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Obstetric, Somatic, and Demographic Risk Factors For Postpartum Depressive Symptoms

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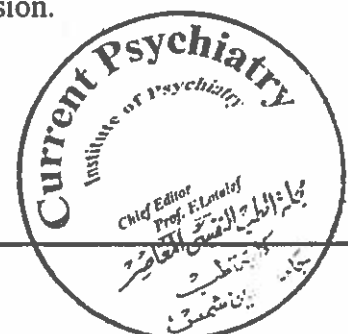
Abstract:

To identify and test the predictive power of potential independent risk factors of postpartum depressive symptoms during pregnancy and the prenatal period. We conducted a case control study where 72 women with postpartum depressive symptoms were selected as an index group and 144 women without depressive symptoms as a control groups. Data related to sociodemographic status, medical, gynecological, and obstetric history, pregnancy, and prenatal events were collected from standardized medical records. The strongest risk factors for postpartum depressive symptoms were complications during pregnancy, such as hyperemesis, premature contractions, psychiatric disorder, and mode of delivery were more common in the postpartum depressed group of women. No association was found between sociodemographic data except type of baby and marital disharmony, and development of postpartum depressive symptoms. Women at risk for postpartum depression can be identified during pregnancy. Interventions should target mothers in the antenatal period and incorporate a strong-gender-based component. The possibilities of genetic vulnerability and hormonal changes warrant further investigation to reach a more thorough understanding.

Introduction

Epidemiologic data from around the world show that depression is approximately twice more common in women than men and that its first onset peaks during the childbearing years (Weissman, et al. 1995). Pregnancy, miscarriage or fetal death, infertility, and the postpartum period may especially challenge a woman's mental health. Postpartum depression, which often resembles other forms of major depression, affects 10-20% of all mothers (Josefsson, et al. 2001, and Kumar, et al. 2002). It may have a deleterious effect on the women's social and personal adjustment, the marital relationship, and the mother-infant interaction. Furthermore, there is a 30-50% risk of relapse of depression in a future pregnancy (Brockington, et al. 1996, and Weissmann, et al. 1995). Maternal depression early in the infant's life may affect the child's psychologic development with significant intellectual deficits as a

result (Bageddahi, et al. 1988, and Cogill, et al. 1998). Other consequences for the child include higher risk of accidents, sudden infants death syndrome, and a higher frequency of hospital admissions (Brown, et al. 1999, and Wolkind, et al. 2003). Various explanatory models on the etiology have been proposed; probably postpartum depression is a result of an interaction between genetic vulnerability, hormonal changes, and major life events (Harris 2000, and Liewellny, et al 1997). Recent studies have focused on psychological stressors and previous psychiatric history in a women's life as major risk factors for developing postpartum depression (Warner, et al. 2002, and Altshuler, et al. 2003) The hypothesis of this study was that complications during pregnancy, delivery, and/or the prenatal period are associated with an increased risk of postpartum depression.



Materials and methods:

The Qatari antenatal health care system reaches almost 100% of all pregnant women. The antenatal care clinics provide regular check-up on the physical and psychological health during pregnancy and puerperium. The same percentage, as above, is valid for deliveries as there are no private maternity hospitals in Qatar and home deliveries are rare. The original sample in the present study comprises the total population of women consecutively registered at the outpatients and inpatients of psychiatry represented with postpartum depression in duration of six months. The eligible women were received oral information about this study before giving consent.

A total of 72 women were approached. All women have depressive symptoms on the Edinburgh Postnatal Depression Scale at postpartum and was diagnosed on DSM-IV for research. As control, 144 women without depressive symptomatology on the Edinburgh Postnatal Depression Scale were randomly chosen from the outpatient clinic of postnatal care 3 months after delivery who haven't experience any relevant depressive symptoms..

The Edinburgh Postnatal Depression Scale is a 10- item self-report scale, specifically designed to screen for postpartum depression in community samples. Each item is scored on a 4- point scale (0-3), the minimum and the maximum total score ranging from 0-30, respectively. The scale rates the intensity of depressive symptoms present within the previous 7 days. Five of items are concerned with dysphoric mood, two with anxiety and one each with guilt, suicidal ideas, and not coping. Versions of the Scale in Arabic Language were developed by the use of the translation back

translation method from English to Arabic. The validity of the Arabic version of Edinburgh postnatal depression scale was evaluated in a two-stage pilot study that compare patients diagnosed with depression on the scale with major depressive disorder on the basis of DSM-IV for research. A cut of 10 on Edinburgh postnatal depression scale. Scale was found to detect depression with a specificity of 85% and sensitivity of 92%. Similar validity coefficients have been reported with the use of the Edinburgh postnatal depression scale in other (Wickberg, et al. 1996). The Edinburgh postnatal depression scale is easy to administer, takes only a few minutes to complete, and is well accepted by the women and the staff (Patel, et al. 1998.). All data related to the pregnancy, delivery, and the puerperium were manually extracted from the records of the patients. In multiparas, medical records from earlier delivery were also scrutinized. The following data were collected: age, parity, marital status, number of induced abortions, miscarriage. Any history of infertility, psychiatric disorder, or obstetric complications, actual chronic medical diseases, pregnancy complications and prenatal events were obtained.

All analysis was done using the SPSS program 10. Statistical significant was defined as two sided P value using a significance level of 5%. Odd ratios, presented with 95% confidence intervals, were calculated for categorical variables. The dependent variables were depressed or no depressed. The explanatory variables were sociodemographic data, medical, gynecologic, and obstetric history, pregnancy, delivery, and neonatal data.

Result:

The sociodemographic variables are shown in table (1). No differences were found between women with or without a depressive symptomatology except type of baby and marital disharmony. In Table 2, we describe earlier medical history with focus on gynecological and obstetric data. Women with a history of earlier obstetric

complication, mainly acute cesarean section and instrumental delivery, were significant more prone to develop depressive. Complication during the present pregnancy (Table2), such as hyperemesis, premature contractions, and psychiatric disorders, were more common in the postpartum depressed group of women.

Table 1: Sociodemographic Data

Variable	Depressed	Non depressed	95%CI
1-Age			
16-24	15.5	12.6	1.29(0.7,2.37)
25-34	68.2	71.6	1(reference)
35-46	16.3	15.7	1.09(0.61,1.95)
2-Mean of the age	29.5	29.7	
3-Parity			
0	41.9	45.6	1(reference)
1-2	38.8	35.6	1.19(0.74,1.90)
>-3	19.4	18.8	1.12(0.63,2.01)
4-Marital disharmony	13.2	6.7	2.85(1.12,7.28)*
5-Pregnancy			
Wanted	86.8	89.3	1(reference)
Unwanted	14.2	10.1	0.66(0.34,1.29)
6-Type of baby			
Girl	80.8	68.2	1(reference)*
Boy	19.2	31.8	1.97(1.21,3.18)

*P value is significant.

Table 2: Relation of risk factors to postnatal depression among mothers in Qatar

Variable	Depressed	Non depressed	95%CI
1-Chronic medical history	13.2	9.2	1.50(0.77,2.90)
2-Psychiatric disorder	4.7	2.3	2.07(0.66,6.56)*
3-Antenatal complication	17.1	8.7	2.79(1.20,6.50)
3-Obstetric complication			
#No complication	45.1	64.0	1(reference)
#Acute cesarean section	13.4	6.7	2.85(1.12,7.28)*
#Elective cesarean section	7.3	8.0	1.30(0.45,3.71)*
#Instrumental	17.1	2.7	0.18*
#Perineal tears	7.3	6.0	1.73(0.58,5.20)*
#Premature delivery	4.9	1.3	5.19(0.91,29.54)*
#Preeclampsia	4.9	5.3	1.30(0.37,4.57)*
4-Breast feeding	96.1	97.3	1.46(0.46,4.70)
5-Puerperium complication	93.0	91.6	0.82(0.36,1.82)

* P-value is significant.

Discussion:

In this population based case-control study, information regarding a wide range of potential risk factors was collected. An advantage of this study is the fact that all data were extracted from standard medical records and not from maternal recall. Most of the predictors found were obvious already during pregnancy, which could facilitate planning of prevention and intervention in the future. Our objectives to investigate the role of gender-based factors on the risk and outcome of depression. The key findings of the study are that postnatal depression is a common mental illness, it is usually a consequence of preexisting antenatal morbidity, it is chronic disorder and it is associated with greater maternal disability and use of health services. This study replicated the role of established risk factors, such as poor marital relationship and antenatal psychiatric morbidity. Antenatal depressive symptoms and postpartum depression are correlated, (Cox and Holden 1994, and Josefsson, et al. 2001) but whether this is on a psychological basis or a result of hormonal and genetic vulnerability remains to be investigated. The finding also demonstrate that in the culture setting of the study, there was a significant risk associated with gender-based factors, mediated by the preference for male children and the existence of marital conflict. The preference for male children is deeply rooted in Qatari society; such gender bias and the limited control a woman has over her reproductive health may make pregnancy a stressful experience for some women. Thus, women who already have a female child face greater stress because of their wish that their new infant be a boy. In the event that the child is a girl, the risk of depression is greater. Mothers may be blamed for the

birth of a female child. The finding that the majority of mothers had an onset of antenatal depression is also consistent with evidence from other prospective studies (Najman, et al. 2000, and Nhwatiwa, et al. 1998). Thus; postnatal depression simply describes the presence of a depressive disorder in the period after childbirth. It does not, however, indicate any specific risk or etiological role of childbirth in the onset of the depressive disorder. The absence of correlation between sociodemographic variables and depressive symptoms is in the line with previous studies (Kumar, et al. 2002, and Watson, et al. 1999). Hyperemesis and premature contraction was more common in the postpartum depressed group of women. Explanatory models for these symptoms might be somatization of pregnancy-related anxiety or depression but might also be an effect of hormonal changes in the pregnant women. We found association between delivery complication and the development of depressive symptoms. This is consistent with some earlier studies, which have reported a strong link between cesarean section and postpartum depression (Hannah, et al. 1999, and Bouce, et al. 1992).

Conclusions

Our results show that women at risk for postpartum depression can be identified during pregnancy. The possibilities of genetic vulnerability and hormonal changes ought to be investigated further to reach a more thorough understanding.

References

- Altshuler LL, Hendrick V, Cohen LS. (2003):* Course of mood and anxiety disorders during pregnancy and the

postpartum period. *J Clin Psych*;59 (Suppl):29-33.

Bageddahi-Strindlund M. (1988): Children of mentally ill mothers: Mental development, somatic growth and social outcome. *Scand J Soc Med*;121-7.

Boyce PM, Todd AL (1992); Increased risk of postpartum depression after emergency caesarean section. *Med J Aust* 157:172-4.

Brown GW, Davidson S. (1999): Social, psychiatric disorder of mother, and accidents to children. *Lancet*, 1:378-81.

Brockington I. (1996): Motherhood and mental health. Oxford: Oxford University Press.

Cogill SR, Caplan HL, Alexandra H, Robson K, Kumar R. (1998): Impact of maternal postpartum depression on cognitive development of young children. *BMJ*;292:1165-7.

Cox J, Holden J. (1994): eds. Perinatal psychiatry: Use and misuse of Edinburgh Postpartum Depression Scale. London: Gaskell.

Hannah P, Adams D, Lee A, Glover V, Sandler M. (1999): Link between early postpartum mood and post-natal depression. *Br J Psych*;160:777-80.

Harris B. (2000): Biological and hormonal aspects of postpartum depressed mood. *Br J Psych*; 164:288-92.

Josefsson A, Berg G, Nordin C, Sydsjo G. (2001): Prevalence of depressive symptoms in the late pregnancy and postpartum. *Acta Obstet Gynecol Scand*;80:251-5.

Kumar R, Robson K.A (2002): prospective study of emotional disorders in childbearing women. *Br J Psych*;144:35-47.

Llewellyn AM, Stowe ZN, Nemeroff CB. (1997): Depression during pregnancy and puerperium. *J Clin Psych*: 58(Suppl 15): 26-32.

Najman JM, Andersen MJ, Bor W, O'Callaghan MJ, Williams GM (2000): Postnatal depression-myth-or-reality?: maternal depression before and after the birth of a child. *Soc Psychiatry Psychiatr Epidemiol*;35:19-27.

Nhiwatiwa S, Patel V, Acuda SW (1998): Predicting postnatal mental disorder with a screening Questionnaire: a prospective cohort study from a developing country. *J Epidemiol community health*;52:262-266.

Patel V, Pereira J, Coutinho L, Fernandes R, Fernandes J, Mann (1998): A: Poverty, Psychological disorder and disability in primary care attenders in Goa, India. *Br J Psychiatry*;171:533-536.

Warner R, Appleby L, Whitton A, Faragher B (2002): Demographic and obstetric risk factors for postpartum psychiatric morbidity. *Br J Psych*;168:607-11.

Watson JP, Elliott SA, Rugg AJ, Brough DI (1999): Psychiatric disorder in pregnancy and the first postpartum year. *Br J Psych*;144:453-62.

Weissman MM, Olfson M. (1995): Depression in women: Implications for health care research. *Science*;269:799-801.

Wolkind S. (2003): Mothers' depression and their children's attendance at medical facilities. *J Psychosom Res*;29:579-82.

Wickberg B, Berg G, Nordin C, Sydsjo G, (1996): Validation a Swedish community Sample. *Acta Psych Scand*;94:181-4.

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عوامل الخطورة الولادية والجسمانية المنبئة بحدوث أعراض اكتئاب ما بعد الولادة

الهدف من البحث تحديد واختبار القوة التنبؤية لبعض عوامل الخطورة أثناء الحمل وفترة ما قبل وبعد الولادة المهينة لظهور أعراض اكتئاب ما بعد الولادة. هذه الدراسة قدمت على ٧٢ امرأة أصيبت بأعراض اكتئاب ما بعد الولادة مقارنة ب ١٤٤ حالة ضابطة لنساء لم يصبن بأعراض اكتئاب ما بعد الولادة. جميع المعلومات عن العوامل الديموجرافية والإجتماعية والطبية والنسائية وكذلك التاريخ الطبي للحمل والولادة وما بعدهما قد جمعت من الملفات الطبية المسجلة للحالات بمؤسسة حمد الطبية. أظهرت الدراسة أن أهم عوامل الخطورة المتنبئة لظهور أعراض اكتئاب ما بعد الولادة هي المضاعفات التي تحدث أثناء الحمل ومنها القيء المتزايد والتقلصات المبكرة للولادة بالإضافة إلى وجود اضطرابات نفسية أثناء الحمل ومشاكل أثناء الولادة. بينما لم تظهر أى علاقة بين حدوث أعراض اكتئاب ما بعد الولادة وبين أى من العوامل الإجتماعية الديموجرافية فيما عدا نوع الطفل وكذلك المشاكل الزوجية فى الأسرة. يمكن التعرف على النساء اللانى هن عرضة للإصابة بأعراض اكتئاب ما بعد الولادة وذلك من خلال التدخل المبكر أثناء الرعاية فى أشهر الحمل. كما أن احتمالية وجود عوامل وراثية مهينة بالإضافة إلى حدوث تغيرات فى مستوى الهرمونات قد تدفعنا إلى إجراء المزيد من الفحوصات للوصول إلى فهم أوسع وأشمل.

