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Abstract

Objectives To explore the degree of self-reported suffering following violent incidents and the prevalence of police reporting as well as other help-seeking behaviour among women in early pregnancy that have experience of a history of violence.

Study design A cross sectional design. 1939 pregnant women ≥ 18 years were recruited prospectively between March 2012 and September 2013 in south-west of Sweden. Of those 761 (39.5 %) reported having a history of violence and that dataset comprises the cohort investigated in the present study. Descriptive statistics, Chi-square analysis and T-test were used for the statistical calculations.

Results More than four of five women (80.5 %) having a history of emotional abuse ($n = 374$), more than half (52.4 %) having history of physical abuse ($n = 561$) and almost three of four (70.6%) who experienced sexual abuse ($n = 302$) reported in the early second trimester of their pregnancy that they still suffered from their experience. Of those women who had experienced emotional-, physical- and sexual abuse, 10.5 % respectively 25.1 % and 18.0% had never disclosed their experiences to anyone. At most, a quarter of the abused women had reported a violent incident to the police.

Conclusions All actors who meet women with experience of abuse need to have increased knowledge about the long-term consequences of all types of abuse. This in order to increase the rate of asking women about their violent experiences to be able to prevent experiences of violence from affecting pregnancy and childbirth negatively by offering help and support.

Keywords History of violence, Help-seeking, Pregnancy, Police-reporting, Suffering

Abbreviations

ANC = Antenatal Care

EPDS = Edinburgh Postnatal Depression Scale

NORAQ = NorVold Abuse Questionnaire

SOC-13= Sense of Coherence Scale -13 (short form)

DSM IV = Diagnostic and Statistical Manual of Mental Disorders

Introduction

Violence against women is a widely recognised public health issue as well as being a violation of human rights [1]. In the United Nations Declaration on the elimination of violence against women, such violence is defined as: *“any act of gender-based violence that results in, or is likely to result in, physical, sexual or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life”* [2]. According to the Swedish penal code, domestic violence is a criminal act [3].

Pregnancy is a period in women’s lives when many women experience increased stress and feels vulnerable [4]. Research has also found this to be a period when many women experience violence, mainly in the home and from their domestic partner [5]. A Systematic review and meta-analysis showed the overall prevalence, in the developed countries, of domestic violence against women during pregnancy to be 13.3 % [6]. However, regardless of when the violence has occurred and who the perpetrator was, experiences of emotional, physical or sexual victimisation during a woman’s life span can cause additional stress during pregnancy and have a serious impact on a pregnant woman’s wellbeing [7,8]. In addition, it can bring about a series of other consequences including, but not limited to, the increased risk for post-partum depression [9].

Experiences of physical, psychological or sexual violence during pregnancy have been linked to distress, which may, for example, lead to preterm birth [10]. In addition, experiences of sexual abuse in adult life have been found to be associated with extreme fear of childbirth [11], which in turn, may be associated with prolonged labour and the requirement for a

caesarean section [12]. Also, pregnancy and childbirth have been found to function as a trigger for painful memories for women who have been subjected to sexual violence at some time during their lifetime [13,14]. Memories of abuse can complicate prenatal care because victims of abuse seek to avoid certain situations known to trigger memories of abuse and thereby disturb delivery [15]. Women with childhood experiences of sexual abuse suffer a number of consequences and more often report risk behaviour such as drug and alcohol dependence [16], which may affect pregnancy [17]. Sexual abuse in both childhood and adulthood and violence from an intimate partner are associated with post-traumatic stress disorder, depression, and anxiety [18]. Mental health issues, such as depression, may also negatively affect pregnancy outcomes and disturb the interaction between mother and child [9]. To summarize, experiences of violence, regardless of when it has occurred and who the perpetrator was, may have a number of implications for pregnancy, childbirth and post- and prenatal care.

Although having knowledge about women's violent experiences and their potential effects on pregnancy and delivery has been identified as being essential for caregivers in maternal and baby care settings [19], not all of the involved personnel routinely ask the pregnant women about their eventual violent experiences [20]. The most common reason for health care providers not to ask women about their experiences of domestic violence is the lack of time [19,21] or, the midwife him or herself could be the obstacle, due to fear of the perpetrator and the presence of the partner [21]. At the same time, a Cochrane review shows that when professionals at the Antenatal Care (ANC) ask the pregnant women about their experiences they tend to disclose their situation [22]. A recently published study from six European countries revealed that one in ten pregnant women suffered severely from earlier experiences of abuse [23].

There are also indications that few women report their violent experiences to the police [24] and therefore do not receive the support they need to handle their experiences [25]. Research on reporting behaviour has consistently shown [26] that victims often make a rational choice of reporting a crime or not to the police based on factors such as the type of crime [27], their relation to the perpetrator [28], the presence of alcohol consumption, and the fear of being further victimised [29]. For crimes where clear-up rates are generally low, such as domestic violence, one reason for not reporting an incident to the police is the lack of confidence in the ability of the police to deal with domestic violence [28]. Through not reporting experiences to the police or seeking other professional help, many women continue to suffer from their experiences and bring their unresolved issues into their pregnancy, which can negatively affect the pregnancy, delivery and early postpartum period.

Against this background, the *aim* of this study was to explore the degree of self-reported suffering following violent incidents and the prevalence of police reporting as well as other help-seeking behaviour among women in early pregnancy that have experience of a history of violence.

Methods

The study has a cross sectional design. The material used originates from a project entitled *Pregnant women and new mothers' health and life experience* where a cohort of 1939 pregnant women was recruited in *early pregnancy*, in gestational week 13 (mean, 12.8 , SD 5.11) [30]. Recruitment and the collection of data were performed prospectively between March 2012 and September 2013. *Inclusion criteria* were women ≥ 18 years, registered at an ANC, when pregnant, and who understood and could write Swedish or English. The

participants were fully informed about the substance of the study and received exclusive verbal and written information from their midwife. If the partner came along with the women to the appointment at ANC when pregnant, he/she was also invited to participate in a parallel study about “*Becoming and new fathers/partners health and lifestyle*”. The studies are completely independent to each other. The women who accepted participation in the study completed the questionnaire in as private place as possible at ANC, but the facilities for privacy varied between the different ANC’s. The women were guaranteed confidentiality and it was left entirely up to them if they wished to disclose to their midwife that they were living in a violent relationship. If any of the participants came forward and asked for help, professional help was offered. The questionnaire was completed in as private place as possible at the ANC facility. Among the 1939 participating women there were 761 (39.5 %) who reported in their early second trimester that they had a history of violence in their relationship. This dataset was available for analysis for the present study. The recruitment and setting, which is multicultural, is described in more detail elsewhere [30].

Questionnaire

All of the data used was based on a self-administered questionnaire including 122 questions and a selection of questions was used for analyses for current study. The main instrument was the NorVold Abuse Questionnaire (NorAQ) [31]. The abuse variables in NorAQ have previously shown good reliability, validity and specificity (ibid). NorAQ measures the emotional, physical and sexual abuse of the victim as a child (< 18 years) and later as an adult ($\geq$ 18 years). Every type of violence is defined according to Swahnberg et al [31] and there are three questions for the level of emotional as well as for physical abuse and four questions related to sexual violence [31]. It is enough to have experienced one level of violence to be

regarded as being exposed to one type of violence. A *history of violence* is defined as emotional, physical or sexual abuse occurring during childhood (< 18 years), adulthood ($\geq$ 18 years) or both, regardless of the level of abuse or relation to the perpetrator. The following three questions (one for each type of violence emotional, physical, sexual) were used to measure the level of current suffering from violent experiences in the current study; *how much do you suffer now from the consequences of the emotional, physical or sexual abuse?* The questions were answered by making a tick against the number between 1-10 on a Likert-scale that best corresponded to how much the participant regarded she suffered at present and where 1 meant “not suffering at all” and 10 “suffering terribly”. For the questions about current suffering from earlier abuse, the test–retest reliability ranged from 91% to 95% [31]. The next question was; *have you ever sought help for the suffering you experienced because you have been subjected to emotional, physical or sexual abuse?* This was to be answered by Yes or No. The following question is at the end of the NorAQ-instrument, and was not asked in relation to each type of violence; *have you ever reported an instance of abuse to the police?* Alternative for answers was; No, Yes (once) or Yes (several times). Thus, the answer may refer to any experience of abuse.

Sense of Coherence Scale (SOC-13)

The short form of the SOC-13 was used. This measures views on life, stress management and the use of one’s own resources to maintain and improve health. The SOC-scale instrument is reliable, valid and cross-culturally applicable with acceptable face validity [32]. A Strong SOC (high score) is a significant predictor of good psychological health [33].

Edinburgh Postnatal Depression Scale (EPDS)

The EPDS measures common symptoms of depression and is intended to screen for the risk of depression, postpartum, but can also as well be used during pregnancy [34]. The EPDS is validated for depressive symptoms during pregnancy with an optimal cut-off at ≥ 13 and a sensitivity of 77% according to DSM-IV criteria, and a specificity of 94% [35]. We used the full scale of the EPDS with all 10 items on a four-point scale from 0-3 where high scores indicate several symptoms of depression.

Classification of the Variables

Classifications of variables were as follows: *Age*, was classified as 18-25, 26-34 and ≥ 35 years. *Parity* was classified as primiparae or multiparae. *Language*, as a foreign language or Swedish (solely), spoken at home. *Educational status* was classified as compulsory school or less, high school, or university. *Cohabiting status* was dichotomized and classified as being single/living apart, or as a common law spouse/married. The SOC-13 scale was dichotomized using the first quartile of the distribution as a cut-off value ($\text{SOC} \leq 64$ and $\text{SOC} > 64$) [36]. A Low SOC-score indicates an inability to use one's own resources to maintain and improve health in stressful situations. An optimal cut-off of ≥ 13 on EPDS was chosen as representing the presence of symptoms of depression during pregnancy [35]. Police reporting with the answer alternatives No, Yes (once) or Yes (several times) was dichotomized to Yes and No (once and several times). The degree of current suffering was measured on a visual analogue Likert-scale ranging from 1-10, and recoded into 'no suffering' (0), 'moderate suffering' (1-5) and 'severe current suffering' (≥ 6) [23].

Statistical analysis

Chi-square analysis was used to investigate differences in socio-demographic background factors among women who had reported 'history of violence' versus "no-history of violence'. The SOC-score was only computed for those responding to all thirteen items. The EPDS-score was only computed for those who answered all ten questions. In addition, Chi-square analysis was utilised to investigate the prevalence of police reporting in relation to a history of emotional, physical and sexual violence. Descriptive statistics were used to show the women's degree of suffering as a consequence of previous experiences of emotional, physical and sexual violence. The T-test was used to compare the degree of suffering among women who had experiences of emotional, physical and sexual violence and help seeking behavior. Statistical significance was accepted at $p < 0.05$. The Statistical Package for Social Sciences (SPSS) version 22.0 for Windows was used for performing the analyses.

Ethical considerations

The main principals to justify this research were satisfied according to the World Medical Association Declaration of Helsinki [37]. Written informed consent by the participants was secured by the use of a letter containing information about the project and a returnable signed consent form. The current study was conducted in accordance with the World Health Organisation's ethical and safety recommendations for research on domestic violence against women [38]. Approval was provided from the Regional Ethical Review Board in Southern Sweden (Dnr: 640/2008).

Results

The mean age of the study participants in current study was 30 years (mean 30.25, SD 4.87) and their ages ranged between 18 and 43 years. The socio-demographic background factors for women with and without a history of violence (N = 1939) were alike, apart from employment and cohabiting status, where significantly more women who were unemployed and single/living apart occurred among those with a history of violence (Table 1).

Women with a history of violence had significantly lower SOC-scores than women without, thus indicating that violent experiences have a negative impact on the ability to use one's own resources to maintain and improve health in stressful situations. The same pattern was found for women with high EPDS-scores. Women with a history of violence had a significantly higher EPDS-score, showing more symptoms of depression in the early part of the second trimester when compared with women who had no previous experiences of violence (Table 1).

Of the women with a history of violence 761 (100 %), emotional abuse was reported by 49.1 % (n = 374), physical abuse by 73.7 % (n = 561) and sexual abuse by 39.7% (n = 302) (Please note that these categories overlap to some degree) (Table 2).

More than four out of five women (80.5 %) who reported that they had a history of emotional abuse still suffered from their experience when they answered Q-I in the early part of the second trimester of their pregnancy. About one fifth of the women stated that they experienced severe suffering. In total, more than half (52.4 %) of those women who had a history of physical abuse still suffered from their experience in early second trimester of their pregnancy, and more than one in ten stated that they suffered severely. Almost three quarters

of the women suffered to some extent from having experienced sexual abuse and nearly every fifth woman stated a high degree of current suffering from previous experiences (Table 2).

TABLE 1 AND 2 ABOUT HERE

Disclosure, help seeking and police reporting

Of those women who had experienced emotional abuse, around ten per cent (10.5 %) had never disclosed their experience to anyone. Of those women who had experienced physical abuse every fourth woman (25.1 %) had never told anyone about her experience. Of those women with a history of sexual abuse, almost one of five (18.0%) had never told anyone about their experience (exclusively presented in the text).

More than half of the women (56.9 %) who had a history of emotional abuse, eight out of ten (80.9 %) who had a history of physical abuse and almost eight out of ten women (77.8 %) who had a history of sexual abuse had never sought any help for suffering caused by the abuse ($p < 0.001$). Finally, there was a strong association between the degree of suffering from emotional-, physical- and sexual abuse and seeking help. Those who had sought help reported a higher degree of suffering than those who had not sought help (Table 3).

Of the total cohort of women who reported having a history of violence ($n=761$), one in five, 18.5 % ($n= 141$), had reported any of her experiences to the police (exclusively presented in the text).

Table 4 reports the prevalence of different types of violent experiences and degree of police reporting. Three out of four women who had experiences of emotional abuse had never reported an incident to the police. Almost four out of five women who had a history of

physical abuse, as well as those who had a history of sexual abuse had never filed a police report.

We were further able to show that women who had filed a police report had lower scores on the SOC-13-scale; 65.21 (mean 65.2, SD 13.15) (exclusively presented in the text).

TABLE 3 AND 4 ABOUT HERE

Discussion

Our results show that many women with a history of violence still suffer from the consequences of previous abuse at the time of their making the first visit to the ANC when pregnant, i.e. in the early second trimester. The study demonstrates that between 10 and 25 per cent of the participating women had not disclosed their violent experiences to anyone. However, these figures appear to have improved in a Swedish context. In a study with a data collection for almost two decades ago, 37% of women subjected to intimate partner violence had not told anybody about the violence [24]. Our results showed that the majority of the women had not reported a violent incident to the police or sought help to deal with the consequences of abuse. Although, these figures has also improved compared to almost two decades ago [24]. Even though our study did not measure intimate partner violence exclusively the results may be seen as an indication that the attitudes to interpersonal violence in Swedish society are changing in advantage for the survivors of the violence. Still, the figures of silence indicate that many women bring unresolved issues with them into pregnancy that can affect their pregnancy and childbirth. No less than four out of ten women, visiting the ANC when pregnant, reported having a history of violence. Having a history of violence has been found to have potentially severe consequences for women in all stages of pregnancy and in postnatal care [6,9]. It is important to ask a pregnant woman about her

experiences of any form of violence she has experienced during her lifetime and about how much she suffers from these experiences when entering pregnancy. However, lack of preparedness and guidelines to offer care and support to women with experiences of abuse has been put forward as one possible reason for why midwives do not always ask women about any history of violence [22].

Since pregnancy has been found to trigger memories of earlier experiences of abuse [13-15], with the potential of severe consequences for both women and children, [11,39,40] regardless of whether the woman currently suffers from previous abuse, detecting a history of violence should be a priority for midwives. The Swedish National board of Health and Welfare recommend and support the practice of midwives asking pregnant women about any history of violence [41]. Unfortunately, in Sweden it differs from county to county to what extent this delicate issue is addressed. But, year 2014, it was registered that midwives working at ANC's had asked almost 80% of all pregnant women in Sweden about their experiences of violence [20]. However, if it increased disclosure of violent experiences is unknown. Furthermore, it is not enough to just ask about a history of violence at the time of enrolment at the ANC in early pregnancy. There must be a readymade plan of action offering the woman the help she needs in order to be able to process her experience of being a victim of violence and prevent these experiences from affecting her pregnancy, childbirth and motherhood negatively [42]. Earlier research has showed that midwives can be very uneasy about asking women about violent experiences and that lack of knowledge and self-confidence are obstacles for handling this issue [21]. It is the health care provider's responsibility to ensure as well as to provide the professionals resources as time and education in this particular issue. An important ingredient for asking questions about violence is to have strategies to handle the situation if the woman discloses her experiences [43]. The focus on abuse in populations of pregnant women is

mostly on domestic violence and the new guidelines that have been issued are based on knowledge about the effects of this type of abuse or violence in close relationships.

The results further showed that those women who reported the highest level of suffering were more likely to have reported the incidents to the police compared with the women who reported a lower level of suffering. In addition, women who reported incidents to the police had lower SOC-scores. This may appear contradictory at first as a lower score indicates a limited ability to use one's own resources to maintain and improve one's health in stressful situations. But, at the same time this also indicates that the most vulnerable women report their experiences to the police. In order to avoid secondary victimization [44] of these already vulnerable women it is of the utmost importance that these women are treated with respect, empathy and understanding at their meeting with the police. The police should also be informed about the potential long-lasting negative effects of violent experiences and offer women help to enable them to proceed in processing their experiences of the violent incident. While it is positive that the most vulnerable women appear to have sought help at some point, there still remains a relatively large group of women who have not disclosed their experiences to anyone. Research however, shows that most women disclose their experiences when asked about them, which increases the rate of detection [22]. Therefore, it is essential that midwives ask all pregnant women visiting them about their experiences, even those who appear to be well functioning.

This study had some strengths and limitations. The strength of this cross sectional study is its sample size and the use of prospectively collected data. Also, the cohort is well defined and there was a possibility to compare, at baseline, women exposed to violence with those without

experiences of violence. About a quarter of the participants' spoke a foreign language at home. Making the questionnaire available in both Swedish and English possibly increased the likelihood of reaching a representative sample of women. A further strength in this study was the use of validated instruments in the questionnaires [24,31,32,34]. However, the nature of cross sectional design does not allow inferring causality. A further limitation is that it was not possible to investigate the rate of police reporting by the type of crime.

In conclusion, all those actors in society who meet women with experiences of abuse, e.g. the police, the health care services and the social services, must have increased knowledge about the long term consequences of experiences of all types of abuse. In order to increase the rate of asking women about their experience of violence, and thereby increase the rate of disclosure, and as a means to prevent experiences of violence from affecting childbirth negatively, all maternity care settings should have an action plan ready to offer women who suffer from former or current abuse, help and support.

Reference List

- [1] World Health Organization, Violence against women. Intimate partner and sexual violence against women. Facta sheet No 239, (2016).
- [2] UN General Assembly, Declaration on the Elimination of Violence against Women 20 December 1993, A/RES/48/104, (20 December 1993).
- [3] Regeringens rättsdatabaser, Brottsbalk 1962:700.
<http://www.notisum.se/rnp/SLS/LAG/19620700.htm#K4P4S1> 4 kap. Lag (2013:367) 4 a § (in Swedish). In English:Government Office, Swedish Statute Book.Penal code 1962:700 Law (2013:367). 2013, 4 a §. Accessed 9 August, 2016, 9/8 2016 (2013).
- [4] H. Finnbogadottir, A.K. Dykes, C. Wann-Hansson, Struggling to survive for the sake of the unborn baby: a grounded theory model of exposure to intimate partner violence during pregnancy, *BMC Pregnancy Childbirth*. 14 (2014) 293-2393-14-293.
- [5] C. Garcia-Moreno, H.A. Jansen, M. Ellsberg, L. Heise, C.H. Watts, WHO Multi-country Study on Women's Health and Domestic Violence against Women Study Team, Prevalence of intimate partner violence: findings from the WHO multi-country study on women's health and domestic violence, *Lancet*. 368 (2006) 1260-1269.
- [6] L. James, D. Brody, Z. Hamilton, Risk factors for domestic violence during pregnancy: a meta-analytic review, *Violence Vict*. 28 (2013) 359-380.
- [7] M. Altarac, D. Strobino, Abuse during pregnancy and stress because of abuse during pregnancy and birthweight, *J. Am. Med. Womens Assoc*. 57 (2002) 208-214.
- [8] K. Scott-Storey, Cumulative abuse: do things add up? An evaluation of the conceptualization, operationalization, and methodological approaches in the study of the phenomenon of cumulative abuse, *Trauma. Violence Abuse*. 12 (2011) 135-150.
- [9] M. Alvarez-Segura, L. Garcia-Esteve, A. Torres, A. Plaza, M.L. Imaz, L. Hermida-Barros, L. San, N. Burtchen, Are women with a history of abuse more vulnerable to perinatal depressive symptoms? A systematic review, *Arch. Womens Ment. Health*. 17 (2014) 343-357.
- [10] P.S. Shah, J. Shah, Knowledge Synthesis Group on Determinants of Preterm/LBW Births, Maternal exposure to domestic violence and pregnancy and birth outcomes: a systematic review and meta-analyses, *J. Womens Health*. 19 (2010) 2017-2031.
- [11] M. Eberhard-Gran, K. Slinning, A. Eskild, Fear during labor: the impact of sexual abuse in adult life, *J. Psychosom. Obstet. Gynaecol*. 29 (2008) 258-261.
- [12] R.C. Johnson, P. Slade, Obstetric complications and anxiety during pregnancy: is there a relationship? *J. Psychosom. Obstet. Gynaecol*. 24 (2003) 1-14.
- [13] C.A. Courtois, C. Courtois Riley, Pregnancy and childbirth as triggers for abuse memories: implications for care, *Birth*. 19 (1992) 222-223.

- [14] P. Simkin, Early trauma, its potential impact on the childbearing woman, and the role of the midwife, *Midwifery Today Int. Midwife.* (90) (2009) 19-21.
- [15] B. Leeners, H. Richter-Appelt, B. Imthurn, W. Rath, Influence of childhood sexual abuse on pregnancy, delivery, and the early postpartum period in adult women, *J. Psychosom. Res.* 61 (2006) 139-151.
- [16] K.S. Kendler, C.M. Bulik, J. Silberg, J.M. Hettema, J. Myers, C.A. Prescott, Childhood sexual abuse and adult psychiatric and substance use disorders in women: an epidemiological and cotwin control analysis, *Arch. Gen. Psychiatry.* 57 (2000) 953-959.
- [17] K.M. Kuczkowski, The effects of drug abuse on pregnancy, *Curr. Opin. Obstet. Gynecol.* 19 (2007) 578-585.
- [18] C. Jordan, R. Campbell, D. Follingstad, Violence and women's mental health: the impact of physical, sexual, and psychological aggression. *Annu Rev Clin Psychol.* 6 (2010) 607-628.
- [19] B.A. Bailey, Partner violence during pregnancy: prevalence, effects, screening, and management. *International Journal of Women's Health.* 2 (2010) 183-197.
- [20] Graviditetsregistret (The Swedish Pregnancy Register), Graviditetsregistret-mödrhälsövsård-fosterdiagnostik- förlossning (In Swedish). 2015:2–99. <https://www.medscinet.com/GR/default.aspx>, (2015) 2-99.
- [21] H. Finnbogadottir, A.K. Dykes, Midwives' awareness and experiences regarding domestic violence among pregnant women in southern Sweden, *Midwifery.* 28 (2012) 181-189.
- [22] A. Taft, L. O'Doherty, K. Hegarty, J. Ramsay, L. Davidson, G. Feder, Screening women for intimate partner violence in healthcare settings, *Cochrane Database Syst. Rev.* 4 (2013) CD007007.
- [23] M. Lukasse, A.M. Schroll, E.L. Ryding, J. Campbell, H. Karro, H. Kristjansdottir, M. Laanpere, T. Steingrimsdottir, A. Tabor, M. Temmerman, A.S. Van Parys, A.M. Wangel, B. Schei, Prevalence of emotional, physical and sexual abuse among pregnant women in six European countries, *Acta Obstet. Gynecol. Scand.* 93 (2014) 669-677.
- [24] C. Rubertsson, I. Hildingsson, I. Rådestad, Disclosure and police reporting of intimate partner violence postpartum: a pilot study. Feb;26(1):e1-5. doi: 10.1016/j.midw.2008.01.003. Epub 2008 Apr 2. *Midwifery.* 26(1) (2010) e1-5.
- [25] S.J. Bosick, C.M. Rennison, A.R. Gover, M. Dodge, Reporting violence to the police: Predictors through the life course. *Journal of Criminal Justice.* 40 (2012) 441-451.
- [26] W.G. Skogan, Reporting crimes to the police: the status of world research. *Journal of Research in.* 21(2) (1984) 113-137.
- [27] A.M. Watkins, Examining the disparity between juvenile and adult victims in notifying the police:

a study of mediating variables. , 42(3): 333–353. , Journal of Research in Crime and Delinquency. 42(3) (2005) 333-353.

[28] R.B. Felson, S.F. Messner, A.W. Hoskin, G. Deane, Reasons for reporting and not reporting domestic violence to the police. *Criminology*. 40 (3) (2002) 617-647.

[29] M.P. Thompson, J.B. Kingree, The roles of victim and perpetrator alcohol use in intimate partner violence outcomes. *Journal of Interpersonal Violence*. 21(2) (2006) 163-177.

[30] H. Finnbogadottir, A.K. Dykes, C. Wann-Hansson, Prevalence of domestic violence during pregnancy and related risk factors: a cross-sectional study in southern Sweden, *BMC Womens Health*. 14 (2014) 63-6874-14-63.

[31] I.M. Swahnberg, B. Wijma, The NorVold Abuse Questionnaire (NorAQ): validation of new measures of emotional, physical, and sexual abuse, and abuse in the health care system among women, *Eur. J. Public Health*. 13 (2003) 361-366.

[32] A. Antonovsky, The structure and properties of the sense of coherence scale, *Soc. Sci. Med.* 36 (1993) 725-733.

[33] M. Eriksson, B. Lindstrom, Antonovsky's sense of coherence scale and its relation with quality of life: a systematic review, *J. Epidemiol. Community Health*. 61 (2007) 938-944.

[34] J.L. Cox, J.M. Holden, R. Sagovsky, Detection of Postnatal Depression. Development of the 10-item Edinburgh Postnatal depression Scale, *British Journal of Psychiatry*. 150 (1987) 782-786.

[35] C. Rubertsson, K. Borjesson, A. Berglund, A. Josefsson, G. Sydsjo, The Swedish validation of Edinburgh Postnatal Depression Scale (EPDS) during pregnancy, *Nord. J. Psychiatry*. 65 (2011) 414-418.

[36] M. Ekelin, E. Crang Svalenius, A.K. Larsson, P. Nyberg, K. Marsal, A.K. Dykes, Parental expectations, experiences and reactions, sense of coherence and grade of anxiety related to routine ultrasound examination with normal findings during pregnancy, *Prenat. Diagn.* 29 (2009) 952-959.

[37] WMA General Assembly: Fortaleza, Brazil 2013, World Medical Association Declaration of Helsinki. Ethical Principles for Medical Research Involving Human Subjects.

[38] World Health Organization, Putting women first: Ethical and safety recommendations for research on domestic violence against women. WHO/FCH/GWH/01.1 Geneva, Switzerland (2001).

[39] B. Schei, M. Lukasse, E.L. Ryding, J. Campbell, H. Karro, H. Kristjansdottir, M. Laanpere, A.M. Schroll, A. Tabor, M. Temmerman, A.S. Van Parys, A.M. Wangel, T. Steingrimsdottir, A history of abuse and operative delivery--results from a European multi-country cohort study, *PLoS One*. 9 (2014) e87579.

- [40] E.L. Ryding, B. Wijma, K. Wijma, H. Rydhstrom, Fear of childbirth during pregnancy may increase the risk of emergency cesarean section, *Acta Obstet. Gynecol. Scand.* 77 (1998) 542-547.
- [41] Socialstyrelsen (The National Board of Health and Welfare), Att vilja se, vilja veta och att våga fråga. Vägledning för att öka förutsättningarna att upptäcka våldsutsatthet (In Swedish). <http://www.socialstyrelsen.se/Lists/Artikelkatalog/Attachments/19568/2014-10-30.pdf> (ISBN:978-91-7555-224-8):3–42. 2014 (2014) 3-42.
- [42] N. Provencal, E.B. Binder, The effects of early life stress on the epigenome: From the womb to adulthood and even before, *Exp. Neurol.* 268 (2015) 10-20.
- [43] L. O'Doherty, A. Taft, K. Hegarty, J. Ramsay, L. Davidson, G. Feder, Screening women for intimate partner violence in healthcare settings: abridged Cochrane systematic review and meta-analysis. , *Bmj.* 348:g2913 (2014).
- [44] R. Campbell, S. Raja, Secondary victimization of rape victims: insights from mental health professionals who treat survivors of violence, *Violence Vict.* 14 (1999) 261-275.

Table 1. Socio-demographic background factors, Sense of coherence and symptoms of depression in a cohort of women in early pregnancy with and without a history of violence (N = 1939)*

Characteristics	History of violence ¹			P χ^2
	No n (%) 1167 (60.5)	Yes n (%) 761 (39.5)	Total n (%) 1928 (100)*	
Age, years				NS
18-25	206 (17.8)	133 (17.8)	339 (17.8)	
26-34	750 (64.9)	461 (61.6)	1211 (63.6)	
≥ 35	200 (17.3)	154 (20.6)	354 (18.6)	
<i>Missing 35</i>				
Parity				NS
Primiparae	480 (44.9)	337 (47.3)	817 (45.8)	
Multiparae	590 (55.1)	376 (52.7)	966 (54.2)	
<i>Missing 156</i>				
Language				NS
Swedish	871 (74.9)	590 (77.7)	1461 (76.0)	
Foreign language	292 (25.1)	169 (22.3)	461 (24.0)	
<i>Missing 17</i>				
Educational status				NS
Compulsory school or less	29 (2.5)	31 (4.1)	60 (3.1)	
High school	338 (29.0)	238 (31.3)	576 (29.9)	
University	799 (68.5)	492 (64.7)	1291 (67.0)	
<i>Missing 12</i>				
Employment status				
Employed	1121 (96.1)	699 (91.9)	1820 (93.9)	
Unemployed	45 (3.9)	62 (8.1)	107 (5.5)	< 0.001
<i>Missing 12</i>				
Cohabiting status				
Single/Living apart	41 (3.6)	65 (8.7)	106 (5.7)	< 0.001
Common law spouse/married	1085 (96.4)	678 (91.3)	1763 (94.3)	
<i>Missing 70</i>				
Sense of coherence scale (SOC-13)				
High score of SOC	885 (80.9)	477 (64.5)	1362 (74.3)	
Low score of SOC	209 (19.1)	262 (35.5)	471 (25.7)	< 0.001
<i>Missing 106</i>				
EPDS				
Low score < 13	1053 (93.5)	648 (86.6)	1701 (90.8)	
High score ≥ 13	73 (6.5)	100 (13.4)	173 (9.2)	< 0.001
<i>Missing 69</i>				

Statistical significance accepted at $p < 0.05$, two-tailed.

* n = 11 who did not answer the questions about abuse. ¹ Has reported history of emotional, physical or sexual abuse.

Table 2. Women in early pregnancy suffering from the consequences of history of violence¹ (n = 761)²

Characteristics	Emotional abuse n (%) 374 (100)	Physical abuse n (%) 561 (100)	Sexual abuse n (%) 302 (100)
No suffering	73 (19.5)	267 (47.6)	89 (29.5)
Moderate suffering	220 (58.8)	230 (41.0)	156 (51.7)
Severe suffering	81 (21.7)	64 (11.4)	57 (18.9)

¹ Reported history of emotional (mental), physical or sexual abuse, irrespective of level.
Some women may have experienced more than one type of abuse.

² Internal missing answers were 4-11 cases in each group.

Table 3. Experience of suffering by the consequences of abuse and likelihood of seeking help for the suffering (N = 761)

	N	Statistics			P value
		Degree of suffering			
		Mean	SD	CI 95%	t-test
Emotional abuse					
n (%)					
374 (100)					
Sought help					
No	213	2.45	2.43	0.84-1.88	<0.001
Yes	156	3.81	2.60		
<i>missing</i>	5				
Physical abuse					
n (%)					
561 (100)					
Sought help					
No	454	1.23	1.84	2.00-2.99	<0.001
Yes	78	3.72	3.01		
<i>missing</i>	29				
Sexual abuse					
n (%)					
302 (100)					
Sought help					
No	235	2.10	2.37	1.47-2.93	<0.001
Yes	60	4.30	3.21		
<i>missing</i>	7				

Statistical significance accepted at $p < 0.05$, two-tailed.

Table 4. Prevalence of police reporting in a cohort of women who has a history of violence¹ in early pregnancy (n = 761).

Characteristics	Emotional abuse		Physical abuse		Sexual abuse	
	Yes n (%)	No n (%)	Yes n (%)	No n (%)	Yes n (%)	No n (%)
Total	374 (49.5)	381 (50.5)	561(74.2)	196 (25.8)	302 (39.9)	454 (60.1)
Reported to Police						
Yes n (%)	93 (24.9)	47 (12.3)	120 (21.4)	18 (9.2)	64 (21.2)	73 (16.1)
No n (%)	281 (75.1)	334 (87.7)	441 (78.6)	178 (90.8)	238 (78.8)	381 (83.9)
P- value χ^2	< 0.001		< 0.001		0.074	

Statistical significance accepted at $p < 0.05$, P value is two-tailed.

¹ Has reported history of emotional, physical or sexual abuse, irrespective of level. Some women may have experienced more than one type of abuse.

Internal missing values were 4-6 women in each group.