Major depression in high-risk obstetric inpatients and outpatients

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OBJECTIVE: To evaluate and compare the presence of major depression in high-risk obstetric patients among ward and ambulatory patients.

METHOD: An exploratory, descriptive, and cross-sectional study was carried out among 542 high-risk pregnant women divided into two groups: 278 were outpatients receiving ambulatory care, and 264 were ward patients. Both attended a public university hospital in the State of São Paulo, Brazil. Major depressive disorder was evaluated using the Brazilian version of the Primary Care Evaluation of Mental Disorders. The χ^2 test was used in the statistical analysis with a level of significance of 5% ($p < 0.05$).

RESULTS: Sixty women (11.0%) were diagnosed with major depression, twenty-five (9%) were outpatients and thirty-five (13%) were ward patients. There was no statistically significant difference between groups with respect to the major depression ($p = 0.11$). Statistically significant differences were found between outpatients and ward patients as follows: insomnia or hypersomnia ($p < 0.01$); fatigue or loss of energy ($p = 0.02$); diminished concentration ($p < 0.01$); and restlessness or psychomotor retardation ($p < 0.01$).

CONCLUSIONS: Hospitalization may intensify some depressive symptoms. The high proportion of women with major depression demonstrates the need for access to psychosocial support during the pregnancy period, especially in pregnant women at high-risk.

KEYWORDS: Major Depression; Pregnancy; High-Risk; Hospitalization.

■ INTRODUCTION

Gestation is a normal phenomenon developing without any complications in most cases. Nevertheless, a few pregnant women are likely to have an unsuccessful outcome, and they make up the group of high-risk obstetric patients.[1,2] In Brazil, given the great size of the country and the wide cultural and socioeconomic gaps, diverse high-risk factors are evident in different Brazilian regions, such as unfavorable individual characteristics and sociodemographic conditions, reproductive history and obstetric disorders during current pregnancy and clinical complications.[1-3]

Gestation covers a biologically preset period of time characterized by complex metabolic alterations, instability in view of the shift in social roles, new adaptations, and interpersonal and intrapsychic adjustments.[4,5] A high-risk pregnancy may influence the expected changes of a normal gestation, thereby intensifying the experienced emotions, such as the real fear of losing the baby or of the harm potentially done to one's own health.[6,7]

The magnitude of the psychic changes hinges on organic, familial, conjugal, social, and cultural factors, as well as on the pregnant woman's own personality, and it may lead to depressive states.[8] Pregnancy and the postpartum period are the phases of prevalence of mental disorders in women.[9] Depression affects 5%-25% of pregnant women,[10] and one-fifth of pregnant and postpartum women suffer from this condition.[11] Moreover, these percentages tend to rise among high-risk pregnancies.[12-14] In inpatient pregnant women, about 4.0-12.0% have a full diagnosis of major depression.[8]

In most studies, data were collected on outpatients at government basic health facilities. Only a few studies assessing inpatients are found. Therefore, this study aims to generate a debate and formulate new thoughts about the psychological condition of hospitalized patients at high risk for clinical complications. More specifically, the purpose of this study was to evaluate the presence of major depression in high-risk obstetric patients, and to compare the presence of depressive symptoms among ward patients and ambulatory patients.

■ METHOD

This is a descriptive exploratory study developed between March 2007 and March 2008 at a university hospital in the city of São Paulo. The sample consisted of 542 high-risk pregnant women, 278 of whom were outpatients receiving ambulatory care [GA], while 264 were inpatients [GW]). The participants were informed of the purpose of the study at the onset and agreed to participate. The research project and the free consent statement were previously approved by the research ethics committee of the institution (CAPPesq n°. 1208/06).

Sociodemographic data on the patients were collected by means of a questionnaire made up of items related to age, weeks of pregnancy, schooling, marital status, presence or absence of paid work, job stress, and planned or unplanned pregnancy. Mood disorders, or more specifically, major depressive disorders, were evaluated by applying PRIME-MD,[15,16] using the version that has been standardized and validated for the Brazilian population.

PRIME-MD is a screening tool which provides primary care physicians with a quick and accurate diagnosis of mental disorders, and correlates highly with the diagnoses made by independent health professionals: 83% of sensitivity, 88% of specificity, 80% of positive predictive value, and 88% of overall accuracy.[15,16]

It is also an instrument of easy and convenient use in an obstetric outpatient setting.[12,13,16] The instrument consists of five modules (mood disorders, anxiety disorders, eating disorders, somatoform disorders, and alcohol or drug abuse disorders) which may be applied together or individually depending on the research objective. In this study, only the mood disorder module was used.

Statistical analysis was performed using the WinSTAT™ software program for Microsoft Excel™, version 2007. Multiple regressions were performed using a standard procedure to identify independent variables related to the diagnosis of major depression, which were compared with those thatdid not. We used the Pearson's chi-square test for categorical data. The level of significance was set at $p < 0.05$ for all analyses.

■ RESULTS

Sixty women (11.0%) were diagnosed with major depression, twenty-five of which (9%) were outpatients and thirty-five (13%) were ward patients. There was no statistically significant difference between groups with respect to this condition ($p = 0.11$). However, statistically significant differences related to depressive symptoms were detected between ambulatory and ward patients as follows: insomnia or hypersomnia (GA 23%; GW 33%; $p = 0.01$); fatigue or loss of energy (GA 14.0%; GW 22.0%; $p = 0.02$); diminished concentration (GA 15.0%; GW 24.0%; $p = 0.01$); and restlessness or psychomotor retardation (GA 21.0%; GW 31.0%; $p < 0.001$), as shown in Table 1.

Sociodemographic data show that the average age was 29.8 years (SD = 11.8) and the average number of weeks of pregnancy was 28.2 (SD = 8.8). The data showed that 66.6% had an unplanned current pregnancy, 55.3% were in high school or had finished it, 29.2% had finished elementary school, 8.4% had a college degree, and 9% had did not answer the question; 71.9% were married or had a stable relationship; 57.3% worked, and 52.4% of these women did not find their jobs either exhausting or stressful. No positive associations were found between the outpatients and the inpatients for any of the items above as shown in Table 2.

■ DISCUSSION AND CONCLUSION

Descriptively, the results demonstrate that there was a higher incidence of depressive symptoms among ward patients than among outpatients. Hospitalization may intensify some symptoms and overall depression and may worsen the inpatient's state of health.[17,18]

Being in a ward may make the obstetric patient hostile towards the staff in attendance and unwilling to cooperate.[8] Besides, it frequently awakens such painful feelings as hopelessness about one's own and the baby's state of health, guilt, worthlessness, and false negative beliefs, among other types of negative psychological thoughts.[17]

Pregnancy is a complex time and requires new forms of adjustment to life involving a number of biological, psychological, and sociological transformations, which impact the mental and physical health of the pregnant woman and her baby.[5] The pregnant woman who experiences depressive symptoms has low self-opinion as well as a negative and pessimistic outlook on the world and the future.[5,6,9] These features tend to worsen with hospitalization.[8,20,12] Furthermore, the study population was high-risk, a fact which possibly aggravates psychological, biological, and social suffering.[19]

Hospitalization entails constant sleep interruptions due to periodical medical procedures and medication administration.[21] Factors such as tiredness, boredom, and anxiety are brought about by the condition itself or result from the adverse effects of the treatment. Isolation from social contact, mainly one's partner, and with one's other

Table 1 - Frequency of depressive symptoms and Diagnosis of Major Depression according to the PRIME-MD in high-risk pregnant women outpatients and patients hospitalized in the ward

Depressive Symptoms	Outpatients (GA) (n = 278) n (%)	Inpatients (GW) (n = 264) n (%)	p
Insomnia or hypersomnia	65 (23)	86 (33)	0.01
Fatigue or loss of energy	40 (14)	58 (22)	0.02
Decreased or increased appetite	51 (18)	60 (28)	0.20
Diminished interest in daily activities	45 (16)	58 (22)	0.08
Depressed mood	54 (19)	63 (24)	0.20
Feelings of worthlessness or guilt	39 (14)	49 (19)	0.15
Diminished ability to think or concentrate	43 (15)	63 (24)	0.01
Psychomotor agitation or retardation	60 (21)	83 (31)	<0.001
Recurrent thoughts of death	16 (6)	11 (4)	0.39
Diagnosis of Major Depression	25 (9)	35 (13)	0.11

Table 2 - Frequency of of sociodemographic characteristics with a PRIME-MD diagnosis of major depression in high-risk pregnant outpatients and inpatients

	Diagnosis of major depression		
Characteristics	Outpatients (n = 25) n (%)	Inpatients (n = 35) n (%)	p
Relationship status			
Cohabitation with a partner	18 (72)	28 (80)	0.47
Single	7 (28)	7 (20)	
Planned or prepared for pregnancy			
Yes	8 (32)	14 (40.0)	0.52
No	17 (68.0)	21 (60.0)	
Age range			
18 - 30 years	7 (28)	18 (51)	0.42
31 - 40 years	13 (52)	16 (45)	
Older than 40 years	5 (20)	1 (4)	
Educational background			
Elementary school	11 (44)	12 (34)	0.44
High school	14 (56)	23 (66)	
College	–	–	
Without Schooling	–	–	
Gestational age			
1st trimester	1 (4)	5 (14)	0.38
2nd trimester	5 (20)	6 (17)	
3rd trimester	19 (76)	22 (63)	
Employed			
Yes	7 (28)	12 (34)	0.60
No	18 (72)	23 (66)	
Dissatisfaction with paid work			
Yes	5 (71)	9 (75)	0.86
No	2 (29)	3 (25)	

children, interruption of routine and leisure activities, and paid work impediment, all tend to compound the symptomatic expression of depression.[22,23]

Most reported studies focus on the indexes of depression during the pregnancy of outpatients, thus highlighting the importance of evaluating and pondering the depressive state and its symptomatology in ward patients. This is particularly evident from our data, which show that ward patients are more prone to suffer from a larger number of depression symptoms than outpatients. Early detection of depressive symptoms in high-risk inpatients is vital, because complications around the time of birth can increase the risk of postnatal depression. The risk factors for developing depression are: pre-eclampsia, hospitalization during pregnancy, emergency caesarean section, concern about fetal distress, and admission of the baby to special care.[24,25]

Therefore, therapeutic decisions must be carried out, because depressive symptomatology may develop into severe depression, including postpartum depression, leading to devastating consequences for the mother and her baby.[25,26] The results obtained in this study indicate there is a definite need for periodical evaluation of depressive symptomatology in ward patients in order to provide adequate treatment for this population.

There are several factors associated with depression in high-risk pregnant women,[22] such as advanced age, low educational level, lack of a partner or a stable relationship, not being primiparous, not having planned for the current pregnancy, idealization of abortion, previous psychological or psychiatric treatment, tobacco and/or alcohol use during pregnancy, previous experience with stressful events, previous history of depression and psychiatric treatment, serious physical impairment, and informal work.[24,26]

The inherent vulnerability of pregnancy is compounded by the poverty and violence often experienced by pregnant women in Brazil[4] and other developing countries, as well as by the substantial inequalities to which they are exposed. These are the primary risk factors for depression during pregnancy. Hospitalization, stress, and routine changes may alter personal balance and intensify emotions, thereby contributing to an increase in anxiety, feelings of hopelessness, and depressive symptoms.[5]

The overall depression experienced by pregnant women with severe clinical complications is highly likely to endure and deepen even after childbirth. The painful results of depression not only affect the pregnant woman herself, but also negatively impact her relationships with her partner and her family.[11] The clear identification of a major depressive disorder during pregnancy may be difficult, because many of the depressive symptoms like fatigue, sleep instability, and abrupt changes in appetite and weight are natural and frequent in the course of a normal pregnancy.[27]

Nonetheless, the non-identification of depressive symptomatology resulting in an untreated depression may lead to serious consequences for the mother and her baby. The high proportion of women with major depression demonstrates the need for access to psychosocial support during the pregnancy period, especially in pregnant women at high-risk. Hence, it is extremely important and highly recommended that depressive symptoms be evaluated and screened in women with high-risk or normal pregnancies.

■ SUMMARY

The high proportion of women with major depression demonstrates the need for access to psychosocial support during the pregnancy period, especially in pregnant women at high-risk. Hence, it is extremely important and highly recommended that depressive symptoms be evaluated and screened in women with high-risk or normal pregnancies.

■ ACKNOWLEDGEMENTS

■ RESUMO

OBJETIVO: Avaliar e comparar a presença de depressão intensa em gestantes de alto risco entre pacientes ambulatoriais e internadas.

MÉTODO: Estudo exploratório, descritivo transversal realizado com 542 mulheres grávidas de alto risco, divididas em dois grupos: 278 pacientes ambulatoriais e 264 pacientes hospitalizadas atendidas em hospital público universitário do Estado de São Paulo, Brasil. O diagnóstico de depressão maior foi avaliado mediante aplicação da versão brasileira do Primary Care Evaluation of Mental Disorders. Para análise estatística foi utilizado o teste do χ^2, adotando nível de significância de 5% ($p < 0.05$).

RESULTADOS: Sessenta mulheres (11.0%) foram diagnosticadas com depressão maior, sendo vinte e cinco (9.0%) pacientes ambulatoriais e trinta e cinco (13.0%) pacientes internadas. Não houve diferença estatisticamente significante em relação à depressão ($p = 0.11$). Foi identificada diferença estatística entre os grupos quando avaliados os sintomas: insônia ou hipersonia ($p < 0.01$); fadiga ou perda de energia ($p = 0.02$); diminuição da concentração ($p < 0.01$); e agitação ou retardo psicomotor ($p < 0.01$).

CONCLUSÕES: A hospitalização pode intensificar alguns sintomas depressivos. A elevada proporção de mulheres com depressão em tratamento ambulatorial ou internadas, demonstra a necessidade do acesso ao suporte psicossocial durante a gestação, especialmente em gestante de alto risco.

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