POSTPARTUM DEPRESSION AMONG SOMALI WOMEN IN GREATER OSLO REGION – PREVALENCE AND ASSOCIATED RISK FACTORS

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Abstract

**Background:** Postpartum depression (PPD) has been described as the most common complication experienced postpartum, and affects around 10-15% of all new mothers. Factors like earlier history of mental illness, low level of social support and experienced recent life events has been associated with an increased risk for developing PPD. Immigrant women in Western countries have been found to have a marked higher prevalence of PPD compared to the general population. The increased prevalence has been associated to factors like loss of social network, loss of access to cultural postpartum traditions, pre- and post migration stress, as well as socioeconomically factors like education, employment, language skills. In Norway the prevalence of PPD in the general population has been found to be around 8-10%. The only study among immigrants (Pakistani) in Norway found the rate of PPD to be 7,6%. Somali people in Norway are the second largest immigrant group in Norway with a non-Western background. They are one of the most recent immigrant groups to Norway, and have the highest fertility rate in Norway, as well as high rates of unemployment, divorce and single parenting, and low level of higher education. No study on PPD and associated factors among Somali women has been found in the literature, and a study assessing this was conducted in greater Oslo region among Somali women.

**Method:** A cross-sectional survey was conducted; recruiting new mothers through all maternity wards in the Oslo region, as well as through public health centers and networks. Data was collected with interview-administrated questionnaires, and the same female interpreter was used when needed. PPD was assessed using Edinburgh Postnatal Depression Scale (EPDS), defining those scoring ≥10 to have a possible PPD.

**Results:** Of the 80 eligible women identified, 39 (49%) consented to participate, and completed the study. Of the 39 respondents 3(7,7%) were assessed to have a possible PPD. Most important associated factors found were history of mental illness, having experienced technical assistance during delivery, self-rated health and experienced economical problems last 12 months.

**Conclusion:** A low prevalence of PPD was found, and both the prevalence and its associated factors should be interpreted with caution. The associated risk factors do not have enough power to give any strength to the associations. However, some of the factors can be used in develop new hypotheses with regard to PPD among Somali women as immigrants in a Western society.
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Abbreviations and definitions

**PPD** – Postpartum depression. In the thesis the term PPD will be used on those scoring ≥10 on EPDS, assessed to have a possible PPD.

**WHO** – World Health Organization

**MDG** – Millennium Development Goal

**SES** – Socio Economic Status

**HCW** – Health Care Worker

**PHC** – Public Health Centre

**EPDS** – Edinburg Postnatal Depression Scale

**FGM** – Female Genital Mutilation

**Infibulation** – One of the practices behind FGM, where clitoris is removed, as well as partial or total excision of labia minor and labia major, and sewing of the vaginal opening. A small opening for urine and menstruating blood are left.

**Deinfibulation** – Opening of the infibulation.

**Pre recruitment** – Eligible women are asked at maternity ward/public health centre for consent to be contacted by the researcher later.

**Technical assistance** – Included both operative deliveries and induced deliveries.
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1 Introduction

To have children and create a family is as old as human history, and in all cultures expectations and traditions is associated with this event. Anticipations the new mother and her family wants to, and are expected to, fulfil. Sometimes these discrepant with what are possible, and thus might introduce the feeling of not being able to fulfil and accomplish the expectations. When being a migrant mother in a new country, this feeling of not being able to fulfil the expected traditions can be reinforced, and together with a loss of social network, might increase the vulnerability of the migrant women. To come from a collectivistic culture and tradition who appreciate and value the role of a mother as significant and important in it self, to a society and culture where being a mother is something that is done in addition, this gap might be impossible to fill in.

Postpartum depression (PPD) has been described as the most common experienced complication experienced after birth by new mothers(1), and is thus affecting many women who are already in a vulnerable period of her life. It influences many aspects of the woman’s life, and has also been associated negatively with the mental development of her child(2). As the literature review in the next chapter will give an account for, being a migrant mother might be negatively associated with postpartum depression in Western countries.

The theme of this master thesis is to assess the prevalence of postpartum depression and its associated risk factors among Somali women in Greater Oslo Region, Norway.

The thesis is structured as a monograph, starting with a comprehensive literature review in chapter two of relevant literature found in the area of interest. Chapter three describes the methodology used, both the theoretical foundation, and the practical implementation of data collection and analysing. Further, ethical considerations are described. The relevant results of the research are presented in chapter four, leading to the discussion in chapter five,
where the results as well as methodological limitations and strengths are discussed. The thesis ends with a conclusion and reflections on implications for practice and future research.
2 Literature review and rationale for research

In this chapter, current literature considered relevant for the project will be presented. First, the literature search itself will be described. Then background data of Somalia and people with Somali background in Norway is presented. Specific issues from the Somali culture regarding postpartum traditions, the importance of social support, female genital mutilation and mental health are presented in the following four parts. Then, both general literature on postpartum depression, and specific literature on postpartum depression in relation to migration will be described, covering occurrence, symptoms, risk factors, consequences, and treatment. Lastly a short presentation of the discussion of how valid the use of postpartum depression diagnoses is in cross-cultural settings follows, as well as a presentation of the theory around the immigrant paradox and healthy migrant effect. The rationale for this study and the research objectives and questions are stated in the end of this chapter.

The literature review included multiple searches in the following databases: Global Health, Cinahl, Medline Ovid, PubMed, and Sociological abstracts, ISI Web of Science, Cochrane and PsychInfo. Keywords and search words included variations of migration, immigrant, emigrant, migrant, refugee, asylum seeker, Somali, mental health, postpartum depression and postnatal depression. The Boolean operators AND and OR was used to link the words during the search process. In addition, reference lists in already retrieved articles were consulted, to locate more relevant literature.

When using postpartum depression OR postnatal depression AND the various concepts on migration, most hits emerged on the global level. When “Somali” were introduced as a search term, the results become rather meagre. No articles on postpartum depression among Somalis as immigrants or general population came up. Regional search did not produce more specific hits, and local searches in Norway only came up with general research on postpartum depression, and one hit on migrants and PPD, among Pakistani women.
Literature has been included based on content and relevance, and age of the article was rarely an exclusion criterion. The literature review has been conducted periodically from December 2011 until March 2013.

2.1.1 Background of Somali population in Norway

The Somali population in Norway has background from countries on the Horn of Africa, mainly Somalia, but also the bordering countries Djibouti, Ethiopia and Kenya. In Somalia the dictator Mohamed Siad Barre ruled the country until his regimen was overthrown in 1991. The country was thrown into anarchy, conflicts and natural disasters following, and in southern Somalia no central governing has functioned since. In north of Somalia, the Republic of Somaliland declared independence after the coup in 1991, and has functioned as a country since then, although not recognized by any country(3).

As a consequence of the conflicts, many Somalis flee out of the region. In a report written for UNDP in 2009, it is stated that about 14% of the Somali population lives in the Diaspora, leaving Somalia to be one of the most globalised nations in the world today(4). Somali is traditionally a clan society, and with no other central governing the population is dependent that the clan structure together with Islamic courts to get protection. Conflicts are often linked to differences in interest between the clans(5).

Fertility rate Somalia 2011, was by WHO reported to be 6,3(6). Literacy rate has been reported by WHO to be as low as 25%(7), but uncertainty must be linked to any statistics from Somalia, related to the state of the country, and the difficulties to retrieve reliable data.

In Norway people of Somali heritage is the second largest immigrant group of non-Western origin, also included children born in Norway with Somali parents(8).

By 1st of January 2012 there were 29 395 persons of Somali background living in Norway, among these 8 419 were born in Norway, by two parents born in
Somalia. Furthermore, 13 909 of these were females (8). A total of 20 063 persons is registered by 1st of January 2012 to have refugee background, of whom 12 318 arrived as asylum seekers, 358 as refugees, 243 was recorded as unspecific, and 7 144 as family reunion or through marriage (9). Of the total of 20 063 persons, 12 830 has lived in Norway for less than 10 years, of whom 6 524 arrived within the last four years (10).

According to statistics from City of Oslo, there where 12 779 persons with Somali background living in Oslo per 1st of January 2012. Of these, 76,2% has Norwegian citizenship (11).

Somali immigrants in Norway have according to Statistics Norway the highest fertility rate in Norway, being 4,4 in 2004 (12). They also have the highest level of unemployment (19,2% in 2008) among all immigrants in Norway, and the lowest level of higher educated people (13). Somalis also has a high percentage of one-parent families (28,8%) and 9,6% of the households include more than one family (14). It is also the immigrant group in Norway with the highest percentage of one of the spouses living abroad, (18,4% in 2005/2006), in addition to the relative high rates of separation and divorce (14% in 2005/2006). Level of Norwegian skills is by many Somali women regarded as low e.g. in communication with medical doctors (15). A cross-sectional population-based registry study from Norway, found that Somali women in Norway experienced more frequent perinatal complications than the general population, including induced labour, operative delivery and caesarean section, both planned and emergency (16).

2.2 Somali traditions and culture

2.2.1 Reproductive and postpartum traditions

Specific literature on postpartum culture and traditions from Somalia and Somali communities has not been possible to retrieve. Some information has been found in articles originally about other issues, and is presented here.
Somali cultural traditions regarding delivery, postpartum traditions, and the upbringing of children, have been described as a collective affair, within the social network of women. The transition to an individualistic culture for bringing up children has been experienced as a difficult task to cope with. To continue to have many children might be perceived by some as problematic, and thus some starts family planning, and have fewer children after living in the new country for some time(17).

Looking into health care experiences and beliefs regarding pregnancy and childbirth among Somali women, it has been found that a general view is that pregnancy and delivery is a natural experience for women(18).

2.2.2 Social support
All research described here are conducted among Somali women in Western countries.

Qualitative research describes the loss of social support from strong female networks when arriving to their new country(17, 19-21), making it more challenging to be a mother and to find new friends. Some respondents connected the suffering of depression and sadness to the lack of social support, and reflected upon barriers for seeking help for mental health problems, linking it to poor communication and understanding, reflecting both language barriers and cultural differences(19). This is supported by another article, where lost social ideals and relations were linked to experiences of loneliness, sadness and depression(22). Also the experience of postpartum depression was linked to the loss of social network, which in Somalia would provide help with childcare and day-to-day housework. In a new setting the close social network could live far away, and many obstacles for assisting exist, e.g. lack of transport(21).

Postpartum depression (PPD) was also related to stress normally experienced after delivery. The thought of PPD making it possible for the new mother to harm or even kill the baby was totally impossible to encounter and believe for participating Somali women(18).
In Somalia, respondents relied on informal solidarity groups of women (haawaleey) for support, and such groups were lacking in the new country, Finland. To illustrate the difference, respondents in a study stated that women in Somalia always talked to each other and had no secrets, whereas in Finland they were on their own, and had to rely on the Finnish system to get support (19).

Research also revealed that new gender roles emerged as a consequence of migration, giving men more access to earlier strictly women only-arenas, for instance attending childbirth. The new role for the men was not exchanged with woman attending any new spheres, and thus they lost some of their exclusive roles in the sphere of the family (17).

2.2.3 Female genital mutilation and migration
Reliable rates of female genital mutilation (FGM) among Somali women are not possible to access. However, a rate of 80-90% is referred to by UNFPA (23), and might reflect a description of the situation.

It has been described that women that has undergone FGM, have an increased risk for developing psychiatric diseases like depression, psychosis and psychosomatic diseases (24), as well as posttraumatic stress disorder (25).

Any study assessing possible association between FGM and PPD in Somali women has not been found described in the retrieved literature. However, one cross-sectional study was found, which was conducted among Egyptian women in Egypt where FGM occur endemically. The aim was to determine the rate of FGM in a sample of newly wedded women, and among other factors, the association between FGM and marital problems and some mental health problems. It was established that circumcised women had a significant higher score in mental health problems like somatization, anxiety, and phobia than non-circumcised women. No significant difference was found in regards of depression (26).
Various qualitative research from Somali communities in Western countries, has reported that women comprehend FGM-practice as normality before arriving to their new country. They might discover that the practice is perceived as abnormality and mutilation by for instance health personal in the new country, and thus inflict them selves stigmatization and insensitive treatment(17, 20, 27, 28).

2.2.4 Mental health in the context of Somali culture

In this section mental health in the context of the Somali culture will be briefly presented. Mental health concepts and explanations will be seen in relationship to biomedical diagnoses, and possible implications for occurrence and understanding of postpartum depression among Somali women presented. Literature retrieved in this field holds variable quality, and is mainly based on qualitative research in Western countries. Thus, the results are based on individual memories and reflections on cultural background with regard to mental health, and the content in the following sections has to be regarded with this in mind.

Postpartum depression is a biomedical concept, and thus, any possible cultural differences in understanding and explanation for mental illness and difficulties is not taken into account. This might be problematic, since concepts on mental health are, as all other concepts, shaped by cultural, religious, and political background and transitions. Furthermore it has to be acknowledged that suffering because of war and conflict might change the understanding and explanation of mental distress(19).

Somali concepts of mental health can be derived into two main categories, referring to either madness, or a wider concept of lack of wellbeing(21). These categories seems to refer to the three Somali words Gini and Waali (madness), and Murug (sadness), as described in a qualitative research article from USA(29).
The biomedical diagnoses and concepts of manic depression and severe forms of schizophrenia relates to the Somali concept of madness(21), possibly linked to the terms Gini and Waali, explained either by possession by ghosts or trauma, respectively(29). Waali is recognized by some as a mental illness, as described within the framework of biomedical understanding. The belief is that Waali could be caused by either djinns/spirits, or a disturbed relationship with either God or persons in relation(19).

Murug is described as sadness, which can range from sadness or stress of everyday life, to more serious forms, which eventually can lead into madness(29). This term can be viewed as Somali explanation of the diagnoses of mild to moderate depression or anxiety(21). Murug is described as possible to treat using a trusted social network to talk about the problems. However, for some talking about Murug to the close network created a fear for stigmatization or disclosure(29). This dual attitude, valuing social support on the one side and fearing disclosure on the other, has also been described in a qualitative article from UK, interviewing young Somali refugee or asylum-seeker women about psychological well being. The young women in this research described personal difficulties and mental distress to be viewed as a weakness in the Somali communities, and thus expressions of such needed to be concealed. On the other side it was thought that lack of social support would leave them more vulnerable to spirit possession(30), and thus mental illness. Respondents in a qualitative research article from USA described how migration and how feeling different induced a vulnerability for mental health problems. Further on the respondents stated that in Somali culture, emotional problems had to be hid, to avoid stigma and exclusion from the community(18).

Some Somalis views mental illness as incurable, and serious social stigma is still attached to be mentally ill. Molsa et al(19), states a viewpoint of critique, that to use culture to explain and thus maintain differences, might be dangerous and problematic, when not taking into consideration changes in power structure, class, racial and gender conflicts(19).
To bear in mind that Somali postpartum women might have a different viewpoint and explanations on mental health issues, might prove to be useful for health care workers when addressing postpartum depression, treatment and implication.

2.3 Postpartum depression

Postpartum depression is defined as a depressive disorder without psychosis, which emerges during postpartum period, and sometimes during pregnancy(1). Mental disorders experienced postpartum by women range in severity from baby blues to maternal psychosis, along which PPD exists(31).

The World Health Organization´s (WHO) the Millennium Development Goal (MDG) number 5 is to “Improve Maternal Health”, and WHO have launched an additional plan of improving maternal mental health as part of fulfilling this goal. The basis is the phrase “no health without mental health”. In essence, this dictates the programmes aimed to achieve MDG 5, need to integrate mental health approaches in their strategies. In this document it is stated that mental health problems during pregnancy and in the postpartum period are common throughout the world. In addition to affecting the woman herself, postpartum mental health problems have negative impact on the physical and mental development the child, especially in resource poor settings(32).

In Norway there has been an increased focus on postpartum depression in recent years. One of the ensuing discussions has dealt with whether to start a general screening of all new mothers by public health nurses. No national guidelines exist, and the National Council for Priority Setting in the Health Care in Norway just recently concluded that a general screening of PPD using Edinburgh Postnatal Depression Scale (EPDS; 3.3.3 for thoroughly description) should not be implemented in Norway(33). They discussed the matter on the basis of a systematic review published in 2013 on screening for PPD in ante- and postnatal women. The Norwegian Knowledge Centre conducted the review for the Health Services(34).
Despite lack of national guidelines, many public health centres have already started a general screening of postpartum women, using EPDS. In City of Oslo, with 27% of the population with immigrant background(35), public health centres in five of 15 districts used EPDS spring 2012. One year later, the number of districts completed training for use of EPDS had increased to 10 out of 15.

2.3.1 Occurrence

Postpartum depression has been described as the most common complication experienced after birth, found in a meta analysis to affect around 13% of all new mothers(1). However prevalence varies in studies conducted in different countries, in different populations, and using different methodologies.

In Western countries prevalence has been found to range between 8% to 20,2% (31, 36-40). The lowest prevalence rate of 8% was found in a US cohort(37), followed by a population-based survey from Canada, with 8,5% experiencing minor depression and 8,7% major depression. Here women up to 14 months postpartum were included(36), hence using a very wide time frame compared to other studies. Two different cross-sectional studies from Norway found prevalence rates to be 8,9% and 10,1% respectively. In both studies a selection bias was introduced, by excluding non-Norwegian speaking respondents(38, 39). Another US-cohort found a prevalence of 17,4% in a rural setting, excluding non-English speakers as well as women with four or more children. This survey had an oversampling of women with low socioeconomic status (SES) and African American women(40). The highest prevalence of 20,2% was found in a longitudinal study from Canada, measuring PPD at the same time point postpartum in the total sample(31), thus perhaps reflecting a more precise measuring. However, a selection bias was introduced, since only women able to read and write English was included. Also from Canada, a survey including non-English or French-speaking respondents, found that recent immigrants (< 10 years) had the highest prevalence of PPD with 14,2%, compared to long-term immigrants (9,4%), Canadian born (5,4%) and respondents arriving in childhood (10,3%)(41).
In non-Western setting a systematic review from Africa, a comparative study from Taiwan and United Kingdom (UK), and a descriptive analytic case-control study from Iran has been included here. In the review from Africa, looking into pre- and postpartum psychological wellbeing, a prevalence of PPD was found to be 18.3% (42). A comparative prevalence study of PPD in Taiwan and UK found prevalence rates of 19% and 18%, respectively (43). The case-control study from Iran compared rates of PPD among breastfeeding and non-breastfeeding women, and found prevalence rates of 2.5% among those breastfeeding and 19.4% among those not breastfeeding (44).

Among immigrant women in Western societies various rates of PPD have been found, ranging between 7.6% to 38% (45-50). However a weakness seen in research articles on PPD among immigrant women, is either the exclusion of women not speaking the majority language(s) (47-50), or a systematic bias of non-consistency in the use of family or interpreter to translate, or even to have spouse present in the interviews (45). Of the immigrant studies included in this review, three articles stated the use of translated questionnaires (41, 46, 47), of whom one used bilingual researchers in addition (46).

One study screening for PPD in newcomers, divided the respondents in groups of refugee, asylum seeker, and immigrants, and compared those groups to the majority population. They found a statistical significant difference in the rates of PPD between the immigrant groups and the general population. Whereas the general population were found to have a rate of 8.1%, refugees had 25.7%, asylum seekers 31.1%, and immigrants 35.1% (47). Another study divided the respondent into minority and majority immigrants, and Canadian-born mothers. They found that minority women had the highest prevalence (24.7%), majority immigrants the lowest (8.3%), and Canadian-born mothers in the lower range (11.2%) (48).
2.3.2 Symptoms and risk factors
General symptoms of PPD can include despondency, feeling of guilt, low self-esteem, disturbance of sleep, appetite or psychomotor function, and suicidal thoughts(1, 51), as well as confusion, emotional lability, anxiety, and dysphoria(31). Literature describes occurrence to be greatest the first 12 weeks postpartum, and duration depending on severity and treatment(31).

Risk factors associated with postpartum depression are found to be multiple, and the most common found and associated with PPD will be described in the following sections.

By WHO, poor socio economic status, low social status, and unintended pregnancies are all factors found to be linked to increased occurrence of maternal mental health problems in a global context. Unwanted pregnancies can act as a triggering factor for underlying mental health problems(32).

Earlier history of depression and depression or anxiety during pregnancy has been linked to an increased risk for developing PPD in a number of studies(1, 31, 36, 39, 45, 49, 52). Also lack of social support has been found to be risk factors in various studies(1, 31, 36, 39, 42, 46-48, 52), as well as stress during pregnancy(36).

Marital conflict and/or recent life events and stress have also been associated as risk factors for PPD(1, 31, 39, 42, 45, 46, 49, 51-54). In a Norwegian study life events in the last 12 months were defined as serious problems in marriage or divorce, conflicts or problems with family, friends, and neighbours or at work, economic problems, serious illness or disease on either yourself or close family or friends, traffic accident, fire or theft, loss of closely related person or any other serious event occurred last 12 months(39).

In Norway, risk factors associated with PPD was found in one study to be older primiparous and being primiparous by itself(38). Being more that 30 years of age was found to be associated with PPD among Pakistani women in
In contrast, a survey from Canada found that young age (15-19 years) was associated with PPD(36).

In a Canadian cohort, including minority women, it was found an association between longer breastfeeding and lower prevalence of depressive symptoms(48). And a cross-sectional study from Norway found that those not breastfeeding were significantly more depressed than breastfeeding women(39). The earlier mentioned comparative study from Iran found significant different rates of PPD in those breastfeeding and those not breastfeeding(44), indicating a negative association between not breastfeeding and PPD.

Migration has been connected to an increased risk of postpartum depression. The migration process has been linked to loss of social network, being a minority, being socioeconomically disadvantaged(55), pre-migration experiences and stress, and post migration stressors like experiencing language and cultural barriers leading to social isolation(52, 55).

Recent immigration was found to be a predictive factor for developing PPD in a population-based survey from Canada, despite excluding non-English speaking respondents(31). Another survey from Canada found that immigration status was associated with presence of PPD. Further on low total household income was found to be a risk factor(36). This was supported by findings in a US cohort, where experienced financial hardship postpartum was associated with an increased prevalence of PPD at 6 months postpartum. However, in this survey social support was found to reduce the impact of this considerable, suggesting that good social support can be protective for PPD(37).

2.3.3 Consequence
Postpartum depression has been suggested to have negative impact on the development of the child.

A review article looking into the possible effect of PPD on cognitive development of the child concluded that PPD might have a negative effect, but that it is more
likely when it is chronic or recurrent depression in mothers that has the negative impact. In this review only small effects of PPD were found on language and IQ, especially among boys. A major critic brought up in this review is that studies often relay on maternal or teachers report on the behaviour of the child(56), and thus not objective assessments of the interaction and behaviour.

Some of the findings are supported by results from another survey. It was found that early postpartum depression had less negative impact on the development of the child, explaining according to the authors of the article, why interventions for PPD not generally seems to improve the cognitive development of the child. They found that continuous depression or later onset of the depression in the mother influenced inattention, physical aggression and low receptive vocabulary in the child aged 3-4 years(57).

This contradicts another review article suggesting that it is the depressive mood itself, combined with duration and severity of the disease that affects the development of the child. Furthermore both the interpersonal functioning of the mother, and social hardship resulting from the mother’s depressive symptoms, affect the development of the child through interaction(2).

One longitudinal study hypothesized that symptoms of depression at 5 months postpartum could predict less infant weight gain, more minor health concerns, and disturbed sleep at 9 month postpartum. Prevalence of PPD was also registered at both time points. This was a largely low income and minority women sample from USA. Findings suggest that depressive symptoms at 5 months was associated with less infant weight gain, increased infant awakening, and health concerns(50). A cohort-study found that PPD combined with low income was significantly associated with high scores in emotionality(58), thus showing that PPD and low socioeconomic status might be associated with possible adverse outcome for the child. Another longitudinal study found that maternal depressive symptoms at 9 months postpartum could be associated with an increased risk of being ≥ 10% in height-for-age in children aged 4 and 5
years. This indicates that the pattern of caregiving behaviour from early on might have an extended effect on child growth later in childhood(59).

These studies suggest that there is a link between a depressed mother and her caregiving behaviour, leading to consequences for the child’s physical and mental health. Low socio economic status (SES) seems to have an effect on the development of the child, perhaps both through the mothers reduced possibility to offer optimal care, and also how low SES affects the mother’s mental health.

Consequently, as per my literature search, findings within the field of consequences of PPD vary greatly, and it also seems like a difficult task to find conclusive results in this field.

2.3.4 Treatment
Treatment is not a focus of this research project. However a brief description of treatment will be presented, to complete the picture of postpartum depression in all its aspects. It is reported that many new mothers will present with scepticism and reluctance towards using anti-depressant drugs while breastfeeding or caring for a new baby(60).

In Norway, Glavin et al. found that public health nurses (PHN) doing supportive counselling was showed effective for treating postpartum depression in new mothers (61). Another article by Glavin et al(62) found an effect of a re-designed follow up care of new mothers in identifying, preventing and treating PPD. The re-designed follow up care had an increased focus on mental health of the mother by the PHN, PHNs trained in screening and counselling, and a referral system for more serious cases(62).

A Cochrane systematic review from 2007, looked into psychosocial and psychological interventions for treating postpartum depression. Main results found in this review were that both psychosocial and psychological interventions were effective in reducing the symptoms of PPD. When comparing with usual postpartum care and looking into the reduction of continued depression, any
psychosocial or psychological intervention was associated with a reduced likelihood for it to continue (60).

2.3.5 Postpartum depression; a cross-cultural diagnose?
A thoroughly description of the EPDS as a screening tool will follow in chapter 3 on methodology. A presentation of a disagreement within the field of PPD in connection to cross-cultural screening of PPD will follow in the next sections.

To use a screening scale for postpartum depression in a migrant culture in Norway raises the question if the scale measures the same thing as intended by the ones developed the scale. When taking into consideration that mental health is perceived in different ways in different cultures, from biomedical to a traditional holistic framework, this seems like an important issue to rise.

In the late 1990-ies a discussion in the field arose, dividing between those stating that postpartum depression was a medicalization of loneliness and loss of social network experienced by new immigrant mothers in Western societies (63), and those responding that postpartum depression is a valid diagnose to use also in new immigrant mothers (64). The authors in the first article argued that high rates of PPD among immigrant women in Western countries were induced socially and culturally by the society. Discontinuations of supportive postpartum traditions lead to an experienced lack of support and loneliness, amplified by the contrast of coming from a culture where mothers are being nurtured, valued and supported in a different way than in Western societies (63). The counter-argument was that a postpartum depression diagnosis also meant that socio cultural aspects where taken into consideration. Also the importance of someone asking new mothers about how they are, to avoid possible depressed mothers feeling guilt or like a bad mother was emphasized (64).

A review of literature on diagnosis of postpartum depression in cross-cultural settings discussed among other things the fact that women might under- or overestimate their responses due to cultural beliefs, perceptions and stigma
related to mental illness. They also found that rates of prevalence have been found to be greater in studies with self-report compared to interview-administrated scales. The authors problematize the assumption that a translated version of for instance the Edinburgh Postnatal Depression Scale (EPDS) has the same psychological meaning to respondents(65).

Conclusively, it can be established that the use of the postpartum depression diagnosis and its screening tools is to some degree debatable. However, the EPDS screening tool has been widely used and accepted, both in diverse and homogenous populations. And as long as no other alternative tool appears, it is the method that is probably the easiest to implement and perform in a diverse population.

2.3.6 The immigrant paradox

The “immigrant paradox” has been used in the literature to describe the health paradox seen in immigrant health; event though new immigrants, especially from non-Western countries, have low socio economic status, associated with adverse health outcome, they often exhibit better health outcomes than the general population in the receiving country. This has led to development of the concept of the “healthy migrant effect”. Some have hypothesized that this relates to selective migration; that good health increases the possibilities for being able to migrate, either by self-selection or by selection by the receiving country. However, this holds a contradiction, since the healthy immigrant effect seems to deteriorate after time, and the immigrant population ends up experiencing poorer health than the general population. This paradox has been referred to as the “acculturation paradox”(41).

When assessing the immigrant paradox in immigrants in relation to length of residency and ethnicity, and examining health outcomes and associated risk factors a recent cross-sectional survey found several interesting findings both supportive to the immigrant paradox, and some contradicting this. Many reproductive health outcomes follow the paradox pattern; that recent
immigration seems to protect against. In this survey preterm birth, hospitalization during pregnancy, illness during pregnancy was all outcomes newly migrated women had a lower prevalence of than the other groups investigated. However, recent immigrated women had an increased prevalence ratio for postpartum depression, actually the highest of all groups analysed(41), thus contradicting the theory on immigrant paradox.

2.4 Rationale for study

Somali women can be perceived as a vulnerable group in the Norwegian context, and thus in need of special considerations. At the same time they are underrepresented in research on postpartum depression, and being the most fertile group of women in Norway today, and also newly immigrated, high level of divorce/single parenting, many known vulnerability factors apply, emphasizing the need to be included in research.

This study can be beneficiary for the Somali women themselves, by being screened for PPD. This research might reveal associated risk factors for PPD in the study group. Also in the long run, for both the Somali population and for public health purposes, this research hopefully will produce arguments for an increased focus on mental health among immigrant women in general and PPD specifically.

2.5 Research objectives

This literature review has revealed a gap in knowledge regarding postpartum depression among Somali women, both generally and as an immigrant group in Norway. The following research objectives as basis for research are believed to bridge this gap. The current study was conducted in Greater Oslo Region, where the majority of the Somali population in Norway live.

General research objective

Assess the prevalence of postpartum depression and associated risk factors among Somali women giving birth in Greater Oslo Region.
Specific objectives with research questions

1. Assess prevalence of postpartum depression among Somali women in Greater Oslo Region
   a. How many Somali women in Greater Oslo Region have postpartum depression?

2. Explore associations between background factors and postpartum depression.
   a. Is there any association between demographic factors and postpartum depression?
   b. Is there any association between socioeconomic factors and postpartum depression?
   c. Is there any association between the mother’s state of health and postpartum depression?
   d. Is there any association between factors related to pregnancy and delivery and postpartum depression?
   e. Is there any association between factors related to the new baby and postpartum depression?
   f. Is there any association between level of social support from spouse, family, friends or health care personal and postpartum depression?
   g. Is there any association between earlier history of mental illness and postpartum depression?
3 Methodology

This methodology chapter will describe and discuss the methodological design of this research project. First, a brief description of different research methodologies will be provided, both qualitative and quantitative. Then the cross-sectional design itself will be thoroughly presented, including sections on sample population, sample selection, and inclusion/exclusion criteria. A description of the recruitment and data collection methods is followed by a description of the sampling and sample (figure 1 and table 1). Thereupon a thorough presentation of the questionnaire follows, including a review of the EPDS, ending with a brief presentation of the dependent and independent variables and the statistical analysis used. Ethical considerations are presented in the last sections of the chapter.

In research there are two broad methodological approaches: qualitative or quantitative, depending on what questions needs to be answered. Qualitative methods are best answering questions on why something is a problem or how it perceived as a problem, and what meaning participants gives to the problem(66). It is descriptive and interpretative, and seeks to understand the meaning of experiences and life worlds of the participants(67).

Quantitative research methods is best suited when aiming to answer questions on quantifying size, distribution and associations in relation to a disease or another dependent variable(66).

Epidemiology is quantitative research methodologies developed to investigate how an exposure affects a certain population, usually focused on factors influencing or determining the distribution of a disease(68). The objectives of epidemiology is to identify aetiology and influencing risk factors, the extent of the disease or the health status in a population, the natural history and prognosis of the disease, to evaluate interventions, and to provide the foundation for developing public health policies(69).
Epidemiological studies can be divided into either observational or experimental studies. Observational studies include descriptive, analytical, ecological, cross-sectional, case-control and cohort studies. Experimental studies include randomized controlled trials, cluster randomized controlled trials, field trials, and community trials(69). Epidemiological studies can also be divided into non-intervention studies and intervention studies. Non-intervention studies include exploratory, descriptive and comparative/analytical studies (cross-sectional, cohort, and case-control studies), whereas intervention studies include experimental and quasi-experimental studies(66).

As the objective of this research is to assess the prevalence of PPD and possible associated risk factors, the best-suited design was a cross-sectional design.

A cross-sectional study questionnaires (interview or self- administrated) are used to assess the prevalence of a disease, in this case PPD, in a clearly defined population using a standardized screening tool and asking for associated risk factors. This method is particularly well suited to generate hypothesis that can be tested later. The method has certain disadvantages, however. Data on risk and disease are collected at the same time, for example, making it impossible to find any causal links between the two. The method is also not very useful when it is a rapid occurring disease that needs to be measured. Nor is it useful to test hypothesis(68). In this study any associations identified between the independent and dependent variables will not be of any conclusive character, nor can it reveal any causative chain, but might provide new hypothesis to be tested in future research. In the current case new hypotheses can be developed on which risk factors are associated with the occurrence of PPD among Somali women in Norway(66), and through this lay the foundation for or aid future research on this topic.

To do a cross-sectional study is also feasible to do within the scope of a master thesis both regarding the obvious time constraints, and the limited resources available.
Interview administrated questionnaires was selected as tool for data collection in order to maximize the standardization of the collected data. This decision was based on the known low level of education in this group (15), and thus unknown level of literacy. This ruled out use of self-administrated questionnaires. Related to known low level of self-evaluated Norwegian knowledge (15), as well as the wish to include all eligible women, it was decided to use an interpreter when appropriate.

3.1 Sample selection

The aim of recruitment was to include all eligible women with Somali background giving birth in one of the four maternity hospitals in Oslo and greater Oslo region. Initially the plan was to only pre recruit through these maternity wards, to have a representative study group, since in practice all deliveries in Norway are performed in public hospitals. However, related to possible fewer deliveries in these hospitals, and an unknown number that was not asked, or did not want to participate, it was also decided to include public health centres in the districts of Oslo, as well as organisations and networks. Public health centres in 11 of the 15 Districts of Oslo were contacted and asked if they could help with pre-recruitment and 3 agreed to participate. This gave a sample where all respondents represented the chosen population, but not necessarily a representative sample of the population.

In clinical research probability sampling by using randomization is advisable, giving a known probability for each unit in the sample to be selected. This makes it possible to generalize from the sample selected to the total population (70). However, to use this strategy for recruitment within the scope of this thesis would reduce the possibility of recruiting enough respondents, due to both the limited time available for recruitment and data collection. Further on it would have yielded a low number of possible respondents; In 2011 399 children were born of parents with Somali background in Oslo (11). The number born in 2012
is not published at the time of writing. Therefore a nonprobable sampling method was chosen for recruiting participants.

3.1.1 Inclusion criteria
All women with Somali background over the age of 18 years giving birth in Greater Oslo region was eligible to participate in this study.

The term Somali background was chosen in order to include both persons born in Somalia, Somaliland, Norway, and any other countries with a Somali diaspora. Inclusion was not based on citizenship, but ethnicity. Ethnicity

“…refers to the group to which people belong, and/or are perceived to belong, as a result of certain shared characteristics, including geographical and ancestral origins, but with particular emphasis on cultural traditions and languages.”(71)

The inclusion relied on self-defined by the women and assessment of the staff at the wards and at the public health centres. Staff made contact and asked women they believed was of Somali origin for eligibility. Ethnicity is not registered in hospital records or records of the public health centres, only nationality and need for interpreter.

Even though ethnicity is not static, Somali people can be regarded as a homogenous group with regard to ethnicity, language, religion and culture(72).

3.1.2 Exclusion criteria
Otherwise eligible respondents were to be excluded either if the respondent was currently receiving treatment for any diagnosed mental illness, or was under the age of 18 years. Diagnosed mental illness meant diagnosed either before or after delivery. No eligible women were excluded from participation in this study.

The assumption behind exclusion is that being under the age of 18 or under treatment for any mental illness makes a person particular vulnerable(73).
3.2 Location and population

3.2.1 Pre recruitment and recruitment

The study site was Greater Oslo Region, using all four maternal wards in the region as well as three public health centres in the municipality of Oslo to pre recruit. Also various organizations were contacted for recruitment, as well as some recruiting through the network of colleagues. Possible respondents were pre recruited from the start of September 2012 until 28th of February 2013, and interviews were conducted from mid November 2012 to beginning of April 2013. Table 1 displays the known data from the resources of pre recruitment.

Table 1 Sources of respondents and recruitment

<table>
<thead>
<tr>
<th>Source</th>
<th>Estimate of eligible women</th>
<th>Consented to be contacted</th>
<th>Completed interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital A</td>
<td>10</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Hospital B</td>
<td>10</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Hospital C</td>
<td>25</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>Hospital D</td>
<td>17</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>PHC A</td>
<td>18</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>PHC B&amp;C</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Network and organisations</td>
<td>-</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>54</td>
<td>39</td>
</tr>
</tbody>
</table>

In hospital records in Norway no one is registered based on ethnicity, and none of the maternity wards had the possibility to count eligible women for this project, or to register those not consenting to be contacted. The estimate in table 1 is based on what the researcher got to know when present at the different wards.

Eligible women was asked if they consented to let the researcher contact them approximate 5-6 weeks after delivery. They did not consent to participate in the

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1 Public health centre A went through all deliveries in the period between 1st of July until 30th of
study by agreeing to this, but wrote their name, phone number and the date of delivery on a paper that was given to the researcher. This pre recruitment note was available in Norwegian and Somali. If the possible respondent had a need for interpreter it was also noted here (appendix 1).

These pre-recruitment notes were picked up from the wards or public health centres by the researcher in person, approximately once a week. The contact data on the possible respondent was copied to an electronic document saved only in a University of Oslo computer account. Only the researcher had access to this account. The paper note with the contact data was either shredded right after the interview had taken place or straight away if the possible respondent did not want to participate.

When the researcher made contact they were informed about the study, aim, reason, disadvantage, confidentiality, voluntarily participation and the possibility to withdraw at any time from study. At time of contact the researcher emphasized that the goal of the research was to look into how Somali women in Norway experience their postpartum period. Postpartum depression was also talked about as an experience some new mothers experiences, and that the questionnaire also included a screening for this. The realization that some of the women already was depressed at the time of contact, gave a rise to a challenge regarding how to approach the women, in addition to the challenges posed by language barriers and cultural differences(73, 74).

An appointment with date and place for answering the questionnaire was agreed upon if the women consented to participate. At the day of completing the questionnaire the respondent received information about the study, both written and orally. An informed consent form had to be read and signed before the questionnaire could be answered. If the women had difficulties reading the informed consent form the interpreter or the researcher read it to her. The form existed in a Somali and a Norwegian version (appendix 2).
Pre-recruiting was used in order to ensure that informed consent was given based on correct and sufficient information. To train all midwives and public health nurses to recruit was not thought to be feasible within the scope of the project. Another reason was that since the EPDS-scale used for screening of PPD could not be used before 6 weeks postpartum, it would have been early to consent to participate at the maternity ward, leaving a too long period between the time of informed consent and the actual interview. Pre recruitment was also thought to be the most feasible method within the limited period of time available.

Midwives and public health nurses received written information in addition to the information provided by the leader at the ward or public health centre (appendix 3).

### 3.2.2 Sample size calculation

Sample size was calculated \(^2\) with a precision ± 5%, and estimated prevalence of 15% (46) and the sample size was found to be 196 respondents.

### 3.2.3 Presentation of sample

In this study 80 eligible women were identified, and 39 (49%) consented to participate, and completed the questionnaire (figure 1).

\(^2\) \(n = \left(\frac{1.96}{d}\right)^2 \times p \times (1 - p) \times 1.75.\) Aalien OO, Frigessi A, Moger TA, Scheel I, Skovlund E, Veiørd MB. Statistiske metoder i medisin og helsefag. Oslo: Gyldendal Norsk Forlag AS; 2006. 335 p.
3.3 Data collection

The interview-administrated questionnaire-form was selected for this research in order to meet the need for interpretation and explanation, as well as being able to include illiterate women as well.

Respondents could choose location for the interview them self, either at their own house, or any other place found to be of convenience. The researcher, together with the interpreter when needed came as agreed upon. All respondents received a potted plant as a gift from the researcher as a sign of gratefulness for their participation. The interviews lasted on average one hour.

The questionnaire was pre-tested on 2 mothers with Somali background living in Norway before data collection started. The two were not in the postpartum period, but were both mothers with experiences of giving birth in Norway, and thus able to assess if the questionnaire was culturally appropriate and understandable.
3.3.1 Procedure
The questionnaires were filled in during face-to-face interviews, using a Norwegian questionnaire, but a Somali interpreter present if needed. The EPDS-instrument was also used in a Somali translated version. This version is not validated and tested. The translated version was also used when the interviews was conducted in Norwegian, to better be able to explain the questions and answer options of EPDS.

3.3.2 Questionnaire
The questionnaire is divided in nine parts. The literature review for this project made the basis for questions in the first eight parts of the questionnaire. The EPDS constitute the ninth part of the questionnaire, and is presented and reviewed in the last sections. The whole questionnaire including EPDS is attached in appendix 4.

The first part on background and demographic questions was included to describe the sample included. Some of the questions were based on existing statistics from Statistics Norway, like for instance self-rated Norwegian skills(15). In this section also immigrant status was asked for, both regarding nationality and reason for migrating to Norway (refugee, asylum seeker, family reunion, others). This because findings suggest that being an immigrant is associated with increased risk for developing PPD(46, 48, 49, 76). Also many demographic variables have been showed to be associated with the prevalence of PPD in general(1, 77).

The second and third part includes questions on level of education and employment status. These questions are part of the mapping of the socio-demographic background variables of the respondents. In this section also question about the husband employment status was included. This was included to gain information on the economical situation for the household. The questions in the first three parts make the base of the universal variables all health related research should consider to include(70).
In the fourth part some general question about the state of the respondent’s health were included, such as if she has any chronic or acute illnesses and if she was circumcised. The word circumcised was used instead of the words female genital mutilation, as this is the acceptable word used in the Somali community to refer to this practice. Even if the earlier mentioned study from Egypt did not find any association between circumcision and depression(26), it was still decided to be included as a variable, since it has not been looked into in association to PPD in any study retrieved for this research. Self-rated health was included based on a study from Canada, investigating the relation between self-rated health and PPD among immigrant women(48).

The sub-questions about timing of opening of infibulation were included based on two articles. In a study from Norway it is suggested that often there is no plan made for when deinfibulation to be conducted, antenatal or intrapartum and the women is not included or asked for their own opinion regarding this(28). Deinfibulation can reduce the risk of caesarean section and other possible complication occurring during delivery. It has been showed that being infibulated when delivering a baby increases the risk of caesarean section, postpartum haemorrhage, episiotomy, resuscitation of the newborn and perinatal death(25).

In the fifth part breastfeeding was included, as there are studies associating not breastfeeding to occurrence of PPD. In the earlier mentioned study from Iran, a possible association between not breastfeeding and PPD were found(44). And one Norwegian study showed a strong association between not breastfeeding and high rates of PPD(39). Also a review established that not breastfeeding is a risk factor for developing PPD(54).

Questions about the sleeping routines, crying and contact with the baby were included, as childcare stress has been showed to have an association to prevalence of PPD(53, 54).
The questions in the sixth part of the questionnaire are about pregnancy and delivery. In a review from Africa on PPD, a relation was found between unplanned and unwanted pregnancies and PPD(42).

The seventh part includes questions regarding perceived level of social support from husband, family, friends and health care personal. Social support has been pointed out as a major risk factor in research about developing PPD(1, 39, 45-48, 51, 53, 76). The researcher created the questions regarding social support based on the literature.

The eight part included questions on earlier history of mental health problems, both diagnosed and experienced, as well as a list of important and possible stressful life events experienced last 12 months. Earlier history of mental health problems has been showed in repeated studies to be associated with an increased risk of developing PPD(1, 51, 54). Major life events were included based on studies showing that a high score on life events was associated with an increased occurrence of PPD(39, 45, 51, 54, 76). In this research project it was decided to use binary variables to assess major life events.

3.3.3 EPDS

The ninth part of the questionnaire is the EPDS, presented here.

Edinburgh Postnatal Depression Scale (EPDS) was developed by J. Cox and colleagues in 1987, to meet the limitations other scales measuring depression has in childbearing women and new mothers(78). These limitations was related to the emphasis on somatic symptoms of psychiatric disorders by these scales, which in the case of new mothers often will be associated with normal physical changes after birth. Further limitations was how time consuming these tests were, resulting in health care workers not wanting to use them. The aim was to create a self-report scale acceptable to use for women not considering themselves in need of medical help. Also there was no need for specialized psychiatric health care personal. It had to have high reliability and validity, and
Cox et al found EPDS to have a sensitivity of 86% and specificity of 78%, with a positive predictive value of 73%, with a cut off value 12/13 on the EPDS scale. However, they suggested that a threshold of 9/10 was more appropriate in a primary health care setting. Results from their tests was that false positive and false negative scores could be related to respondents being together with a family member, indicating that respondents exaggerate or minimize their problem when in presence of family(78).

The 10-item EPDS scale has also been validated for use in Norway, resulting in a sensitivity of 83% and specificity of 83% when used as screening with cut-off value of 11(79). In a review of validation of 10-item EPDS, it was found a sensitivity ranging from 65% to 100%, and a specificity ranging from 49% to 100%, with lower sensitivity and specificity when use of higher cut-off scores. Many of the validation studies have been applied in populations with an over representativeness of depressed women, giving an even lower positive predictive value when used in a general population as screening. Thus it is important to have a clinical verification of the diagnoses(80). In this research a cut-off score of 10 points were selected.

The use of the 10-item EPDS in a cross-cultural setting has been debated in literature. In an article from Australia it was looked into how EPDS performed in different languages and cultures. This was done to determine how different or similar respondent from a varied cultural and linguistically background responded to and interpreted the questions on the scale. It was found little evidence that the groups had responded differently on the scale. It is also emphasized in this article that even when differences occurs between cultural different groups, it can also be caused by for instance differences in administration of the scale, rather that cultural differences(81). Such differences could for instance be a result of the test being self-administrated or interview-administrated with or without interpreter, and with or without family present.

The Government of Western Australia, the Department of Health has published a resource with all translated versions of EPDS that are used in Australia. One part
presents the validated ones, and the other part only translated ones. The Somali version used in this research is taken from this resource (82) (appendix 5). Both the interpreter and supervisor of this thesis has looked into the translated version and compared it to the Norwegian version. The second response alternatives in question 7 have been changed, as the alternative did not cover the true meaning. Also this question lacked the second last response alternative, and the same wording as in the second last response alternative in question 3 was filled in. This response alternative is the same in the Norwegian version.

3.3.4 Dependent variables
The dependent variable EPDS score was categorized into binary and used in determining association with other categorical variables. Respondents scoring from 0 to 9 were defined as non-depressed, and respondents scoring from 10 and above were defined as a postpartum depressed respondent. When comparing the score in different groups the scale was used as a continuous variable (appendix 4 and 5).

3.3.5 Independent variables
Independent variables were demographic variables, socioeconomically variables, variables regarding pregnancy and delivery, mothers’ health status, various aspects of the baby’s state, perceived social support, history of mental health and recent life events. See attached questionnaire in appendix 4 for further details on formulation and structure of the questions.

3.4 Data analysis
IBM SPSS Statistics Data Editor version 20 was used for all data analysis in this research project. All data was described through descriptive analysis. Association between the dependent and independent variables was found using non-parametric Fisher’s Exact Test, related of the low sample size (83), and a not normally distributed sample with regard to EPDS score (figure 6, appendix 9). This test does not give any information about the power of the association, and thus only p-values will be stated.
Mann-Whitney U test was used to test for mean differences between two independent groups on a continuous measure, e.g. the EPDS scale. Kruskall-Wallis Test was used when comparing the mean score on a continuous scale for three or more groups. In this test it is the mean rank in each group that is compared between different groups (83). For the Kruskall Wallis Test, it was not possible to run a post hoc test in SPSS, to see where a possible significant difference occurred. To find this in SPSS, the Mann Whitney U was run for all combinations in the variable, and then the p-value was adjusted by dividing it by the of number of tests.

3.5 Ethical considerations

3.5.1 Researchers role and use of interpreter
All interviews were conducted by the researcher in person, and with the support of an interpreter when needed. The interpreter was a woman with Somali background, fluent in both Norwegian and Somali language. She was informed about respondent confidentiality, and signed a confidentiality contract before starting interpreting interviews.

3.5.2 Ethical clearance
Ethical recommendation was sought and given by the Regional Committees for Medical and Health Research Ethics (REC) South East (appendix 6). Changes in recruitment procedures, to use public health centres for pre-recruitment and to extend period of recruit were sought and recommended by REC during the recruitment period (appendix 6)

The privacy ombudsmen at the four hospitals gave ethical clearances to pre-recruit through the maternity wards (appendix 7).

Information about the results of the EPDS was provided to all respondents. Respondents scoring 10 points or more were strongly recommended to seek help from either her general practitioner or public health nurse. The respondent
then received a letter to bring to a health care provider of choice, explaining her score and the purpose of the study and some information about the EPDS-instrument (appendix 8). The aim was that the public health nurse or general practitioner would provide both necessary diagnosing and treatment.

All respondents received brief information about postpartum depression, and that it can occur at different times in the postpartum period. The researcher strongly recommended the respondents to make contact with their public health nurses or general practitioner if they later experienced feelings like the one asked for in the EPDS-scale.

3.5.3 Informed consent
All respondents were first informed about the study on phone before meeting. If they agreed to meet the respondent either read or heard the informed consent form read to her before signing. Verbally explanations and assurance about how confidentiality was kept, how the forms and questionnaires were stored, and voluntarily participation were always given.

3.5.4 Confidentiality
Respondents were informed and assured about confidentiality, both regarding identity and the content of the questionnaire.

When conducting the interviews emphasis was put on finding a place where the women felt safe to talk and answer the questions. Since some of the questions were of sensitive character, the location most often was in the woman’s home, but sometimes the respondent chose a café. Also the public health centres placed offices on disposal for conducting interviews.

3.5.5 Vulnerable population
New mothers with immigrant background can be defined as a vulnerable group in Norway(73, 84). This has consequences for the research project, as the potential respondents possibly had insufficient authority and control, education, or resources in making decisions to participate in research or not(73, 85). Migration and being an immigrant has been associated with an increased risk for
postpartum depression (46, 47, 55) and as no data on postpartum depression among Somali women has been found, it is an important issue to address. Both being in a vulnerable period of life and the possibility of having a mental illness apply to these women, in addition being minority migrants. But since the aim of the study is to find the prevalence of postpartum depression among these women, no other groups can be included. As stated by the Declaration of Helsinki;

“... research involving a disadvantaged or vulnerable population (...) is only justified if the research is responsive to the health needs and priorities of this population (...) and if there is a reasonable likelihood that this population (...) stands to benefit from the result of the research.” (84)

In practice this can probably be one of the reasons eligible women did not consent to be contacted by the researcher when approached at the maternity ward or at public health clinics. Another reason could be that the term postpartum depression “scared off” possible respondents because there might be a stigma attached to having a mental illness in the Somali community.

### 3.6 Data handling

All filled in questionnaires and signed informed consent letter was kept locked in a locker at UiO campus. The two were kept in separate envelopes in order to avoid possible linking between the questionnaire and signed consent letter.

One document exist linking respondents ID-number and name of the respondent. This document is only kept at secure place in UiO’s server, only accessible for the researcher. This document will be deleted from the UiO’s server 31st of December 2013.
4 Results
In this chapter data analysis of the results will be presented. First demographic and socioeconomic background characteristics are described followed by descriptive analysis of the sample with regard to other background variables. The main sections of the chapter will be the analysis done attempting to answer the research objectives and questions.

4.1.1 Socioeconomic and demographic characteristics of the sample
In table 2, background characteristics of the sample are presented, both continuous and categorical variables. Some additional information is presented in the text following the table.

Table 2 Baseline characteristics of the study sample, n=39

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD), range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of mothers (years)</td>
<td>28.3 (5.1), 19-45</td>
</tr>
<tr>
<td>Years lived in Norway</td>
<td>11.8 (6.91), 1-31</td>
</tr>
<tr>
<td>Number of children (n=63)</td>
<td>2.95 (1.8), 1-9</td>
</tr>
<tr>
<td>New born (n=40)</td>
<td></td>
</tr>
<tr>
<td>Age of new-born in weeks</td>
<td>10.05 (5.13), 6-26</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country of birth</td>
<td></td>
</tr>
<tr>
<td>Somalia</td>
<td>32 (82.1%)</td>
</tr>
<tr>
<td>Somaliland</td>
<td>4 (10.3%)</td>
</tr>
<tr>
<td>Norway</td>
<td>3 (7.7%)</td>
</tr>
<tr>
<td>Citizenship</td>
<td></td>
</tr>
<tr>
<td>Somali</td>
<td>10 (25.6%)</td>
</tr>
<tr>
<td>Norwegian</td>
<td>29 (74.4%)</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>30 (76.9%)</td>
</tr>
<tr>
<td>Divorced</td>
<td>1 (2.6%)</td>
</tr>
<tr>
<td>Single</td>
<td>8 (20.5%)</td>
</tr>
<tr>
<td>Cohabititing status</td>
<td></td>
</tr>
<tr>
<td>Cohabititing</td>
<td>23 (59%)</td>
</tr>
<tr>
<td>Single living</td>
<td>16 (41%)</td>
</tr>
<tr>
<td>Level of education</td>
<td></td>
</tr>
<tr>
<td>≤ 10 years</td>
<td>24 (61.6%)</td>
</tr>
<tr>
<td>11-13 years (collage, apprenticeship)</td>
<td>12 (30.7%)</td>
</tr>
<tr>
<td>≥ 14 years (university, university collage)</td>
<td>3 (7.7%)</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
</tr>
<tr>
<td>Yes, fulltime</td>
<td>8 (20.5%)</td>
</tr>
<tr>
<td>Yes, part time</td>
<td>6 (15.4%)</td>
</tr>
<tr>
<td>No, not relevant/housewife/unemployed</td>
<td>25 (64.1%)</td>
</tr>
<tr>
<td>Leave from work/course</td>
<td></td>
</tr>
<tr>
<td>Yes, paid leave</td>
<td>11 (28.2%)</td>
</tr>
</tbody>
</table>

3 Two babies (girl and boy) constituted a set of twins
Of the 30 married respondents, 7 were single living, of whom 5 had their husbands living abroad, 1 did not specify, and 1 lived another place in Norway.

Of 25 respondents not employed, 8 were studying, 10 were attending different courses, and 7 were housewives.

None of the respondents reported to be on sick leave or disability benefit. With regard to employment status of the husbands, 19 (48,7%) reported it to be fulltime or part time employed, 9 (23,1%) reported it to be unemployed, and 11 (28,2%) reported employment status to be not relevant. Of the 19 employed husbands, 5 did not cohabit with the respondent. With regard to attending courses or studying (e.g. introduction course or Norwegian course), 9 (23,1%) husbands were studying or attending courses.

4.1.2 Mother’s state of health, pregnancy and delivery related factors

Figure 2 shows the distribution in numbers of how the respondents rated their own health at the time of answering the questionnaire, and the majority reported to have either good or very good health.
On the question of having a chronic or acute disease, 8 (20.5%) reported to have it at the time of answering the questionnaire.

When asked about FGM, 31 (79.5%) of the respondents had experienced it, and 8 (20.5%) not. Regarding deinfibulation, 17 had been deinfibulated previous the last pregnancy, three during pregnancy, five during delivery, three were not deinfibulated and for three it was not relevant. The three not deinfibulated went all through caesarean section.

Two respondents reported that they had a history of mental illness, one ½ year ago and the other 4 years ago. Eight (20.5%) respondents reported to have had experienced periods of sadness without clear reason earlier in life, lasting for 2 weeks or more. Of these, 6 stated the time period of the experience; 3 that it was in relation to the last pregnancy, 2 after their previous child, and one when arriving in Norway.

The majority, 17 (43.6%) answered that the pregnancy was not planned, but that they were happy when they discovered the pregnancy. 13 (33.3%) had a planned and wanted pregnancy, and 9 (23.1%) did not plan to get pregnant, and did not have any plans to have more children.

In figure 3, mode of delivery in the sample is displayed.
Of all deliveries, 3 respondents experienced premature deliveries, of which 2 gave birth 3 weeks prior due date, and one had a 13 weeks premature baby.

Nineteen (48.7%) respondents stated that they gave birth without anaesthetic; 17 because they did not want it, 2 did want to, but did not get it. Reasons given were lack of sufficient time to get it, or availability of the preferred anaesthetic. Eleven (28.2%) got anaesthetic during delivery, 9 according to their own wish, and two contradicting their own wish. They were strongly recommended to use it by health care workers related to the delivery progress and time.

Figure 4 displays a description of how the respondents graded their delivery on a scale from good to traumatic/dramatic experience.
4.1.3 Baby related factors
Regarding breastfeeding, 26 (66.7%) reported to both breastfeed and give formula, 11 (28.2%) reported exclusive breastfeeding and 2 (5.1%) did not breastfeed; of whom 1 had a six-week-old baby and the other a 26-week-old baby.

In table 3 factors relating to the new baby is listed, and the majority of the respondents reported their babies to have good health and that they had good quality in the contact.

Table 3 Baby’s health as assessed by mother n = 39

<table>
<thead>
<tr>
<th>Variable</th>
<th>n  (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep routines</td>
<td></td>
</tr>
<tr>
<td>Very good/good</td>
<td>34 (87.2%)</td>
</tr>
<tr>
<td>Medium/poor</td>
<td>5 (12.8%)</td>
</tr>
<tr>
<td>Quality of contact</td>
<td></td>
</tr>
<tr>
<td>Very good/good</td>
<td>38 (97.4%)</td>
</tr>
<tr>
<td>Medium/poor</td>
<td>1 (2.6%)</td>
</tr>
<tr>
<td>Health of baby</td>
<td></td>
</tr>
<tr>
<td>Very good/good</td>
<td>38 (97.4%)</td>
</tr>
<tr>
<td>Medium/poor</td>
<td>1 (2.6%)</td>
</tr>
<tr>
<td>Crying</td>
<td></td>
</tr>
<tr>
<td>When hungry/thirsty/wet diaper</td>
<td>33 (84.6%)</td>
</tr>
<tr>
<td>Very little</td>
<td>2 (5.1%)</td>
</tr>
<tr>
<td>Cries often, but easily comforted</td>
<td>4 (10.3%)</td>
</tr>
</tbody>
</table>
4.1.4 Social support
Table 4 shows how the respondents assess the social support they receive from their husbands, friends, families and health care workers (HCW).

Table 4 Social support from husband, friends, family, and HCW, n=39

<table>
<thead>
<tr>
<th>Variable</th>
<th>Very good/good n (%)</th>
<th>Medium/poor/not relevant n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social support husband</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housework</td>
<td>23 (59%)</td>
<td>16 (41%)</td>
</tr>
<tr>
<td>Psychological support</td>
<td>28 (71,8%)</td>
<td>11 (28,2)</td>
</tr>
<tr>
<td>Taking care of older children</td>
<td>20 (51,3)</td>
<td>19 (48,7)</td>
</tr>
<tr>
<td>Taking care of baby</td>
<td>21 (53,8%)</td>
<td>18 (46,2%)</td>
</tr>
<tr>
<td>Social support friends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housework etc.</td>
<td>21 (53,8%)</td>
<td>18 (46,2%)</td>
</tr>
<tr>
<td>Psychological support</td>
<td>33 (84,6%)</td>
<td>6 (15,4%)</td>
</tr>
<tr>
<td>Taking care of older children</td>
<td>16 (41%)</td>
<td>23 (59%)</td>
</tr>
<tr>
<td>Taking care of baby</td>
<td>16 (41%)</td>
<td>23 (59%)</td>
</tr>
<tr>
<td>Social support family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housework etc.</td>
<td>19 (48,7%)</td>
<td>20 (51,3%)</td>
</tr>
<tr>
<td>Psychological support</td>
<td>27 (69,2%)</td>
<td>12 (30,8%)</td>
</tr>
<tr>
<td>Taking care of older children</td>
<td>10 (25,6%)</td>
<td>29 (74,4%)</td>
</tr>
<tr>
<td>Taking care of baby</td>
<td>18 (46,2%)</td>
<td>21 (53,8%)</td>
</tr>
<tr>
<td>Social support HCW</td>
<td>34 (87,2%)</td>
<td>5 (12,8%)</td>
</tr>
</tbody>
</table>

Of importance is to note that the majority of the respondents stated to receive very good/good psychological support from family, friends and husband. Also support received from HCW was by the majority considered to be very good/good.
4.2 Prevalence of postpartum depression and associated factors

4.2.1 Prevalence of postpartum depression among Somali women in Greater Oslo Region

Of the sample (n=39) included in this research 3 (7.7%) scored 10 or above in the EPDS scale, and were thus screened to have a possible PPD. The EPDS score in the sample ranged from 0 to 12, with mean score of 2.97 (SD 3.31).

In the three women assessed to have a possible PPD, one was born in Norway, one in Somalia and one in Somaliland. All had lived in Norway for more than 11 years. Their ages ranged from 26 to 32, with a mean age of 29.67 (SD 3.21) years. All three had delivered a baby boy. Two were married, and one was single. Of the two married, one was cohabiting with her husband, and the other was single living, her husband living abroad. Two answered the questionnaire in Norwegian, and one used an interpreter. Two had 10 years or less of school, and one had more than four years of university education.

In the further analysis for associations, it is important to bear in mind that only three of the respondents were assessed to have a possible PPD. The small sample size and the few cases of possible PPD weaken the power of any further statistical analysis. Despite this, a statistical analysis for association between PPD and the included factors was carried out. As a result, any statistical significant association or the absence of a statistical significant association found in the following analysis will coincide.

4.2.2 Associations between background factors and postpartum depression

Is there any association between demographic factors and postpartum depression?
No statistical significant associations between demographic factors and PPD were found. Table 6 in appendix 9 lists associations between demographic factors and PPD.
However, when running analysis for differences, a significant difference between the scores in EPDS of the ones born in Somalia or Somaliland (n=36), and Norway (n=3) was found, \( p=0.015 \). Mean score of EPDS in the group of respondents born in Somalia/Somaliland was 2.53 (SD 2.95, range 0-12), and in the group born in Norway mean was 8.33 (SD 3.06, range 5-11).

With regard to difference between the arrival status groups, range and mean (SD) values for EPDS, age, years lived in Norway, number of children, and age of baby, are presented in table 7 in appendix 9.

Table 5 displays the range and mean (SD) of age, years lived in Norway, number of children, and age of the baby, among those assessed have a possible PPD and those not.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Non-PPD n=36</th>
<th>PPD n=3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Range</strong></td>
<td><strong>Mean (SD)</strong></td>
<td><strong>Range</strong></td>
</tr>
<tr>
<td>Age</td>
<td>19-45 years</td>
<td>28.19 (5.23)</td>
</tr>
<tr>
<td>Years lived in Norway</td>
<td>1-24 years</td>
<td>11.15 (6.37)</td>
</tr>
<tr>
<td>Number of children</td>
<td>1-9 children</td>
<td>3.06 (1.82)</td>
</tr>
<tr>
<td>Age of baby in weeks</td>
<td>6-26 weeks</td>
<td>10.17 (5.28)</td>
</tr>
</tbody>
</table>

It seems that respondents with PPD have different status with regard to for instance number of children and years lived in Norway, compared to non-PPD respondents. However, these differences are not statistical significant (table 8, appendix 9).

Conclusively, no statistical significant association between any background variables and PPD was found in the studied sample.
Is there any association between socioeconomic factors and postpartum depression?
When running association analysis between socioeconomic variables and PPD, only one statistical significant association was found, between type of studies and PPD (p=0.033). This variable describes the type of study respondents studying are attending. All association analysis done is displayed in table 9 in appendix 9. This statistical significant association was not further explored, related to the low sample size.

Is there any association between the mother’s state of health and postpartum depression?
In appendix 9, table 10 displays association analysis between mother’s state of health and PPD.

The only statistical significant association found between self rated health and PPD (p=0.009). No statistical significant difference between the ranks of EPDS score was found (p=0.056) in the different answer groups (very good/good/medium/poor). Mean rank was highest when health was rated to be poor.

Figure 5 describes self-rated health among those screened to have a possible PPD and those not.

![Figure 5 Self-rated health in depressed and non-depressed, in numbers, n=39](image-url)
None of those screened to have a possible PPD assessed them selves to have very good health, and none of the non-depressed rated them selves to have poor health. Even though no other statistical results emerged in this analysis, this might reflect the low sample size more than a true picture of the associations between mother’s health and PPD.

**Is there any association between factors related to pregnancy and delivery, and postpartum depression?**

Association analysis between pregnancy and delivery related factors and PPD are displayed in table 11, appendix 9.

The analysis revealed a statistical significant association between PPD and to have received technical assistance or not during a vaginal delivery (p= 0.006). When running analysis for difference, a statistical significant difference in EPDS-score in the two groups was also found (p=0.004), those having received technical assistance having the highest mean rank.

Statistical significant results also emerged when analysing for associations between EPDS and type of assistance (p <0.01). To investigate this further, analysis was run on EPDS score and type of assistance, giving a statistical significant difference in the mean rank of scores in the groups (p=0.021), bearing in mind the number experiencing these procedures, n=8.

Additional analyses revealed that those having been assisted with vacuum (n=2) during delivery had a statistical significant difference in mean rank of EPDS score compared to those assisted with forceps (n=2) (p=0.037), contracting stimulating drip (n=4) (p=0.008), and to those not receiving any assistance/experiencing caesarean section (n=31) (p=0.003). Statistical significant difference was also found between those not receiving any assistance/experiencing caesarean section and those assisted with contracting stimulating medication (p=0.008).

**Is there any association between factors related to the new baby and postpartum depression?**
The results from the association analysis between factors relating to the new baby and PPD are described in table 12, appendix 9.

Only sleep routines of the baby emerged to be statistical significant associated with PPD \( (p=0,027) \). Analysis did not reveal statistical significant difference in the score in the sleep routine groups \( (p=0,366) \).

**Is there any association between social support from spouse, family, friends or health care personal and postpartum depression?**
In appendix 9, table 13 displays the association analysis conducted on social support and PPD.

No statistical significant p-values were found when analysing the different social support variables and PPD. Further investigation into differences between the groups did not reveal any statistical significant values.

**Is there any association between earlier history of mental illness and postpartum depression?**
In table 14 in appendix 9, association between histories of mental health, recent life events and PPD are presented.

Earlier history of mental illness \( (n=2) \) was found to be statistical significant associated with PPD \( (p=0,004) \).

Even if periods of sadness \( (n=8) \) was not associated with PPD, when looking for difference in EPDS score in those having experienced periods of sadness earlier and those not experiencing this, analyses found a statistical significant difference \( (p=0,002) \). Mean score of EPDS among those having experienced periods of sadness was 5,88 \( (SD 3,68) \), and among those not having experienced this mean was 2,23 \( (SD 2,81) \).

Recent life event as a total was not associated with PPD. However, when analysing each item alone (table 15, appendix 9), experienced economical problem last 12 months was statistical significant associated with PPD \( (p=0,018) \).
When analysing for difference between the depressed and non-depressed in relation to score of recent life events, statistical significant results emerged (p=0.034), mean rank suggesting that those scoring 10 or more on EPDS had higher scores in recent life events.

No statistical significant difference in mean rank in EPDS score was found between those experiencing economical problems and those not.

These results reflect the low sample size in this study, but interpreted with caution, perhaps reveals some new knowledge regarding PPD among Somali women in Norway.
5 Discussion

The aim of this study was to assess the prevalence of postpartum depression, and its associated risk factors among Somali women in Greater Oslo Region. The results are based on the analysis of data retrieved from 39 respondents, recruited from November 2012 until March 2013. The low sample size makes the results in this study more of an exploratory character. Despite this, the results will be discussed in relation to relevant literature.

A prevalence of 7.7% of postpartum depression (PPD) was found in the collected data, were three respondents was screened to have a possible PPD. Of all factors analysed for association, statistical significant associations was found with type of studies, self rated health, assistance during delivery, type of assistance, the sleep routine of the baby, previous history of mental illness, experienced economical problems last 12 months, and as assessed by the respondent. In addition, social support will be briefly discussed, related to the earlier established association to PPD.

This discussion chapter will be divided into two sections. Firstly the results will be discussed, and in the second part, methodological limitations and strengths will be discussed.

5.1 Postpartum depression and associated factors

5.1.1 Prevalence
The prevalence found in the current study is low compared to most other studies in the field of postpartum depression among immigrant women. A similar low rate of 7.6% was found in the only other study on PPD conducted among an immigrant population (Pakistani) in Norway. In this study the author reported that a possible information bias occurred related to the fact that family members were used as interpreters, and husbands were present in more than 70% of the interviews(45).
However, in other Western countries rates varies greatly, as well as methodology, sample size, inclusion and exclusion criteria. Other studies have found marked higher rates of PPD among immigrant women. From Canada, three different studies found rates of 37,7%(49), 24,7%(48), and in the last differing between immigrants (35,1%), asylum seekers (31,1%), and refugees (25,7%) (47). Two excluded those not able to answer in majority languages(48, 49), and one had translated the questionnaire to 13 different languages(47). A rate of 33% of PPD was found among minority, and low-income women in USA, also excluding those not able to answer in other languages than English or Spanish(50).

The low rate found in this study can be linked to the low sample size. However, it is interesting to note that those being born in Norway scored significantly higher on the EPDS than those born in Somalia or Somaliland. This might be viewed as an example of the presence of the immigrant paradox, were newly immigration is linked to a better health outcome than the majority population, and an example of the acculturation paradox, were longer residency in a country is linked to poorer health outcome than the general population. This is described in the article comparing health outcomes in immigrant groups based on duration of residency in Canada. In this research most of the outcomes followed the pattern of the immigrant paradox. However, with regard to PPD, it was found a marked difference in the prevalence between recent immigrants with <10 years of residency (14,2%), and to long-term immigrants with 10 years or more of residency (9,4%). In this study those arriving before 10 years of age had a prevalence of 10,3%(41). These findings suggest that immigrant mothers actual had a higher risk for PPD compared to the general population, thus contradicting the theory of the immigrant paradox.

In addition to the immigrant paradox, to explain the difference in mean score of EPDS between those born in Norway and those born in Somalia/Somaliland in the present study, the discussion of how relevant the EPDS scale is in a cross-cultural sample might be useful, as well as the concept of a postpartum depression in a cross-cultural setting.
As already described in the literature review, a discussion of how the EPDS performs in a cross-cultural sample has been prevalent in the literature. The EPDS scale was cross-culturally validated in a sample of Vietnamese, Turkish, and Filipino immigrants in Australia (81). However, a review on PPD and cross-cultural and social diversity problematizes methodological factors like the assumption that when translating a scale like EPDS, respondents in the new language comprehend the psychological meaning of the questions in the same way. Also difference in cultural expressions of depression is discussed as a possible weak point in the use of EPDS in a cross-cultural setting (65).

Three different explanations for the increased rates of PPD seen in many studies on immigrant women has been suggested; sociocultural differences in the meaning of motherhood, a difficult economic situation for new immigrants, and consequences of migration, especially pre-migration stress (48). All of these three reasons could be used as valid arguments for expecting a higher rate of PPD in the current sample, than did occur.

The retrieved rate of PPD possibly does not reflect the true rate in the population of interest, related to low sample size, but perhaps also the above-mentioned argumentation.

5.1.2 Type of studies
The variable type of studies in association to PPD reached a statistical significant association in this sample. This reflects probably the fact that of those scoring 10 or more in the EPDS, two studied, and one did not study, in a sample with few studying. Review of other research articles has not revealed any similar results, and any discussion will be based on pure theoretic reflections on the association.

To be a new mother and continue to study might be regarded as a stress factor in general. However, to be a Somali women taking higher education while having small babies, is perhaps imposing an extra stress factor, when coming from a culture were being a mother is perceived as the meaningful thing to do in itself.
Conclusively, this statistical association must be interpreted as an exploratory one, as the power in the sample is too weak to say anything further on the topic, and no similar or contradicting results have been found.

5.1.3 Self-rated health
Self-rated health was significant associated with PPD in the current study. This is contradicting the results from Canada, were no association between self-rated health and PPD was found among immigrant women(48). The small sample in the current study is probably reflected in the result. However, another study established a connection between somatic complaints and PPD in postpartum immigrant women, both with regard to general health perception, bodily pain, physical functioning(49), thus supportive of the current result. Also, in a cross-sectional study among the general population in Norway, a statistical significant higher crude odds ratio for PPD among those having a somatic disease was found(39).

So an association between self-rated health and PPD might be viewed as a plausible result, perhaps reflecting an existing link.

5.1.4 Technical assistance during delivery
To receive technical assistance (vacuum, forceps, or contracting stimulating medication) during delivery was in this study statistical significant associated with PPD. Investigation of the difference between the different modes of assistance, revealed that those assisted with vacuum was significant different to those assisted by forceps or contracting stimulating medication.

No research on association between technical assistance and PPD has been retrieved. However, research done among Somali women in Norway on perinatal complications, found that Somali women experience more operative vaginal delivery and induction of labour, as well as caesarean section compared to the general population(16). Qualitative research on perinatal experiences among Somali women in Norway revealed that the respondents feared caesarean
sections, and experienced lack of information about, among other things, different delivery procedures\(^{(28)}\).

Perinatal information was not examined in the current study, but the association might indicate that the experience of operative vaginal delivery affect maternal mental health in the postpartum period. This in turn might be related to a possible lack of quality communication and information both during pregnancy and delivery. Poor communication and its consequences have been described in several qualitative researches among Somali women in Western countries\(^{(17, 18, 20)}\).

**5.1.5 Sleep routines of the baby**
How the respondents assessed their baby’s sleep routines was statistical associated with PPD in this study.

Related to the methodology used in this research, the causal connection in this association cannot be established. However, in a longitudinal study in a low-income and minority population, it was found that PPD at five months postpartum statistical significant predicted problematic infant sleep at 9 months postpartum\(^{(50)}\). Also two reviews on postpartum depression have identified child-care stress as an important factor in relation to PPD. One found that child-care stress and infant temperament were predictive factors for PPD\(^{(53)}\), and the other found that child-care stress was a risk factor for PPD\(^{(54)}\).

**5.1.6 Social support**
The role of social support in relation to PPD will be discussed here, even though no association between social support and PPD was found in the current study. Lack of social support has been established as a risk factor for PPD in multiple studies\(^{46-48}\), and reviews\(^{1, 42, 52, 53, 55}\).

Among the both the general population and Pakistani women in Norway, poor attachment to partner was found to be a risk factor for PPD\(^{39, 45}\). This might be linked to low social support from partner. Availability of support was
significantly associated with major depression in a Canadian cross-sectional study(36).

Social support has been found to be protective for PPD, compensating for financial hardship in a low-income sample from USA(37), supporting the lack of association found in the current study, were high level of social support was reported by the respondents.

When analysing for associations between social support and PPD, the opposite than statistical significant results emerged; the p-value for some of the variables reached p=1,000, expressing no association found. Taking into consideration that the questions asked in the current study was developed for this study only, and no standardized scale was used, might be some of the explanation. But it can also be argued that the recruiting probably did not catch those with low level of social support, and that lack of social support was not an issue for respondents in this sample.

Further on, the respondents is of same ethnic background, and all lives in Greater Oslo Region, were most of Somalis live in Norway. Thus, the network might be of stronger character than if the group lived more dispersed. Also, being a relatively recently immigrated group, it can be theorised that stronger network exist; that people of same ethnic origin seek together in a new country, providing quality support to each other in transition times of life.

But based on the low sample size as well as the lack of use of a standardized social support scale, it is not possible to conclude whether or not lack of social support is linked to the prevalence PPD among Somali women in Norway.

5.1.7 Mental health
History of mental illness has been established as an association to, and a risk factor for PPD in several studies(31, 36, 37, 45, 49) and reviews(1, 51-55). Also in this study a statistical significant association emerged between PPD and history of mental illness.
In the current sample, the rate of PPD found is thus not surprising when investigating the incidence of earlier history of mental illness. Two persons in the sample had a history of mental illness (depression), and both of them scored 10 or more in the EPDS, screened to have a possible PPD.

5.1.8 Recent life events - economical problems
The association found between PPD and experienced economical problems last 12 months, as perceived by respondents, are supported by two studies from USA, finding that low SES was a predictor for PPD (37, 40).

In the current study, a statistical difference between score of recent life events and being screened to have a possible PPD or not, was found, reflecting that scoring higher in recent life events is associated with presence of PPD. All three respondents screened to have a PPD had experienced economical problems last 12 months. In Norway, both among Pakistani women and the general population, recent life events was found to be associated PPD (39, 45). However, none of the studies specified any further which of the events created the association.

Thus the current results are indicating a possible tendency that recent life events including economical problems are relevant factors in association with PPD.

5.2 Limitation and strengths of methodology
In the next sections, the methodology of this project will be discussed thoroughly.

The current study was a cross-sectional study, using an interview-administrated methodology to answer the questionnaires. As already described in the methodology chapter, cross-sectional method can only reveal associations, no causative links. The following sections will provide a discussion of the methodological weaknesses and strengths in the research done, as displayed through a comprehensive review of validity and reliability of the research. In the last sections specific challenges and limitations associated with recruiting and accomplishment of the project are discussed.
5.2.1 Reliability
Reliability is the consistency of the information obtained through data collection\textsuperscript{(70)}. To have reliable data means that reproduction of the research using the same method under varying conditions will give the same result.

**Systematic variations**/errors can be explained as unreliable results coming from using different instruments (different translations) and different interpreters and/or fieldworkers\textsuperscript{(70)}. To reduce systematic variations all interviews were conducted by the same researcher and when needed, the same interpreter. A Norwegian version of the questionnaire was used, translated verbatim one question at the time. The EPDS-scale exists in a Somali translation version, but it is not validated, as described in the literature methodology chapter.

**Observer variations** were sought reduced by asking the same questions to all respondents, and by using a standard questionnaire. However, in addition to translation when needed, questions often needed to be rephrased or central concepts explained, so that the respondent understood the meaning. This was especially true when the Somali version of EPDS was used. This is a possible source for observer variation, and reduced reliability. One word was repeatedly brought up, as a concept many of the respondents did not understand independent of the version of EPDS used was Somali or Norwegian. The concept was to blame herself. It seemed like this concept was an unknown one for many of the respondents.

Two pre-tests were not enough to uncover this, and are therefore considered a weakness with the questionnaire. However, to be able to include respondents not speaking Norwegian, this method was thought to be the best, taking into consideration an unknown rate of illiteracy in the sample. Further on, all interviews were conducted by the same person, as well as with the same
interpreter, so that the explanations provided were given, as far as possible, in the same way.

5.2.2 Internal validity

Any results obtained through epidemiological studies needs to be assessed in terms of their internal and external validity. Internal validity is the consideration about the possible effect of randomization in sampling, variations and bias. Is it possible to draw any sound conclusion relating to the study population(70)?

As earlier described, no randomization in sampling was done in order to be able to include as many as possible. All respondents are representative for the chosen population (postpartum women of Somali background), but total sample might not be representative for all postpartum women of Somali background living in Greater Oslo Region. That all maternity wards agreed to pre recruit for the project must be regarded strength for the study, even when considering the fact that an unknown number of eligible women were not asked.

A selection bias is here introduced by the nonprobability sampling method, as well as the loss of subjects that should have been included. This loss comes from sample bias of nonresponse and non-consent, where eligible women were not included because they were not asked or they did not consent when asked.

This selection bias reduces the possibility to generalize the findings to the total population of postpartum women of Somali background, and thus also reduce external validity(70), defined as to what extent the results can be generalized (see 5.2.3). Selection bias might also occur when the reason for not participating is that the possible respondent is depressed or in risk of being depressed at the time of contact. However, also including respondent not speaking Norwegian compensate for some of the selection bias introduced, by recruiting a more representative sample.
Missing data bias did not occur related to the form of the data collection using interview-administrated questionnaire, preventing unanswered questions.

All differences found regarding for instance underrepresentation might help in interpretation of data. Nonresponse bias can be handled by trying to retrieve as much information as possible about the non-responders(70). In the current study it was not possible to extract demographic or any other data about the non-responders. This would have provided information about the representativeness of the sample, and thus have compensated for the selection bias and nonresponse bias. To collect such data of non-responders require access to registers that need to be crosschecked, a task not accessible for a master’s student, related to lack of resources and time. Further on, in hospital records ethnicity or country of origin is not noted, only citizenship, thus this register would have to be crosschecked with a register where country of birth is noted. However, when born in Norway, but still regarding her self of Somali background, it would not have been detected using this method either. Conclusively, it can be stated that it is not possible to know in which matter the included sample differ from the non-responders in this study, except known statistics about the group as a whole (see 2.1.1).

**Information bias** relates to systematic errors in collecting, coding or processing data(70). Some interviewer bias might occur related to differences in conducting the interviews, some with interpreter present and some with only researcher present. Response bias might also be present, in the form that respondents choose answer alternatives that she thought would either please the researcher, or give a picture of their situation, adjusted in a direction of their own will. However, that the same researcher performed all the interviews, using the same interpreter when needed reduced this information bias. The interpreter knew the project and the questions, and thus served to be an informant between the researcher and the respondent. It should also be noted that no interviews were conducted with a husband’s present, and on few occasions a friend or relative was present. The respondent was always informed about the privacy of the
questions, and sometimes she selected to keep the friend or relative with her despite this.

As described earlier as observer variation, the use of interpreter also introduced some weaknesses. Rephrasing and explaining central concepts and words to respondents reduced the standardization of the questionnaire, thus leading to possible information bias.

The questionnaire used in this research was as earlier described, self-made based on literature, with the expectation of the EPDS. Limitations of the questionnaire were revealed during interviews, and the following sections will focus upon some limitations linked to specific questions.

Three of the questions were not mutual exclusive, marital status, crying of the baby, and employment status of the husband.

Under marital status it was possible to tick off for being married, single, divorced, or widow. During the data collection period it became clear that a respondent could define her self as being single, but still be divorced. In these cases how the respondent defined her self was used as the right answer. Also crying of the baby had answers options not mutual exclusive, since a baby crying when thirsty could be easily comforted also, as is asked for in the next option. This question should have been rephrased after a more thorough pretesting. The last question not mutual exclusive was that of employment status, studying or attending courses of the husbands. However, answers from this question were treated as three different variables in analysis.

Also, some of the questions were phrased unclear. The question on which country the respondent grew up was one, based on a subjective definition from the respondent, and in analysis, this variable was not included, only years lived in Norway. Further on, the question on which language they spoke at home was not structured to intercept various degree of how much the different languages was used at home. It should have been restructured and rephrased.
However, since all interviews were conducted face to face, the researcher had the opportunity to explain and ask the questions in the same way to all respondents. When analysing, the questions were divided into different variables, to catch up variance in the answer.

Social support was screened using a self-developed scale, not a validated one from the literature. Even though the questions were based on focus areas from research, it has to be acknowledged that these questions probably did not catch up how the perceived level of social support were among the respondents, and thus might partially explain why no association was found between PPD and social support in this study, in addition to the fact that the low sample size do not reveal a true picture of any of the associations.

Prevalence of PPD has been found to be greater in studies with self-report, as compared to interview-based studies. Reporting biases and differences in the way women from different cultures respond to self-report questionnaires in general might explain some of this. Other explanations might be that respondents over or underestimate according to beliefs, culture, perceptions, context and stigma of mental health in culture(65). In this sample, it was found a significant difference in the score of EPDS between those born in Norway and those born in Somalia or Somaliland. This might reflect a difference in the understanding of the questions, but perhaps also a different expectation among the respondents, on how the postpartum period should be experienced.

However, in the literature found on PPD among immigrants in Western countries, most have chosen a methodology either using interview-administrated questionnaires(45-48, 50), phone interviews(36, 41), or self report(38, 39), or self report with researcher present(49). When taking this into consideration looking at the varied rates of prevalence found, it seems like the previous finding of higher rates among those self-reporting does not apply to these studies.
**Confounding bias** can be described as the bias resulting from factors that are associated with both the explanatory variable(s) and the outcome variable, which needs to be controlled for. The current sample size and few cases of possible PPD out ruled the possibility of controlling for confounding factors.

### 5.2.3 External validity

External validity refers to the ability to generalize the findings to a broader population\(^{(70)}\). The sample size makes it difficult to give any picture of the representativeness of the sample, as compared to the known statistics on Somali population in Norway. However, it can be stated that the sample represents a great variety of Somali women, including women with low and high level of education, varied marital and cohabiting status, some fluent in Norwegian and some not speaking any Norwegian at all. Also number of children and employment status varied greatly. Thus, the sample displays a broad spectre of Somali women in Oslo.

This is a sample of a limited group within the Somali community, and no other research within the area exists according to this researchers knowledge, might leave the results will be of interest from a hypothesis-developing angle.

### 5.2.4 Limitations and strengths of the study

The planning of a cross-sectional research project like the one completed requires accurate and comprehensive planning and accomplishment. Some of the limitations regarding of recruiting eligible women originate from the challenges in establishing contact and develop agreement with the maternity wards and later public health centres. All four maternity wards in the region agreed to be a part of the study. However, some differences in how the wards managed to implement the pre recruiting procedure resulted in quite big discrepancy in the number of eligible women asked to consent to be contacted by the researcher. A limitation is also the fact that only three public health centres agreed to participate in pre recruiting, and of those, only one centre recruited more than one eligible woman.
The high fertility rate of Somali women reported was one of the factors made the researcher to believe it could be possible to recruit enough according to sample size calculation. However, the fertility rate of 4.4 documented by Statistic Norway is from 2004(12), and thus changes might possible have occurred. Data from 2010 and 2011 from Oslo shows a small decline in number of children born of Somali parent, from 405 in 2010 to 399 in 2011(ref: received on email from Oslo statestikken). The number from 2012 is not published at time of writing. It is possible to believe that there are fewer eligible women to ask, than anticipated.

Time constraints, as well as lack of access to inform and train, made the researcher to realize that it was not possible for midwives and public health nurses to do the whole recruiting process including the informed consent procedure. Thus pre recruiting was perceived as an adequate method to use. However, this procedure also had some limitations tied to it, linked to barriers in communication and culture, as well as practical barriers.

Practical barriers resulted in loss of possible respondents, because eligible women were not asked at hospital or public health centre, or they did not get enough information to be able to consent to be contacted. This might be related to the project not being well enough anchored in the wards and centres, which resulted in no control of the given information, both to whom, and the way the question were asked. However, it should be noted that some declined to be contacted because they did not want to participate in the research.

Researcher’s first contact with the possible respondent was on phone call, and if the women were not fluent in Norwegian, the interpreter was engaged. The use of interpreter was challenging in this setting, since all communication had to be done by her, and verbatim translation was not practical applicable when using a phone. This reduced the possibility for intercepting doubt and implicit questions. When it was noted no need for interpreter the researcher made the contact her self.
Cultural barriers were linked to a possible different understanding of what it meant to participate in research, what kind of information was sought to find, and how it could be used. Further on, the advantages and disadvantages of participation, and the meaning of confidentiality and anonymity, and then later to have to sign an informed consent form could be linked to cultural as well as communication barriers. To communicate clearly and inform the eligible woman properly was more challenging than expected, especially through an interpreter.

Also, to establish contact and trust with the respondent through an interpreter was more difficult than when operating without her. The use of an interpreter might alter nuances in what is said, and conceivably constitute an obstacle to obtain truthful responses as the respondents might limit their answers, fearing disclosure, especially in a minority community, despite being informed about anonymity and confidentiality.

5.3 Conclusion
In this study a low prevalence of PPD was found among the respondents, and some of the associations found confirmed earlier findings, and some associations were of a new character. However, the results should be judged with caution, related to the low sample size, and thus not enough strength to the associations.

Despite this, some new knowledge on Somali postpartum women has been revealed, as displayed in the exploratory results. These results can be used to create new hypotheses for future research.

Also, the steep learning curve regarding recruitment and conducting research has given this researcher invaluable experiences and knowledge, in addition to uncover some of the obstacles found and steps needed to be taken in order to do this kind of research among Somali postpartum women in Norway.

5.4 Recommendations and implications
This study has implication for both practise and future areas of research.
The results of this study should be interpreted with caution related to the low sample size. However, some of the significant associations found in the statistical analysis might illuminate areas for attention in health care service of postpartum Somali women, identifying those possibly vulnerable for developing PPD. From the results of this research especially earlier history of mental illness, experience of operative deliveries, economical situation, and self-rated health, in addition to earlier known risk factors like lack of social support need to be brought into focus.

With regard to future research, it should focus on further investigations on PPD among Somali women in Norway. Through this a validation of the EPDS in Somali could be done. Both prevalence and risk factors is of interest and importance to examine closer in a more representative sample, as well as to do qualitative research on perceptions and postpartum traditions in transition. The meaning and expectation of social support in a Norwegian setting might also be a useful focus for investigation. To compare this with the situation in Somalia and/or Somaliland both with regard to prevalence, risk factor, and qualitative research would reveal new knowledge that would provide the health care system in Norway with tools to meet Somali women in the vulnerable postpartum period.
6 References


Appendix 1 – Pre recruitment notes

Kontaktdata til mulig deltaker i spørreundersøkelse om barseldepresjon blant kvinner med somalisk bakgrunn

Navn: .....................................................

Telefonnummer: ...........................................

Dato for fødsel: ...........................................

Behov for tolk: Ja Nei

Kontaktdata til prosjektleder

Astrid Løvlie, masterstudent i Internasjonal Samfunnshelse, Universitetet i Oslo

Telefonnummer: 40 87 93 68

Jeg vil ta kontakt med deg ca fem uker etter at du har født for å spørre om du er interessert i å delta i en spørreundersøkelse om hvordan somaliske kvinner i Norge har det etter fødselen og i barseltiden. Ikke nøl med å ta kontakt dersom du har spørsmål før jeg ringer deg.
Macluumaadka looga baahanyey qofka ka qeybqaadanaya cilmi-baadhista ku saabsan iskubuuqa dhalmadu keento ee dumarka soomaaliyeed

Magaca: ..............................................................

Lambarka telifoonka: ..............................................

Taariikhda la dhalayo: ..............................................

U baahan turjumaan: Haa...... Maya.....

Macluumaadka hogaamiyeha mashruuca

Astrid Løvlie, waxey master ka dhigataa Internasjonal Samfunnshelse, ee jaamacada Oslo.

Lambarka telifoonka: 40 87 93 68

Waxaan kula soo xidhiidhi doonaa shan todobaad (fem uker) kadib marka aad umusho, si aan ku weydiyo inaad rabto inaad ka qeybqaadato cilmi-baadhistan ku saabsan sida ey tahey xaalada dumarka soomaaliyeed dhalista kadib iyo inta umusha la yahey. Haddii aad wax su’aal ah qabto waad ila soo hadli kartaa waqti kasta.
Appendix 2 – Informed consent

Forespørsel om deltakelse i forskningsprosjekt

_Hvordan har somaliske kvinner det etter fødsel?_

_Bakgrunn og hensikt_
Dette er et spørsmål til deg om å delta i en forskningsstudie for å undersøke hvor mange somaliske kvinner opplever barseldepresjon etter fødsel og hvordan de opplever fødselen og hvordan de har det psykisk og fysisk etterpå. Studien trenger kvinner med somalisk bakgrunn som har født barn for mellom 6 uker og 6 måneder siden. I denne forbindelse er det du blir kontaktet og spurt om du vil delta. Studien gjennomføres av Astrid Løvlie, som er mastergradsstudent ved Universitetet i Oslo. Veileder er Ahmed Madar, forsker i epidemiologi ved Universitetet i Oslo.

_Hva innebærer studien?_
Deltakelse innebærer at du svarer på et spørreskjema som forskeren går gjennom med deg. Spørsmålene dreier seg både om bakgrunnsinformasjon om deg og ditt barn, i tillegg til spørsmål om hvordan du har det og har hatt det siste 7 dager.

Dersom resultatet på spørreskjemaet viser at du har det vanskelig og muligens har en barseldepresjon, vil du bli oppfordret til å ta kontakt med fastlege eller helsesøster og får med deg et brev til ham/henne med informasjon om resultatet på den delen av spørreskjemaet som omhandler barseldepresjonen.

Dersom du ikke ønsker delta i denne studien får det ingen negative konsekvenser for deg.

_Mulige fordeler og ulemper_
Deltakelse i denne studien vil kunne gi deg fordelen ved å bli screenet for barseldepresjon og samtidig være med på å finne ut hvor stort problem dette er blant kvinner med somalisk bakgrunn i Norge. Ved å ha kunnskap om dette kan helsemyndighetene rette spesielle tiltak mot somaliske kvinner dersom det viser seg at barseldepresjon er et problem blant dem.

Ulemper ved å delta i denne studien er at det krever at du setter av ca 1 time til å fylle ut spørreskjema sammen med forskeren. Spørreskjemaet inneholder også spørsmål som kan oppleves som sensitive for deg å svare på.

_Hva skjer med informasjonen om deg?_
Informasjonen som registreres om deg skal kun brukes slik som beskrevet i hensikten med studien. Alle opplysningene vil bli behandlet uten navn og fødselsnummer eller andre direkte gjenkjennende opplysninger. En kode knytter deg til dine opplysninger gjennom en navneliste.

Det vil ikke være mulig å identifisere deg i resultatene av studien når disse publiseres. Navnelisten vil bli slettes 31.desember 2013. Om mulig skal resultatene fra denne studien publiseres før å vise ny kunnskap. Resultatet kan være utgangspunkt for at spesielle tiltak rettes direkte mot kvinner med somalisk bakgrunn i barselperioden.

_Frivillig deltakelse_
Det er frivillig å delta i studien. Du kan når som helst og uten å oppgi noen grunn trekke ditt samtykke til å delta i studien. Dette vil ikke få konsekvenser for deg. Dersom du ønsker å delta,
undertegner du samtykkeerklæringen på siste side. Om du nå sier ja til å delta, kan du senere trekke tilbake ditt samtykke uten konsekvenser. Dersom du senere ønsker å trekke deg eller har spørsmål til studien, kan du kontakte:

Astrid Løvlie, mastergradsstundent
Telefonnummer/epost: 40879368/ a.l.llovlie@studmed.uio.no

**Ytterligere informasjon om studien finnes i kapittel A – utdypende forklaring av hva studien innebærer.**

**Ytterligere informasjon om personvern og økonomi finnes i kapittel B – Personvern og økonomi.**

Samtykkeerklæring følger etter kapittel
Kapittel A- utdypende forklaring av hva studien innebærer

Barseldepresjon er vist gjennom forskning å være en relativ vanlig komplikasjon etter fødsel blant alle kvinner, og har vist seg også å være mer vanlig hos innvandrerkvinner. Det er ikke funnet noen studier om barseldepresjon blant somalier spesielt, verken i Norge eller andre land. Somalier er den tredje største innvandrergruppen av ikke-vestlig bakgrunn i Norge. Barseldepresjon er vist å ha sammenheng med dårlig sosialt nettverk, både med partner og familie og venner, og om kvinnene har vært deprimert tidligere. Videre har andre spesifikk forhold innvandrerkvinner opplever vist å øke risikoen for barseldepresjon ytterligere, som for eksempel det å komme ny til et land, ha dårlig språkferdighet i det nye språket og være arbeidsledig og ha dårlig økonomi.

I denne studien er målet at alle kvinner med somalisk bakgrunn som føder barn i Oslo og omegn i løpet av sommeren og høsten 2012 skal spørres om de vil delta i denne studien. De må være over 18 år og ikke være i behandling for mentale lidelser under deltakelsestiden. Deltakerne skal gå gjennom et spørreskjema sammen med forskeren og eventuelt en tolk når nødvendig og svare på spørsmål om egen bakgrunn, helse, fødsel og barnets helse, samt spesifikk spørsmål om hvordan hun opplever at hun har det. Det vil også være spørsmål om hvordan hun anser forholdet sitt til partner, sin familie og venner. Noen av spørsmålene er av sensitiv art og kan oppleves som vanskelig å svare på. Det er viktig å huske at all informasjon som gis blir behandlet konfidensielt.

Studien er viktig fordi det er viktig å vite om kvinner med somalisk bakgrunn har større risiko for å få barseldepresjon enn andre kvinner i Norge, for å kunne iverksette tiltak rettet spesielt mot disse.

Dersom du ikke ønsker delta i studien, men tror du er deprimert og ønsker å vite dette, oppfordres du til å ta kontakt med enten fastlege eller helsesøster i bydelen din.

Kapittel B – Personvern og økonomi

Personvern
Opplysninger som registreres om deg i spørreskjemaet er nasjonalitet, alder, sosioøkonomisk forhold som utdanning og yrke, familiesituasjon som sivilstand og antall barn, hvordan du anser forholdet ditt til partner, familie, venner og helsesystemet, hvordan du opplevde fødselen, hvordan du anser din egen helse og om du har fysisk sykdom. Videre vil spørreskjemaet være spesifikk på hvordan du har hatt det siste 7 dager før utfylling av skjemaet.

Universitetet i Oslo, institutt for helse og samfunn, avdeling for samfunnsmedisin ved administrerende direktør er databehandlingsansvarlig.

Rett til innsyn og sletting av opplysninger om deg
Hvis du sier ja til å delta i studien, har du rett til å få innsyn i hvilke opplysninger som er registrert om deg. Du har videre rett til å få korrigert eventuelle feil i de opplysningsene vi har registrert. Dersom du trekker deg fra studien, kan du kreve å få slettet innsamlede opplysninger, med mindre opplysningene allerede er inngått i analyser eller brukt i vitenskapelige publikasjoner.

**Økonomi**  
Det er søkt om midler fra Helles legat. Det vil også bli søkt om midler fra andre legater.

**Informasjon om utfallet av studien**  
Når spørreskjemaet er utfylt, vil du umiddelbart få vite om du har en mulig barseldepresjon. Om det er tilfelle vil du få informasjon om hvordan du skal forholde deg videre og hvem du skal henvende deg til for å få hjelp.


**Samtykke til deltakelse i studien**

Jeg er villig til å delta i studien

(Signet av prosjektdeltaker, dato)

Jeg bekrefter å ha gitt informasjon om studien

(Signet, rolle i studien, dato)
Codsi ku saabsan ka qeybqaashada daraasadda Waasidee xaalada dumarka soomalidu marka ay umulaan ka dib?

Asaaska _iyo sababta daraasadan:_
Waxa lagu weydiinayaa su’aal ku saabsan ka qeybqaadashada cilmi-baadhis la doonayo in la ogaado inta dumar soomaaliyeed udu u dhaco niyadjabka dhalmada iyo waxa ey la kulmaan dumarka soomaalidu jismi iyo maskax ahaan xilliga umusha ka dib. Daraasadan waxa la rabaa iney ka qeybqaataan dumarka soomaalida ee dhaley carruur 6 todobaad ilaa 6 bilood kahor. Sidaa darteed ayaanu kula soo xidhiidhney si aanuu ku weydiino kaqeyb qaadashada daraasadan. Waxa xidhiidh kula soo sameyn doona Astrid Lovlie oo ah ardeyad shaadaad Masterka ka diyaarineysa Jaamacada Oslo. Daraasadan waxa talebixiye ka ah Dr Axmed Madar oo ah cilmibaadhe ke hawl-gala maxadka si harnessaadu kaa hortaga cudurada ee Jaamacada Oslo.

_Sidee ayey u dhacaysaa cilmi-baadhistani:_
Waxa aad ka jawaabaysaa su’aalo uu ku weydiinayo cilmi-baadhuhu, su’aalahaas oo khuseynaya noloshaada iyo tan ilmaahaaga. Waxa kale oo lagaa wareysanayaa sida xaaladaadu ahayd todobaddii maalmoode ee u dambeeyey. Hadaba, hidii ay jawaabahaaga ka muuqataan in uu jirtay xaalad adag oo muujinaysa in uu kugu dhacay Niyadjabka dhalmadu, waxa lagugu dhiirin gelin doonaa in aad la xidhiidho dhakhtarkaaga joogtada ah ama kalkaaliso caafimaad (helsesøster). Waxa lagu siin doona waqrad ay ku qoran tahay natiijada waray-siga lagula yeeshay. Wax dhib ahna kuuma keeneyso hidii aad iska diido in aad ka qeyb qaadaato cilmi-baadhistan.

_Suurowga dhib ama dhib la’aaan:_
Waxa lagugu sameyn doonaa baadhis caafimaad oo badan, iyadoo si gaar ahna lagaaga baadhdoono Niyadjabka dhalmada. Sidoo kale waxa aad u fududeysay hay’adaa caafimaadka in ay waxbadan ka ogadaadan dhibka haysta hoooyooyinka soomaaliyeed xilliga ay umulaan. Macluudakaa laga helo daraasadun waxa ay hay’adaa caafimaadku sameynoonaan hawl waxqabad oo ku aadan haweenka soomaalida haddii la ogaado in niyadjabka umulidu dhib ku hayo soomaalida. Dhibta keliya ee daraasadani yeelan kartaa waa adiga oo waqtigaaga saacad (1 time) ku bixiya buuxbuuxinta foomka su’aalaha. Sidoo kale su’aalaha qaar waxaad u arki kartaa xasaasi.


_Waa ikhtiyaarkaa addii aad rabto in aad ka qayb qaadaato:_
Telefonka 40879368- Email: a.l.lovlie@studmed.uio.no
Warar dheeraad ah oo ku saabsan daraasad an waxa laga helayaa cutubka A:- taas oo si qoto dheer u sii faahfaahineysa waxa daraasadani ku saabsan tahay.
Waraka ku saabsan,, daryeelka qofka iyo dhaqaalaha waxa laga helayaa cutubka B- daryeelka qofka iyo dhaqaalaha.
Warqada saxeexa ogolaanshuhu waxey la socotaa cutubka B.

Cutubka A- warar dheeraad ah oo ku saabsan daraasad an
Cilmi-baadhis la sameeyey wakhiyo badan ka dib waha la ogaadey in Niyadjabka dhalmadu uu yahay dhib ku timaada marka hooyadu umusho/dhasho, iyadoo uu xannuunkani si gaar ahna ugu soo batay dumarka soo galootiga ah. Ma jirto cilmi-baadhis hore oo lagu sameeyey hoooyoyinka soomaalidu xilliga umusha, si looga baahdho Niyadkabka dhalmada.Soomaalidu waa qoomiyadda saddexaadh ee ugu badan dadak soo galootaah ah ee ku nool dalkan Norway.
Waxyaabaha keeni kara Niyadjabka dhalmada waxa ka mid ah. Adiga oo aan ku xidhneyn asxaab ama ehelo badan, niyadkabka oo hor kuugu dhaqay, adiga oo u soo haajirey dal cusub oo luqadiisu kugu adag tahay, shaqo la’aan iyo dhaqaale xumo.

Waxa ka qeyb qaadan kara cilmi-baadhistan.
• Hooyooyinka soomaaliyeed ee ugu badhalee liixiib ilmada ugu badhalee.
• Da’doodu ka weyn tahay 18 sano.
• Deggan Oslo ama magaaloonkuna ku dhow.
• Ama aan qabin xannuuno xaga maskaxda ah ama aaneey xoocityaha waxa ahaan ahaan waxa ahaan la kala saabsan dhibto oo la abuuray transportayo.
Waxa su’aalo kooban ku weydii doonta gabadha darasadan sameyneyisa. Hadii aad turjubaan u baahan tayeyena waa lagu gabaado qabanayaada.
Su’aaluhu waxa ay ku saabsanaan doonaan xaaladada caafimaad, caafimaadka ilmahaaga, xaaladda aad ku sugneyd waqtigii aad umulaysay, noloshaada iyo tan ehelkaaga waqtigii aad yareyey, iyo su’aaluhu ku xirin dheer, iyo su’aaluhu ku xirin dheer, iyo su’aaluhu ku xirin dheer, iyo su’aaluhu ku xirin dheer, iyo su’aaluhu ku xirin dheer.
Warqada saxeexa ogolaanshuhu waxey la socotaa cutubka B.

Warqada saxeexa ogolaanshuhu waxey la socotaa cutubka B.
Cutubka B- daryeelka qofka iyo dhaqaalaha
Waxa ugu horreyn lagu weydiinaya waddanka aad ka ku dhalatey, da’daada, xaaladaada dhaqaale, heerka tacliintaada, xirafadaada, xaaladda qoyskaaga iyo inta carruur ah ee aad dhashey. Waxa kale oo lagu weydiin doonaa sida aad u aragto xidhiidhka idinka dheeyeeya ninkaaga, asxaabtaada, ehelkaaga iyo hay’adaha caafimaadka.
Waxa sidoo kale lagaa wareysan doonaa sidaa xalkaagu ahaa wakhtigii aad umuleysey, sida aad u aragto xaaladaada caafimaad jismi ama jidh ahaan iyo sida xaaladaadu ahayd asbuucan u dambeeyey. Diiwaan gelinta iyo xafidida daraasadada waxa masu’ul ka ah Jamacadda Olso, maxadka bulshada iyo caafimaadka, waaxda daaweynta bulshada.

Xaq u yeelashada eegida warka lagaa hayo iyo keydinta alaabada daraasad
Haddii aad rabto inaad ka qeybqaadato daraadan, waxaad xaq u leedaheyyaa in lagu tuso wixii macluumaad ah ee lagaa qorey oo dhan wakhtigii ay cilmi baadhistan socoteey. Waxa aad sidoo kale xaq u leedaheyyaa in aad wax ka bedesho.
Haddii aad ka laabato ka qeybqaadashada daraasadannaa, wax aad aad xaq u ledaheyyaa in aad dalbato in la ba’biiyo wixii macluumaad ah ee lagaa qorey intii daraasadani socoteey, ka hor intaa aan la daabicin daraasadadda.

Dhaqaale
Waxa dhaqaale lagu maal geliyo cilmi-baadhistan laga codsadey Helles legat, sidoo kale laga codsan doonaa dhaqaale hay’adaha kale ee wax kaalmeeya.

Warbixin ku saabsan waxa la filayo in ka soo baxayso cilmibaashistan.
Marka cilmi-baadhuu dhameeyo su’aalaha uu ku weydiinayo, waxa lagu qoreyaa jawaabaha warqad( skjema ). Inataa ka dib waxa aad si dhakho ah u heli doontaa jawaab ah in aad qabto xanuunka Niyadjabka dhalmada iyo in kale.
Haddii ay dhacdo in aad qabto Niyadjabka dhalmada, waxa lagu siin doonaa talooyin, waxa sidoo kale laga gudbin doonaa hay’adaha ku shaqada leh si ay kuu caawiyaan.
Natiijada cilmi baadhistan waxa la codsan doonaa in la daabaco June 2013 waa haddii uu cilmi badhuhu ku guuleysto daraasadadda. Haddii aad rabto inaad hesho natiijada cilmi-baadhistan la soo xidhiidh cilmi baadhaha bisha May amma June 2013.

Ogolaansho ka qeybqaadashada daraasad
Waxaan rabaa inaan ka qaybqaato daraasadada
………………………………………………………………………………………………………..
(Saxeexayga ka qayb qaashada, taariikh)

Waxaan caddaynayaa inaan helay war buuxa oo ku saabsan daraasadada
………………………………………………………………………………………………………..
(Saxeexayga ka qayb qaashada, taariikh)
Appendix 3 – Information to health care workers
Informasjon til jordmødre ved barselavdelingene

Barseldepresjon blant kvinner med somalisk bakgrunn i Stor-Oslo.
Prevalens og risikofaktorer
Mitt navn er Astrid Løvlie og jeg er masterstudent i Internasjonal Samfunnshelse ved Universitet i Oslo. Fra tidligere er jeg sykepleier. Prosjektet jeg skal gjennomføre i min masteroppgave er å kartlegge forekomsten av barseldepresjon blant kvinner med somalisk bakgrunn i Stor-Oslo. Jeg vil rekruttere respondentene fra de fire sykehusene i Oslo og omegn med fødeavdeling (Ullevål, AHUS, Rikshospitalet og Bærum).

Kvinner med somalisk bakgrunn spøres på barselavdelingen før hjemreise om de samtykker å gi telefonnummer og navn til prosjektet, slik at jeg skal kunne ta kontakt med dem etter 5-6 uker. De samtykker ikke til å delta i studien ved å gi fra seg navn og telefonnummer på barselavdelingen. Kontaktdataene vil bli behandlet konfidentsielt og ingen andre vil ha tilgang enn meg og min veileder Ahmed Madar.


Jeg tar selv kontakt med kvinnene etter ca 5 uker og spør om de er villige til å delta i studien. På telefon informerer jeg om studien og spør om muntlig samtykke til deltakelse. Skriftlig samtykke signerer når vi møtes for å besvare spørreskjemaet. Jeg vil gå gjennom spørreskjemaet sammen med dem, og tolk vil bli brukt ved behov.

På forhånd tusen takk for hjelpen!

Astrid Løvlie
Informasjon til helsesøstre ved helsestasjonene

Barseldepresjon blant kvinner med somalisk bakgrunn i Stor-Oslo. Prevalens og risikofaktorer

Mitt navn er Astrid Løvlie og jeg er masterstudent i Internasjonal Samfunnshelse ved Universitet i Oslo. Fra tidligere er jeg sykepleier. Prosjektet jeg skal gjennomføre i min masteroppgaven er å kartlegge forekomsten av barseldepresjon blant kvinner med somalisk bakgrunn i Stor-Oslo, og se på assosiasjoner til ulike risikofaktorer. Jeg vil rekruttere respondentene fra de fire sykehusene i Oslo og omegn med fødeavdeling, via helsestasjoner i bydeler i Oslo, og via interesseorganisasjoner for somaliske kvinner i Oslo.

Det jeg ønsker at dere på helsestasjonen skal gjøre er å spørre kvinner med somalisk bakgrunn som har født barn i løpet av de siste fem måneder om de samtykker til at jeg tar kontakt med dem. Dersom de sier ja til det bes de skrive ned navn og telefonnummer, dato for når de har født og om de har behov for tolk. Det er meget viktig at telefonnummeret de gir er riktig. Dette noteres ned på et eget skjema som oppbevares i en spesielt merket konvolutt på et avtalt sted, og som jeg henter en gang i uken/etter avtale.

De samtykker ikke til å delta i studien ved å gi fra seg navn og telefonnummer på helsestasjonen. Kontaktdataene vil bli behandlet konfidentielt og ingen andre vil ha tilgang enn meg og min veileder Ahmed Madar. Dersom de etter informasjon om studien ikke vil delta i studien makuleres navnelappen.

Når kvinnene spørres på helsestasjonen gis det også avtalt informasjon om studien både skriftlig og muntlig. Muntlig gis informasjon om at deltakelse går ut på å svare på et spørreskjema om hvordan det er for kvinner med somalisk bakgrunn å føde og gå gjennom barseltiden i Norge, med fokus på mental helse. Det å være immigrant i et nytt samfunn er funnet å være en risikofaktor for å utvikle barseldepresjon. Å få informasjon om hvordan kvinner med somalisk bakgrunn opplever barseltiden vil være viktig for om mulig tilpasse tilbudet i barseltiden bedre.

En kort skriftlig informasjon vil også foreligge på somali. Ved behov kan kvinnens ta kontakt med meg per telefon dersom det er uklarheter eller spørsmål før jeg tar kontakt med dem.

Når jeg tar kontakt med kvinnens og spør om de er villig til å delta, informerer jeg om studien og spør om muntlig samtykke til deltakelse. Skriftlig samtykke signeres når vi møtes for å besvare spørreskjemaet. Jeg vil gå gjennom spørreskjemaet sammen med dem, og tolk vil bli brukt ved behov.

Prosjektet vil vare fra starten av oktober til desember 2012.

På forhånd tusen takk for hjelpen!

Astrid Løvlie, telefon 4087936
Appendix 4 - Questionnaire

Generelle spørsmål

1. Alder (år): ______  2. Fødeland (by/sted og land) _______________________

3. Vokst opp i ______________________

4. Botid i Norge _______år

5. Barn: Kjønn, antall: Gutt ___________ Jente ___________

6. Kjønn på siste barn_______ 7. Alder i uker _______

8. Sivilstand:
   a) □ Bor uten barnets far: □ skilt □ enke □ gift, men bor alene □ enslig
   b) □ Samboende med barnets far: □ gift □ samboer

9. Språk
Spørreskjemaet besvares på; □ norsk □ somalisk/via tolk

   a) Snakkes hjemme
      □ Norsk
      □ Somalisk
      □ Annet _______________________

   b) Selvvurdert norskkunnskaper
      □ Veldig gode □ Gode □ Middels gode □ Dårlige □ Svært dårlige/kan ikke noe norsk

10. Statsborger
   □ Norsk
   □ Somalisk
   □ Annen statsborgerstatus _______________________

11. Oppholdsgrunn
   □ Familiegjenforening
   □ Asylsøker
   □ Flyktning
   □ Annet _______________________

**Utdanning**

12. Hvilken utdannelse har du? *(sett kun ett kryss for høyeste fullførte utdannelse)*

- □ Mindre enn 3 år
- □ Grunnskole (≤10 år)
- □ Videregående skole/gymnas (≤13 år)
- □ Fagbrev
- □ Høyskole- eller universitetsutdanning på 4 år eller mindre
- □ Høyskole- eller universitetsutdanning på mer enn 4 år
- □ Annet: _______________________________________

**Jobbstatus**

13. Jobbet du før du fikk barn nå?

- □ Ja, heltid
- □ Ja, deltid
- □ Nei, jeg var hjemme
- □ Nei, jeg studerte
- □ Nei, jeg gikk på kurs
- □ Nei, jeg var sykemeldt
- □ Nei, er uføretrygd


- □ Selvstendig næringsdrivende: ____________________________
- □ Administrativt: _______________________________________
- □ Arbeidstaker (service/helse/sosial/kontor): ___________________
- □ Annet ____________________________

b) Dersom du studerte, hvor studerte du?

- □ Universitet/høyskole
- □ Videregående
- □ Yrkefaglig
- □ Annet ____________________________

c) Dersom du gikk på kurs, hvilke kurs gikk du på?

- □ Norsk
- □ Annet, spesifiser: ____________________________

d) Jobbstatus mann/partner

- □ Ja, heltid
- □ Ja, deltid
- □ Nei, arbeidsledig
- □ Student
- □ Annet: ____________________________
14. Har du permisjon fra jobb/studier/kurs nå?
☐ Ja, med lønn
☐ Ja, uten lønn
☐ Nei

Nåværende helse
15. Hvordan anser du helsen din å være nå?
☐ Svært god ☐ God ☐ Middels god ☐ Dårlig ☐ Svært dårlig

16. Har du noen sykdommer (kronisk/akutt) nå?
☐ Nei ☐ Ja, hvilke__________________________

17. Er du omskåret?
☐ Nei ☐ Ja
   a) Åpnet: ☐ Før graviditet ☐ Før fødsel ☐ Under fødsel

Babyen
Om det å ha spebarn
18. Ammer du barnet?
☐ Ja
☐ Nei, kun morsmelkerstatning
☐ Delvis, bruker i tillegg morsmelkerstatning

Soverutiner og samspill
19. Hvordan vil du si at kvaliteten på barnets soverutiner er? (regelmessighet, får nok søvn)
☐ Svært gode ☐ Gode ☐ Middels gode ☐ Mindre gode ☐ Dårlige
   Kommentar______________________________________________________________
   __________________________________________________________

20. Hvordan vil du si at kvaliteten på kontakten din med barnet er? (forstår behov, oppretter kontakt)
☐ Svært god ☐ God ☐ Middels god ☐ Mindre god ☐ Dårlig
   Kommentar______________________________________________________________
   __________________________________________________________

21. Gråter barnet mye?
☐ Nei, det gråter veldig lite
☐ Nei, gråter når det er sulten/trøtt/våt bleie
☐ Ja, gråter mye, men er lett å trøste
Ja, gråter mye, og er vanskelig å trøste
Kommentar______________________________________________________________

Helsen til barnet
22. Hvordan vil du si at ditt barns helse er? (mye syk, er plaget, medfødt sykdom)
☐ Svært god ☐ God ☐ Middels god ☐ Mindre god ☐ Dårlig
Kommentar______________________________________________________________

Fødselen
23. Om svangerskapet/graviditeten
☐ Graviditeten var ønsket og planlagt
☐ Graviditeten var ikke planlagt, men jeg ble glad da jeg ble gravid
☐ Graviditeten var ikke planlagt og jeg hadde ikke tenkt å få (flere) barn nå

24. Hvordan fødte du ditt barn?
Vaginal fødsel ☐ Keisersnitt ☐

a) Dersom keisersnitt:
☐ Planlagt ☐ Øyeblikkelig hjelp/akutt

b) Om vaginal fødsel, ble det brukt tekniske hjelpemidler? Ja ☐ Nei ☐
Hvis ja; hvilke? ☐ Vakuum ☐ Tang ☐ Annet __________________

c) Er barnet født for tidlig/prematurt? Nei ☐ Ja ☐, ble født ____ uker for tidlig

25. Bruk av smertestillende
☐ Ja, etter eget ønske ☐ Ja, men mot eget ønske ☐ Nei, ønsket ikke ☐ Nei, men hadde ønsket

26. Opplevde du fødselen som
☐ En god fødsel ☐ En middels fødsel ☐ En dårlig/vond fødsel ☐
Traumatisk/dramatisk

Kan du si noen ord om din opplevelse av denne fødselen/keisersnittet?______________________________________________________________

__________
### Sosial støtte

#### 27. Hvordan opplever du støtte fra partner/mann i barselperioden til/med:

<p>| | | | | |</p>
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<tbody>
<tr>
<td>a) daglige gjøremål/husarbeid/handle</td>
<td>Svært god</td>
<td>God</td>
<td>Middels god</td>
<td>Dårlig</td>
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<tr>
<td>b) psykisk støtte</td>
<td>Svært god</td>
<td>God</td>
<td>Middels god</td>
<td>Dårlig</td>
</tr>
<tr>
<td>c) ta seg av barn(a)</td>
<td>Svært god</td>
<td>God</td>
<td>Middels god</td>
<td>Dårlig</td>
</tr>
<tr>
<td>d) tar ansvar for babyen</td>
<td>Svært god</td>
<td>God</td>
<td>Middels god</td>
<td>Dårlig</td>
</tr>
</tbody>
</table>

Kommentar

- Ikke aktuelt/er alene

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#### 28. Hvordan opplever du støtte fra venner/venninner i barselperioden til/med:

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</thead>
<tbody>
<tr>
<td>a) daglige gjøremål/husarbeid/handle</td>
<td>Svært god</td>
<td>God</td>
<td>Middels god</td>
<td>Dårlig</td>
</tr>
<tr>
<td>b) psykisk støtte</td>
<td>Svært god</td>
<td>God</td>
<td>Middels god</td>
<td>Dårlig</td>
</tr>
<tr>
<td>c) ta seg av barn(a)</td>
<td>Svært god</td>
<td>God</td>
<td>Middels god</td>
<td>Dårlig</td>
</tr>
<tr>
<td>d) tar ansvar for babyen</td>
<td>Svært god</td>
<td>God</td>
<td>Middels god</td>
<td>Dårlig</td>
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</tbody>
</table>

Kommentar

- Ikke aktuelt/har ikke venner her

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#### 29. Hvordan opplever du støtte fra familie i barselperioden

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<tbody>
<tr>
<td>a) daglige gjøremål/husarbeid/handle</td>
<td>Svært god</td>
<td>God</td>
<td>Middels god</td>
<td>Dårlig</td>
</tr>
<tr>
<td>b) psykisk støtte</td>
<td>Svært god</td>
<td>God</td>
<td>Middels god</td>
<td>Dårlig</td>
</tr>
<tr>
<td>c) ta seg av barna</td>
<td>Svært god</td>
<td>God</td>
<td>Middels god</td>
<td>Dårlig</td>
</tr>
<tr>
<td>d) tar ansvar for babyen</td>
<td>Svært god</td>
<td>God</td>
<td>Middels god</td>
<td>Dårlig</td>
</tr>
</tbody>
</table>

Kommentar

- Ikke aktuelt/har ikke familie her
<table>
<thead>
<tr>
<th>30. Hvordan opplever du støtte fra helsesøster/lege/sykehus i barselperioden?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Svært god □ God □ Middels god □ Dårlig □ Veldig dårlig</td>
<td></td>
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<tr>
<td>Kommentar: ____________________________________________________________</td>
<td></td>
</tr>
<tr>
<td>□ Ikke aktuelt/har ikke kontakt med noe helsepersonell</td>
<td></td>
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</tbody>
</table>

**Mental helse og livshendelser**

<table>
<thead>
<tr>
<th>31. Har du tidligere vært diagnostisert med og behandlet for depresjon?</th>
<th></th>
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<tbody>
<tr>
<td>□ Ja □ Nei</td>
<td></td>
</tr>
<tr>
<td>a) dersom ja; når? ___________</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>32. Har du tidligere hatt perioder hvor du har følt deg nedstemt/lei deg over lengre perioder (mer enn to uker) uten klar grunn?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Ja □ Nei</td>
<td></td>
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<tr>
<td>Kommentar: ____________________________________________________________</td>
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<tr>
<th>33. Har du det siste året opplevd</th>
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<tbody>
<tr>
<td>Skilsmisse/seperasjon? □ Ja □ Nei</td>
<td></td>
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<tr>
<td>Seriøse problemer i ekteskapet/samboerskapet? □ Ja □ Nei</td>
<td></td>
</tr>
<tr>
<td>Konflikter med familie/venner eller naboer? □ Nei □ Ja, hvilke ___________</td>
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<tr>
<td>Problemer på jobb/skole/kurs? □ Ja □ Nei</td>
<td></td>
</tr>
<tr>
<td>Økonomiske problemer? □ Ja □ Nei</td>
<td></td>
</tr>
<tr>
<td>Alvorlig skade eller sykdom på deg selv? □ Nei □ Ja, hvilke ___________</td>
<td></td>
</tr>
<tr>
<td>Alvorlig skade eller sykdom i umiddelbar nær familie/vennekrets? □ Nei □ Ja, hvem -</td>
<td></td>
</tr>
<tr>
<td>Trafikkulykke/tyveri eller brann? □ Nei □ Ja, hvilke ___________</td>
<td></td>
</tr>
<tr>
<td>Andre hendelser/vanskeligheter? □ Nei □ Ja, hvilke ___________</td>
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<tr>
<td>Streng</td>
<td>Frihetsgrad</td>
</tr>
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<td>--------</td>
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<tr>
<td>Hvordan du har hatt det siste 7 dager</td>
<td></td>
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</table>

34. **Har du siste 7 dager kunnet le og se det komiske i en situasjon?**
- [ ] Like mye som vanlig
- [ ] Ikke riktig så mye som jeg pleier
- [ ] Klart mindre enn jeg pleier
- [ ] Ikke i det hele tatt

35. **Har du siste 7 dager gledet deg til ting som skulle skje?**
- [ ] Like mye som vanlig
- [ ] Noe mindre enn jeg pleier
- [ ] Klart mindre enn jeg pleier
- [ ] Nesten ikke i det hele tatt

36. **Har du siste 7 dager bebreidet deg selv uten grunn når noe gikk galt?**
- [ ] Ja, nesten hele tiden
- [ ] Ja, av og til
- [ ] Ikke særlig ofte
- [ ] Nei, aldri

37. **Har du siste 7 dager vært nervøs eller bekymret uten grunn?**
- [ ] Nei, slett ikke
- [ ] Nesten aldri
- [ ] Ja, iblant
- [ ] Ja veldig ofte

38. **Har du siste 7 dager vært redd eller fått panikk uten grunn?**
- [ ] Ja, svært ofte
- [ ] Ja, noen ganger
- [ ] Sjelden
- [ ] Nei, aldri

39. **Har du siste 7 dager følt at det har blitt for mye for deg?**
- [ ] Ja, jeg har stort sett ikke fungert i det hele tatt
- [ ] Ja, iblant har jeg ikke klart å fungere som jeg pleier
- [ ] Nei, for det meste har jeg klart meg bra
- [ ] Nei, jeg har klart meg like bra som vanlig

40. **Har du siste 7 dager vært så ulykkelig at du har hatt vanskeligheter med å sove?**
- [ ] Ja, for det meste
- [ ] Ja, iblant
- [ ] Ikke særlig ofte
<table>
<thead>
<tr>
<th>41. Har du siste 7 dager følt deg nedfor eller ulykkelig?</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Ja, det meste av tiden</td>
</tr>
<tr>
<td>- Ja, ganske ofte</td>
</tr>
<tr>
<td>- Ikke særlig ofte</td>
</tr>
<tr>
<td>- Nei, ikke i det hele tatt</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>42. Har du siste 7 dager vært så ulykkelig at du har grått?</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Ja, nesten hele tiden</td>
</tr>
<tr>
<td>- Ja, veldig ofte</td>
</tr>
<tr>
<td>- Ja, det har skjedd iblant</td>
</tr>
<tr>
<td>- Nei, aldri</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>43. Har tanken på å skade deg selv streifet deg, de siste 7 dagene?</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Ja, nokså ofte</td>
</tr>
<tr>
<td>- Ja, av og til</td>
</tr>
<tr>
<td>- Ja, så vidt</td>
</tr>
<tr>
<td>- Aldri</td>
</tr>
</tbody>
</table>
Appendix 5 – EPDS Somali version

7dii maalmood ee la soo dhafay

1. Waan qosli jiray dhinaca fiicanna wax baan ka arki jiray:
   - Markasta in alla iyo inta aan doono
   - Sidaas haatan umasii badna
   - Wax badan oo la sheego maahan
   - Marnaba

2. Waxyaabaha igu soo fool leh yididiilo farxadeed ayaan ku sugi jiray:
   - Sidii weligayba aan ahaa
   - Sidii hore si xoogaa ka yara hooseysa
   - Hubaal in badan si ka yar sideydi hore
   - Marnaba

3. Marka wax khaldamaan nafteydaan ku canaantaa:
   - Haa, inta badan
   - Haa, mararka qaar
   - Inta badan maya
   - Maya, marnaba

4. Sabab la’aan ayaan walaac iyo walwal dareemaa:
   - Maya, marnaba
   - Wey adag tahay
   - Haa, mararka qaar
   - Haa, inta badan

5. Sabab macno leh oon jirin ayaan dareemaa baqdin iyo argagax:
   - Haa, inta badan
   - Haa, mararka qaar
   - Maya, in aan badneyn
   - Maya, marnaba

6. Wax kasta culeys ayey igu ahaayeen:
   - Haa, inta badan uma dulqaadan karin
   - Haa, mararka qaar sidii caadiga aheyd uguma dulqaadan karin
   - Maya, inta badan si wacan ayaan ugu dulqaadan jiray
   - Maya, Sideydi hore oo kale ayaan ugu dulqaadan jiray

7. Farxaddii wey iga guurtay ilaa heer aan hurdo seexan waayo:
   - Haa, inta badan
   - Haa, mararka qaar
   - Inta badan maya
   - Maya, marnaba

8. Murugo ayaan ku sugnaa:
   - Haa, inta badan
   - Haa, ila xad
   - In badan maya
   - Maya, marnaba

9. Farxaddii wey iga guurtay ilaa heer aan iska ooyo:
In aan is waxyeelleeyo nafteyda wey igu soo dhacday:

- Haa, marar badan
- Mararka qaar
- Wey adkeyd
- Marnaba
Ahmed Madar  
Universitetet i Oslo

2012/818b  Barseldepresjon blant kvinner med somalisk bakgrunn i Stor-Oslo.

Vi viser til søknad om forhåndsgodkjenning av ovennevnte forskningsprosjekt. Søknaden ble behandlet av Regional komité for medisinsk og helsefaglig forskningsetikk, REK sør-øst B, i møtet 09.05.2012.

Prosjektleder: Ahmed Madar  
Forskningsansvarlig: Universitetet i Oslo

Prosjektomtale  
Studiens formål er å vurdere prevalensen av barseldepresjon blant kvinner med somalisk bakgrunn, og assosiert risikofaktorer. Barseldepresjon rammer opp mot 10.1 % av alle kvinner i Norge, og er vist å ha negativ effekt på barnets utvikling. Blant innvandrerkvinner i andre land har studier vist at prevalensen er opp mot 37.7 %, noe som refleksiverer den økte risikoen migrasjon og det å være minoritet kan ha for barseldepresjoner. Somaliere er den 3. største innvandrergruppen av ikke-vestlig bakgrunn til Norge. Statistikk viser at somalier har flere kjente risikofaktorer for barseldepresjon, som høy andel skilte og aleneforeldre, lavt eruditivnivå, høy arbeidsledighet og lav evnen til språkprat.


Komiteens vurdering  
Slik prosjektopplegg er beskrevet i søknaden, har komitéen ingen innvendinger til at prosjektet gjennomføres.

Informasjonsskriv og samtykkeerklæring  
I søknaden skriver prosjektleder at dersom en kvinne ikke ønsker delta, og oppgir en grunn for dette, vil grunnen noteres, for om mulig kunne sammenlikne deltakere med dem som ikke ville delta. Komitéen tillater ikke at det registreres opplysninger om de kvinnene som ikke ønsker å være med i studien.

Vedtak  
Komitéen godkjenner prosjektet med hjemmel i helseforskningsloven § 10 på vilkåre av at det ikke registreres opplysninger om de som ikke ønsker å delta i studien.

Godkjenningen er gitt under forutsetning av at prosjektet gjennomføres slik det er beskrevet i søknaden.  
Forskningsprosjektets data skal oppbevares forsvarlig, se personopplysningsforskriften kapittel 2, og Helsedirektoratets veileder “Personvern og informasjons sikkerhet i forskningsprosjekter innenfor helse- og omsorgssektoren”

Dersom det skal gjøres endringer i prosjektet i forhold til de opplysninger som er gitt i søknaden, må prosjektleder sende endringsmelding til REK.

Prosjektet skal sende sluttmelding på eget skjema, se helseforskningsloven § 12, senest et halvt år etter prosjektslutt.

Komiteens vedtak kan påklages til Den nasjonale forskningsetiske komité for medisin og helsefag, jfr. helseforskningsloven § 10, 3 ledd og forvaltningsloven § 28. En eventuell klage sendes til REK sør-øst B. Klagerfristen er tre uker fra mottak av dette brevet, jfr. forvaltningsloven § 29.

Komiteens avgjørelse var enstemmig.

Vi ber om at alle henvendelser sendes inn via vår saksportal: http://helseforskning.etikkom.no eller på e-post til post@helseforskning.etikkom.no. Vennligst oppgi vårt referansenummer i korrespondansen.

Med vennlig hilsen

Stein Opjordsmoen Ilner
Professor dr. med.
Komitéleder

Hege Holde Andersson
Komitésekretær

Kopi til: Masterstudent Astrid Løvlie, Universitetet i Oslo
Universitetet i Oslo ved øverste administrative ledelse
Ahmed Madar  
Universitetet i Oslo  

2012/818 Barseldepresjon blant kvinner med somalisk bakgrunn i Stor-Oslo.

Forskningsansvarlig: Universitetet i Oslo  
Prosjektleder: Ahmed Madar  

Vi viser til søknad om prosjektending datert 28.09.2012 for ovennevnte forskningsprosjekt. Søknaden er behandlet av leder for REK sør-øst på fullmakt, med hjemmel i helseforskningsloven § 11.

De omsøkte endringene er beskrevet i skjema for prosjektendinger og dreier seg om en endring i rekrutteringsprosedyre. I tillegg til å rekrutere via sykehusene ønsker man nå også å rekrutere til prosjektet via helsestasjoner og interesseorganisasjoner for somaliske kvinner i Oslo.

Komiteens vurdering  
Komiteen har ingen forskningsetiske innvendinger til prosjektet slik det nå foreligger.

Vedtak  
Komiteen har vurdert endringsmeldingen og godkjener prosjektet slik det nå foreligger med hjemmel i helseforskningsloven § 11.

Godkjenningen er gitt under forutsetning av at prosjektet gjennomføres slik det er beskrevet i endringsmeldingen.

Dersom det skal gjøres vesentlige endringer i prosjektet i forhold til de opplysninger som er gitt i søknaden, må prosjektleder sende endringsmelding til REK.

Forskningsprosjektets data skal oppbevares forsvarlig, se personopplysningsforskriften kapittel 2, og Helsedirektoratets veileder for «Personvern og informasjonssikkerhet i forskningsprosjekter innenfor helse- og omsorgssektoren».

Prosjektet skal sende sluttmelding på eget skjema, senest et halvår etter prosjektslutt, jf. helseforskningsloven § 12.

Klageadgang  

Vi ber om at alle henvendelser sendes inn via vår saksportal: http://helseforskning.etikkom.no eller på e-post til post@helseforskning.etikkom.no.
Vennligst oppgi vårt referansenummer i korrespondansen.

Med vennlig hilsen

Stein Opjordsnoen Ilner
Dr. med.
Overlege, professor

Hege Holde Andersson
komitésekretær

Kopi til: a.l.lovlie@studmed.uio.no
Universitetet i Oslo
## Appendix 7 – Privacy ombudsmen hospitals

Obligatorisk meldeskjema, versjon 1.0
Saksnr.12-108

Meldeskjema for interngodkjenning av forsknings- og kvalitetsprosjekter

Utylt skjema med vedlegg sendes til: (R) Fellesmail Personvernombud
Meldeskjemaet skal utfylles for
1) Medisinsk og Helsefaglig forskning, og
2) Kvalitetsstudier og annen forskning enn medisinsk og helsefaglig forskning, eller
3) Intern kvalitetskontroll
som omfatter menneskel og humant biologisk materiale.
Omfatter også pilotstudier og utprøvende behandling.

Råd og veiledning:
Personvernombud: marianne.blair.berg@ahus.no
Biobankkoordinator: Ragni.Olsetstad@ahus.no
Datagainst: dataagainst@ahus.no

Mer informasjon: internettiden til Ahus (Gå til www.ahus.no > Forskning og utvikling > Rutiner for forskning).  

### 1 INFORMASJON OM PROSJEKTANSVARLIG OG PROSJEKTEDE (SØKEREN)

<table>
<thead>
<tr>
<th>A. PROSJEKTANSVARLIG (øyve. direktør / klinikksjef)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navn og stilling: Pål Wilk</td>
</tr>
<tr>
<td>Divisjonssjef (nivå 2): Divisjonsdirektør</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. PROSJEKTEDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navn og stilling: Eli Aaby</td>
</tr>
<tr>
<td>Klinikkedeling (nivå 3) hvor prosjektet gjennomføres: Fagutviklingsjordmor, fødebarset AHUS</td>
</tr>
<tr>
<td>Telfonnummer: 67 66 42 24</td>
</tr>
<tr>
<td>E-postadresse: <a href="mailto:eli.aaby@ahus.no">eli.aaby@ahus.no</a></td>
</tr>
</tbody>
</table>

### C. MULTISENTERSTUDIE

- Er prosjektet en multisenterstudie? X Ja ☐ Nei
- Dersom ja, angi ettersignende prosjektstedsnavn, utkommer det: Grønneleia og Gamle Oslo. Mulige respondenter skal også redigere fra disse institusjonene. ☐ Ja X Nei

### D. ANNEN DATEBEHANDLINGSANSVARLIG EINN AKERSHUS UNIVERSITETSSYKEHUS HF

- Er prosjektet organisert fra et legemidletfirma eller annen akson virksomhet? ☐ Ja X Nei
- Dersom ja, angi virksomhets navn (Kopi av konsekventegneldjekning skal sendes personvernombudet, og prosjektet skal meldes til personvernombudet som medlem av prosjekt, dvs skjemaet frykter ut). ☐ Ja ☐ Nei

### 2 PROSJEKTS NAVN/TITTEL

- Postpartum depression among Somali women in Greater Oslo Region. Prevalence and associated risk factors.

### 3 PROSJEKTPERIODE

- Studiestart (dd.mm.åååå): 01.09.2012
- Slutting/annonsiering av data legg til tid mht etterprøving (dd.mm.åååå): 31.12.2013
- Beskriv hvordan data vil bli sklettaksomiser: Papir makkuleres og dokument slites og papiraksom inneslutas.
- Prosjekeledere er selv ansvarlig for gjennomføring av sklettaksomiserings
4 FINANSIERING AV PROSJEKTET

<table>
<thead>
<tr>
<th>Nei</th>
<th>X Ja</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hvis ja – hvor (NFR, HSB, interne midler etc): Egne midler og fra Helles Legat, UIO.</td>
<td></td>
</tr>
</tbody>
</table>

5 BESKRIV FORMÅLET MED BEHANDLINGEN/PROSJEKTET (lovpålagt – varierer for kvalitet og helsesfaglig forskning)


På barseldepresjonene vil aktuelle kvinner spørres av jordmorbarnepleier om de samtykker i at jeg tar kontakt med dem ca 5 uker etter fødsel for å spørre om de vil delta i en studie om hvordan somaliske kvinner opplever barselperioden i Norge, hvor også barseldepresjon vil bli screenet for. Dersom de samtykker til dette skriver de navnet sitt, telefonnummer, dato for når de fødte, samt om de evt har behov for tolk. De får også en kort skriftlig informasjon om studien hvor forskerens telefonnummer også er skrevet. Denne informasjonen foreligger også på somali. Ved senere kontakt gis umfattende informasjon først muntlig, og ved samtykke til å delta, også skriftlig hvor de også må signere.

Tolk benyttes ved behov.

6 AVKLARING FOR KONSESJON ELLER MELDING

a) Kobling

<table>
<thead>
<tr>
<th>Nei</th>
<th>X Ja</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hvis ja, angi hvilke register:</td>
<td></td>
</tr>
</tbody>
</table>

b) Store datasett

Angi totalt antall inkluderte:

<table>
<thead>
<tr>
<th>Nei</th>
<th>X Ja</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hvis ja, studien inkluderer et stort omfang av personer og/eller data – dvs mer enn 3000 og/eller opplysninger av svært ingripende karakter.</td>
<td></td>
</tr>
</tbody>
</table>

c) Verighet

Angi antall opplysningene vil bli lagret, inkludert oppbevaring for etterprøving.

7 RETTSLIG GRUNNLAG FOR BEHANDLING AV PERSONOPPLYSNINGENE

7.1 Samtykke

Skal det innhentes skriftlig samtykke fra den registrerte?

<table>
<thead>
<tr>
<th>Nei</th>
<th>X Ja</th>
</tr>
</thead>
</table>

Skal det innhentes skriftlig samtykke fra andre enn den registrerte?

<table>
<thead>
<tr>
<th>Nei</th>
<th>X Ja</th>
</tr>
</thead>
</table>

Skal det søkes om unntak fra taushetsplikten?

<table>
<thead>
<tr>
<th>Nei</th>
<th>X Ja</th>
</tr>
</thead>
</table>
ELLER
7.2 Intern kvalitetssikring av pasientbehandling

ELLER
7.3 Annet som hjemler melding, angi årsak/hjemmel:

7.4 Andre tilfeller
☐ Selskapspartnere mellom regionale komitéer for medisinsk og helsefaglig forskningsetikk(REK)
☐ Selskapspartnere mellom Statens legemiddelverk
☐ Bioteknologiloven kommer til anvendelse (det uforeseigenskaper delageren gis tilbakemelding om resultatet)
☐ Øvrig (se pkt 11)

8 BRUK AV HUMANT BIOLOGISK MATERIALE
BIOBANK
Medfører prosjektet bruk av humant, biologisk materiale?
☐ Ja ☐ Nei

Dersom ja:

9 DETALJER OM PROSJEKTETS INFORMASJONSBEHANDLING
9.1 Type personopplysninger behandlingen skal omfatte:

| 9.1.1 Ikke-sensible personopplysninger | 9.1.2 Sensitive personopplysninger (jf. personopplysningsloven § 2 av §)
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifikasjonsopplysninger</td>
<td>Prosjekt omfatter opplysninger om</td>
</tr>
<tr>
<td>☐ Navn, adresse, fødselsdato</td>
<td>☐ Rasemessig eller etnis bakgrunn, eller</td>
</tr>
<tr>
<td>☐ Fødselsnummer (11 siffer)</td>
<td>☐ Politisk, filosofisk eller religiøs</td>
</tr>
<tr>
<td>☐ Fingeravtrykk, ikre</td>
<td>☐ Oppfattelse av personlig av</td>
</tr>
<tr>
<td>☐ Annet: Kun navn og ifølge vil</td>
<td>☐ FagFranseisitet</td>
</tr>
<tr>
<td>komme til prosjektet,</td>
<td>☐ Fagforståelse för</td>
</tr>
<tr>
<td>ikke adresse og</td>
<td>☐ Fagforståelse för</td>
</tr>
<tr>
<td>fødselsdato</td>
<td>☐ Fagforståelse för</td>
</tr>
<tr>
<td>Kniv er styrt forår derom de har</td>
<td>☐ Fagforståelse för</td>
</tr>
<tr>
<td>behov for tak. Den</td>
<td>☐ Fagforståelse för</td>
</tr>
<tr>
<td>noteres ned på et eget</td>
<td>☐ Fagforståelse för</td>
</tr>
<tr>
<td>kontaktjern som hentes</td>
<td>☐ Fagforståelse för</td>
</tr>
<tr>
<td>personlig av</td>
<td>☐ Fagforståelse för</td>
</tr>
<tr>
<td>forskeren.</td>
<td>☐ Fagforståelse för</td>
</tr>
</tbody>
</table>

Opplisting om trediepersoner
☐ Navn, adresse, fødselsdato
☐ Fødselsnummer (11 siffer)
☐ Annet: Kun fødselsdato til barn
              noteres, for å vite når det har gått ca 5 uker.

Utskriftspunkt: 15.11.12 12:55

Saksnr. 12-108
9.2 Utvalg i studien

| Behandlingen omfatter opplysninger om (beskriv også eventuell kontrollgruppe): |
|-------------------------|-------------------|
| □ Ansatt i egen virksomhet | □ Elever/studenter/barnehagebarn |
| □ Adgangskontrolerte | □ Medlemmer |
| □ Paserter | □ Kundet/klienter/brukere |
| □ Selskapsutsvalgte | □ Friele frivillige |

Dersom det skal gis godtgjørelse, beskriv nærmere:

Inkluderer utvalget personer med begrensset samfunnskompasjon, eks mindrebrige, demente eller annet? □ Ja □ X Nei

Dersom ja, forklar:

9.3 Innsamling av opplysningene

| Hvordan personopplysningene samlres inn (flere avkryssinger er mulige) |
|-------------------------|-------------------|
| □ Mancellt | □ Elektronisk (bilde og tekst) |
| □ Videoopptak | □ Lydopptak |
| □ Annet (beskriv hvordan): | |

Hvor innhentes personopplysningene fra?

X Fra den registrerte selv.

□ Annet (beskriv hvor fra):

Hvis uttrekk av forskningsdata, hvem utfører uttrekk og anonymisering/avidentifisering av data i dette uttrekket: □ Datatangshusgruppen □ Sykehuspartner □Andre – oppgi hvem (prosjektleder el andre registe, for eksempel NPR, SSB eller andre helseinstitusjoner):

9.4 Utliever av opplysningene

| Bli personopplysningene gjort tilgjengelige/utlevert til andre virksomheter? |
|-------------------------|-------------------|
| □ Ja | □ X Nei |

Dersom ja, oppgi mottakerens navn og adresse, samt hvilken rolle mottakeren har i prosjektet:

Er det inngått sikte avtale? □ Ja □ X Nei □ Nei

Hva blir overført?

□ Informasjon med navn, personnummer eller annen som enligt angir det enkelte individ (kryptert overføring krevet)

□ Anonymisert informasjon (ikke mulig å bakviseidentifisere)

□ Avidentifisert informasjon (ikke mulig å bakviseidentifisere uten nettet). Forklar i så fall hvordan kryssavleranseliste beskyttes dersom dette ikke er til som i pkt 9.6:

Hvordan oversender informasjonen til andre virksomheter?

□ Personlig overlevering

□ CD sendt med rekommandert post

□ Legges ut på sikret område for nedlasting av mottaker (kryptert)

□ Annet. Beskriv nærmere:
9.5 Lagring og behandling av opplysninger

Hvordan lagres opplysningene?

☐ Elektronisk
  ☐ Egen forskningsserver ved AHUS
  ☐ Annen virksomhet – oppgi hvem:
  ☐ Forskningsserver ved UiO (kun anonymiserte data)
  ☐ Annet. Beskriv nærmere:

X På papejr. Forklar hvordan dette sikres mot uvedkommende: Inntelast i skap på kontor på UiO.

☐ På video, tape eller annet optakt. Beskriv hvordan dette er sikret og om personen kan identifiseres:

☐ Annet. Beskriv nærmere:

9.6 Gjenfinning av opplysningene

Hvordan gjennfinnes opplysningene? (Bruk av direkte identifisering som personnummer og navn skal forståes umgitt)

☐ Opplysningene lagres med navn, personnummer eller annet som entydig angir det enkelte individ

X Opplysningene lagres avidentifisert (ved bruk av krysslisten, kodenakkel, lipsnummer eller lignende)

### Obligatorisk meldeskjema, versjon 1.0

**Saksnr.12-108**

### 10 DATO FOR UTFYLLING

<table>
<thead>
<tr>
<th>Prosjektet er forelagt for og godkjent av divisjonsdir/ klinikkejef</th>
<th>Ja, Hver:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sted og dato</td>
<td>Oslo 01/11/2012</td>
</tr>
<tr>
<td>Signaturel (sendt fra personlig epostadresse godkan)</td>
<td>Astrid Løvli</td>
</tr>
</tbody>
</table>

### 11 BEHANDLING AV PERSONVERNOMBUD

Skal det sendes søknad om konsesjon til Datatilsynet?
- [ ] Ja, det må sendes søknad om konsesjon til Datatilsynet, Jfr POL §33
- [x] Nei, ikke nødvendig – oppgi begrunnelse:
  - Forutsatt gjennomført som beskrevet og at Ahus ansatte finner deltakerne, anbefales prosjektet.

<table>
<thead>
<tr>
<th>Sted og dato</th>
<th>Navn personvernombud: For Marianne Blair Berg, et. Randi Otterstad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nordbyhagen, 15.11.12</td>
<td></td>
</tr>
</tbody>
</table>

### 12 GODKJENNING FOR OPPRETTELSE AV REGISTER/PROSJEKT (fylles ut av direktor ved Forskningsssenteret)

Anmodning om opprettelse av forskningsregister er:
- [x] Godkjent (skjema sendes personvernombudet)
- [ ] Avslått (skjema returneres avsender)

<table>
<thead>
<tr>
<th>Sted og dato</th>
<th>Navn forskningsdirektør:</th>
</tr>
</thead>
<tbody>
<tr>
<td>18/11 - 12</td>
<td></td>
</tr>
</tbody>
</table>

Vedlegg – kryss av hvis relevant for type studie:
- X Protokoll/prosjektbeskrivelse
- X Vedtak fra Regional etisk komité (REK)
- [ ] Pasientinformasjon / Samtykkeerklæring
- [ ] Spørseskjema / Intervjaguide
- [ ] Legemiddelstudie – Legg også ved meldeskjema til SLV
- X Skjema som skal fylles ut og informasjon til kvinnen på barsel

Saken kan ikke behandles hvis relevante vedlegg mangler
Fra: Helge Grimes
Til: Astrid Louise Løvlie
Tittel: SV Barseldepression blant kvinner med somalisk bakgrunn i Stor-Oslo (2012/14588)
Dato: 2012-09-24 12:07

Hei

Viser til innsendt melding til personvernombudet for forskning og kvalitetsikring ved
Vestre Viken HF. For øvrig virksomheter som personvernombudet betjener, se www.oslo-universitetssykehus.no/personvern.
Denne uttalelsen gjelder for alle virksomheter som er nevnt i oversikten der, gitt at følgende forutsetninger er oppfylt:

1. Invitasjon til studien skjer via behandlende personell
2. Informasjon om hvilke pasienter som har samtykket muntlig til at du tar kontakt med dem senere, gis kun på en papirlapp som hentes av deg.
3. Det utleveres ingen annen informasjon fra sykehuset
4. Intervjuer og databehandling foregår skjer utenfor sykehuset
5. Prosjektet gjennomføres i tråd med det som RED har godkjent og som fremgår av samtykkeinformasjonen.
6. De inkluderte får skriftlig informasjon på sitt morsmål

Saksnr. hos personvernombudet er 2012/14588.
Oppgi dette ved senere henvendelser.

Lykke til med prosjektet!

Mvh.
For personvernombudet,
Helge Grimes
Personvernrådgiver
Oslo universitetssykehus HF
Stab pasientssikkerhet og kvalitet
Seksjon for informasjonsikkhet og personvern

40 21 00 35 (mobil)
23 01 50 52 (kontor)

----------------------------------------------
Hei

Dersom pkt. 1 og 2 er avklart er det OK fra min side. Det praktiske må du ta opp med Kristi Hjelle.

Mvh Thomas.

--- Opprinnelig melding ----

FRA: Astrid Louise Løvlie (nullito )
Sendt: 12. september 2012 10:41
TIL: Thomas Abysholm
Kop: a.a.madar@medisin.uio.no

Hei

Jeg tar directe kontakt med deg etter at jeg har hatt en korrespondanse med Annette Staff i juni i år. Jeg mener at du har fått kopier av epistolen vi har sendt hverandre.

Saken gjelder at jeg har søkt om tillatelse til å gå gjennom barneavdelingene på Ullevål for å prøvereutrykke til min masterstudie.

I siste respons fra Annette Staff 29.juni 2012 skriver hun blant annet følgende:

Jeg ser dette som enkelt:
Jeg gir råd Om OK til studien.

1. dersom du garanterer at jordmødrene ikke brutter tautetsplikt ved at de får en kvinne som ikke skjønner norsk/engelsk til å gi deg sitt navn,

2. da er det opp til Hanne Knutsen å vurdere og si OK til om jordmødre kan få tid til dette (regner med at dette er greit).

3. og så må Thomas Abysholm sende deg "OK" per mail, etter at pkt 1 og 2 er avklart. Såbyg selv for å ha det i orden før du starter med å informere avdelingens jordmødre (v.a Hanne, spor ev. om Fødeforum tidl. mTom etc)

Det praktiske ordner du så med Hanne.

Lykke til!

Mvh Annette Staff

Overs, forskningsrådgiver
Kvinner og barneavdelingen, Gynækologisk avdeling, Oslo universitetssykehus HF, Ullevål

Professor, Universitetet i Oslo

IKKE SENSITIVT INNHOLD

På dette svarer jeg følgende:

Jeg diskuterer med min vellyder Ahmad Madar i går om det du tok opp angående bruk av tolk. Dersom det ikke er mulig å spare kvinnene uten å bruke tolk har vi en tolk tilgjengelig per telefon som kan brukes. For som du skriver er det essensielt at de forstår hvorfor jeg vil ha navnet og nummeret deres. Når jeg skal ringe dem senere for å spare om de vil delta i studien vil tolk også benyttes, samt i intervju-situasjonen. På avdelingen vil kvinnene også få ett kontaktnummer. Epistolen (ca 1/3 side) med min kontaktdata og informasjon om hva som skjer videre. Denne informasjonen vil selvfølgelig foreligge også på somali.

Så dersom jordmødrene i tilfeller der det er usikkert om det er kvinnens ønske å bli forspurt om deltakelse i en studie bruker telefon tolk som oppgis av oss, håper jeg det vil være den garantien du ettersetter i pkt 1.

Så forsto jeg på en mail jeg fikk fra Anne Flem Jacobsen at det er en som heter Kristi som er den formelle leder for alle jordmødrene. At det er henne som skal gi det formelle svar, til tross for at også Trine Baaten på Føde/barne A må informeres. Har du deres epistaddresser og kan sende dem til meg?

Om jeg nå har fått det riktig må først Kristi si OK, deretter Hanne og Trine, før Thomas Abysholm kan sende et OK?

Denne epistolen har jeg ikke fått svar på og jeg har prøvet å sende flere eposter og ringt, både på kontoret og via sendebordet. Siden det nå er 12.september tilsetter jeg meg å sparede deg om du har mulighet til å enten skrive denne henvendelsen videre til en annen som kan ta en avgjørelse, eller om du kan gi meg et OK slå at det ved eventuelt positivt svar er mulig å gå videre med planlegging og gjennomføring av prosjektet.

Håper på positiv respons!

Med venlig hilsen

Astrid Løvlie, masterstudent i International Community Health, UiO.
Appendix 8 – Information when screened ≥10 EPDS

Til fastlege / helsesøster  Sted/Dato

Til orientering

_________________________ har deltatt i en studie om hvordan somaliske kvinner har det psykisk etter fødselen, med fokus på barseldepresjon.

I den anledning har hun fylt ut et screening skjema for barseldepresjon (Edinburgh Postnatal Depression Scale, EPDS). Denne screeningen er ikke et diagnostisk verktøy, men er vist å ha høy sensitivitet og spesifisitet for barseldepresjon i Norge. Det er mulig å skåre fra 0-30 på skalaen, og de som scorer 10 eller mer skal henvises for videre oppfølging med tanke på diagnostisering og videre oppfølging av mulig klinisk barseldepresjon. Henviste hadde en score på _____/_____.

Hun henvises derfor til deg/dere for videre oppfølging av mulig barseldepresjon.

På forhånd takk!

Med vennlig hilsen

Astrid Louise Løvlie,
masterstudent i International Community Health, Universitetet i Oslo
Telefon 40879368
Figure 6 Distribution of EPDS score in the sample

Table 6 Association between demographic variables and PPD, Fisher's Exact Test, n=39

<table>
<thead>
<tr>
<th>Variable</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country of birth</td>
<td>p=0.077</td>
</tr>
<tr>
<td>Years lived in Norway (1-10 or 11-31 years)</td>
<td>p=0.255</td>
</tr>
<tr>
<td>Children (1-2 or 3-9)</td>
<td>p=0.570</td>
</tr>
<tr>
<td>Gender last child – extracted respondent with twins.</td>
<td>p=0.230</td>
</tr>
<tr>
<td>Language of questionnaire</td>
<td>p=0.508</td>
</tr>
<tr>
<td>Age grouped</td>
<td>p=0.807</td>
</tr>
<tr>
<td>Norwegian knowledge</td>
<td>p=1.000</td>
</tr>
<tr>
<td>Language spoken at home</td>
<td>p=0.324</td>
</tr>
<tr>
<td>Arrival status</td>
<td>p=0.539</td>
</tr>
<tr>
<td>Nationality</td>
<td>p=0.556</td>
</tr>
<tr>
<td>Employment status</td>
<td>p=0.081</td>
</tr>
<tr>
<td>Education level</td>
<td>p=0.311</td>
</tr>
</tbody>
</table>
Table 7 Differences in arrival status groups, n=39

<table>
<thead>
<tr>
<th>Variable</th>
<th>Family reunion n=16</th>
<th>Asylum seeker n=17</th>
<th>Refugee n=3</th>
<th>Born in Norway n=3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Range</strong></td>
<td><strong>Mean (SD)</strong></td>
<td><strong>Range</strong></td>
<td><strong>Mean (SD)</strong></td>
<td><strong>Range</strong></td>
</tr>
<tr>
<td><strong>Age in years</strong></td>
<td>19-39</td>
<td>27.69 (5.19)</td>
<td>29.35 (2.25)</td>
<td>27-33</td>
</tr>
<tr>
<td><strong>Years in Norway</strong></td>
<td>1-24</td>
<td>12.66 (6.84)</td>
<td>8.97 (4.62)</td>
<td>5.5-14</td>
</tr>
<tr>
<td><strong>Number of children</strong></td>
<td>1-6</td>
<td>2.81 (1.68)</td>
<td>3.35 (1.97)</td>
<td>2-5</td>
</tr>
<tr>
<td><strong>Age of baby in weeks</strong></td>
<td>6–26</td>
<td>10.44 (5.48)</td>
<td>8.65 (3.41)</td>
<td>6-24</td>
</tr>
<tr>
<td><strong>EPDS score</strong></td>
<td>0-12</td>
<td>2.69 (2.87)</td>
<td>2.71 (3.24)</td>
<td>0-2</td>
</tr>
</tbody>
</table>

Table 8 Comparing variables in PPD and non-PPD respondents, Mann Whitney U, n=39

<table>
<thead>
<tr>
<th>Variable</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>p=0.459</td>
</tr>
<tr>
<td><strong>Years lived in Norway</strong></td>
<td>p=0.102</td>
</tr>
<tr>
<td><strong>Number of children</strong></td>
<td>p=0.153</td>
</tr>
<tr>
<td><strong>Age of baby</strong></td>
<td>p=0.830</td>
</tr>
</tbody>
</table>

Table 9 Associations between socioeconomically variables and PPD, Fisher’s Exact Test, n=39

<table>
<thead>
<tr>
<th>Variable</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cohabiting status</strong></td>
<td>p=0.557</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td>p=0.556</td>
</tr>
<tr>
<td><strong>Education level</strong></td>
<td>p=0.311</td>
</tr>
<tr>
<td><strong>Study</strong></td>
<td>p=0.101</td>
</tr>
<tr>
<td><strong>Course</strong></td>
<td>p=0.556</td>
</tr>
<tr>
<td><strong>Type of work</strong></td>
<td>p=0.322</td>
</tr>
<tr>
<td><strong>Type of studies</strong></td>
<td><strong>p= 0.033</strong></td>
</tr>
<tr>
<td><strong>Type of course</strong></td>
<td>p=1.000</td>
</tr>
<tr>
<td>Variable</td>
<td>p-value</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Status of leave from work/course</td>
<td>p=0.420</td>
</tr>
<tr>
<td>Employment status husband</td>
<td>p=0.848</td>
</tr>
<tr>
<td>Status of study/course husband</td>
<td>p=0.787</td>
</tr>
</tbody>
</table>

Table 10 Association between mother’s health and PPD, Fishers’s Exact Test n=39

<table>
<thead>
<tr>
<th>Variable</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self rated health</td>
<td>p=0.009</td>
</tr>
<tr>
<td>Disease now</td>
<td>p=0.508</td>
</tr>
<tr>
<td>FGM</td>
<td>p=0.508</td>
</tr>
<tr>
<td>Deinfibulated</td>
<td>p=0.836</td>
</tr>
</tbody>
</table>

Table 11 Association between pregnancy and delivery, and PPD, Fisher’s Exact Test, n=39

<table>
<thead>
<tr>
<th>Variable</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned pregnancy</td>
<td>p=1.000</td>
</tr>
<tr>
<td>Mode of delivery</td>
<td>p=1.000</td>
</tr>
<tr>
<td>Caesarean background</td>
<td>p=1.000</td>
</tr>
<tr>
<td>Technical assistance during delivery</td>
<td>p=0.006</td>
</tr>
<tr>
<td>Type of assistance</td>
<td>P &lt; 0.01</td>
</tr>
<tr>
<td>Premature delivery</td>
<td>p=1.000</td>
</tr>
</tbody>
</table>

Table 12 Association between factors relating to the baby and PPD, Fisher’s Exact Test, n=39

<table>
<thead>
<tr>
<th>Variable</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baby sleep</td>
<td>p=0.027</td>
</tr>
<tr>
<td>Baby contact</td>
<td>p=1.000</td>
</tr>
<tr>
<td>Baby crying</td>
<td>p=0.403</td>
</tr>
<tr>
<td>Baby health</td>
<td>p=0.586</td>
</tr>
<tr>
<td>Breastfeeding (yes, partial or no)</td>
<td>p = 0.168</td>
</tr>
</tbody>
</table>
### Table 13 Association between social support and PPD, Fisher's Exact Test, n=39

<table>
<thead>
<tr>
<th>Variable</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Husband – support in daily life/housework/grocery</td>
<td>p=0.775</td>
</tr>
<tr>
<td>Husband – psychological support</td>
<td>p=0.832</td>
</tr>
<tr>
<td>Husband – support in care for older children</td>
<td>p=0.421</td>
</tr>
<tr>
<td>Husband – support in care for baby</td>
<td>p=0.440</td>
</tr>
<tr>
<td>Friends - support in daily life/housework/grocery</td>
<td>p=0.431</td>
</tr>
<tr>
<td>Friends – psychological support</td>
<td>p=0.728</td>
</tr>
<tr>
<td>Friends – support in care for older children</td>
<td>p=1.000</td>
</tr>
<tr>
<td>Friends – support in care for baby</td>
<td>p=1.000</td>
</tr>
<tr>
<td>Family – support in daily life/housework/grocery</td>
<td>p=1.000</td>
</tr>
<tr>
<td>Family – psychological support</td>
<td>p=0.053</td>
</tr>
<tr>
<td>Family – support in care for older children</td>
<td>p=1.000</td>
</tr>
<tr>
<td>Family – support in care for baby</td>
<td>p=0.682</td>
</tr>
<tr>
<td>HCW – support overall</td>
<td>p=0.189</td>
</tr>
</tbody>
</table>

### Table 14 Association between history of mental illness, recent life event and PPD, Fisher's Exact Test, n=39

<table>
<thead>
<tr>
<th>Variable</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earlier history of mental ill health</td>
<td>p=0.004</td>
</tr>
<tr>
<td>Periods of sadness for more than two weeks</td>
<td>p=0.101</td>
</tr>
<tr>
<td>Recent life event - grouped</td>
<td>p=0.235</td>
</tr>
</tbody>
</table>

### Table 15 Recent life events last 12 months and PPD, Fisher's Exact Test, n=39

<table>
<thead>
<tr>
<th>Variables</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Divorce</td>
<td>p = 1.000</td>
</tr>
<tr>
<td>Marital problems</td>
<td>p = 1.000</td>
</tr>
<tr>
<td>Conflict with family or friends</td>
<td>p = 0.219</td>
</tr>
<tr>
<td>Problems at work</td>
<td>p = 0.150</td>
</tr>
<tr>
<td>Economical problems</td>
<td>p = 0.018</td>
</tr>
<tr>
<td>Serious injury to your self</td>
<td>p = 0.150</td>
</tr>
<tr>
<td>Serious injury to family/friends</td>
<td>p = 0.508</td>
</tr>
<tr>
<td>Traffic accident/fire/theft</td>
<td>p = 0.150</td>
</tr>
<tr>
<td>Other problems</td>
<td>p = 0.403</td>
</tr>
</tbody>
</table>