



## PSYCHIATRIC MORBIDITY DURING PREGNANCY: A STUDY FROM HOSPITAL SETTING IN BAGHDAD

### Psychiatry

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### ABSTRACT

**Background:** Pregnancy is one of the impactful events on women's psychology, it places physical and mental burden on women which reshapes her psychological status. Psychiatric research on the morbidity rate and prevalence amongst Iraqi women is scarce and the data collected on this issue is scant. The purpose of this study is to examine psychiatric morbidity amongst pregnant women in Iraq.

**Objectives:** To investigate the prevalence of psychiatric morbidity in a group of pregnant women and its association with socio-demography and other clinical variables.

**Method:** A sample of 324 pregnant women were chosen from the antenatal care clinic in Baghdad Teaching Hospital in 2018. Consented women responded to the questions listed in the General Health Questionnaire (GHQ-28) and the demographic clinical data.

**Results:** majority of respondents were multiparous young women from urban low-middle socio-economic class, 30% had other medical conditions. 55% of participants showed psychiatric morbidity. 15% had symptoms of depression, somatic symptoms were prevalent. Significant association between some selected demographic, clinical factors and the GHQ subscales was found.

**Discussion & Conclusion:** psychiatric morbidity was prevalent in half of the participants manifested by somatic, anxiety, and depressive symptoms according to ( GHQ). A significant association was found between medical and/or obstetrical problems, psychological trauma, domestic violence, and psychiatric morbidity.

### KEYWORDS

psychiatric morbidity, pregnancy, Baghdad

### INTRODUCTION

Variations of women's attitude towards conception and motherhood are thought to be influenced by cultural, social, personal and religious factors. Most of psychologically healthy women often perceive pregnancy as an act of creation that satisfies the fundamental instinct of motherhood, while others fear childbirth or feel inadequate to fulfil it<sup>[1]</sup>. Pregnant women undergo marked psychological changes which can play a positive role in improving mood and self-esteem, however, it can also be a stressful experience which produces psychiatric symptoms or deteriorate to a full-blown disorder<sup>[2]</sup>. Throughout history, fertility has been highly esteemed in ancient civilizations, for instance, the act of worshipping the goddess of fertility "Ishtar" in Mesopotamia<sup>[3]</sup>. It is important to differentiate between emotional changes caused by pregnancy, especially in primigravida, and psychiatric illnesses that require medical treatment. Emotional lability of women, specially at young age, increase the predictability of novo psychiatric disorder or aggravate an already excited one<sup>[4]</sup>. Despite the fact that prevalence of depression symptoms during pregnancy is around (10% and 30%), it can pass undiagnosed due to overt somatic complaints caused by the pregnancy, e.g. fatigue, poor sleep, gastro-intestinal disturbances, and generalized aches and pains<sup>[5]</sup>. These symptoms can be the clue to predict occurrence of post-natal depression or psychosis, which is a hazard to the mother and the infant by suicide and infanticide. This has been observed in previous studies<sup>[6,7]</sup> where the high rate of mother's suicide was highly associated with past psychiatric history.

In Arab Muslim communities like Iraq, conception is anticipated an expected event for any married woman and considered as a blessing from God and may enhance her morality, this concept together with the family and social support would act as protective factors against developing perinatal psychiatric disorders or ameliorate its severity<sup>[8,9]</sup>. Many literatures considered these concepts as a reason behind the lower prevalence in developing countries than in the western countries<sup>[10,11,12]</sup>. However, there is a wide gap of knowledge and lack of data concerning this important health problem in the Arab world and searching engines revealed absence of such published studies in Iraq.

### MATERIAL & METHOD

This study was conducted in the antenatal care clinic (ANC) in Baghdad Teaching Hospital during the period from 1st March-1st

August 2018. the attending pregnant women were directly interviewed personally by the second author after attending their obstetrician. Two questionnaire forms were used for data collection; the socio-demographic characteristics form including : age, marital status, education level , occupation, residency, socio-economic status, number of children and some selected questions ; presence of medical disorder, psychiatric disorder, psychological trauma ( loss of close relative, forced immigration, exposed to violence) also questions about spouse or other's ; (family -in law) emotional & physical abuse ; ( humiliation , beating, financial deprivation ). The (GHQ-28) self-response Arabic modified version was used during the interview to avoid illiteracy. GHQ-28 was originally developed by Goldberg in 1978 as self-administered questionnaire, it has since been translated into 38 languages<sup>[13]</sup>. It was designed to detect psychological distress and psychiatric disorders or predict them. Its four subscales involves ; (items 8–14) for symptoms of anxiety ; (items 15–21) social dysfunction , (items 22–28) depression, and( items 1–7) for somatic symptoms scoring from 0 to 3 for each response. The total possible scores is up to 84, a total scores of 24 is the threshold for the presence of psychological distress and psychiatric symptoms. The discrimination point of the presence of significant somatic, anxiety, and depressive symptoms was considered to be the mean score of that domain<sup>[14]</sup>. The reliability and validity of the GHQ-28 has been confirmed through numerous studies on different population samples, with good inter and intra rater reliability with (0.78 to 0.90) test-retest reliability<sup>[15,16]</sup>. Every consenting woman attending the antenatal clinic was voluntarily included in the study. The research proposal was discussed and approved by scientific and ethical committee of the Arab Board Counsel of Psychiatry in Iraq; also, administrative approval was obtained from the hospital directory. oral consent of each patient was taken after full explanation about the study with assurance of confidentiality. The collected data was statically analyzed using the followings; Microsoft excel sheet, IBM-SBSS-V24, CHI- Square test, correlation, and T-test to show the associated significances of the given variables, mean+ standard deviation, frequencies of number and percentage were also analyzed. P-value less than 0.05 was considered as a discrimination of point of significance.

### RESULTS

#### Sociodemographic profile

36.4% of the patients were younger than 25 years, 19.8% were older

than 35 years, 43.8% were from the age group 25-34years. Urban residents mainly in Baghdad, the capital, constituting 76.5% of the sample and only 5.6% lived in rural area. 36.4% of the patients described their financial status as "poor", 35.8% "fair", and 27.8% of them were at "good" status. 19.1% of the participants were primigravida, 42% had one to two children, and 38.9% of them had 3 or more children.

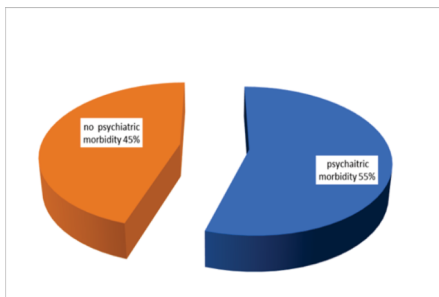
**Clinical profile**

30.9% of the participants had current medical disorder like diabetic, hypertension, asthma, and cardiac problem. 7.4% had pregnancy related problem as threatened abortion, hyperemesis gravidarum, and bad obstetric history. 2.5% of the patients were previously diagnosed with psychiatric disorder at one time in their life; depression, anxiety, obsessive compulsive disorders, 9.9% were affected by one or more psychological trauma, and 7.4% reported exposure to a domestic violence as shown in Table1.

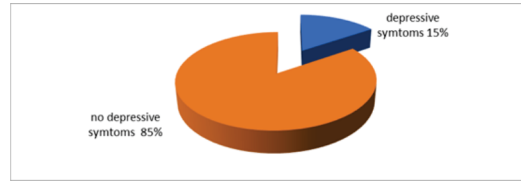
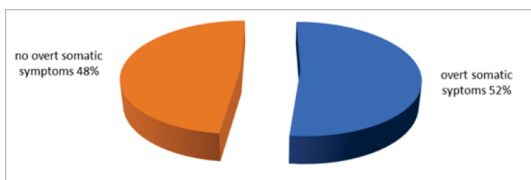
**Table.1: Sample distribution according socio-demographic & clinical characteristics**

Socio-demographic variables		Number	%
Age group	<25 years	118	36.4%
	25-34 years	142	43.8%
	>35 years	64	19.8%
Residence	Urban	248	76.5%
	Rural	18	5.6%
	Suburban	58	17.9%
Socio-economic status (SES)	Poor	118	36.4%
	Fair	116	35.8%
	Good	90	27.8%
Number of children	primigravida	62	19.1%
	1-2 children	136	42.0%
	3 and more	126	38.9%
<b>Clinical &amp; stressful conditions</b>		N	%
Medical/Obstetric disorder	No	224	69.1%
	Yes	100	30.9%
	Yes	24	7.4%
Psychiatric disorders	No	316	97.5%
	Yes	8	2.5%
Psychological trauma	No	292	90.1%
	Yes	32	9.9%
Domestic violence	No	300	92.6%

Figure 1. shows that psychiatric morbidity was prevalent among 55% of the sample. Figure 2 shows that 45%, 52% of the sample had anxiety and somatic symptoms respectively while only 15% had symptoms of depression.



**Figure 1. prevalence of psychiatric morbidity in the sample**



**Figure 2. Sample distribution of GHQ subscales; Anxiety, depression, and somatic symptoms**

By analyzing the association of the GHQ three subscales with the socio-demographic factors, it was found that anxiety symptoms was significantly associated with age (P value = 0.006). No significant association was found between residency, numbers of children with any of the subscales; somatic symptoms, anxiety, and depression. Regarding socio-economic status, somatic symptoms were prevalent among "poor" class in comparison with 39.7% in "fair" with P value of (0.001) as shown in Table 2.

**Table2. GHQ subscales in association with socio-demographic characteristics.**

Socio-demographic characteristics		Somatic symptoms		Anxiety symptoms		Depressive symptoms	
		%	P v	%	P v	%	P v
Age group	< 25years	42.4%	0.035	33.9%	0.006	11.9%	0.385
	25-34 y	57.7%		53.5%		18.3%	
	>35 y	56.3%		46.9%		15.6%	
Residence	Urban	49.2%	0.055	45.2%	0.571	14.5%	0.439
	Rural	77.8%		55.6%		11.1%	
	Suburban	55.2%		41.4%		20.7%	
Number of children	No children	48.4%	0.828	45.2%	0.938	19.4%	0.634
	1-2	52.9%		45.6%		14.7%	
	3 and more	52.4%		44.4%		14.3%	
Socio-economic class	Poor	59.3%	0.004	45.8%	0.980	18.6%	0.478
	Fair	39.7%		44.8%		13.8%	
	Good	57.8%		44.4%		13.3%	

Table 3 shows the association of GHQ subscales with clinical disorders and stressful conditions where anxiety, depression, and somatic symptoms were all significantly associated with obstetric problems; P value of (0.002,0.001,0.001) respectively, while the association with medical disorder was significant only in the anxiety scale P value (0.002). presence of psychiatric disorder was linked with anxiety & depression (0.002,0.006). Psychological trauma was associated with somatic and anxiety symptoms (0.001,0.037). Domestic violence affected the patients in somatic, anxiety, and depression (0.001,0.002,0.012).

**Table3. GHQ subscales in association with clinical & stressful conditions**

Clinical & stressful condition		Somatic symptoms		Anxiety symptoms		Depressive symptoms	
		%	P v	%	P v	%	P v
Obstetric problem	No	42.0%	0.001	39.3%	0.002	10.7%	0.001
	Yes	74.0%		58.0%		26.0%	
Medical disorder	No	50.7%	0.131	42.7%	0.002	14.7%	0.178
	Yes	66.7%		75.0%		25.0%	
Psychiatric disorder	No	51.3%	0.185	43.7%	0.002	14.6%	0.006
	Yes	75.0%		100.0%		50.0%	
Psychological trauma	No	48.6%	0.001	43.2%	0.037	15.1%	0.584
	Yes	81.3%		62.5%		18.8%	
Domestic violence	No	48.7%	0.001	42.7%	0.002	14.0%	0.012
	Yes	91.7%		75.0%		33.3%	

**DISCUSSION**

The demographic profile of the participants tallies with our expectation being that of married pregnant women in the mean age of conception (15 to 34) years, the majority belong to urban middle - low socio-economic population of Baghdad city. The ratio, 38% having 3 and more children was within our expectations of family size in Iraq and neighboring countries (17,18). (7.4%) of the patients reported to be verbally and physically abused by their husbands and/or members of in-laws causing demoralization and emotional insecurity which add further distress to pregnancy and motherhood that may cause social isolation, depression and suicidal behavior [19,20]. Pregnancy is a

physical and psychological stress factor on the mother. Since psychiatric morbidity is considerable in pregnant mothers, it is realized that assessment of the psychiatric morbidity in the prenatal period is important to detect patients who are liable for serious psychiatric condition that may be harmful to mothers and infants<sup>[21]</sup>. Many authors studied the psychiatric morbidity during pregnancy focusing on depression and anxiety found an incidence of 7.9% of anxiety and 11.9% of depression on pregnant French women<sup>[22]</sup>. In another study on Swedish women reported that 15.6% of anxiety among pregnant women using different psychometric scale<sup>[23]</sup>. In Iraq, Al Jadiry and Ali in previous reports found that psychiatric morbidity using GHQ scale 34.4% and 40% in 1996 and 2008 respectively<sup>[24,25]</sup>. In our study, psychiatric morbidity in respect of anxiety, depression, and somatic symptoms was reported in 55%. This may be due to ANC of Baghdad Teaching Hospital being a tertiary center where mainly complicated pregnancy is referred. In nearby countries, anxiety and depression was reported as 19% ,19.4% in Jordan and Turkey respectively<sup>[26,27]</sup>. Whereas in Nigeria, anxiety and depression was reported as 7.2%, 10.8% respectively<sup>[27]</sup>.

.To analyze the high incidence of psychiatric morbidity in Iraq may be somehow included the somatic symptoms with the morbidity and co-existing important illnesses like medical or obstetric disorders .Iraq suffered two major wars during the last two decades with internal struggle where people endured different psychological traumas ie :killing or kidnapping of close relative or serious conflict injury and massive forced displacement and immigration[28,29] .These factors profoundly affected Iraqi mothers and their children who sustained a burden of insecurity. The predominance of somatic symptoms is not surprising knowing that outpatients women tend to somatize their psychological distress<sup>[28,30,31]</sup> , thus , depression and anxiety symptoms can be hidden in or mixed with somatic symptoms which may explain the relatively low rate of overt depressive symptoms and may be overlapped by feeling of apprehension and worries about labor and infant nursing<sup>[32,33]</sup> .Regarding the association of psychiatric morbidity with the studied variables, all were significant except mother's parity .Having complicated pregnancy by medical or obstetric problems was correlated to anxiety and somatic symptoms .There was a high significant association between domestic violence and anxiety, depression and somatic symptoms denoting the adverse impact of domestic violence on psychological wellbeing of abused women.<sup>[19,20,32,33]</sup>

## CONCLUSION

This study measured psychiatric morbidity in the form of anxiety, depression, and somatic symptoms, it revealed a demographic profile of young urban parous women of lower to middle socio-economic class. Half of the participants had psychiatric morbidity assessed by the GHQ test which is higher than previous similar studies elsewhere. The somatic symptoms scored the highest reflecting the psychodynamic of their psychological burden. Psychiatric morbidity was associated with medical/obstetric problems, psychological trauma and domestic violence.

## Conflict of interest

There is no conflict of interest. There is no financial sponsorship of any kind

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