PREVALENCE OF DEPRESSION AND ASSOCIATED RISK FACTORS AMONG WOMEN ATTENDING GYNECOLOGY & OBSTETRICS CLINICS IN KARACHI, PAKISTAN.

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ABSTRACT

Objective: The purpose of the study was to examine sociodemographic correlates of depression, quality of life and health among women visiting gynecological clinics for varied health care seeking reasons. **Methodology:** A cross-sectional study based on predesigned questionnaire with Patient Health Questionnaire – 9 variables included and surveyed 1000 respondents in an interview. The sessions evaluated each individual for the grades of depression. **Results:** The results indicated that mild levels of depression are highly prevalent in non-pregnant women with 57.44% while pregnant and menopausal females have a high incidence of severe depression with 7.95%. Age, marital status, health status, stressful life events, and history of comorbid are all significantly associated with the incidence of depression with regard to the context of woman's life. **Conclusion:** It has been concluded that out of many different sources the major ones among women tend to be aging, parity, antennal period, menopause along with certain comorbid mostly relating to diabetes mellitus. The physiological changes in menstrual patterns and the appearance and persistence of vasomotor symptoms with pregnancy and menopause may have a direct impact on mood and also get further influenced by negative attitudes and societal factors. Strong preventive measures with attempts of treatment and management must be performed in order to aid women from acute phases of stress and across the lifespan.

KEYWORDS: PHQ-9, Depression, Mental Health, Women Health.

INTRODUCTION

Mental health is a substantial component of reproductive health and strains a global burden on the healthcare community. Depression is recognized as a key contributor to the poor health outcomes and frailty in feminine well-being, specifically in the reproductive age, as it is identified that women are more prone to depression than the men. Studies have estimated that the incidence of depression vary widely in those females who belong to the underprivileged states. The World Health Organization (WHO) has estimated that by the end of year 2020, depressive disorders will be recognized as the leading mental disability in women.[1,2]

As a condition, depression mostly exhibits with the symptoms of mood fluctuations, nervousness, and uneasiness along with troubles in sleep and nocturnal patterns.[1,2] With growing body of evidences it has been suggested that these depressive states in women can be multivariate where increased risk might be linked with physiological stages of reproduction such as pregnancy, postnatal phase or the menopausal shift. These stages are characterized by marked hormonal variations and associated with demanding psycho-physiological strains that include variations in social, physical and psychological errands. The intricacy of these psychophysiological health paradigms opens many windows of vulnerability not only for patient but also as a challenge to health professionals.[3,4]

There are worldwide assessments indicating the prevalence of depression that tends to vary with the differences of Nations yet the data for developing countries still remains scarce for taking appropriate actions. Asian sources report that depression ranges from 17% to 44% while anxiety is measured to be 4% to 58%, however, data from Pakistan is not enough to address and execute the apt measures.[5] It is estimated that about 20 - 40% of women in developing countries experience depression during pregnancy or after childbirth. Perinatal depression is one of the most prevalent and severe complications of this phase of life.[6]

The effects of depression, anxiety and dejection are amplified in the context of social adversity and poverty. These conditions have a pervasive adverse impact on women's health and wellbeing and caretaking capacity, with effects on the domestic environment, family life and parenting. However, the menopausal transition and early postmenopausal years constitute a characteristic example; during this period in life, dynamic changes in sex hormones and reproductive function co-occur with modifications in metabolism, sexuality, lifestyle behaviors and overall health, sometimes affecting a woman's quality of life and overall functioning.[7] As there is limited data on the incidence of depression among women

with reproductive health issues, this study has been designed to examine the prevalence of depressive symptomatology and to explore whether it has an association with other medical complications as well as socio-demographic characteristics.

MATERIAL AND METHODS

A descriptive cross-sectional study was conducted and recruited 1000 women attending antenatal & gynecology clinics at Ziauddin University Hospital from January 2016 to July 2016 in Karachi, Pakistan. The subjects were screened by trained health care professional via a detailed structured questionnaire that initially curtained the study population for the demographic information, lifestyle factors, family and medical history including the gynecological and obstetric history after which a standardized scoring system for depression was applied which is known as Patient Health Questionnaire – 9 (PHQ-9). PHQ-9 comprised of and assessed nine inquiring facts for investigating the potential symptoms for the clinical phase of depression. PHQ-9 validates the degree and incidence of depression in a shortsitting that makes it reliable and easy to work with females who come to their doctors for follow- up. The collected data has been statistically analyzed on the SPSS version 22.

RESULTS

A total of 1000 females were recruited in the study with an average age of 30.85 $\pm$ 11.52 years. Majority of the population lied into the age range of 21–30 years with 51.1%. The study documented most incidence of multiparity (34.8%) with Majority of them have had multigravida with frequency of 40.9%. Mostly females were college graduates that has been 37.1% of the study group while out of whole only 7% were smokers. The maximum observed body mass index (BMI) had been between the ranges of 25 – 29.9 in 40.8% individuals with majority of the females have not had any comorbid, in 68.9% cases and no family history, in 45.3%.
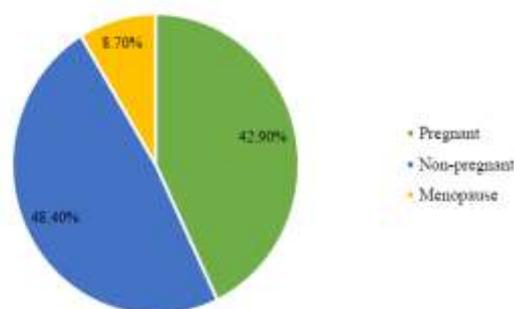
Figure 1: Frequency Distribution of the Respondents by the Current Status

Table 1: Frequency Distribution of the sociodemographic and Clinical Characteristics of the Respondents.

Characteristics	Categories	Mild Depression % (N)	Moderate Depression % (N)	Moderately Severe Depression % (N)	Severe Depression % (N)
Age (Years)	Less than 20	56% (42)	33.33% (25)	5.33% (4)	5.33% (4)
	21 - 30	61.84% (316)	24.07% (123)	10.76% (55)	3.33% (17)
	31 - 40	45.12% (111)	35.77% (88)	14.23% (35)	4.88% (12)
	41 - 50	43.75% (42)	28.13% (27)	17.71% (17)	10.42% (10)
	51 - 60	36.36% (16)	20.45% (9)	36.36% (16)	6.82% (3)
	More than 60	32.14% (9)	46.43% (13)	14.29% (4)	7.14% (2)
Current Status	Pregnant	30.68% (27)	31.82% (28)	29.55% (26)	7.95% (7)
	Non-pregnant	57.44% (278)	26.86% (130)	10.33% (50)	5.37% (26)
	Menopause	30.68% (27)	31.82% (28)	29.55% (26)	7.95% (7)
Education	College Graduate	58.12% (179)	20.45% (63)	14.29% (44)	7.14% (22)
	High School	58.97% (207)	25.36% (89)	9.40% (33)	6.27% (22)
	Graduate Less Than High School	39.46% (73)	48.65% (90)	10.27% (19)	1.62% (3)
	No Education	49.67% (75)	26.49% (40)	23.18% (35)	0.66% (1)
	Not Stated	40.00% (2)	6.00% (3)	0.00% (0)	0.00% (0)
Socioeconomic Status	Lower Class	48.32% (144)	28.52% (85)	17.79% (53)	5.37% (16)
	Lower Middle Class	63.67% (312)	21.63% (106)	10.00% (49)	4.69% (23)
	Upper Middle Class	37.74% (80)	44.34% (94)	13.68% (29)	4.25% (9)
Smoking History	Yes	56.21% (516)	28.54% (262)	12.85% (118)	2.40% (22)
	No	24.39% (20)	28.05% (23)	15.85% (13)	31.71% (26)
Body Mass Index (BMI)	<25.0	67.04% (242)	20.50% (74)	6.09% (22)	6.37% (23)
	25 – 29.9	53.43% (257)	33.68% (162)	10.19% (49)	2.70% (13)
	>30	23.42% (37)	31.01% (49)	37.97% (60)	7.59% (12)
Comorbid	None	55.28% (68)	31.71% (39)	12.20% (15)	0.81% (1)
	Diabetes Mellitus (DM)	46.97% (31)	28.79% (19)	16.67% (11)	7.58% (5)
	Hypertension (HTN)	59.65% (170)	27.02% (77)	5.61% (16)	7.72% (22)
	DM + HTN Ischemic	40.41% (99)	28.16% (69)	26.12% (64)	5.31% (13)

	Heart Diseases (IHD)	54.88% (45)	36.59% (30)	7.32% (6)	1.22% (1)
	Psychiatric Illnesses(PI)	61.81% (123)	25.63% (51)	9.55% (19)	3.02% (6)
Family History	None	48.82% (207)	35.14% (149)	11.32% (48)	4.72% (20)
	Diabetes Mellitus (DM)	52.83% (28)	30.19% (16)	13.21% (7)	3.77% (2)
	Hypertension (HTN)	70.00% (42)	13.33% (8)	15.00% (9)	1.67% (1)
	DM + HTN Ischemic	63.91% (193)	19.87% (60)	11.59% (35)	4.64% (14)
	Heart Diseases (IHD)	40.00% (22)	27.27% (15)	23.64% (13)	9.09% (5)
	PsychiatricIllness (PI)	41.51% (44)	34.91% (37)	17.92% (19)	5.66% (6)
Gravidity	Nulligravida	57.53% (279)	26.80% (130)	10.31% (50)	5.36% (26)
	Primigravida	61.46% (59)	28.13% (27)	9.38% (9)	1.04% (1)
	Multigravida	51.72% (150)	30.69% (89)	15.52% (45)	2.07% (6)
	Grand Multigravida	37.21% (48)	30.23% (39)	20.93% (27)	11.63% (15)
Parity	Nulliparous	58.91% (347)	26.83% (158)	9.85% (58)	4.41% (26)
	Primiparous	54.63% (59)	36.11% (39)	5.56% (6)	3.70% (4)
	Multiparous Grand	48.13% (103)	28.50% (61)	18.69% (40)	4.67% (10)
	Multiparous Great	30.16% (19)	26.98% (17)	31.75% (20)	11.11% (7)
	Grand Multiparous	30.77% (8)	38.46% (10)	26.92% (7)	3.85% (1)
Intensity of Trouble Faced due to Depression Indications	Not Difficult At All	70.82% (347)	20.20% (99)	8.57% (42)	0.41% (2)
	Somewhat Difficult	41.22% (155)	35.11% (132)	19.68% (74)	3.99% (15)
	Very Difficult	26.36% (34)	41.09% (53)	11.63% (15)	20.93% (27)
	Extremely Difficult	0.00% (0)	20.00% (1)	0.00% (0)	80.00% (4)

Table 2: Incidence Record for Each Symptom of Depression According to the PHQ9 Assessment.

Indication	Not At All % (N)	Several Days % (N)	More than Half the Days % (N)	Nearly Everyday % (N)
Little interest or pleasure in doing things	36.9 % (369)	40% (400)	16.8% (168)	6.3% (63)
Feeling down, depressed or hopelessness	36% (360)	37.9% (379)	20.2% (177)	5.9% (59)
Trouble Falling or Staying Asleep or Sleeping Too Much	30.6% (306)	40.2% (402)	21.0% (210)	8.2% (82)
Feeling Tired or having Little Energy	21.4% (214)	44.0% (440)	25.3% (253)	9.2% (92)
Poor Appetite or Overeating	37.6% (376)	36.0% (360)	19.9% (199)	6.4% (64)
Feeling Bad about Yourself or that You are A Failure or Have Let Yourself or Your Family Down	56.5% (565)	25.6% (256)	13.6% (136)	4.3% (43)
Trouble Concentrating on Things, such as Reading the Newspaper or Watching Television	56.4% (564)	26.1% (261)	13.0% (130)	4.5% (45)
Moving or Speaking so Slowly that Other People could have noticed? Or the Opposite Being so Fidgety or Restless that you have been Moving Around a Lot More Than Usual	66.8% (668)	21.7% (217)	8.7% (87)	2.8% (28)
Thoughts that You would be Better Off Dead or of Hurting Yourself in Some way	73.7% (737)	16.1% (161)	7.4% (74)	2.8% (28)

The evaluation of symptoms presented by the patients as characteristic features of depression shows that Feeling Tired or having Little Energy, Trouble Falling or Staying Asleep or Sleeping, interest or pleasure in doing things Too Much and problems with eating patterns were most reported symptoms.

DISCUSSION

The study compliments the stress model of depression which matches with a multidimensional approach of understanding the associated pathways in the present populace. As stress is an extremely significant interceding factor allied to depression, it may arise from multivariate stressors that can vary from social to physiological factors. The study results indicate that out of many different sources of stress, the major ones among these women are aging, parity, antenatal period, and menopause along with certain comorbid.

A study by Singh in 2015 have addressed that old age is a significant contributor to stress that mostly arises due to loneliness, social dependency and lack of familial ties in the later stages of life. These findings support the results of this study, which indicates that young females have mild degrees of depression where older women expresses severity (Table 1).

Similarly, menopausal transition itself stores potential to have a direct impact on mood. The core reason behind the transformation can be the changes in menstrual patterns in conjunction with the appearance and persistence of vasomotor symptoms with woman's life context. So, it has been observed in our study that majority of the women, with regard to their current physiological status, have mild depression in non-pregnant state. While on other hand, prevalence has been noted highly in pregnant females and during menopausal stage (Table 1). Apart from prenatal development and variations, the mental state also receive an influence from the negative socialization, experiences and attitudes toward menopause and poor health throughout the lifespan.[8, 9, 10, 11]

Women in their peak reproductive ages suffer from mental health issues and depression in pregnancy or within first year of giving birth. The incidence tends to be higher in low income countries.[12,13] For most females, however, this biological change has little or no significant impact on their mental wellness, predominantly if related to reproductive events. Even though it is a strongest predictor of depressive state during these years, it still tends to have some exceptions. Thus, it supports the results of our study that illustrates that majority of the females, despite of the current gestational status, suffers from some level of depression with particularity in mild grade (Figure 2).

Roy and Lloyd, in 2012, have put forward a word that the risk of depression inclines to be three fold higher in the type 1 diabetic individuals and two folds in type 2 diabetes.[14] Several other studies have found that presence of chronic conditions like diabetes, hypertension or even chronic pain increases the risk of developing depression and thus the incidence of mild grade depression has been observed to be higher in conjunction with all the noted chronic conditions in the study (Table 1).[15, 16, 17]

Furthermore, the study outcomes have portrayed that social factors like education and socioeconomic status does have an impact on the mental wellbeing of females. It has been observed that majority of the individuals with severe depression were having advanced education while those, chiefly with the mild grades, were from the lower middle income families whereas severity has been noted in the lower income group (Table 1). A study in American Journal of Obstetrics and Gynecology has revealed similar pattern and have stated that the common stressors like lower economical support and domestic abuse can heavily contribute to the depressive symptoms in life.[18]

We need depression awareness among local population as its increasing prevalence and incidence in society specifically in Pakistan. The outcomes of the study indicate that the mild and moderate level of depression in most of the women, visiting the gynecological clinics for one or the other reasons among antenatal care, menopausal complications or infertility, raise the concern that the compromise in health facilities towards psychosocial health is not only affecting the women's mental and physical health but also planting indirect yet serious impacts on infants and children (Table 1).[1] We suggest that mental health and well being screening should be a part of gynecological history taking thus diagnosing mental health problems and their prompt management. So that it can improve mother and child health.

This study can add a suggestion that maternal depression in developing countries is not only penetrating silently but have a high potential threat to contribute to gynecological, psychological and physical health of women that can way forward have impact on the family and society as a health burden.

Present study besides showed that grand multiparty is associated with increase intensity of symptoms but also point to the insufficient prenatal care that may explain the higher incidence of related complications in grand multiparous women (Table 1). This reports increase in depression scores and higher incidence of obstetric complications and suggests that most of the maternal and fetal adverse effects can be linked with multiparty in our population that may attribute to the psychological factors rather than only to parity.

The results of this study highlight important to recognize women attending antenatal care during pregnancy as high-risk of psychophysiological constraints that may have many health risks to their reproductive as well as psychological wellbeing.[19, 20]

Even though the relationship between other mental health concerns and reproductive functions in women are still unexplored and need more exploration, still there is a requisite to prevent such problems and develop easy approach to diagnose these conditions.[21] This is particularly true for developing countries where the intersecting determinants of reproductive events or conditions and the mental health problems faced by women are simply not recognized. For example, many women have questions and concerns about the psychological aspects of menstruation, contraceptive technologies, pregnancy, sexually transmitted infections, infertility and menopause yet they are not provided with the relevant responses

and assistance.[22, 23, 24, 25] Moreover psychosocial constraints of hysterectomy, termination of a pregnancy, Sexual abuse[26,27] are also co-occurring mental health problems.[28, 29]

According to proposed guidelines for the treatment of patients with major depressive disorder, it is recommended to intervene the situation with pharmacological treatment where selective serotonin reuptake inhibitors (SSRIs), serotonin norepinephrine reuptake inhibitors (SNRIs), mirtazapine, and bupropion are the preferred management options. Nonetheless, strict regulation and monitoring must be followed with the prescription of these drugs for optimum outcomes.[31] It has been identified during the management and treatment phases that levels of depression, whether mild or severe, must be addressed with serious consideration in order to avoid the subsequences of the situation that can affect both the mental and physical health.

CONCLUSION

The study assessed the prevalence of symptomatic depression and associated risk factors among a women visiting gynecological clinic where the situation indicated that the screening for the depression symptoms should be included as a routine part of health care facility. Women who are in reproductive age group women has increased vulnerability to develop mental health issues associated with numerous adverse outcomes. As Depression is a multi-layered health problem with many Physiological, social, physiological and determinants and consequences that can be a potential threat to women well being, its Prevention and treatment in developing countries like Pakistan. Inclusive screening for the risk factors can be targeted for wellness, health promotion and other interventions.

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