), preparation for the birth ($p < 0.001$) and participating in parent education ($p < 0.001$).

The group of women that were later allocated to GBAC contained more first-time mothers and people with a university education than the group that was later allocated to SC.

In a comparison between women later offered GBAC and SC respectively, there were certain differences in the mean value for expectations. Women who were later allocated GBAC had higher expectations in terms of information on breastfeeding (4.16, SD 1.03/ 3.98 SD 1.14) and the importance of participating in parent education (3.74 SD 1.03/ 3.29, SD 1.33)

6.2.5 Comparisons of women in the clinical trial and in the national cohort study

The women in the clinical trial felt more anxious about financial matters and work-related problems, and were more concerned about miscarriage, than women in the trial ten years earlier. In the national cohort study, more women reported concerns for their own health and the relationship with their partner than in the clinical trial.

There were also differences in socio-economic background data: the women in the clinical trial were mostly first-time mothers, there were more women with a university education, and fewer used tobacco. In a comparison of expectations between the two groups, statistically significant differences were found. The analysis showed lower expectations in the clinical trial where health-related aspects were concerned - both medical and emotional - as well as the importance of participating in parent education. The women in the clinical study had higher expectations where information-related aspects, respectful treatment and involving the partner in the care were concerned. When sorting the content of antenatal care into order of precedence, checks of the woman and child's health came highest in both the clinical trial and the national cohort study.

6.3 PAPER III

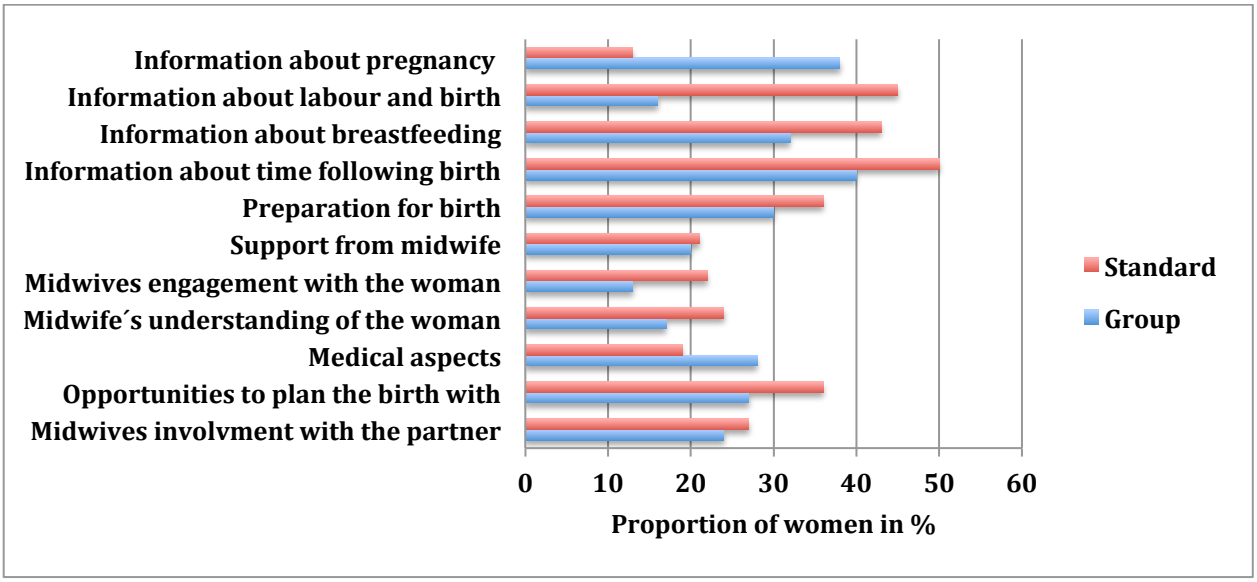
The midwives in the clinical trial were allocated one of the two forms of care at random; GBAC (n = 16) or SC (n = 15). They recruited 786 women, 700 of whom responded to the survey in early pregnancy. The follow-up survey was responded to by 228 women from GBAC and 179 women from SC six months after the birth. The incidence of non-respondents was higher among women who used tobacco (p 0.047), female foreign nationals (p 0.003) and women with no university education (p 0.000). The incidence of non-respondents was the same in both groups.

The midwives that participated in the study had an average age of 50.1 in the GBAC group and 48.9 in the SC group. They had worked as midwives an average of 22 and 18 years respectively; of which 13.4 and 8.5 years had been within antenatal care. Two midwives had previous experience of GBAC, one from each study group.

The background variables gathered in the first survey during the first visit to antenatal care revealed two significant differences between the women in the care models.

The GBAC group had a greater number of first-time mothers (< 0.000) and women with a university degree (< 0.000) than the SC group. There were differences in the number of health care appointments between the GBAC and SC groups of women. Women in GBAC had more appointments with the midwife but fewer doctor's appointments than the women in SC. In the follow-up survey, the women were asked to rate the care provided whilst indicating the importance of this care from different aspects. The following are the results of an index created between the perception of the actual care and how women rated the importance of the care received. The results focus on shortcomings in all areas of care.

Table 4. The number of women in each form of care that considered the respective area of care to have shortcomings.



The women in GBAC perceived more shortcomings in the information on pregnancy (OR 3.45; 95 % CI 2.03 -5.85) than the women in SC. However, they perceived fewer shortcomings in term of the information on childbirth (OR 0.16; 0.10-0.27), information on breastfeeding (OR 0.58; 0.37-0.90) and information on the time following the birth (OR 0.61; 0.40-0.94). The women in GBAC also perceived fewer shortcomings in terms of the dedication of midwives (OR 0.44; 0.25 -0.78) and being taken seriously (OR 0.55; 0.31 -0.98) than the women in SC. The women in GBAC reported to a lesser degree shortcomings in the opportunities for time to plan the childbirth (OR 0.61; 0.39-0.96) compared with the women in SC.

When women were asked about the global content, the women in GBAC indicated to a higher extent satisfaction that the care had supported contact with other parents (OR 3.86; 2.30-6.46). They also reported greater satisfaction with the support for initiating breastfeeding (OR 1.75; 1.02-2.88) than women in SC.

There was no difference between the groups in terms of the overall satisfaction with antenatal care.

Regardless of care form, > 20 per cent of the women perceived shortcomings in terms of the information on breastfeeding, the time following the birth and preparation for the birth, as well as support from the midwife, the opportunity to plan the birth and the midwife's involvement of the partner. In total, 8 of 16 variables in GBAC and 9 of 16 variables in SC were reported as inadequate.

6.4 PAPER IV

In paper IV, 56 midwives were interviewed at 52 antenatal clinics in Sweden concerning their attitude to GBAC and satisfaction with their work. The midwives were all women, of an average age of 53.3, and had worked an average of 23 years as a midwife, 13 years of which in antenatal care. The results reveal that 80 per cent of the midwives were satisfied with their work in antenatal care but had reservations when it came to the lack of time and dissatisfaction with the parent groups. Over half (55.4 per cent) of the midwives expressed an interest in starting with GBAC.

The midwives who worked in major cities reported the greatest dissatisfaction with their work whilst showing the greatest interest in GBAC. Of the 56 midwives involved, 48 commented on the question of whether they wanted to try GBAC as a working method. Two themes emerged from the content analysis *Advantages and disadvantages of group-based antenatal care for parents and midwives from the midwives' perspective* and *Midwives' attitudes and working conditions for group-based antenatal care*.

Table 5. Themes and categories

Advantages and disadvantages of group-based antenatal care for parents and midwives from the midwives' perspective				
Advantages for the midwives (8)	Advantages for the parents compared with standard care (10)	The importance of the individual meeting for parents and midwives (6)	Parents' suitability for group-based antenatal care (6)	Midwives' worries and concerns leading up to group-based antenatal care (7)

(n) = number of midwives included in the category

The category with the most comments was "Advantages for parents compared with standard care", which means that the midwives saw advantages with GBAC in the form of a more equal care, a broader contact network for the parents and greater knowledge. A quote which exemplifies this is "*Much like in the parent groups, someone asks something that the other parents had not thought to ask*".

Table 6. Themes and categories

Midwives' attitudes and opportunities in the workplace to begin working with group-based antenatal care			
Opposition to introducing group-based antenatal care (10)	Interest in group-based antenatal care (6)	Circumstances and opposition at the clinic (4)	Opposition in the working group (4)

(n) = number of midwives included in the category

The category with the most comments was "Opposition to introducing group-based antenatal care". The midwives expressed a weak interest or a lack of time for trying something new. In some cases, opposition was also a matter of individual encounters being seen as very important to preserve. The midwives also expressed strong opinions on different women's suitability for the model. A midwife expressed it as follows: "*My perception is that mothers who are not brought up here are not prepared for the concept of groups in antenatal care and they ask why they are being put into a group. It's perhaps a matter of cultural differences*."

7 DISCUSSION

7.1 DISCUSSION OF RESULTS

The aim of this thesis was to answer questions on expectations of antenatal care and satisfaction with group antenatal care from parents' perspective, with a focus on women, and midwives' attitude to group-based antenatal care.
The results will be discussed based on parents' perspectives and the content of antenatal care.

7.1.1. Parents' overall satisfaction with antenatal care

Paper III revealed no significant difference between women's rating of general satisfaction between the different forms of care. The majority of women rated the care as highly satisfactory regardless of the form of care. The results of the thesis do not support previous research from the USA which showed that women were more satisfied with group-based antenatal care than with individual standard care (Kennedy et al. 2011; Ickovics et al. 2007). An overview article on group-based antenatal care from the USA, which included two RCTs, revealed that women were five times more satisfied with group-based antenatal care than standard care (Homer et al 2012). In this context, it is important to take into account how standard care is conducted in the USA. It does not include general parental support and is associated with long waiting times in connection with appointments. It is also more common for women only to have visits to the doctor during pregnancy. There is consequently a large organisational difference in standard care between Sweden and the USA (where the majority of group-based antenatal care research is conducted). As a consequence, comparisons of research findings from these two countries should be done carefully. It has however been discussed that it is important to make comparative studies between countries and different cultures that can generate new knowledge and lead to new angles of approach to the care conducted in different countries (Van Teijingen 2003b).
According to this thesis, however, parents that were allocated GBAC for paper I had a very positive view of their experience and said that they would like this form of care for any future pregnancies. The combined findings of papers I and III support the notion that this form of care does not reduce parents' satisfaction with the care.

7.1.2 Expectant fathers and the partner in antenatal care

The midwife's way of engaging the partner in the care fell somewhat short, according to the women and men in paper I, and they reacted to the fact that the midwife was not aware of this perspective in the group. Both women and men felt that the midwives focused on the women in the group and unconsciously chose not to include a male perspective. The findings of paper I support those of paper III, where women reported that the inclusion of their partners in the care was rated as very unsatisfactory in both care forms. The notion that the men are overlooked in the care process is supported by previous studies (Olsson et al. 1996; Premberg, Lundgren 2006; Ellberg, Högberg, Lindh 2010).

What is clear in the present papers (I, II, III) is that both the woman and the man would like the expectant father to be more active in the care process. It was discovered that the expectations of the partner being involved in the care were higher than ten years ago (II). It is important to improve the father's participation as research shows that this can lead to the father having better contact with his child, which in turn can lead to better health for the mother and child and a more equal parenthood after the birth (Ninio & Rinott 1988; Teitler 2001).

It has previously been highlighted in directions from the National Board of Health and Welfare that the work of the midwife should cover the entire family. By engaging the partner in the care process, the midwife can also help to bring equality into the parenting.

7.1.3 Organisational aspects of group-based antenatal care and standard care

In paper IV, the midwives envisioned organisational barriers to introducing GBAC. The midwives saw obstacles in the fact that there were no suitable premises available and that support from colleagues and their superiors would be required in order to introduce a new model of care. This is very much in line with studies on the implementation of group models in antenatal care (Gaudion et al 2010; Baldwin 2011; Teate, Leap, Homer 2013; Rissanen 2010). Midwives in these studies identified organisational problems for the implementation such as problems with scheduling, premises and support from superiors. At the same time, the midwives felt that the work in the group was an exciting challenge and that the parents had greater influence over the care process. This research also provides recommendations which can be used in future studies into the implementation of group models. The midwives suggested that

they would need new skills and additional training to work with GBAC, The founder of CenteringPregnancy© has pointed out that the process from planning to acceptable implementation can take two to four years. She has also emphasised that the personnel at the clinic must be ready for change and to be involved in the process of change (Conversation with Sharon Schindler Rising 2011).

It has also been suggested that there are time savings to be gained with CenteringPregnancy©, as this model means more time for women and time savings for the care providers (Rising 1998; Homer et al. 2012). This has also been pointed out by a study on GBAC in Sweden. In this study, the authors worked out that the midwife saves around three hours per pregnant woman when compared with SC and that the parents have much more time with their midwife (Wedin et al. 2010). This could mean that parents who wish to have more time would appreciate this form of care, whilst some parents may consider it to be too time-consuming.

Number of visits and Continuity

Women's expectations of having the recommended number of appointments was lower in the clinical trial than women in the cohort study(II). There was however no difference between women who were later allocated group-based antenatal care and those allocated standard care in terms of the expectations of the number of appointments. This result can be discussed based on the fact that the reduced number of appointments has been accepted and has come to influence women's expectations. Hildingsson et al. (2002) previously found that background factors such as parity and age affect expectations of the number of appointments and that older women (>35) and women who have previously had children preferred to have fewer appointments. There was no age difference between the women in the two models of care (II) but more first-time mothers in GBAC. This may indicate that there are factors other than parity and age that affect expectations of the number of visits.

The majority of women in the clinical trial stated that they were satisfied with the number of visits they received, irrespective of the model of care (III). One surprising difference was that women in GBAC had more appointments with the midwife but fewer doctor's appointments. There may be an explanation for why these women had more midwife appointments. The midwives noted in their diaries that it was sometimes difficult to find time for all the individual appointments in the group, which may have led to the midwives booking individual appointments for separate occasions.

Women rated expectations of having the same midwife throughout the pregnancy as high. This was true for both models of care in the clinical trial, though expectations of continuity have fallen somewhat over the past decade (II). Continuity was something that parents who received GBAC said they appreciated (I).

The meaning of the word does however differ somewhat in these papers. The meaning of continuity in paper II was the continuity of the care provider throughout the pregnancy, whereas in paper I it signified continuity of the care; the fact that the group stayed together and the content of the group sessions followed a schedule. It is important to distinguish between continuity of the care and of the care provider when discussing continuity in research and evaluations (Green, Renfrew, Curtis 2000). This may otherwise lead to false conclusions from research findings and difficulties identifying shortcomings in the care. Freeman et al. (2007) have proposed a definition that can be transferred to continuity in the context of pregnancy and childbirth. These authors have defined continuity as three different genres:

– *Personal relation continuity: Continuity in care during pregnancy and/or childbirth from one and the same midwife.*

– *Informative team continuity: All personnel working with a woman's pregnancy and childbirth have sufficient information on her medical situation and personal circumstances to provide the right care.*

– *Unit-wide continuity: A consistent and coherent strategy between care providers in different health care units*

7.1.4 The midwife in group-based antenatal care and standard care

The majority of midwives in paper IV felt that their work was satisfactory and were also willing to test working with group-based antenatal care.

There is evidence of strong connections between midwives' and women's satisfaction with their work and the care respectively. The relationships between the midwives and parents affect women's perception of the care (Kirkham 2000; Lundgren & Berg 2007). It is also important to emphasise the importance of knowing which factors contribute to job satisfaction so as to maintain a good supply of personnel (Curtis, Ball, Kirkham 2006). This thesis does not contain a study into midwives from the clinical trial, but the midwives' diaries contain descriptions of their experiences in terms of administering this model of care to couples. They described this approach as satisfactory as they got to know the parents very well. These diaries also contain descriptions of organisational

problems that became an obstacle to satisfactory care. They expressed that it was sometimes difficult to organise individual health checks. Similar results have been shown in studies on the implementation of CenteringPregnancy®, in which midwives perceived organisational obstacles in administering care in accordance with the model (Gaudion et al. 2010; Baldwin 2011). The midwives in paper IV discussed the advantages and disadvantages, but the majority reported an interest in introducing group-based antenatal care (IV). The midwives could imagine that the model entailed time savings and that the couple would be able to expand their contact network. The midwives could see that group-based antenatal care entailed a fairer form of care in which all parents receive the same information at the same time.

The demands on midwives have changed over the past 30 years, and today they must be able to focus on both the woman and her partner (SOU 1979:131). This has led to a change and expansion of the content of appointments. Midwives working in major cities are responsible for more women than those working elsewhere in Sweden (http://www.ucr.uu.se/mhv/index.php/arsrapporter). Overall, this can partly be explained by major cities' midwives being more interested in working with this form of care and by the fact that they can see this as a means of saving time (IV).

The midwives (IV) felt that GBAC would not be suitable for highly educated women and women from other cultures. The midwives' opinions were not consistent with those of the parents regarding who would be appropriate for this form of care. The parents in paper I were women born abroad and highly educated women who said they felt everyone should be offered this form of care. Parents in paper I also said this, and that those who chose this form were aware of what group-based antenatal care entailed. The midwives' assumption that certain women are not suitable for GBAC may indicate that they base their assumptions on previous experience and traditions (Green, Kitzinger, Coupland 1990).

Midwives can sometimes take on the role of representative and protector, which can sometimes lead the midwife to making choices on behalf of the woman without first asking her (Olsson et al. 1996). It has been proposed in literature on CenteringPregnancy© that the midwife in the group should act more as a facilitator than as an expert (Rising 1998). Research has also shown that parent groups run by a leader do not work. Interaction led by the participants of the group is recommended instead (Gagnon & Sandall 2007). This reasoning is also supported by the results from paper I, in which the parents appreciated when the midwife took on the role of facilitator and used their knowledge in this role.

Women in GBAC (III) were more satisfied with the midwife's commitment and being taken seriously, despite the fact that in the early stages of pregnancy these women had higher expectations of respectful treatment than women who were later allocated SC. These findings could to some extent be related to results from paper I, where parents felt the midwife had the capacity to show dedication to the group whilst being a professional (paper I).

7.1.5 Medical and health-related aspects in antenatal care

Women rated their expectations of having health checks for their child as the highest. The high expectations may indicate that women today take this part of the care process for granted. Another explanation may be that the GBAC group had more first-time mothers and it was previously mentioned that the latter have higher expectations than those who already had children.

There was a discrepancy between the parents' perception (I) and women's assessment of the medical aspects of the care (I). It was revealed that the parents who experienced GBAC felt their medical needs were fulfilled (I), but 28 per cent of women in GBAC rated this area below par. This question was asked in a very general sense and does not provide answers as to what shortcomings there were in terms of the medical aspects. There was no significant difference between the women's assessment of medical aspects in both forms of care in paper III, though this indicates that the quality in GBAC is low and needs to be further scrutinized.

The women were however happy with the possibility to speak about their health. This was true for both forms of care. No previous study has been identified that has looked into women's opinions on the medical aspects of group-based antenatal care. No medical outcomes are included in these papers. This has been studied in the USA, however, and an overview article on CenteringPregnancy© found that there were no differences in medical outcomes (Homer et al. 2012). In a separate review of these studies (Ickovics et al. 2007; Kennedy et al. 2011), it was revealed that premature babies whose mothers had received GBAC had a higher birth weight than premature babies whose mothers had received standard care. It is difficult to translate these results to Swedish conditions. As previously mentioned, the studies from the USA contain populations of socially vulnerable women.

7.1.6 Knowledge and information aspect of antenatal care

Women had higher expectations of the provision of information than ten years ago. In this context, it should be mentioned that one line of thought is that pregnant women receive too much information in the information society of today, which means they have difficulty sorting the information (Larsson 2009). The increased expectations can be seen as an indication that there is a need to have information sorted in the early stages of pregnancy when everything is new and overwhelming. It may also be an explanation for why women wish for more visits in the early stages of pregnancy (Hildingsson & Thomas 2007).

Women in GBAC were generally more satisfied with the various parts of the information provided, with the exception of information regarding the pregnancy (III). Three times as many women in GBAC as in SC felt the information on pregnancy was inadequate. Where information on childbirth was concerned, the results were the opposite; the women in GBAC indicated a high degree of satisfaction with this area. Information on pregnancy is often provided early on in the pregnancy as both forms of care involved individual meetings. It can be debated as to whether the differences are a matter of a medical focus in the individual meeting. The differences in satisfaction with the information on childbirth may be explained by the fact that the group model involves the opportunity to exchange information both with other parents and with the midwife, which increases participation and the exchange of knowledge around the childbirth (III). This can lead to parents remembering more about what was said according to the findings of paper I. This is supported by previous findings on group-based antenatal care in which researchers proved that a group situation results in increased knowledge (Baldwin et al. 2011).

In paper II, women in GBAC had higher expectations of information on breastfeeding than women in SC. This can to some extent be explained by the fact that there were more first-time mothers in GBAC, who may have a greater need for information on breastfeeding. At six months after the birth, women in the GBAC group reported that they were more satisfied with the information and the help they received when it came to breastfeeding than women in standard care. First-time mothers in paper I appreciated hearing about the breastfeeding experiences of women who had already had children, as this seemed closer to reality than the information provided by the midwife. In paper III, > 20 % of women from both forms of care reported that the breastfeeding

information was inadequate. These results can be attributed to the fact that it is not just breastfeeding information from the midwife that is important; support from the group members is also an important aspect. It has been previously demonstrated in studies on support groups that mothers feel they receive a great deal of support for breastfeeding and normalise their breastfeeding with other mothers (Ingram 2013). Preparation for breastfeeding has also been studied in a meta-analysis of five studies that evaluated the efficiency of training initiatives to encourage breastfeeding. This study revealed that training initiatives were effective on the whole (Dyson, McCormick, Renfrew 2005). It has also been demonstrated that the establishment of optimal support not only requires good knowledge, but also a positive attitude on the midwives' part (Ekström et al., 2005)

7.1.7 Psychosocial aspects and support in antenatal care

There was no difference in how women rated depression symptoms in the recent study compared with ten years ago, nor when comparing the groups of women assigned to GBAC and SC respectively (paper II). At the same time, expectations of the emotional content of the care have been lowered over a ten-year period, which is something to consider. This perhaps reflects how women perceive the role of the midwife today; it may be that they do not perceive the midwife as someone who can support them emotionally.

In paper I, it was evident that parents perceived the group as a support for understanding the changes that take place during pregnancy. This finding is supported by psychosocial theories on the impact of the group on the individual. The opportunity to exchange ideas and thoughts together in a group helps the individual to understand new contexts (Stenberg 2011). Parents in paper I expressed that sharing their thoughts with other parents helped them to feel more normal and reduce their anxiety. This outcome can be compared with that of an interventional study into fear of childbirth. This study demonstrated that sharing experiences with other women in the same situation was one of the most important elements of the support in reducing fear leading up to the birth (Saisto 2006). This was also confirmed in paper I, where women who had already had children and who experienced complications expressed that participation in the group had a “healing” effect.

The group contributed to an increased socialisation and entailed the parents gaining a sense of belonging to a group with common goals. This gave the participants a sense of

security with the knowledge that they were not alone with their thoughts and symptoms. Similar results were found in studies from the USA; women felt that group-based antenatal care helped them to have the courage to share their thoughts with others in the group (Kennedy et al. 2009; Novick et al. 2010). According to the parents in the study, there was also room for both women and men to discuss their psychological well-being with other parents. This is an important result as these less tangible aspects of antenatal care can be important to parents' well-being in the long term.

Both the parents in paper I and the women in paper III felt that group-based antenatal care increased the contact with other parents but not always that the care led to a broader contact network after the birth. Other studies have arrived at the opposite conclusion; that group-based antenatal care involves women continuing to meet after the birth (Wedin et al. 2010). This social support can however be important during pregnancy, which is a life-changing event. According to Koeske & Koeske (1990), social support does not directly contribute to health results but functions as a buffer to protect the individual against the harmful effects of their environment in times of stress. The results of paper I can be interpreted to mean that support in a group can have a direct impact on emotional and informative support; an effect which can protect individuals from the potentially harmful impact of stressful events (Dennis 2003).

Certain studies show the importance of individualisation; seeing the individual woman's needs and not classifying. It should not be assumed, for example, that a woman who has previously given birth requires less support, less information or fewer appointments (Bondas 2002; Clement, Sikorski, Wilson 1996). These women may need to tell their story and also receive recognition in their pregnancy. They may also need to receive the same information again to refresh their knowledge. Paper I confirms the notion that women who have previously given birth appreciated this form of care and that the exchange of experiences can be a form of “comeback” from previous, complicated pregnancies or births. The results indicate that this form of care may be an alternative for women who have previously given birth and who need extra support.

7.1.8 Preparation for childbirth and parenthood

The findings of papers I and III support one another in the sense that the information on childbirth was considered satisfactory. The women in GBAC were also more satisfied than women in SC with having time to plan the birth with the midwife. This may be related to the fact that they felt they were treated respectfully and there was more time

in the group model to discuss the childbirth. Planning a pregnancy is an important part of the preparation and helps women to formulate a more realistic picture of the coming childbirth (Perez et al. 2005). The woman's sense of involvement in decisions surrounding the childbirth may be a contributory factor to satisfaction with care (Howarth et al. 2012). According to a Cochrane Review (2007), the research into parent education and its effects is limited, which means that it is important to study how parents perceive parent education as this is offered to all first-time mothers in Sweden. There is perhaps a need to study outcomes other than those previously studied. According to a report from Mödravårdsregistret [antenatal register], participation in parental groups has decreased in recent years, and in 2012, 72 per cent of first-time mothers and 67 per cent of their partners participated in parent education in groups. (Women who have previously given birth are not recorded in this register).
In comparison with data from 1999-2000, 93 per cent of first-time mothers and 19 per cent of women who have previously given birth participated in parent groups (Fabian, Rådestad, Waldenström 2004). In this context, it is important to note that previous studies have revealed that women who have previously given birth have a desire to participate in parent groups (Hildingsson & Thomas 2007). In paper II, the women in the GBAC group expected to receive parent education. This may be due to the fact that there were more first-time mothers in this group, and that it is standard for antenatal care providers to offer parent groups/support for first-time mothers (SFOG 2008). Midwives expressed dissatisfaction with the parent education they provided in paper IV, which is consistent with the parents' previous experiences of individual care with parent education in paper I and the women's assessment of SC in study III. It appears that dissatisfaction with preparation and information for the time following childbirth has remained constant for a long time, and this phenomenon has been established in previous studies (Fabian et al. 2005). This is confirmed in the qualitative paper (I), where parents express their dissatisfaction with the preparations leading up to the time after childbirth. In paper III too, where women from both models of care consider this area as the most inadequate of all areas. There is a lack of intervention research into parent education in terms of preparing parents for the time following the birth. There are however a number of studies demonstrating that anxiety about the time following childbirth and parenthood is common among both women and men (Matthey et al. 2002). It is important to take this into account, as one of the goals for the parent education is to prepare for parenthood (SOU 1997:161).

7.2 METHODOLOGICAL CONSIDERATIONS

7.2.4 Paper I

In this paper, semi-structured group interviews and individual interviews have been used and data has been analysed using content analysis. The subject of the research determined the choice of method, and interview studies is a well-used and accepted method in qualitative research (Patton 2002). The intention was for the group interviews to be the sole subject of the data collection. Group interviews were chosen due to the form of care in question being conducted in groups and in order to capture the experiences and opinions of both group and individuals. When the data collection began, the fathers did not participate. We decided to afford them the opportunity to participate in telephone interviews. Research has revealed that there is a conformity in the results and validity between "face to face" interviews and telephone interviews (Sturges & Hanrahan 2004; Geller 2007). This further justified the choice of data collection method.

Both interview methods may have affected the outcome, but no difference was perceived in the participants' inclination to participate in the interviews. Some participants were able to share their experiences for a relatively short session.

The argument for using telephone interviews is multifaceted, and the method has many practical advantages; first of all it entails a lower cost, the possibility to quickly save time and the ability to have better control over the interviewers in order to ensure better standardisation of the data collection (Kempf & Remington 2007). In qualitative studies, the researcher contributes by helping to write the text during the exchanges in the interview. The authors are all midwives and women but they have no experience of working with group antenatal care. This may have affected the interpretation of the interview material. At the same time, these experiences and preconceptions provided a broader understanding of the experience of care. Awareness of this understanding led to a detailed analysis of the text, and also ensured we were careful not to make our own interpretations.

The content analysis results first and foremost in concept development and models, rather than theory development as in "grounded theory" (Glaser & Strauss 1967). The credibility of this qualitative, descriptive research with content analysis is based on the fact that the approach in the analysis is described carefully. The method is applicable as it reflects parents' communication and saves information from the original material (Hsieh & Shannon 2005). Credibility was also achieved by describing how data has

been collected and the various stages taken in the analysis to arrive at a result. Credibility, transferability, reliability and "confirmability" (working with subjectivity) describes aspects of the trustworthiness of qualitative studies. Quotes were chosen to ensure credibility. Transferability was shown in the categories, which could be transferred to similar groups and contexts. Trustworthiness was ensured with a digital recorder, and the interviews were transcribed word for word so as to make the results verifiable. Confirmability is a matter of the results and conclusions in a study being consistent with the purpose and not being based on the researcher's interpretations and understanding. The strength of the paper lied in the fact that the sample of respondents came from different geographical and socio-economic areas and included both men and women. This resulted in the possibility to include different points of view of the experience of group-based antenatal care.

7.2.5 Paper II

In this paper, data from two difference studies and two different periods of time has been used, and the data material consists of survey responses from women that were then analysed using statistical methods. This choice was based on the fact that the content of the care was relatively constant during this period of time, though society and women's conditions have changed in terms of e.g., a broader range of information (Larsson et al 2009). The survey in paper II was taken by women in the clinical study before the intervention began, but women have been aware of what programme they would be assigned, which in turn may have influenced their opinions. When evaluating the results, it is important to remember that the intervention group consisted of more first-time mothers and women with a university education. This may be purely by chance or may relate to how they were questioned by the midwives.
One limitation is that the data material is relatively limited. This may be connected with the fact that few midwives were interested in participating in the study. This meant that a small number of midwives had to recruit a large number of women. The inclusion period was two years and the reason for not extending this further was that the conditions of care can change and affect the result. Another limitation was that few women born abroad participated in the clinical trial and in the historical national study. This can be attributed to the inclusion criteria, which consisted of the need to speak Swedish.

7.2.6 Paper III

This paper is a clinical controlled trial (CCT) in which surveys were used as a method of collecting data and analysed with statistical methods (Higgins Green 2011). Clinical trials is a collective term for a number of different trials in care, including controlled studies without randomisation (Herbert 2009). Papers II and III are part of a clinical controlled trial in which the midwives were subject to random allocation. This meant that the participants (the women) were not randomly allocated to one of the group. There was a predetermined schedule at each clinic for allocating one of the forms of care to the women. The research group chose this approach based on clinical circumstances and following discussion with the midwives. This did however increase the risk of observational errors, as women with similar backgrounds can end up in the same group, which in turn may affect the results. In the clinical trial, there were more first-time mothers and women with a university education in group-based antenatal care. This was checked and necessary adjustments were made in the analysis. The sample in both groups is however representative for Sweden in terms of pregnant women's ages, level of education, tobacco use and co-habitation with the expectant father (www.socialstyrelsen.se/register/halsodataregister/medicinskafodelseregistret. There are however researchers who have studied how background factors affect women's satisfaction with antenatal care, and they have found little evidence that background factors such as education and parity affect women's general perception of the care (Oladapo & Osiberu 2009; Wiegers 2009). On the other hand, there is research to indicate that well-educated women are less satisfied with the information and respectful treatment (Raleigh, Hussey, Seccombe, Hallt 2010). Another factor that may have affected the women's assessment of care is memory, and researchers have pointed out that it may be easier to remember the childbirth than to remember the antenatal care appointments (Bondas 2002).

The incidence of non-respondents in paper III can be seen as a limitation. It can be explained to some extent by the fact that the parents had the option to respond either via the web-based survey or to fill in the paper survey. It has been previously demonstrated that there is a hidden third option; simply to not respond (Couper, Singer, Conrad, Groves 2010).

In previous studies it has been noted that the incidence of non-respondents increased in the 2000s. It has also been suggested that the incidence of non-respondents in longitudinal studies is the result of disappointment in science and research and increased complexity in everyday life. (Morton et al. 2012). It has however been proven that a low response frequency does not equate to low validity of the study. 2006; Curtin, Presser, Singer 2000).

7.2.7 Paper IV

In this paper, structured telephone interviews were employed as the data collection method. These were analysed using content analysis and statistical methods. Information on the topics of discussion to be highlighted in the interview were sent out prior to the interview. This can be an effective means of reducing the distance between telephone and face to face interviews by increasing the sense of trust in the interviewer (Groves 1987). Quantitative content analysis is recommended when there are no or just a few previous studies that highlight the phenomenon, which motivated the choice of method in this paper. According to the American media researcher Bernard Berelson (1954), quantitative content analysis is a research tool for the objective, systematic and quantitative description of manifest communication content. The content analysis in paper IV looks at the text exactly as it is written, as opposed to latent analysis, in which the underlying meaning is interpreted (Patton 2002). Evidence of a study's validity (content validity) is based on reply processes, and one method for identifying these processes is to pilot test surveys and interview guides on prospective study groups. This method is used in this paper as well as the others. The results show variations which can be expected to exist in other relevant situations, which means that the results from paper IV can to a certain extent be transferred to midwives involved in other papers. However, the sample of midwives was small, which makes it difficult to generalise the results for all midwives in Sweden.

7.3 CONCLUSIONS AND IMPLICATIONS

This thesis contributes new knowledge on parents' experiences of group-based antenatal care and midwives' attitude to this form of care. It also helps to identify women's expectations of antenatal care. The conclusion is that women's overall satisfaction was high for both forms of care, though it was noted that half of the specified areas of care were considered inadequate in both models of care, which indicates that quality improvements are required. It should be noted that the majority of specified areas of care were to GBAC's advantage when compared with SC. The two most important advantages of GBAC were the exchange of information and the support in the group, though it is important to organise the medical checks differently as they were rated as inadequate. There were few differences in women's expectations of care between the models of care, but in most areas the expectations had changed over a ten-year period. GBAC can thus be offered as an alternative without satisfaction with antenatal care being reduced. Parents who received group-based antenatal care appreciated this form of care, and midwives showed interest in it, which is further evidence that this form of care can be offered. Its implementation should however be preceded by meticulous planning and the involvement of all concerned care providers and decision-makers.

7.4 FURTHER RESEARCH

This thesis has focused on women's experiences of antenatal care and further research is required in order to look into fathers' and partners' experiences of this model of care. In this thesis, it was discovered that women were satisfied with the information on breastfeeding, the support and the broader contact with other parents. This may be significant to health and should be studied further. Further research is also required in order to look into midwives' working conditions within antenatal care, as the midwives identified certain shortcomings, which could also be related to parents dissatisfaction with care.

The recommendations are as follows:

- To investigate partners' expectations of antenatal care and compare partners' satisfaction with group-based antenatal care with that of standard care.
- To investigate associations between group-based antenatal care and results in breastfeeding
- To investigate the effects of the broader contact network with other parents on health
- To investigate midwives' experiences of their working environment and their propensity for change.

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