Teenage Childbearing in Sweden
Support from Social Network and Midwife

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To the teenage mothers in Sweden and their caring midwives.
ABSTRACT

The aim of this thesis was to contribute to the knowledge and understanding of Swedish-speaking pregnant and parenting teenage girls’ situation and experiences of becoming mothers in the Swedish context as well as midwives’ reflections on their experiences of caring for teenage girls during pregnancy and childbirth.

Specific aims were to describe Swedish teenage girls’ perspectives, experiences and thoughts about becoming and being a teenage mother (I); to describe Swedish midwives’ reflections on their experiences of caring for teenage girls during pregnancy and childbirth (II); to describe and compare a group of Swedish-speaking teenage mothers, aged 15-19, with adult mothers, aged 25-29, all of whom gave birth in hospital, in terms of sociodemographic background, perception of health during pregnancy, and social support (III); to describe and compare the perception of received social support, self-esteem and different background factors among teenage mothers, aged 15-19, with and without depressive symptoms (IV).

Methods The studies were conducted in a county in south western Sweden during 2003 and 2004. Both qualitative and quantitative methods were used: individual semi-structured interviews with 20 teenage mothers (I); three focus group discussions (FGDs) with 24 midwives; and a questionnaire developed specifically for this study given to 97 teenage mothers and 97 adult mothers 1-3 days postpartum (III, IV). Content and hermeneutical text analyses were applied to qualitative data (I, II), and descriptive statistics were used to analyse quantitative data (II, IV).

Results from studies showed that there were two main reasons for Swedish-speaking teenagers to become mothers (I, II, III). It was seen as a way out of a difficult psychosocial situation, or it was seen as something natural because of a family pattern of early motherhood (I, II). Teenage mothers had more often had an early experience of parental separation, had experienced physical and/or psychological violence, were more often inclined to engage in risky behaviours, and smoked more often during pregnancy. In addition they perceived less support from their social network, had lower self-esteem, and had more depressive symptoms than adult mothers (III). Teenage mothers with depressive symptoms had lower self-esteem, perceived less support from family and friends, had more often been exposed to violence, and were more often smokers than teenage mothers without depressive symptoms (IV). Support from the midwives was generally well perceived by teenage mothers, but support from the midwife attending delivery was less well perceived in teenage mothers with depressive symptoms (IV). Reflections by the midwives about their experience of caring for teenage mothers revealed a true presence in the encounters with teenage mothers (II).

Conclusions Our findings provide midwives and other health care providers with a picture of the experience of teenage motherhood, which highlights the importance of antenatal assessment of each teenage mother’s strengths, weaknesses, hopes, self-esteem, depressive symptoms, health risk behaviours, social support networks, and satisfaction with social support prior to care planning. The midwife needs to lend a listening ear to the teenage mother, giving her time, showing that she is taking her seriously and trying to understand her complex situation. Teenage mothers need acceptance and clear communication.

Keywords teenage pregnancy, health risk behaviours, self-esteem, depressive symptoms, social support, physical/psychological violence, midwifery care, Sweden
LIST OF PUBLICATIONS

This thesis is based on the following papers, which will be referred to in the text by their Roman numerals:

I. Hertfelt Wahn, E., Nissen, E., Ahlberg, M. B.

II. Hertfelt Wahn, E., von Post, I., Nissen, E.
    A description of Swedish midwives’ reflections on their experience of caring for teenage girls during pregnancy and childbirth. *Midwifery*. 2006; In press

III. Hertfelt Wahn, E., Nissen, E.

IV. Hertfelt Wahn, E., Matthiesen, A-S., Nissen, E.
    Swedish teenage mothers’ with and without depressive symptoms and their perception of support from network and midwife. *Submitted*
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>CI</td>
<td>Confidence interval</td>
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<tr>
<td>EPDS</td>
<td>Edinburgh Postnatal Depression Scale</td>
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<td>FGD</td>
<td>Focus Group Discussions</td>
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<td>MSSS</td>
<td>Maternity Social Support Scale</td>
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<td>OR</td>
<td>Odds ratio</td>
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<td>SEM</td>
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<td>SES</td>
<td>Self Esteem Scale</td>
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PREFACE

My interest in reproductive and perinatal health research began during my studies for a Master’s Degree in Nursing Sciences at Umeå Universitet in the spring of 1998. During this time, I became aware of the need for new knowledge about young women’s needs during pregnancy and childbirth. This topic is important to me, both in my research and in my profession as a teacher of nursing and midwifery students. If we are to understand the complexity of reality, we will benefit from using a variety of approaches in our search for new knowledge. My research uses a combination of qualitative and quantitative methods to obtain both a deeper and broader understanding about the needs of teenage girls’ becoming mothers in the Swedish context. The years of research that have gone into this thesis have been fascinating, and they also form the groundwork for future research.
INTRODUCTION

Sweden has substantially lower levels of teenage pregnancy, childbearing and abortion than other western countries (Darroch et al., 2001), and it is unusual among Swedish pregnant teenagers to continue a pregnancy and choose to have a baby (Danielsson, Rogala & Sundström, 2001). Nevertheless, teenage childbearing in Sweden is associated with long-lasting social and health problems for the mother and child (Danielsson et al., 2001; Ekéus, 2004). In this context, it is clear that teenage mothers require social support in and outside the health care system. A few studies describe the general picture of teenage childbearing and parenthood. However, none of them includes recent teenage mothers’ own descriptions of their situation and their own assessments of health and social support they received from their own networks and from their midwives. The present studies therefore focus on childbearing in the Swedish context from the teenage mothers’ perspectives. The age group 15-19 was chosen in order to allow comparisons with other research studies of teenage childbearing. Throughout this thesis pregnant and parenting teenage girl, aged 15-19, are referred to as teenage mothers, and the terms teenagers and adolescents are used interchangeably.

The studies discussed in this thesis were conducted in a county in south western Sweden during 2003 and 2004. The county consists of urban, suburban and rural districts and has approximately 730,000 inhabitants. Three hospitals in the county have obstetric clinics with approximately 2,500 births per year per clinic. Around 150 births occur annually among teenage girls in the study area. Permission to undertake the studies was given by the Regional Ethics Committee (Gothenburg) and by each clinical head of service for the hospitals and antenatal clinics in the county.

BACKGROUND

Teenage childbearing continues to raise important concerns for health care professionals and for society. Traditional understanding of teenage childbearing includes a belief that the social and economic consequences for both mother and child are almost universally negative (Clemmens, 2003; Anda, 2002; Fessler, 2003; Figueiredo, 2006). It is considered socially problematic in most cultures (Klein, 2005). It is shown that Swedish teenage mothers are at increased risk for attaining lower educational levels, for being single, for having many children, for being dependent on social welfare, for receiving disability pensions and for dying prematurely from inflicted violence (Otterblad Olausson, 2000).
TEENAGE PREGNANCY

Of the 131 million births that occur globally each year approximately 17 million births occur among girls aged 15-19 (Population Action International, 2001). The teenage birthrate is generally decreasing, but the numbers of teenage childbirths varies between countries. This is related to political systems, cultural norms, socio-economic systems and health care systems. Cross-national comparisons of teenage sexual and reproductive behaviour in five western industrialised countries (the United States, England and Wales, Canada, France and Sweden) show vast differences in the number of teenage pregnancies and childbearing rates (Darroch et al., 2001). The United States has the highest rate of 51 per 1000. The respective rates for England and Wales, Canada and France are 27, 14, and 8 per 1000. In the Nordic countries of Iceland, Norway, Denmark, and Finland, the teenage childbirth rates are 16, 8, 6 and 7 per 1000 (United Nation, 2005).

A sharp decline in the teenage birthrate has occurred in Sweden. In 1975 it was 28 per 1000 and in 2003-2005 it was 4.2 per 1000 (National Board for Health and Welfare, Statistics Sweden 2007). This was a result of a long-term, government-initiated, government-supported public-health program on sexuality and human relations. Sweden has a long tradition of compulsory education in human relations and sex at school. Moreover, a system of special youth clinics with school outreach activities offers contraceptive service, counselling and information (Danielsson et al., 2001; Otterblad Olausson, 2000). In addition the Abortion Act of 1974 makes abortion easily accessible and free on request until the 18th week of gestation.

THE TEENAGE MOTHER

Becoming a mother during the period of adolescence, means a girl is confronted with parental responsibilities at a time when she has to deal with her developmental task of building her own identity, becoming sexually aware, and starting sexual relationships (Erikson, 1965; Raphael-Leff, 1992). Adolescence is the period from the onset of puberty in preteen years until adulthood, between the ages of 10-19, according to the definition by the World Health Organization (WHO, 2003). It is a life phase of intense development with profound physical changes, as well as cognitive, affective, social, and moral development. After starting the physical process of puberty the individual goes further with establishing a personal sense of individual identity and feelings of self-esteem. These include a change of body image, adapting to more intellectual abilities, adjusting to social demands for behavioural maturity, internalising a personal value system, and preparing for adult roles (Ingersoll, 1992).

Pregnancy superimposed on the developmental period of adolescence can have a positive effect and can help facilitate the resolution of normal developmental changes in puberty such as consolidation of self-esteem. Alternatively, pregnancy during
adolescence can lead to negative emotional states (Dean, 1997). Depressive symptoms and postpartum depression are commonly reported in teenage mothers with rates as high as 42-68% (Barnet et al., 1996; Logsdon et al., 2004) and 16-44% respectively (Miller, 1998; Hudson et al., 2000). The variations in prevalence of maternal depression depend on the study population, the assessment method and the timing of postpartum screening (Austin & Lumley, 2003). In this context it is important to emphasise that most first-time mothers experience some mood changes: these begin in the first few days after delivery, have their peak somewhere between the 3rd and 5th days, and last until the 7th to 10th day. These mood changes – termed postpartum blues – are characterised by crying, confusion, anxiety, mood lability, insomnia and dysphoria. Postpartum blues appears to be a cross-cultural phenomenon with a prevalence of 30-80% with the highest prevalence rates in the Western world (Beck, 1991; Henshaw, 2003). It is important to distinguish between these mood changes and the more pathological mood state of depression. It is suggested that postpartum depression might be a result of disillusionment after previous idealisation of pregnancy and parenthood: though it is found that a significant proportion of teenage pregnancies result from positive, idealised attitudes to pregnancy, parenthood and personal changes that teenagers believe will ensue (Condon et al., 2000). Further, consistent research findings carried out to date reveal that the major factors of etiological importance for postpartum depression are largely of psychosocial nature (Beck, 1996). A teenage mother’s response to pregnancy is related to her early childhood experiences, coping mechanisms, personality style, psychological function, life situation including social support network and physical status (Szigethy, 2001). The complex interplay of these factors may be particularly challenging for the transition into parenthood.

Healthy self-esteem promotes the competence that is needed to nurture the emotional development of the next generation (Eriksen, 1965; Mercer, 1995). Self-esteem as defined by Rosenberg (1965) is a personal judgment of worthiness that is expressed in the attitudes an individual holds toward her/himself and is fostered by the family relationship. High self-esteem expresses the feeling that one is “good enough”. The person respects herself, considers herself worthy, but not necessarily better than others and definitely not worse than others. Low self-esteem, on the other hand implies that the individual lacks respect for the self. The self-picture is disagreeable and the person wishes it were otherwise (Rosenberg, 1965 p. 31). Self-esteem is a factor that can affect the way a teenage mother interacts with her social network. Because support networks are actively constructed the teenage mother’s personal characteristics are likely to play an important role in eliciting support from others, as well as her expectations and evaluations of the support received (Stevenson, 1999).
MIDWIFERY CARE

The midwifery profession is defined by the International Confederation of Midwives (ICM, 1992). The definition is also accepted by the World Health Organization (WHO) and Federation of Gynaecologists and Obstetricians (FIGO). According to this definition the core of the midwifery profession is caring for women and their families. The work of a midwife comprises sexual and reproductive health care services during the whole life cycle and care for the newborn child. The function of the Swedish midwife is established by statute (Swedish Midwives’ Association, 1995; Swedish National Board of Health and Welfare, 1996), which highlights the importance of respect, integrity, dignity and the uniqueness of woman, child and family in her professional work with the childbearing family. Midwives in Sweden have an autonomous professional responsibility for women during normal pregnancy, normal labour and delivery, normal puerperium, as well as care of the healthy baby. They provide care in antenatal clinics and in hospital labour wards or maternity wards. Further they provide family planning, prescription of contraceptives and gynecological care.

This broad scope of practice place midwives in a unique position to promote adolescents’ sexual and reproductive health. Adolescents’ reproductive health needs differ depending on their cultural context (Rivera et al., 2001; Hobcraft & Baker, 2006). They also differ to some extent from those of adult women (Treffers et al., 2001). The care provided by midwives can have a great impact on the lives of teenage mothers. Caring for teenage mothers can be challenging, and therefore it is often thought that early childbearing results in near-universal negative outcomes for mother and child (Fessler, 2003). These perceptions of the outcome of teenage childbearing can colour the interactions between the midwife and the teenage mother and reduce the ability to provide the best care possible. According to Norberg (1992), two integrated aspects characterise caring: the task or activity and the relationship between the care provider and the recipient. The relationship is the framework within which the task is performed (Norberg et al., 1992, pp. 73-81). Understanding the person’s experience of her health problems, resources and circumstances, as well as knowledge and skills of a physiological, psychological, existential, medical and social nature are necessary for providing good care (van Manen, 1998). An important role of midwifery care is to provide support to the childbearing woman and her family.

SUPPORT

The availability of support from family, friends, partner, and health professionals is important for the teenage mother (Tarrka et al. 1999; Dallas et al., 2000; Logsdon 2002; Bunting, 2004). Social support aims at empowering the individual to manage her own resources to overcome various strains and difficulties (Norbeck et al., 1981; Oakley, 1994). Social support is often described as an interpersonal transaction containing four
attributes into which all acts of support can be assigned. The four most frequently used defining attributes of social support are emotional support or affect, information or advice, instrumental or physical aid, and appraisal support or affirmation (House, 1981; Barrera, 1986). Emotional support reflects the individual’s experience of receiving care, encouragement of the sense of personal value and the perception of confidence and trust from family, friends, neighbours and colleagues. Informative support refers to appropriate advice and assistance in coping and solving problems. Instrumental support refers to the individual’s access to practical service and/or financial assistance (Cutrona, 1990). Appraisal support involves the communication of information that is relevant to self-evaluation, rather than problem solving (House, 1981). According to Cutrona and Rusell (1990), appraisal support bolsters a person’s self-esteem. These types of support have various meanings and their usefulness depends not only on individual need but also on the nature of the current problem. It has been shown that access to a well-functioning social network is important for an individual’s health and well-being.

Social support can be viewed from two perspectives: the first is the perception that there is a sufficient number of available significant others to whom one can turn in times of need and the second is the satisfaction with available support (Sarason et al., 1990). Social support is not necessarily a benign intervention, because social relationships involve demands for reciprocity and therefore can be sources of stress as well as support (Norwood, 1996). Receiving adequate social support has been associated with positive outcomes for both the teenage mother and her baby (Stevenson, 1999; Logsdon, 2002). Conversely, inadequate social support during pregnancy as well as postpartum is shown to be associated with adverse outcomes such as depression (Miller, 1998; Logsdon, 2005a; Dennis, 2006). The teenage mother’s ability to communicate her need for support requires skills (Klein, 2005). In addition, the teenage mother needs to request support from a person capable of providing support and needs to ask for what the provider is equipped to give (Logsdon, 2000). Communication skills and negotiation skills vary by age and have the potential to affect how much support the teenage mother receives (Flanagan et al., 1995; Peterson and Leffert 1995). Perrin and McDermott (1997) emphasise that it is not only the supportive activities per se, but the experience of the quality of support given that is fundamental for achieving an optimal result. When support from the teenage mother’s family, friends, or partner is not present or is ineffective, support from midwives can help teenage mothers adjust to pregnancy and parenting (Logsdon et al., 2003).

Teenage pregnancy and childbirth in the Swedish context explored from the teenage mother’s perspective is limited. In order to elucidate the teenage mother’s perspectives of her situation, her subjective assessment of health and received support during pregnancy and childbirth, we wanted to undertake this study.
AIMS

The aim of the thesis was to contribute to the knowledge and understanding of Swedish-speaking pregnant and parenting teenage girls’ situation and experience of becoming a mother in the Swedish context as well as midwives’ reflections on their experiences of caring for teenage girls during pregnancy and childbirth.

The specific aims were

- to describe Swedish teenage girls’ perspectives, experiences and reasonings about becoming and being a teenage mother (I)

- to describe Swedish midwives’ reflections on their experiences of caring for teenage girls during pregnancy and childbirth (II)

- to describe and compare a group of Swedish-speaking teenage mothers, aged 15-19, with adult mothers, aged 25-29, all of whom gave birth in hospital, as to socio-demographic background, perception of health during pregnancy, and social support (III)

- to describe and compare the perception of received social support, self-esteem and different background factors among teenage mothers, 15-19 years old, with and without depressive symptoms (IV)
SUBJECTS AND METHODS

DESIGN

The aim of this study was to achieve both a deeper and broader understanding and contribute to the knowledge of Swedish-speaking teenage mothers’ experience of becoming a mother as well as midwives’ reflections on their experiences of caring for teenage mothers in the Swedish context. Therefore this study project was conducted using a combination of qualitative and quantitative methods, as has been suggested to enhance the understanding of the complexity of human phenomena (Sandelowsky, 1995). In addition results from qualitative research can support quantitative research (Bryman, 1997). The descriptions of concerns by the teenage mothers in study (I) constituted a foundation for developing the questionnaire. Study (I) helped to conceptualise questions relative to potential participants’ experiences, and these questions were used in study (III) and (IV). Study (I) served as support in the analysis of the result in study (III) and (IV) together with the perspectives from midwives about teenage motherhood study (II). An overview of the studies is presented in table I.

Table I. Design, study group, data collection and analysis of the studies included in the thesis

<table>
<thead>
<tr>
<th>Paper</th>
<th>Type of study</th>
<th>Study group</th>
<th>Data collection</th>
<th>Data analysis</th>
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<tbody>
<tr>
<td>I</td>
<td>descriptive</td>
<td>20 pregnant and parenting teenage girls aged 15-19</td>
<td>Interviews</td>
<td>Content analysis</td>
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<td></td>
<td>explorative</td>
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<td></td>
<td>qualitative</td>
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<tr>
<td>II</td>
<td>descriptive</td>
<td>Voluntary sample of 24 midwives from antenatal clinics and delivery/maternity wards in the study area</td>
<td>Focus group discussions</td>
<td>Hermeneutic text analysis</td>
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<tr>
<td></td>
<td>explorative</td>
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<td>qualitative</td>
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<tr>
<td>III</td>
<td>descriptive comparative cross-sectional</td>
<td>Study group of 97 teenage mothers aged 15-19, and reference group of 97 adult mothers aged 25-29</td>
<td>Questionnaire (1-3 days postpartum) delivered in all maternity wards in a county in south western Sweden from October 15, 2003 to October 14, 2004</td>
<td>Descriptive statistics</td>
</tr>
<tr>
<td>IV</td>
<td>descriptive comparative cross-sectional</td>
<td>Two groups of teenage mothers one with (n=24) and one without (n=52) depressive symptoms, aged 15-19</td>
<td>Same as Paper III</td>
<td>Descriptive statistics</td>
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PAPER I

Study setting
The study was performed in one part of the county in southwestern Sweden during 2003. The county consists of urban, suburban, and rural districts and has 15 municipalities with 280,000 inhabitants. Approximately 50 births occur annually among teenage girls in the study area.

Participants and data collection
Data were obtained from 20 pregnant and parenting teenage girls, ranging in age from 15 to 19, attending the antenatal clinics, in one part of the study area in southwestern Sweden from January to August of 2003. Both pregnant and parenting teenage girls were approached by the midwives, in order to gather a whole range of experiences in pregnancy and motherhood. The midwives gave them a leaflet explaining the study, its objectives and the rights of the research participants. The pregnant girls who were asked to participate had all chosen to continue their pregnancy to term. Informed consent to conduct and record the interviews was obtained from each participant and from parents or guardians in cases when the participants were below 18 years of age. Initially the participants were asked to fill in a form about background data. The first author (EHW) performed individual interviews in a private room at the antenatal clinic; each interview was audio-taped and lasted approximately 40-60 minutes. An interview guide containing themes about social background, health, education, experience of pregnancy and childbirth, and perceived support during childbirth was used. Data collection and analysis were carried out simultaneously, to follow up on the issues that were emerging and to decide when saturation of the topics and the respondents was reached (Mayan, 2001).

We considered that individual semi-structured interviews were the most suitable method to explore the personal experiences of the teenage mothers, because the direct voice of the teenage mothers can assist in providing information about meaningful values and life experiences (Kvale, 1996). The interview began with broad opening questions, such as “How do you feel about becoming a mother?” or “What was your situation like when you got pregnant?” These were followed by questions aimed at encouraging the teenage mothers to carry on sharing their experience, using an interview guide. This is proposed when the researchers know something about the area of interest, but not enough to answer the questions that are to be asked. Although the questions are set, the participants can answer freely (Patton 1990).

Data analysis
The audiotaped interviews were transcribed verbatim and analysed, using content analysis (Burnard, 1996; Mayan, 2001). Content analysis is a method of analysing
many kinds of communications between people, both manifest content (Downe-Wamboldt, 1992) and latent content (Burnard, 1996). The transcripts were read through several times and were discussed with the second (EN) and third (BMA) authors, who also read them for comparison and validation. Familiarity with the text was achieved by repeated reading and by underlining words and phrases with relevant meanings. Codes were identified and designated and then grouped into themes. The data were then further analysed by reading across the themes searching for new associations and meanings in the data. In the final step, the findings were discussed and reflected on, with the second (EN) and third (BMA) authors taking the research questions into account.

**PAPER II**

**Study setting**
This study was carried out in a county in southwestern Sweden during 2004. The county consists of urban, suburban and rural districts with approximately 730,000 inhabitants. The study area includes approximately 40 municipalities and three hospitals having obstetric clinics, where around 150 births occur annually among teenage girls.

**Participants and data collection**
The study participants (n=24) included midwives aged 32-61, with different experience in caring for teenage mothers during pregnancy and childbirth. The recruitment was initially performed via a short questionnaire distributed to all delivery/maternity wards and to the antenatal clinics in the study area in January and February of 2004. The questionnaire consisted of open-ended questions about the midwives’ personal experiences of caring for teenage mothers during pregnancy and childbirth. The purpose of the questionnaire was to obtain information that could help in designing an interview guide for focus group discussions (FGDs) and to identify midwives who were willing to participate in the FGDs. Twenty-four midwives volunteered. This voluntary response was necessary because of the requirement that midwives should be willing to talk freely about their experiences related to the research question.

We chose focus group discussion as data collection method, because FGDs can start group processes that can help people explore and clarify their views in ways that would be less easily accessible in a one-to-one interview (Morgan, 1998). The method is useful for examining not only what people think but also how and why they think that way. The group discussion encourages the participants to explore the issues of interest in their own vocabulary, to generate their own questions and to carry out their own priorities (Kitzinger, 1995). Focus group strategy is recommended when the aim is to collect data on a particular area of interest within a relatively short period of time, and
to learn not only about participants’ attitudes and opinions but also about their experiences and perspectives (Morgan, 1997). Three FGDs were held with the midwives (eight midwives in each group). We considered the number to be appropriate. There is no consistent recommendation about the number of focus groups and group size, but three to five groups with 4-12 participants in each group are mentioned as optimal to ensure that data are verified (Kitzinger et al 1999; Morgan, 1998; Robinson 1999). The discussions were conducted in comfortable meeting rooms at the clinic and were audiotaped. Each FGD lasted approximately 60 minutes each. The first author (EHW) was the moderator in all sessions, leading the discussions and encouraging the interaction between the participants. The third author (EN) was the observer taking notes throughout the sessions in order to capture points of a story to be returned to later in the interview or to locate on the tape after the sessions (Morse et al., 1995; Patton, 1990).

**Data analysis**

The text from the FGDs was analysed using hermeneutical text analyses to explicate the midwives’ reflections on their experience of caring for teenage girls during pregnancy and childbirth. Hermeneutical text interpretation aims to understand the text and is characterised by its focus on the receiver (Gadamer, 1989; von Post & Eriksson, 1999). The interpretation started with naive reading to acquire a general sense of how the midwives experienced their caring for teenage mothers during pregnancy and childbirth. The text was read from beginning to the end without interruption.

In the first stage, a spontaneous interpretation of what was said in the whole text was conducted to “integrate the text with the reader” (Gadamer, 1989). Our preconceptions about the area being investigated influenced the interpretations (von Post and Eriksson, 1999). In the second stage, we asked new questions of the text. Gadamer (1989) states that a dialogue with a text leads to a fusion of horizons, that is, the reality of the text becomes a part of the reader, and new questions arise. As a result of this stage of the analysis, “midwives care for teenage mothers” stood out as an answer to other questions. In the third stage, we asked new questions of the text and new answers arose. The following questions emanated from our new understanding: “What care do the midwives think the teenage mothers need?” and “Who is the teenage mother?” The text was carefully read in order to find common qualities and was also searched for distinguishing qualities (von Post & Eriksson, 1999). Movement back and forth through the text was carried out and significant expressions were organised into main themes and subthemes.
PAPER III AND IV

Study setting
The study was performed in a county in south western Sweden (the same as in study II) from 15 October 2003 to 14 October 2004. The study area includes three hospitals having an obstetric clinic, where around 150 births occur annually among teenage girls. During the study period, a total of 7,811 births occurred at the delivery wards in the three hospitals.

Participants and data collection
The sample consisted of all Swedish speaking teenage mothers, in the study area, aged 15-19, n=125 (study group) giving birth during a year, and a group of adult mothers aged 25-29, n=125 (reference group). The reference group was matched for parity and birth of a baby closest to the index mother. The investigated groups of mothers were selected from the three hospitals in the study area that have an obstetric clinic. The sample size was expected to be about 150 teenage mothers. This calculation was based on pregnancy and birth statistics from the Swedish Medical Birth Registry. Access to undertake this study was given by each head of clinical service for the hospitals in the county. After informed consent was obtained, the participant was asked by the midwife who was in charge of her delivery to answer a questionnaire during her stay at the maternity ward. The mother was asked to put the questionnaire in a return envelop and seal it. At the same time, information on her pregnancy and delivery was collected from their maternal health and delivery charts.

According to the hospitals birth registers, 159 teenage mothers gave birth in hospital during the study period in the study area. Thirty-four teenage mothers were excluded, because they could not master Swedish language. In all, 125 teenage mothers were eligible for the study. Of these 125 eligible, 28 teenage mothers were not contacted (missed) by the midwives, leaving a total of 97 teenage mothers who were approached. Fifteen of the approached teenage mothers declined to answer, which gave a response rate of 85% of the teenage mothers who were approached for the study (figure1). The response rate in the reference group was 92% (III).
The sample in (IV) was based on the same study group as in (III), but an additional six teenage mothers declined to answer the main study variable about depressive symptoms, which gave a response rate of 78% of the teenage mothers who consented to participate in the study.

**Questionnaire and self-rating scales**

**Questionnaire**

The questionnaire was developed by the research team specifically for this study, and it was based on results from the interview in study (I). The questionnaire addressed sociodemographic variables such as family situation, level of education, smoking, alcohol and illicit drug use patterns before and during the pregnancy. Further it addressed questions about the mother’s opinion about her health during pregnancy, and her experience of physical and/or psychological violence. In addition, the questionnaire included three validated inventories: Self-Esteem Scale (SES) (Rosenberg, 1965), Maternity Social Support Scale (MSSS) (Webster et al., 2000), and Edinburgh Postnatal Depression Scale (EPDS) (Cox, Holden & Sagovsky, 1987). The questions were in a multiple-choice response format. Questions concerning different issues were introduced with a short text. The respondents could make additional personal comments to the questions.
Face validity

The questionnaire was piloted. In a face validation, a group of 20 teenage mothers filled in the questionnaire and gave their comments about the questions and their experience of completing the questions. They affirmed that all the questions being asked were important from their point of view. Some corrections based on their suggestions made the questionnaire easier to fill in. For example, explanations were put in brackets after the questions and a short text that introduced the questions concerning different issues was added. To gain information about the feasibility of the questionnaire, questions were added at the end of the questionnaire about the experience of answering the questionnaire and about the questions. For example, “Do the questions make sense?” “Did you find any question impertinent?” and “Did the questions have sufficient response alternatives?” Free space was left on the last page for voluntary remarks. Each question was discussed with two experienced researchers, which led to few other changes.

Self-Esteem Scale (SES)

Rosenberg (1965) developed the Self-Esteem Scale for late adolescents. The scale has been widely used in varying settings and is highly recommended due to its brevity and simplicity (Bowling 2001). SES (Rosenberg, 1965) is a 10-item self-report scale with responses reported on a four-point continuum from “strongly agree” to “strongly disagree”. The responses are clustered into six categories. Thus some categories include more than one item. Positive and negative items are presented alternatively in order to reduce the effect of respondent set. The total maximum score for the scale is six, the category responses ranging from 0-6 with higher scores indicating higher self-esteem. Low self-esteem is categorised as 0-3, medium self-esteem as 4, and high self-esteem as 5-6. High self-esteem, as reflected in the scale items, implies self-respect and a basic feeling of self-worth. Low self-esteem implies self-rejection, self-dissatisfaction, and self-contempt. However, there is no agreement over the method of scoring; some researchers use score responses dichotomously, and other researchers use a summing scale (Bowling 2001). In this study the original design of scoring was chosen. Cutoff points 4/5 were chosen to identify low and medium versus high self-esteem. Reliability (internal consistency and test-retest) of the scale has been shown to be good by Rosenberg (1965) who reported that the reproducibility of this scale is 92%. For the current sample (III, IV), the Cronbach’s alpha was 0.69, based on raw data.

Maternity Social Support Scale (MSSS)

Many measures of social support are available, but most are too lengthy and complex to be used in a busy antenatal setting. The MSSS (Webster et al., 2000) was developed to meet the need for a brief, user-friendly tool for measuring perceptions of adequate social support among pregnant women. Social factors associated with postnatal depression (lack of family support, small friendship network, lack of help from partner, conflict with partner, feeling controlled by partner, and not feeling loved by partner) are
combined in a six-item self-report, five-point Likert scale (strongly agree to strongly disagree). Two items measure support from family and friends, and four items measure support from partner. Scoring for the two items “There is conflict with my partner” and “I feel controlled by my partner” is reversed in order to reduce the effect of respondent set. The total maximum score for the scale is 30, with higher scores indicating higher perceived support. Uncompleted questions on partnership are to be scored zero. Webster categorised low support as 0-18, medium support as 19-24, and adequate support as >24. The proposed design by Webster (2000) was chosen in the present study. Cutoff points 24/25 were chosen to identify adequate versus medium and low support. The instrument has been translated into Swedish for this study. Furthermore, to test the quality of translation, it was retranslated back into English by an English-speaking person. For the current sample, Cronbach’s alpha was 0.78.

Edinburgh Postnatal Depression Scale (EPDS)
The EPDS is widely used and has been validated for use postpartum in several countries and demonstrates moderate to good reliability properties across samples from a wide variety of countries and languages, including Sweden (Lundh & Gyllang, 1991; Wickberg & Hwang, 1996; Affonso, 2000). The EPDS is a self-reported 10-item scale, specifically designed to screen for postnatal depression in community samples (Cox, Holden and Sagovsky, 1987). Five of the items concern dysphoric mood, two concern anxiety, and one each concerns guilt, coping with the daily life and suicidal ideas. The 10 items are scored on a four-point scale from 0 to 3 (maximum score is 30), where a high score indicates more symptoms of depression within the previous seven days. EPDS is not a diagnostic scale for depressive disorders. For the screening of women vulnerable to developing depression the threshold score of 9/10 on the EPDS is recommended in primary care (Cox et al. 1987; Eberhard-Gran et al., 2002; Seimyr et al., 2004). Further, a relationship between depressive symptoms during the first week after birth and depressive mood later has been measured by using the cutoff level 9/10 on the EPDS (Dennis, 2004). Thus a cutoff of 9/10 was used in this study for all calculations at one to three days postpartum to identify teenage mothers with depressive symptoms. The Chronbach’s alpha for this scale was 0.85.

Support from midwives
We developed an assessment instrument, which was made up of twelve statements, specifically for this study to ascertain the perception of midwifery support. The instrument was based on House’s (1981) four attributes of social support: informative, appraisal, emotional, and instrumental; and it addressed each of these four types of support received from the midwife at three stages: during pregnancy, during labour, and during the postnatal stay at the maternity ward. Example of these statements are “The midwife at the antenatal clinic gave me information according to my own wishes” (informative support), “The midwife at the antenatal clinic took me seriously” (appraisal support), “I felt great confidence in the antenatal midwife” (emotional
support), and “The midwife at the antenatal clinic helped me with practical things” (instrumental support). The statements had a four-point response format ranging from “strongly agree” to “strongly disagree” with the lowest support indicated by one point and the highest support indicated by four points. The Chronbach’s alpha for this scale was 0.87.

**Data analysis (III, IV)**

Software programs used for the statistical analyses were SPSS for Windows, version 13.0 (SPSS Inc., Chicago, Illinois, USA) (III, IV).

**Paper III**

Frequencies and means were calculated for each group. In addition odds ratio (OR) with a 95% confidence interval (CI) for the teenage mothers were calculated. Two-sided P-values were calculated using $\chi^2$ or when expected values were < 5 Fisher’s exact test.

**Paper IV**

As descriptive measures mean (m) and standard deviation (SD) were used for background data on interval scale. Standard error of the mean (SEM) was given for study variables, and absolute and relative frequencies were given for nominal data. Differences between the groups with and without depressive symptoms were tested by $\chi^2$ for nominal scale variables and by Student’s T-test for interval scale variables.

In this study, background variables included marital status, occupation, parents’ marital status, experienced health during pregnancy, received support from the midwife, smoking habits, alcohol consumption, and experience of physical and/or psychological violence. For analysis the above variables mentioned were dichotomized for teenage mothers. Marital status: cohabiting versus single or a different family situation; occupation: employed or studying versus unemployed; parents’ marital status: parents who were married or cohabiting versus parents who were single or had never lived together; health during pregnancy: very good or good health versus bad or very bad health; experience of smoking, alcohol, and violence: had these experience versus did not have these experiences.

For the purpose of this study the MSSS scale was separated between support from family and friends and support from partner as suggested by Stevenson (1999).

In this study, teenage mothers with an EPDS score of 10 or more were referred to as mothers with depressive symptoms, and teenage mothers with an EPDS score of less than 10 were referred to as mothers without depressive symptoms.
The scale developed to assess midwifery support were summarised as means 1) for the antenatal-, delivery- and maternity midwife support respectively, named as over all support and 2) for each type of support.

ETHICAL CONSIDERATIONS

All studies were approved by the Regional Ethics Committee in Gothenburg. Access to undertake this study was given by each clinical head of service for the antenatal clinics and the clinical head of service for the hospitals in the county. The informants were informed about the aims of the studies. It was stressed to the informants that they were free to decline participation in the study and to refrain from answering any particular question. Consent to conduct and record the interviews (I, II) and consent to answer the questionnaire (III, IV) were obtained from each participant and from parents or guardians of participants younger than 18. The identity of informants was protected by confidential handling of the data. A study including very personal matters may evoke a need for counselling and help. This was taken into consideration by using a local contact person professionally trained to meet adolescent needs and by an information form given to the participants.
RESULTS

The findings from the studies about teenage mothers in Sweden and the midwives’ care in the four papers are summarised under three main headings: Teenage Mothers in Sweden, The Social Network of the Teenage Mother, and Midwifery Care for Teenage Mothers.

TEENAGE MOTHERS IN SWEDEN

Becoming a teenage mother
This part describes becoming a teenage mother in Sweden from the perspectives of the teenage mothers and the midwives (I, II). Various reasons for the decision to become pregnant and to continue the pregnancy to term were mentioned. Some of these reasons included a desire for a child that would be “permanently their own”, lack of opportunity in life, and an unhappy or violent home situation, or a family pattern of early childbirth (I, II).

Proud of becoming a mother
Some teenage mothers were proud of becoming a mother and saw motherhood as something natural. Their inherent pride, inner strength, desire to become a mother, and determination to carry the pregnancy to term helped them deal with the situation (II). The teenage mothers wanted to have written down in their case record their need to be regarded as adults. They experienced motherhood as a stabilising factor in their lives, because they could now act with more maturity and had more responsibility. Motherhood provided a new role, which they performed well, and this led to improved self-esteem and resilience. They described a change in lifestyle in relation to friends, outdoor life, smoking and alcohol consumption. The demands and decisions about changes in their lives were not so hard, as they were preoccupied with the growing baby (I). Midwives perceived that for many teenage mothers with an immigrant background, it was natural to become a mother as a teenager, and their families prepared them for parenthood (II). Teenage mothers who were proud of becoming mothers did not want to be treated by the midwives as “immature teenagers” but rather as expectant mothers (I, II).

Unprepared for becoming a mother
Midwives had also experienced that some teenage mothers were unprepared for the maternal role. They had difficulties adjusting to the new situation and continued with their teenage lifestyle, with outdoor life, smoking, and alcohol consumption. The first appointment at the antenatal clinic for these teenage mothers was late into their pregnancy (II). A teenage mother who appeared to be unprepared for motherhood often had a complex social situation, an unstable relationship with the child’s father, and poor circumstances.
contact with her parents (I, II). The expectant grandmother was also young and needed help from the midwife (II). The unprepared teenage mothers were scared, inexperienced, and needed more thorough information and a lot of help with both social and practical problems (I, II).

Teenage and adult mothers

A comparison between the teenage mothers and the adult mothers as to sociodemographic characteristics and perception of health and lifestyle factors during pregnancy are shown in table II and table III respectively (III). The teenage mothers had more often been exposed to difficult family situations, they came more often from broken homes, they had more often failed at school, and they engaged more often in risky behaviours. In addition, the teenage mothers had lower self-esteem, perceived less support from their social network, and had more depressive symptoms than adult mothers (III). The response pattern of the questions about smoking, drinking, and drug use showed that the teenage mothers smoked more often than the adult mothers before pregnancy. Both teenage and adult mothers reduced smoking during pregnancy, but significantly more teenage mothers continued smoking. There were no statistically significant differences between teenage mothers and adult mothers regarding alcohol intake before pregnancy 68% versus 79%. However, teenage mothers showed more excessive alcohol consumption than the adult group. During pregnancy the alcohol consumption dropped significantly in both groups. In the teenage group, 13% had tried drugs before pregnancy versus 6% in the adult group.

The teenage mothers reported that they had experienced negative public attitudes directed towards them (I, III). The midwives had the experience of receiving a lot of unsolicited information from different people about the teenage mother (II). The teenage mothers were observed by the school staff, by their own mother, and by the mother of the baby’s father. There were many outsiders who interfered with the life of the teenage mother. People in both the close and the extended networks told stories and asked the midwife questions about the teenage mother in a way that would never happen to an adult woman (II).
Table II. Sociodemographic characteristics in teenage mothers (study group) compared with adult mothers (reference group)

<table>
<thead>
<tr>
<th></th>
<th>Teenage mothers age 15-19 n = 82</th>
<th>Adult mothers age 25-29 n = 89</th>
<th>OR</th>
<th>CI 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil status</td>
<td></td>
<td></td>
<td>6.3</td>
<td>1.8-22.7</td>
</tr>
<tr>
<td>Single/ Other family situation</td>
<td>15 (18)</td>
<td>3 (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married/cohabiting</td>
<td>67 (82)</td>
<td>86 (97)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mothers age at first baby</td>
<td></td>
<td></td>
<td>2.7</td>
<td>1.3-5.5</td>
</tr>
<tr>
<td>≤19 year</td>
<td>28 (36)</td>
<td>15 (18)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥20 year</td>
<td>49 (64)</td>
<td>70 (82)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pregnancy</td>
<td></td>
<td></td>
<td>16.7</td>
<td>7.6-37</td>
</tr>
<tr>
<td>Unplanned but welcome/Planned</td>
<td>57 (73)</td>
<td>12 (14)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Being comfortable in school</td>
<td></td>
<td></td>
<td>3.0</td>
<td>1.1-8.4</td>
</tr>
<tr>
<td>Uncomfortable</td>
<td>15 (18)</td>
<td>6 (7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comfortable</td>
<td>67 (82)</td>
<td>83 (93)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td>4.7</td>
<td>2.4-9.1</td>
</tr>
<tr>
<td>Unemployed/ Other</td>
<td>48 (61)</td>
<td>22 (25)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed/ Student</td>
<td>31 (39)</td>
<td>67 (75)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents marital status</td>
<td></td>
<td></td>
<td>12.0</td>
<td>5.6-26</td>
</tr>
<tr>
<td>Divorced/ Never lived</td>
<td>52 (66)</td>
<td>12 (14)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cohabiting</td>
<td>27 (34)</td>
<td>75 (86)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country of birth</td>
<td></td>
<td></td>
<td>0.7</td>
<td>0.2-2.6</td>
</tr>
<tr>
<td>Other country</td>
<td>4 (5)</td>
<td>6 (7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>77 (95)</td>
<td>82 (93)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table III. Perception of health, lifestyle factors and social support in teenage mothers (study group) compared with adult mothers (reference group)

<table>
<thead>
<tr>
<th>Perception of Health, Lifestyle Factors and Social Support</th>
<th>Teenage mothers age 15-19, n = 82</th>
<th>Adult mothers age 25-29, n = 89</th>
<th>OR</th>
<th>CI 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attendance week at antenatal care</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; v 10</td>
<td>25 (26)</td>
<td>34 (37)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v 10-12</td>
<td>38 (40)</td>
<td>48 (52)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; v 12</td>
<td>33 (34)</td>
<td>10 (11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Physical health during pregnancy</strong></td>
<td></td>
<td></td>
<td>2.4</td>
<td>0.8-7.2</td>
</tr>
<tr>
<td>Bad/ Very bad</td>
<td>10 (13)</td>
<td>5 (6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very good/ Good</td>
<td>69 (87)</td>
<td>81 (94)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Smoked before pregnancy</strong></td>
<td></td>
<td></td>
<td>4.1</td>
<td>2.1-8.1</td>
</tr>
<tr>
<td>Yes</td>
<td>43 (56)</td>
<td>20 (24)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>34 (44)</td>
<td>65 (76)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Smoked during pregnancy</strong></td>
<td></td>
<td></td>
<td>6.9</td>
<td>2.8-17.2</td>
</tr>
<tr>
<td>Yes</td>
<td>26 (38)</td>
<td>7 (8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>42 (62)</td>
<td>78 (92)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Alcohol consumption before pregnancy</strong></td>
<td></td>
<td></td>
<td>0.6</td>
<td>0.3-1.1</td>
</tr>
<tr>
<td>Yes</td>
<td>52 (68)</td>
<td>67 (79)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No/ Now and then</td>
<td>25 (32)</td>
<td>18 (21)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Alcohol consumption before pregnancy - intoxicated</strong></td>
<td></td>
<td></td>
<td>3.7</td>
<td>1.9-7.1</td>
</tr>
<tr>
<td>Yes</td>
<td>51 (68)</td>
<td>30 (37)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>24 (32)</td>
<td>52 (63)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Alcohol consumption during pregnancy</strong></td>
<td></td>
<td></td>
<td>1.5</td>
<td>0.6-3.9</td>
</tr>
<tr>
<td>Yes</td>
<td>12 (15)</td>
<td>9 (11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>66 (85)</td>
<td>76 (89)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Physical violence before pregnancy</strong></td>
<td></td>
<td></td>
<td>2.1</td>
<td>0.8-5.3</td>
</tr>
<tr>
<td>Yes</td>
<td>14 (18)</td>
<td>8 (9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>64 (82)</td>
<td>77 (91)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Physical violence during pregnancy</strong></td>
<td></td>
<td></td>
<td>3.4</td>
<td>0.3-3.3</td>
</tr>
<tr>
<td>Yes</td>
<td>3 (4)</td>
<td>1 (1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>75 (96)</td>
<td>84 (99)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Psychological violence before pregnancy</strong></td>
<td></td>
<td></td>
<td>3.5</td>
<td>1.7-7.3</td>
</tr>
<tr>
<td>Yes</td>
<td>32 (41)</td>
<td>14 (17)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>46 (59)</td>
<td>71 (83)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Psychological violence during pregnancy</strong></td>
<td></td>
<td></td>
<td>4.4</td>
<td>1.4-14.1</td>
</tr>
<tr>
<td>Yes</td>
<td>14 (18)</td>
<td>4 (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>64 (82)</td>
<td>81 (95)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perception of social support (MSSS)</strong></td>
<td></td>
<td></td>
<td>5.3</td>
<td>1.7-16.5</td>
</tr>
<tr>
<td>Medium/Low</td>
<td>16 (20)</td>
<td>4 (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequate</td>
<td>63 (80)</td>
<td>83 (95)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Self-esteem (SES)</strong></td>
<td></td>
<td></td>
<td>2.3</td>
<td>1.1-4.8</td>
</tr>
<tr>
<td>Medium/ Low</td>
<td>25 (32)</td>
<td>15 (17)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>52 (68)</td>
<td>72 (83)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Depressive symptoms (EPDS)</strong></td>
<td></td>
<td></td>
<td>2.4</td>
<td>1.1-5.0</td>
</tr>
<tr>
<td>≥ 10</td>
<td>24 (32)</td>
<td>14 (16)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;10</td>
<td>52 (68)</td>
<td>72 (84)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*First booking varied from 5-36 weeks in the teenage group and from 6-16 weeks in the adult group. Information from delivery charts.
Teenage mothers without and with depressive symptoms

The teenage mothers with depressive symptoms gave the items concerning guilt, anxiety, and coping with daily life a score of three (the highest score on a single item on the EPDS scale). Even the teenage mothers without depressive symptoms scored high on these items. The teenage mothers with depressive symptoms also scored high on two of the five items concerning dysphoric mood (table IV). A comparison between the characteristics of teenage mothers without depressive symptoms (68%) and those with depressive symptoms (32%) are presented in table V. There were no significant differences in age or in obstetric background factors, such as gestational week at birth, mode of delivery, duration of labour or use of pain relief, between the teenage mothers without and with depressive symptoms. However, significantly more teenage mothers with depressive symptoms had lower self-esteem (52%) than teenage mothers without depressive symptoms (22%), p=0.012.

Table IV. The response pattern of EPDS items in teenage mothers without and with depressive symptoms (n=76)

<table>
<thead>
<tr>
<th>Items</th>
<th>&lt; 10</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>≥ 10</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td></td>
<td></td>
<td></td>
<td>n (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have been able to laugh and see the funny side of things</td>
<td>31 (60)</td>
<td>21 (40)</td>
<td></td>
<td></td>
<td>7 (29)</td>
<td>10 (42)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have looked forward with enjoyment to things</td>
<td>47 (90)</td>
<td>5 (10)</td>
<td></td>
<td></td>
<td>18 (75)</td>
<td>6 (25)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have blamed myself unnecessarily when things went wrong</td>
<td>10 (19)</td>
<td>28 (54)</td>
<td>14 (27)</td>
<td></td>
<td>1 (4)</td>
<td>2 (8)</td>
<td>14 (58)</td>
<td>7 (29)</td>
</tr>
<tr>
<td>I have been anxious or worried for no good reason</td>
<td>16 (31)</td>
<td>21 (40)</td>
<td>14 (27)</td>
<td>1 (2)</td>
<td>1 (4)</td>
<td>7 (29)</td>
<td>13 (54)</td>
<td>3 (13)</td>
</tr>
<tr>
<td>I have felt scared or panicky for no very good reason</td>
<td>36 (69)</td>
<td>15 (29)</td>
<td>1 (2)</td>
<td></td>
<td>4 (17)</td>
<td>7 (29)</td>
<td>13 (54)</td>
<td></td>
</tr>
<tr>
<td>Things have been getting on top of me</td>
<td>15 (29)</td>
<td>29 (56)</td>
<td>8 (15)</td>
<td>12 (50)</td>
<td>10 (42)</td>
<td>2 (8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have been so unhappy that I have had difficulty sleeping</td>
<td>39 (75)</td>
<td>12 (23)</td>
<td>1 (2)</td>
<td>3 (12)</td>
<td>10 (42)</td>
<td>11 (46)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have felt sad or miserable</td>
<td>13 (25)</td>
<td>36 (69)</td>
<td>3 (6)</td>
<td></td>
<td>7 (29)</td>
<td>14 (58)</td>
<td>3 (13)</td>
<td></td>
</tr>
<tr>
<td>I have been so unhappy that I have been crying</td>
<td>25 (44)</td>
<td>28 (54)</td>
<td>1 (2)</td>
<td>15 (63)</td>
<td>8 (33)</td>
<td>1 (4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The thought of harming myself has occurred to me</td>
<td>49 (94)</td>
<td>2 (4)</td>
<td>1 (2)</td>
<td></td>
<td>17 (71)</td>
<td>6 (25)</td>
<td>1 (4)</td>
<td></td>
</tr>
</tbody>
</table>
Table V. Characteristics of teenage mothers without depressive symptoms (68%) and those with depressive symptoms (32%)

<table>
<thead>
<tr>
<th>Variables</th>
<th>EPDS&lt;10</th>
<th>EPDS≥10</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of teenage mother (m, SD)</td>
<td>17.9</td>
<td>18.0</td>
<td>0.814</td>
</tr>
<tr>
<td>Primipara (n %)</td>
<td>51</td>
<td>23</td>
<td>0.570</td>
</tr>
<tr>
<td>Comfortable in school, yes (n %)</td>
<td>45</td>
<td>86.5</td>
<td>0.214</td>
</tr>
<tr>
<td>Years, attended school (m SD)</td>
<td>10.9</td>
<td>1.138</td>
<td>0.556</td>
</tr>
<tr>
<td>Marital status, cohabiting (n %)</td>
<td>43</td>
<td>82.7</td>
<td>0.945</td>
</tr>
<tr>
<td>Age of partner (m SD)</td>
<td>22.21</td>
<td>2.783</td>
<td>0.303</td>
</tr>
<tr>
<td>Length of relationship with partner, month (m SD)</td>
<td>27.98</td>
<td>15.903</td>
<td>0.633</td>
</tr>
<tr>
<td>Parents’ marital status, cohabiting (n %)</td>
<td>21</td>
<td>41.2</td>
<td>0.105</td>
</tr>
<tr>
<td>Attended antenatal classes, alone (n %)</td>
<td>5</td>
<td>9.8</td>
<td>0.190</td>
</tr>
<tr>
<td>Smoked during pregnancy, yes (n %)</td>
<td>14</td>
<td>31.1</td>
<td>0.028</td>
</tr>
<tr>
<td>Consumed alcohol during pregnancy, yes (n %)</td>
<td>7</td>
<td>13.7</td>
<td>0.433</td>
</tr>
<tr>
<td>Ever mentally / physically abused, yes (n %)</td>
<td>21</td>
<td>42.9</td>
<td>0.014</td>
</tr>
<tr>
<td>Complications during pregnancy, yes (n %)</td>
<td>27</td>
<td>51.9</td>
<td>0.389</td>
</tr>
<tr>
<td>Birth, gestational wks (m SD)</td>
<td>38.98</td>
<td>2.322</td>
<td>0.887</td>
</tr>
<tr>
<td>Duration of labor, h (m SD)</td>
<td>5.43</td>
<td>2.943</td>
<td>0.873</td>
</tr>
<tr>
<td>Mode of delivery</td>
<td></td>
<td></td>
<td>0.222</td>
</tr>
<tr>
<td>partus normalis (m, SD)</td>
<td>44</td>
<td>84.6</td>
<td>95.8</td>
</tr>
<tr>
<td>ventouse/forceps</td>
<td>6</td>
<td>11.5</td>
<td>0</td>
</tr>
<tr>
<td>caesarean section</td>
<td>2</td>
<td>3.8</td>
<td>4.2</td>
</tr>
<tr>
<td>Birth weight, g (m SD)</td>
<td>3512</td>
<td>642.80</td>
<td>0.909</td>
</tr>
<tr>
<td>Skin–to-skin contact after birth, yes (n %)</td>
<td>46</td>
<td>88.5</td>
<td>0.672</td>
</tr>
<tr>
<td>First breastfeeding within 1 h (n, %)</td>
<td>29</td>
<td>55.8</td>
<td>0.834</td>
</tr>
</tbody>
</table>

THE SOCIAL NETWORK OF THE TEENAGE MOTHER

The importance of supportive relationships

The teenage mothers spoke of support from their families, friends and society as prerequisites for successful parenting. They experienced the received support in varied ways. Most support was said to be helpful, and adequate social support was reported by 80 % among teenage mothers, but in some cases the teenage mothers’ needs were not sufficiently addressed (I, III). When support was irrelevant or not visible, the teenage mothers described pregnancy and motherhood as trying. Some teenage mothers were uncertain about their own needs and did not know how to express them. At the same time they wanted people around them to understand them and to support them in their new role (I).
Support from family and friends
The teenage mothers experienced the support from their family networks as important especially the practical support from their own mothers. The teenage mothers described experiencing pregnancy and motherhood as trying when their social networks of friends changed in ways that made them feel left out (I). Teenage mothers perceived significantly less support from the social network than did adult mothers (III). Furthermore, support from family and friends were significantly lower for teenage mothers with depressive symptoms when compared with teenage mothers without depressive symptoms. There was no significant influence on depressive symptoms by support from the teenage mothers’ network was found on depressive symptoms (IV).

Support from the partner
The father of the baby was not frequently mentioned as a source of support; however, the teenage mothers who experienced pregnancy as both a physiological and psychological demand described a situation in which they were financially dependent on partners, because age is the criterion for the social security system to provide social allowances (I). There was a discrepancy between the expected support and the perceived support among the teenage mothers. Of the teenage mothers, 89% expected support from the child’s father, compared with 98% of the adult mothers (III). Further, the teenage mothers perceived less support from their partner than adult mothers, but there was no significant difference in perceived partner support between teenage mothers without and with depressive symptoms, as shown in table VI (IV). The relationship with the partner in the group of teenage mothers was considered stable when it had lasted for two years (III), but some of the teenage mothers experienced that childbearing stressed the relationship with their partner (I).
Table VI. Perceived support from family, friends, partner (mean and standard error of the mean) by teenage mothers with low and high scores on the EPDS

<table>
<thead>
<tr>
<th></th>
<th>EPDS&lt;10</th>
<th></th>
<th>EPDS≥10</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=52</td>
<td></td>
<td>n=24</td>
</tr>
<tr>
<td></td>
<td>m</td>
<td>SEM</td>
<td>m</td>
</tr>
<tr>
<td>Family/ friend support</td>
<td>9.4038</td>
<td>0.14073</td>
<td>8.4167</td>
</tr>
<tr>
<td>Partner support</td>
<td>17.000</td>
<td>0.66080</td>
<td>16.3750</td>
</tr>
</tbody>
</table>

MIDWIFERY CARE FOR TEENAGE MOTHERS

Support from midwives was generally perceived to be very good. The support from the midwives helped the teenage mothers feel more confident. The results indicated that the midwives’ ways of giving support--taking the teenage mother seriously, being an important person for the teenage mother, and being a help for the teenage mother--were of special importance to teenage girls entering motherhood. Caring for the teenage mother from the midwife’s point of view was described as the midwives’ wish to care for the teenage mother (II). Figure 2 illustrates the findings on how the midwives care for the teenage mother through taking them seriously. If “being taken seriously” is excluded from “being cared for” the teenage mother will see the midwife as false and as someone who does not care for her. This results in that the midwife’s being neither an important person nor a help to the teenage mother (II).
To care for
The midwife wishes to care for the teenage mother

To take seriously
The midwife takes the teenage mother seriously

To be an important person
The midwife allow herself to be an important person

To be a help for
The midwife wants to be a help for the teenage mother

Figure 2. To care for and its aspects

The teenage mothers with depressive symptoms perceived significantly less overall support from the midwives attending labour than the mothers without depressive symptoms, p= 0.021 (IV). There was no significant difference between mothers with or without depressive symptoms in their perception of overall support from the antenatal midwife and the maternity midwife. Teenage mothers with depressive symptoms perceived less emotional and instrumental support than teenage mothers without depressive symptoms, as shown in table VII, (IV).
Table VII. Different forms of midwifery support perceived by the teenage mothers with low and high scores on the EPDS. Smaller numbers indicate lower satisfaction with the support provided.

<table>
<thead>
<tr>
<th></th>
<th>EPDS&lt;10 n=52</th>
<th>SEM</th>
<th>EPDS≥10 n=24</th>
<th>SEM</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informative support</td>
<td>3.6293</td>
<td>0.06686</td>
<td>3.3056</td>
<td>0.15004</td>
<td>1.971</td>
<td>0.057</td>
</tr>
<tr>
<td>Appraisal support</td>
<td>3.8399</td>
<td>0.03932</td>
<td>3.6806</td>
<td>0.08389</td>
<td>1.966</td>
<td>0.053</td>
</tr>
<tr>
<td>Emotional support</td>
<td>3.7700</td>
<td>0.05236</td>
<td>3.5556</td>
<td>0.07684</td>
<td>2.320</td>
<td>0.023</td>
</tr>
<tr>
<td>Instrumental support</td>
<td>3.7971</td>
<td>0.04994</td>
<td>3.4603</td>
<td>0.12905</td>
<td>2.434</td>
<td>0.022</td>
</tr>
</tbody>
</table>
DISCUSSION

REFLECTIONS ON RESULTS
This is the first Swedish study that has explored teenage pregnancy and childbirth based on teenage mothers’ descriptions of their situation combined with descriptive comparative cross-sectional studies that cover sociodemographic and obstetric data as well as experiences of health, self-esteem, social support, physical and/or psychological violence, and depressive symptoms. In the discussion chapter of this thesis, the results will be discussed in the following order: Teenage Mothers in Sweden, The Social Network of the Teenage Mother and Midwifery Care for Teenage Mothers.

Teenage Mothers in Sweden
The results from studies (I, II, III) showed that there were two main reasons for Swedish-speaking teenagers to become mothers. It was seen as a way out of a difficult psychosocial situation, or it was seen as something natural because of a family pattern of early motherhood. The results showed that the teenage mothers differed from adult mothers regarding experience of violence, perceived support, self-esteem, and depressive symptoms (III). There were also differences within the teenage group in these aspects (IV).

A difficult psych-social situation
For the teenage mothers with a difficult psychosocial situation, becoming a mother provided an opportunity to shake off the past. The teenage mothers had experiences of difficult family situations, including parental separation in early childhood, exposure to family violence, and school failure (I, III). These findings are in line with Ellis (2003), who suggested that early experience of parental separation and an absent father are common factors among teenage mothers. Experience of physical and/or psychological violence, depressive symptoms and a low level of education are also commonly associated with early childbearing (Deardorff, 2005; Klein, 2005; Hanna, 2001; Qvinlivan, 2004 b).

Some of the teenage mothers view their pregnancies as the most positive event in their lives. They were proud of becoming mothers and saw motherhood as a stabilising factor in their lives (I). Motherhood provided an opportunity to prove to the world that they were worthy citizens and competent mothers (II). These findings are supported by qualitative research from other countries, suggesting that teenage mothers felt that the parenting experience positively changed their lives, provided an opportunity for re-establishing relationships in a healthier context, and gave them a more productive and hopeful future (Clemmens, 2003; Logsdon, 2005b). The teenage mothers in our study also described that motherhood provided a new role with a changing lifestyle in relation to friends, outdoor life, smoking, and alcohol consumption. The demands and decisions
about changes in their lives were not so hard, as they were preoccupied with their growing baby (I). One conclusion of these findings could be the importance of supporting and encouraging the teenage mothers’ optimism and positive expectations for the future. We should remind ourselves that teenage mothers view their motherhood with hope. The findings indicate that teenage pregnancy might not always be a problem per se, although it certainly might raise complex social issues.

The teenage mothers also experienced difficulties with motherhood (I, III). The experiences of childbearing were described as demanding, both physiologically and psychologically. They were unprepared for motherhood, they were scared and inexperienced (II). The teenage mothers reported unstable relationships with the child’s father, poor contact with parents and friends, and feelings of being trapped. Some described a situation in which they were financially dependent on partners, because the social security system uses age as the criterion for social allowances (I). Teenage mothers have reported to thinking that motherhood would be easier than it actually is. They described feeling struck by the sudden responsibility of bringing up a child, feeling tied down with a lack of free time, having financial difficulties, and experiencing violent environments and severed relationships (Clemmens, 2003, Logsdon, 2005b). The teenage mothers reported that they had experienced negative public attitudes directed towards them, which they were unprepared for (I, III). Logsdon (2002) indicates that teenage mothers frequently receive both subtle and overt negative comments about their pregnancies from their social network and acquaintances.

In our study, the teenage mothers expressed that they wanted a child, someone who was going to be in their lives forever, someone who wouldn’t come and go (I). A significant proportion of teenage pregnancies that result in childbirth are a consequence of positive, idealised attitudes towards pregnancy, parenthood and personal changes that teenagers believe will ensue (Condon, 2000; Qvinlivan, 2004). A conclusion of our results above might be that the teenage mothers were well aware of their restricted circumstances and prospects, and they have made a conscious decision to become a mother.

Family pattern
Considering the way the teenage mothers in this study continued a family history pattern, it is tempting to believe that this pattern is an internalisation of feminine gender roles, as taught to a female child by her mother and others in her network, as also emphasised by Gramling (1998) and Raphael-Leff (1992). It is described that teenage girls have babies in order not to be different from emotionally significant women in their lives, such as their mothers, sisters, and friends who were teenage mothers as well (Musick, 1993; Seamark, 1997). This cultural pattern seems to be strong. The midwives also reported that for women with an immigrant background, it seemed natural to
become a teenage mother, since it is a part of femininity in their original culture. In those cases, the teenage mothers were prepared for parenthood by their families (II).

**Teenage and adult mothers**

The teenage mothers reported lower self-esteem than the adult mothers in the reference group. In addition, depressive symptoms were twice as common among the teenage mothers as among the adult mothers when using the EPDS threshold score of 9/10. The teenage mothers with depressive symptoms scored high on the items that concerned guilt, anxiety, and coping with daily life but not on the item that concerned suicidal ideas (III). The teenage mothers with depressive symptoms had lower self-esteem than teenage mothers without depressive symptoms, perceived less support from family and friends, had more often been exposed to violence, and were more often smokers than the teenage mothers without depressive symptoms (IV). A higher frequency of depressive symptoms among teenage mothers has also been found in other studies (Webster, 2000; Barnet et al., 1996; Logsdon, 2004; Figueiredo, 2006; Qvinlivan 2004 b), as well as the relationship between depressive symptoms and low self-esteem (Logsdon, 2004; Quinlivan, 2004). Both low self-esteem and depressive symptoms can lead to difficulties in functioning in the maternal role and developing a positive maternal self-esteem (Dennis, 2004). It would seem appropriate that midwives become aware of this phenomenon in planning the care for the teenage mothers, because high self-esteem promotes the competence needed to nurture the emotional development of the next generation (Mercer, 1995; Erikson, 1965; Diehl, 1997).

The teenage mothers had experienced a significantly higher proportion of psychological violence before pregnancy than the adult mothers. They were also more inclined to engage in risky behaviour, such as smoking and excessive alcohol consumption. Although both groups reduced smoking during pregnancy, more teenage than adult mothers continued to smoke during pregnancy. These results are in line with findings from other studies (Seamark, 1998; Qvinlivan, 2004; Klein, 2005; Qvinlivan, 2006), which show that early childhood exposure to violence predisposes people to illicit drug use and teenage parenthood. Young maternal age is also shown to be a risk factor for continuing to smoke during pregnancy (Dejin-Karlsson et al., 1996). It is suggested that adolescence is characterised by risk-taking behaviours that are performed in order to attain the perceived secondary gains of increased self-confidence, attainment of adult status, popularity, and affection (Hiltabiddle, 1996). These health risk behaviours need to be addressed by the midwife caring for the teenage mother.

Our results suggest that assessment of the health status of the teenage mother should include assessment of depressive symptoms, risk-taking behaviours--especially smoking habits-- as well as the teenage mother’s perception of current support from family/friends and partner. Assessing depressive symptoms might constitute a basis for further supportive dialogue throughout pregnancy. Midwives and other health care
providers need to base interventions with teenage mothers on research findings specific to teenage pregnancy, instead of relying on traditional approaches used with adult mothers.

**The social network of the teenage mother**

The teenage mothers perceived support from their family networks as important to them, especially the support from their own mothers (I, II). The teenage mothers were expecting more support from their partner than from their own mother, but both were ascribed a prominent supportive role (III). Results of other studies demonstrate that the mother of the teenage mother and the father of her baby are the most important sources of support (Burke & Liston, 1994; Quinlivan, 2004a). Although teenage mothers often have conflict with their parents and with their partners they still value them as important sources of support (Bunting, 2004).

The teenage mothers perceived less support from their partners than the adult mothers perceived. This finding might be explained by the teenage mother’s ability to communicate her need for support. Communication skills and negotiation skills vary by age and have the potential to affect how much support the teenage mother receives (Flanagan et al., 1995; Peterson & Leffert, 1995; Klein, 2005). Another explanation for the teenage mother’s perception of received support could be an ongoing conflict with the partner.

The teenage mothers reported that childbearing stressed their relationship with the partner, and they felt unsure of their relationship to come (I). Conflicts with the partner are shown to influence the perception of received support and also the paternal involvement (Dallas, 2000). The father of the baby who has a good relationship with the teenage mother and child is an important source of emotional and instrumental/material support. Good support from the baby’s father has a positive impact on the health of the teenage mother and her child, as well as on her life circumstances (Polomeno, 1996; Osborne et al., 2001; Logsdon et al. 2002). Good support is even more important for the teenage mother than for the adult mother (Schilmoller et al., 1991). The perception of support from the partner can also be explained by unrealistic expectations of the teenage mother at the time of childbirth (Quinlivan, 2004a). Logsdon (2005b) has shown that support providers frequently do not follow through on promises of support, but despite this the teenage mothers show resilience by piecing together available support to meet their needs. Support from family members, friends, and partners tends to provide a complementary combination of support for the teenage mothers. If so, it will be important for the midwife to involve the teenage mother’s family and partner in her planning of care.
Midwifery care for the teenage mother

The reflections on caring for teenage mothers presented by the midwives in this study reveal a true presence in the encounter with the teenage mother (II). This presence indicates an interest and concern for the teenage mothers, and it helps the midwife receive the story of the teenage mothers. Sarason, suggests that perceived support is a measure of the recipient’s sense of acceptance and feeling of being valued (Sarason, 1990). The teenage mothers perceived most support from the midwife to be helpful, but when support was irrelevant or not visible the teenage mothers described their experiences of pregnancy and motherhood as trying (I). The teenage mothers were uncertain about their own needs and did not know how to express them, and at the same time they wanted people around them to understand them and to support them in their new role (I). This result is in line with findings that indicate the difficulties for adolescent mothers to make distinction between different types of support (Logsdon, 2006). Fagerström (1999) found that adult patients also showed difficulties in describing their perceived caring needs. The finding was explained by reflecting the patient’s experience of oneself as an indivisible whole, as a human being who has an integral oneness where one part cannot be separated from another (Fagerström, 1999). We could conclude that the feeling of lack of trust in the midwife, described by some of the teenage mothers in our study, might reflect that the midwife disregarded the complexity of the emotional, social and existential uniqueness of the whole childbearing family of the teenage mother. This might result in the difficulties in asking for specific support from the midwives. Results from study (II) indicated that if the midwife neglected the teenage mother by her behaviour, a trustful relationship would not be developed but in contrast when the teenage mother was taken seriously, a sense of trust in the midwife could be developed, and the teenage mother could express her feelings and needs.

METHODOLOGICAL CONSIDERATION

In quantitative inquiry, the concepts validity and reliability are used for attaining rigor (Polit & Hungler, 1999). Trustworthiness is the parallel term for qualitative rigor. The criteria to ensure trustworthiness are credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). It is proposed that validity and reliability have the same essential meaning without distinction of research tradition and that there are no benefits in changing labels (Long & Johnson, 2000; Morse, 2002). However, in this thesis the concepts linked to qualitative inquiry were used when reporting findings in study (I) and (II) and concepts linked to quantitative inquiry were used in study (III) and (IV).
Paper I

Credibility is judged according to the accuracy with which a description of particular events represents the data (Graneheim et al. 2004; Morse, 1995). Our intention was to obtain knowledge of perspectives, experiences and reasonings about becoming and being a teenage mother. The teenage mothers we studied were chosen through strategic sampling to obtain as varied data as possible. This provided a range of different views, which is one way to ensure credibility (Morse, 1995; Graneheim et al., 2004). Further, quotations from the original text were presented under the various themes and main themes. Statements were also used to illustrate the abstraction of themes and main themes.

To achieve dependability, which according to Lincoln and Guba (1985) involves a critical outlook regarding the analytical procedures and the results of analysis, the author and co-authors read the interviews and discussed the analysis of data. Lincoln (1985) recommends the participation of experienced researchers in order to strengthen the interpretation of the data.

Transferability is the criterion used to determine whether the findings can be applied in other contexts or settings or with other groups (Lincoln et al., 1985; Polit & Hungler, 1999). It is the reader’s decision whether or not the findings are transferable to other settings and groups, but the authors can give recommendations about transferability (Graneheim et al., 2004). The experiences were very real for the teenage mothers in this study, and we believe that their experiences and perspectives can provide valuable insight into this population of women and can contribute to other settings as well.

Paper II

Midwives were invited to share their experiences of caring for teenage mothers with other colleagues. FGDs were chosen as a supplementary source of data collection in this study because of the exploratory character of our research question (Robinson, 1999; Kitzinger, 1995). The midwives who agreed to participate were willing to talk freely and thus constituted a voluntary sample. The midwives varied in age, had varying degrees of experience in caring for teenage mothers during pregnancy and childbirth and had worked at both antenatal clinics and at delivery/maternity wards. This made them a purposeful sample and increased the study’s credibility (Kitzinger et al., 1999; Morgan, 1997; Patton, 1990). Another aspect of credibility in this study is the close description of the analytical process.

The many different methods used to analyse FGDs illustrate that there is no absolute analytic method of choice (Vaughn et al., 1996; Webb, 2001; Stevens, 1996; Barbour, 1999). A hermeneutical approach was chosen (Gadamer, 1989) in order to describe the midwives’ reflections on their experiences of caring for teenage mothers. According to
Ricoeur (1976, pp. 91-92) the aim of all hermeneutics is to “make one’s own” what was previously “foreign”. We acquired a similar appropriation of understanding as a result of a prolonged and deep engagement with the text and tape recordings, which helps establish dependability (Graneheim et al., 2004). Group interaction analysis of the data showed great consensus about the way the midwives discussed issues regarding teenage motherhood (Webb et al., 2001). We made no attempt to validate any facts that were stated in the discussions, and the FGDs therefore show the reflections and experiences of the midwives present. The results provide an entry into understanding the unique characteristics of caring for teenage mothers in Sweden, and this is relevant to the care of teenage mothers in general.

**Paper III and IV**

Internal validity refers to the degree to which results reflect reality rather than being an effect of unverified, external factors. External validity refers to the degree to which the results of a study can be generalised to settings or samples other than the ones studied (Polit & Hungler, 1999). Reliability assesses that an instrument is measuring something in a reproducible way, but it says nothing about what is being measured. To determine that the instrument is measuring what was intended requires some evidence of validity. To demonstrate validity, both peer judgement and empirical evidence must be produced to show that the tool is measuring what is intended (Streiner & Norman, 2001).

**Questionnaire**

A self-reported measure (questionnaire) was chosen because we considered it to be consistent with the purpose of the study. Self-reported measures are suggested to be essential when the purpose is to obtain subjective assessments of experiences (Bowling, 2001). To get a high response rate, we provided written and verbal information to carefully introducing the study to the midwives at the delivery wards included in the study and all antenatal clinics in the study area. Further, the content validity of questions in the questionnaire was tested through discussion with professionals and in a pilot study with teenage mothers. The instrument was subsequently revised to make it clearer and easier to fill in.

Both internal and external validity can be influenced by selection biases. The midwives at the delivery wards administered the questionnaire, and therefore the researchers were not able to control how the data were collected or what was said during the collection time. The midwives might have improperly assessed the women’s language abilities and therefore not asked for participation in the study. The recording of information from the maternal health and delivery charts depended on the accuracy of the midwives, which meant that the records were not all at the same level of completeness.
Self-rating scales
It is suggested that instruments developed for use in adults may not be assumed to measure reliability and validity when used on adolescents (Logsdon, 2006). A reason for giving the EPDS and MSSS to teenage mothers in our study was that the scales have been used in teenage mothers in other research (Webster et al., 2000) and are specifically designed for use during pregnancy and childbirth. The EPDS has been recently used successfully by Figueiredo and Bifulco (2006) and Qvinlivan (2004) in studies of pregnant adolescents, which further supports our choice of this instrument.

EPDS
The EPDS, with a cutoff level at 9/10, has been used one week postpartum with good predictive power (Dennis, 2004). We chose this cutoff for calculations at 1-3 days postpartum to identify teenage mothers vulnerable to developing depression. The baby blues usually emerge four-five days postpartum and has disappeared by day seven to ten (Henshaw, 2003). To fill in the EPDS 1-3 days after childbirth might reduce the risk of reflecting the postpartum blues in the answers. A review of screening instruments for postpartum depression showed that the EPDS purposefully excludes somatic symptoms of depression but is highly correlated with anxiety measures, suggesting that symptoms related to caretaking of a new infant might be a part of postpartum depression (Boyd et al., 2005). The teenage mothers’ self-reported depressive symptoms might be part of a normal adaptation to the maternal role, and should therefore be interpreted with caution.

MSSS
We did not supplement the MSSS with an examination of bidirectional support, which was a limitation in our measurement of social support. It has been shown that bidirectional exchange of support between parents and adolescents is associated with increased well-being, such as less depression, better self-esteem and better life satisfaction (Stevenson, 1999). Further, instruments used in research with teenage mothers measuring social support generally emphasise the benefits rather than the difficulties that arise from supportive relationships. This implies that the perception of social support ought to be measured in different ways: importance of a particular type of support and how much of that support is received, and/or the disadvantages of received support. Future studies should therefore explore the effect of bidirectional support with parents, partner and friends as well as identify sources of major interpersonal conflict.

Midwifery support
A limitation of the instrument might be the wording of the statements of support provided by the midwife. Results from a study by Logsdon (2006) indicate that adolescents do not distinguish between material and emotional support. We could not exclude that the teenage mothers would have responded differently to the statements if
the wordings had been easier to grasp and had directly referred to their perception of help provided by the midwife.

**Response rate**

The response rate of the teenage mothers who were eligible for the study was 84.5% (III) and 78.3% (IV), but a drop-out rate up to 30% is commonly reported in studies with postnatal questionnaires (Bäck-Wiklund & Bergsten, 1997). The respondents might have experienced difficulty answering some of the questions, such as those regarding smoking and abuse. However, the questionnaire was well received by both the teenage and the adult mothers in the study. More than 80% in each group reported that the questionnaire was easy to fill in. Although events inquired into were very likely to be accurately recalled, the study includes retrospective data; therefore the potential for recall bias is present, which could influence findings. Imagined or desired reaction to the questions could also bias the findings.

The study group was small, although it comprised all Swedish-speaking teenage mothers (aged 15-19) in the study area who gave birth in hospital as well as a reference group of adult mothers (aged 25-29) matched for parity and birth of a baby. Consequently no multivariate or explanatory statistical analyses were performed. The limitations of the study might have affected the generalisability of the results. If the teenage mothers who were excluded due to language difficulties had also been included the results might have been different. Future research should include larger samples from multiple sites, with ethnic diversity that represents the population of Sweden, and an instrument that is valid for adolescents. This might help improve the generalisation of the findings. Despite the limitations of self-reported data, the method was consistent with the purpose of the studies, and the anonymity of the participants in the study enhanced the likelihood of honest answers.
CONCLUSIONS

The findings in this thesis could contribute to a deeper knowledge and understanding about teenage childbearing in the Swedish context, which could inspire care providers, politicians, and educators to engage in creative dialogues.

Both positive and negative experiences associated with teenage pregnancy and motherhood were described by Swedish-speaking teenage mothers.

- Becoming a teenage mother was considered a way out of an unbearable psychosocial situation and provided an opportunity to shake off the past and prove to the world that they were worthy citizens and competent mothers.
- Becoming a teenage mother was a pattern in their own families.
- Becoming a teenage mother made them proud and was experienced as a stabilising factor in their lives. Motherhood provided a new role with a changing lifestyle in relation to friends, outdoor life, smoking, and alcohol consumption.
- Becoming a teenage mother was described as hard. The teenage mothers were unprepared for motherhood, scared, inexperienced and uncertain about their own needs and did not know how to express those needs. They had an unstable relationship with the child’s father, poor contact with parents and friends, and feelings of being trapped. They were financially dependent on partners, because age is the social security system’s criterion for social allowances. They also experienced negative public attitudes directed towards them.

Teenage mothers differed from adult mothers regarding family situations, health behaviours, perception of received support, self-esteem and depressive symptoms, in a way that might negatively influence their ability to cope with parenthood.

- Teenage mothers had more often been exposed to difficult family situations, including broken homes, early experience of parental separation, and experience of physical and/or psychological violence. They had more often experienced failure in school.
- Teenage mothers were more inclined to engage in risky behaviours. They smoked more often during pregnancy.
- Teenage mothers perceived less support from their social network, had lower self-esteem, and had more depressive symptoms.
- Teenage mothers with depressive symptoms, as measured by EPDS with the cutoff point 9/10, had lower self-esteem than teenage mothers without depressive symptoms. They also perceived less support from family and friends, had more often been exposed to violence, and were more often smokers than the teenage mothers without depressive symptoms.
• Support from the midwives was generally well perceived by teenage mothers, but support from the midwife attending delivery was less well perceived in teenage mothers with depressive symptoms.

The reflections by the midwives about their experience of caring for teenage mothers revealed a true presence in the encounters with teenage mothers.

• The midwives’ ways of taking the teenage mother seriously help the teenage mother to express how she feels and what she needs.

• Caring stance by the midwife combined with the teenage mothers’ own views and knowledge might be the key to providing the care teenage mothers need.

Clinical implications
Our findings provide midwives and other health care providers with a picture of the experience of teenage motherhood. This picture highlights the importance of antenatal assessment of each teenage mother’s strengths, weaknesses, hopes, self-esteem, depressive symptoms, health risk behaviours, social support networks, and satisfaction with social support prior to care planning. The midwife needs to lend a listening ear to the teenage mother, giving her time, showing that she is taking her seriously and trying to understand her complex situation. Teenage mothers need acceptance and clear communication. A follow up postpartum supportive dialogue for assessing the health of the teenage mother is also of importance. We suggest that midwives and other health care providers should base interventions with teenage mothers on research findings specific to teenage pregnancy, instead of relying on traditional approaches used with adult mothers.
FUTURE RESEARCH

Based on the findings, the conclusions arising from this thesis, as well as the limitations, the following recommendations are made for future research.

- Explore how midwives’ and other health care professionals’ ways of relating in their care of teenage mothers influence the teenage mothers’ perception of received support.
- Explore the subjective meaning of teenage mothers’ childhood history, physical status, chronic or recurring depressive symptoms, and experiences of maternal interaction.
- Elucidate the relationship between early depressive symptoms in teenage mothers and attachment to the baby the first year after birth. It is desirable that future research should include larger samples from multiple sites, with ethnic diversity that represents the population of Sweden, and valid instruments for adolescents.
- Offering and evaluating courses and workshops designed for teenage mothers and their partners’ to enhance interpersonal skills, assertiveness and parenting skills.
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