

## Frequency and risk factors of postpartum psychosis in psychiatric ward of Golestan Hospital, Ahvaz, Iran, a ten year epidemiologic study

Poorandokht Afshary<sup>1</sup>, Mobina Moradi Moemen<sup>1\*</sup>, Kourosh Zarea<sup>2</sup>, Mahdis Vakili<sup>3</sup>

1. Reproductive Health Research Center, Department of Midwifery, Nursing & Midwifery School, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.

2. Chronic Disease Care Research Center. Department of Nursing, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.

3. Department of Nutrition, Para Medicine School, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran.

### Abstract

**Introduction:** Post partum psychosis is seen in women who have just given birth. This disorder has destructive effects on mother-child and couple relationships. The current study explores the frequency and risk factors of post partum psychosis during a 10 years period in Golestan Hospital in Ahvaz, Iran.

**Materials & Methods:** The current study is a cross-sectional study. Study environment was psychiatric ward of Golestan hospital in Ahvaz. Sampling was done by census using patient's medical records. Eleven cases were diagnosed with postpartum psychosis from 2002 to 2012. Inclusion criteria were: being married and being in reproductive age (15-35). The data were analyzed using descriptive statistics.

**Results:** The mean age of mothers was 22.09. 72.7% of the patients were residents of the city. 72.7% had vaginal delivery and 27.3% had cesarean-section. In 63.7% of cases, the onset of disorder was after first child birth and in 45.4% of women; the onset of this illness was three weeks after delivery. Most of women got married and had their first child at age less than 20. Most patients had medium economic situation.

**Conclusion:** This study showed that marriage age, low economic situation, newborn's sex may be risk factors for postpartum psychosis. Further studies with larger sample size are needed to confirm these results.

**Keywords:** Post partum psychosis, Epidemiology, Risk factors.

### Introduction

Sometimes pregnancy and childbirth are so stressful that it can cause, recurrence or worsening of psychiatric disease (1). Postpartum psychosis is a mental disorder in women who have child birth (2). Psychodynamic theories suggest conflicted feelings about motherhood, as a factor causing this disorder (3). Almost one of 500 childbirths lead to postpartum psychosis (0.1-0.2) (4, 5) and it has been estimated that about 30-50 billion of medical expenses are used for this disorder each year globally (6). Child birth factors such as time and type of parturition and child's temper play an important role in this process (7). There is not much understanding

about the pathophysiology of postpartum psychosis but factors like nuliparity, hard labor, genetic background and hormonal changes have been suggested as the etiology of this disorder (8). Although many studies suggest that immune and endocrine systems disorders as initial causes of the psychosis, but specific etiology is unknown (9). Results of religious studies indicated that history of mental illness, smoking, economical state, problems with spouse, history of miscarriage, giving birth to a female baby and living with mother-in-law; have significant association with depression (10). Rojaz et al studied the life quality of depressed women in patients with mean age of 27 (16-43) by interviewing and examination. Results indicated

\*Corresponding author:

Department of Midwifery, Reproductive Health Research Center, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran. Tel:+989337155456 Email: mobina\_mid@yahoo.com 13

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that 24.7 % of the patients had somatic disorders and 30.3% had excitement disorders. Also depressed women had low quality of life in this study (11). A study by Safa et al, was done to explore the effects of culture, economy, society and related factors on patients which diagnosed with psychosis. The results indicated that the majority of patients were 20-30 years, housewives and most of them had female baby and they had vaginal childbirth. Most of the patients had problem with their marriage and the pregnancy was unwanted (12). Post partum psychosis has destructive effects on mother and child relationship and also can lead to divorce (13, 14). Although postpartum psychosis has a rare incident but it has serious complications for patient, family and the society. Also most of them are treated as out-patient, so that the number is potent. Most cases of postpartum psychosis in the Khuzestan province are referred to Golestan hospital in Ahvaz. Also because of the importance of knowing the related factors to the psychosis we intended to design an epidemiologic study about frequency and risk factors of postpartum psychosis in ten year period.

### Materials and Methods

Current study is a cross-sectional research based on hospital's medical records and the design was approved by the Ethic Committee of Ahvaz Jundishapur University of Medical Sciences. After presenting the objective of study to medical document center, the researcher started sampling from the existing documents. Sampling type was census in which we explored all the cases of women suffering from postpartum psychosis. According to physician's final diagnoses, there were 115 cases of psychosis between 2002 and 2012. Among them there were 75 patients who were married and in reproductive age, from them eleven were

diagnosed with postpartum psychosis, which had undergone treatment and were eligible for our study. We selected the cases by inclusion criteria; being married and being in reproductive age (15-35). A checklist prepared by the researcher for gathering data about severity of psychosis, frequency and duration of hospitalization, type of treatment and demographic characteristics. The data were extracted from documents (medical records). Then we studied the frequency of patients affected with postpartum psychosis who had been hospitalized in psychiatric ward. All patients who had been examined and interviewed by psychiatrics within 3-12 weeks after child birth were recruited. Patients who were eligible by DSM27-2R standard for severe depression and psychotic signs were included in our study. It should be noted that all information extracted from medical reports, medical history and final diagnosis and data were analyzed using SPSS version 19. Statistics test?

### Ethical considerations

The initial plan of the study was approved by the Ethics committee of Ahvaz Jundishapur university of medical sciences with code NO. PHPRC-9202.

### Results

Of 75 cases diagnosed with psychosis, 11 of them had postpartum psychosis which contributes to 14.6% of all cases of psychosis. Mean age of mothers with postpartum psychosis was 22.09. Most of them got married before age of 20. And 72.2% of the patients were resident of the city of Ahvaz and 27.3% were from rural area. 18.2% had birth difficulties and 9.1% had history of miscarriage. Most women (72.7%) had vaginal child birth and 27.3% had cesarean-section. In 63.3% of cases the baby was female and in 36.4% was male. Most frequent psychosis

symptoms in hospitalized patients was delirium, decreased energy and anorexia (90.9%), while 81.8% had insomnia and fatigue; 27.7% had visual and hearing hallucination, agitation, crying period, irrational talking, suspicion 63.6% of them had child hurting. 54.4% of cases had suicide thoughts, delirious speech and excitement instability.

### Discussion

This study designed to evaluate the prevalence and risk factors of postpartum psychosis in Golestan hospital in Ahvaz. The results indicated that factors such as primiparity, newborn's sex, educational level, low marriage age, parturition disorders, stand out more and were the main risk factors. Postpartum psychosis is a disorder that is mostly occurred in primiparous women and in those with history of mood disorders. It usually accrues 2-3 weeks after parturition and manifests with patient's paranoid thoughts and intentions to hurt the child, others and even herself (1). Current study in which most of the patients (54.5%) were 21-25 and only 18.2% were 26-30, is not concordant with Najar's results which indicates that incidence of psychosis is more prevalent in older women. The sample size of this study was so limited that we cannot conclude that age is a risk factor. In a research by Patel et al, in India, the results showed that 38.5% of studying units were suffering from acute psychosis and depression. Because of cultural issues in India that boys are preferable, the sex of child was known as a risk factor for postpartum psychosis which is concordant with our study (63.6% of mothers had female baby). In mentioned research, other factors such as low economy, inappropriate relationships with spouse, violent husband, history of mood disorders and low educational level were effective in psychosis. It should be noted that all the mentioned factors except educational level, economical state and the

violence of partner are concordant with our study (15). In our study most of the patients had medium economical state (81.8%). And the majority had educational level of elementary and high school (27.3%).

Also there was not possible to assess the couple's relationship, as we extracted data from medical records. The result of Nagare's study on 502,767 women in their first pregnancy indicated that, age of the mother and educational level could influence the incidence of postpartum psychosis (16).

Also in another study with purpose of considering the connection between parturition complications and incidence of psychotic disorder in a group of 74 patients, the results showed that 38% of patients had acute psychosis attack during 12 months after child birth and patients with more complications were in higher risks (17).

Limitations of this study are listed below and could be eliminated in future studies; this study is based on hospital information; therefore the accuracy of some data is doubtful.

Also many psychosis cases in Khuzestan province may not be hospitalized and may be treated as out-patient.

### Conclusion

This study showed that marriage age, low economic situation, newborn's sex may be risk factors for postpartum psychosis. Further studies with larger sample size are needed to confirm these results.

### Acknowledgment

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