



PREVALENCE AND RISK FACTORS FOR ANTENATAL AND POSTPARTUM DEPRESSION AMONG WOMEN IN RURAL AREA OF CHENNAI

Obstetrics & Gynaecology

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ABSTRACT

Background and Objective: Maternal depression is an important public health problem. Preterm labour, low birth weight, and intrauterine growth restriction have all been linked to antenatal depression, which is generally underdiagnosed. Postpartum depression has been linked to mother-infant bonding issues, child maltreatment, child neglect, maternal drug misuse, and self-harm in studies. Depression among pregnant and postpartum teenagers is prevalent in many parts of the world. The incidence of depression and its related risk factors among pregnant and postpartum adolescents in Sriperumbudur, Chennai, is reported in this research.

Methods: Descriptive cross-sectional research using a sample of 160 teenage girls using maternity health care in a medium-sized rural peripheral district hospital in Chennai was undertaken between June and November 2021. The Edinburgh Postnatal Depression Scale was used to examine pregnant and postnatal adolescents who took part in the study as the treatment of depression. Mean of parameters were assessed and correlation value were calculated by Fisher's exact test. The statistically significant P value was less than 0.05.

Results: The sociodemographic factors have been demonstrated to have a major role in explaining the variation in prenatal and postpartum depression prevalence rates. According to the data, less than a third of pregnant women suffer from depression as a result of life events such as economic problems, which they must overcome in order to sustain their family. These were shown to be significant risk factors ($P > 0.05$). In the meanwhile, it was 9.4% (15/160) among postpartum participants. Physical violence (adjusted odds ratio (aOR) 7.32, 95% CI 1.66-29.44, $p = 0.005$), verbal abuse (aOR) 4.3, 95% CI 1.03-15.79, $p = 0.03$), and intimate partner violence (aOR) 9.58, 95% CI 1.58-48.82, $p = 0.008$) were all linked to postnatal depression.

Conclusion: In the research sample, prenatal depression was more common than postpartum depression. As a result of the findings, maternal healthcare providers are being advised to examine the mental health of pregnant and postpartum teenagers seeking treatment at health institutions.

KEYWORDS

Antenatal, Postpartum, Depression, economic, physical violence and verbal abuse.

INTRODUCTION

Depression is a serious public health problem during pregnancy and the postpartum period because it affects both mothers and their newborns [1]. Preterm labour, spontaneous abortion, low birth weight, and intrauterine growth restriction have all been linked to antenatal depression, which is generally underdiagnosed. Postpartum depression has been linked to mother-infant bonding issues, child maltreatment, child neglect, maternal drug misuse, and self-harm in studies [2]. Poor weight growth and reduced cognitive and motor development in babies have also been associated to maternal depression. Postpartum depression has been called "a thief who steals parenthood, especially because depressed mothers may stop nursing early owing to a decline in breast milk supply six months after delivery. Furthermore, newborns might develop depression as a result of their mothers' sadness [3]. Depression is more common in pregnant and postpartum adolescents than in nonpregnant adolescents.

Early childbirth raises the likelihood of negative mental health issues (depression, drug misuse, and posttraumatic stress disorder), and adolescent moms are more likely than adolescent dads to be depressed. [4] Furthermore, adolescent pregnancy and motherhood are linked to stigma, discrimination, gender inequities, and educational aspirations disruption [5]. Family dysfunction, low socioeconomic position, lack of family support, social isolation, history of physical and sexual abuse, partner neglect, and high-stress levels are all risk factors for clinical depression in pregnant and postpartum teens [6]. Adolescent moms face prejudice and stereotyping, which leads to social marginalization and a high risk of postpartum depression. Adolescent moms must manage several responsibilities, including raising a kid, finishing school, and obtaining work.

Every culture has its own interpretation and experience of parenting. The variability of postpartum depression prevalence among cultures, may aid researchers in determining whether this condition is largely caused by psychological or biological reasons. Unplanned pregnancies, on the other hand, can be emotionally upsetting due to partner rejection and a lack of family support for the pregnant and parenting teen. In these conditions, it's unsurprising that prenatal and postnatal depression may be present. In South India, approximately 71% of pregnancies among 15–19-year-olds are unintended [7]. Unplanned pregnancies can cause psychological anguish, worry, and sadness in women. The mental health of pregnant and postpartum adolescents is influenced by cultural stigma, societal stigma, repressive household dynamics, and gender inequity.

Depression in pregnant and postpartum adolescents is prevalent in many parts of the world [8]. It has been shown that maternal depression is more common in poor and middle-income nations than in high-income countries, and that adolescent mom are more likely to have prenatal and postnatal depression than adult mothers. Approximately 20% of adolescent girls and women develop depressive symptoms during pregnancy and thereafter. However, because many pregnant and postpartum teenagers are not evaluated for depressive symptoms or are unaware of prenatal and postpartum depression, the true number of depressed pregnant and postpartum adolescents may be greater [9]. Pregnant and postpartum teenagers may suffer in silence against this backdrop. An investigation into the prevalence of depression and its associated risk factors among pregnant and postpartum adolescents in Sriperumbudur, Chennai, was conducted because of knowledge of the prevalence of depression and its associated risk factors among pregnant and postpartum adolescents in Chennai is still hazy.

MATERIALS AND METHODS**Data Source:**

An ecological approach on adolescent pregnancy drove the creation of sociodemographic characteristics questionnaires. Adolescent girls between the ages of 18 and 25 were included in the survey sample.

Study Design: Cross sectional study**Study population:**

Pregnant women attending the Maternity clinic at the Sriperumbudur, Chennai, India.

Inclusion Criteria:

Pregnant and Postpartum Women attending the Maternity clinic

Exclusion Criteria:

Pregnant and Postpartum Women with serious medical conditions and who are in labour were excluded

Sample size: 160

Study period: June 2021 to November 2021.

Ethics Approval

The study was approved by the Institutional Ethics Committee (IEC) of ACS Medical College (Ref: No. 322/2021/IEC/ACSMCH Dt. 9.9.2021). Participants were informed about the purpose of the study. Written informed consent was obtained. The participants were assured that the information obtained will be for research purposes and would therefore be anonymous and kept strictly confidential.

Study Area

Sriperumbudur is a town panchayat having a rural-urban split of 84% to 16%. The unemployment rate is expected to be 27.4% of a population of 143,239 people. Children and teenagers account for 36% of the entire population. At the time of the research, 60% of the adolescents in this town had finished matriculation (the final year of high school), but just 4% had completed post-secondary education (education beyond high school). Approximately 62% of the population relies on government assistance. In Sriperumbudur, the poverty rate is 32%.

Measurement tool

This study employed the Edinburgh Postnatal Depression Scale (EPDS) to measure prenatal and postpartum depression. Although the EPDS was created to screen for postpartum depression, it has been validated and utilised in pregnancy surveys in a number of research. The EPDS is made up of 10 self-report measures that assess depression symptoms during the previous seven days. Each of the questions has four alternative answers, resulting in a total score of 30. The EPDS is a favoured technique because it eliminates somatic symptoms that might be confused with the typical physiological changes that occur during pregnancy.

The EPDS is "the best available instrument for evaluating depressive symptomatology during pregnancy," according to psychometric tools to measure psychosocial stress during pregnancy. In pregnant populations, the EPDS showed good reliability and validity coefficients. Changes in appetite, exhaustion and sleep difficulties are all somatic symptoms that are linked to depression.

The EPDS's strength also includes the ability to predict postpartum depression in the immediate postpartum period. The validated cut-off score for screening for depression is 13.

RESULTS:**Socio demographic characteristics of the study population:**

The sociodemographic factors of age, economic status, gestational age and Gravida have been identified as important factors in explaining the variability of the prevalence rates of antenatal depression. [Table: 1]

Table: 1 Prevalence Of Antenatal Depression Across Socio Demographic Factors In The Study Population (N=80)

Variables	Freq uency	No Depression <7	Depres sion>7	Fisher 2 sided	P value
Age 18-20	44	43	1	0.07	>0.05

21-25	36	35	1		
Marital Status				0.03	<0.05
Married	70	66	4		
Unmarried	10	8	2		
BMI	34	31	3	0.27	>0.05
Hobbies				0.02	<0.05
Drawing	5	4	1		
Yoga and meditation	66	66	0		
Embroidering	2	2	0		
No hobbies	5	5	0		
Socioeconomic Class				0.34	<0.05
Lower middle	53	47	6		
Upper middle	25	22	3		
Upper	2	1	1		
Gravida				0.44	>0.05
Primi	29	25	4		
Multi	51	47	4		
Gestational Age				0.26	>0.05
<12 weeks	9	9	-		
12 to 28 weeks	34	31	3		
>28 weeks	37	35	5		

The bulk of the participants (n = 80, 50%) was in the postpartum phase (Table 2). These women were given the EPDS one week after giving birth. Only nine of the participants said their greatest level of education was primary school, while 94 percent said they had completed secondary school. 97.5 percent of the 80 participants were jobless. Spontaneous abortion was found to be 8.6% of the time. The frequency of adolescent recurrent pregnancy was 19.9%, whereas the prevalence of HIV (known status) was 17.8%. A total of 9.8% (n = 32) of the participants expressed a desire to self-harm. Physical and sexual abuse were reported at 6.1 percent, 3.7 percent, respectively, while intimate partner violence (IPV) was reported at 3.7 percent.

Table: 2 Percentage distribution of key categorical variables

	Percentage distribution
Education level	
Primary	3.7%
Secondary	93.6%
Employed	96%
Non employed	4%
Single	23%
Married	77%
Physical violence	6.1%
Sexual abuse	3.1%
Intimate partner violence	3.7%
HIV	17.8%
Depression	11.4%
Non depression	88.6%

Of the sample of 160 participants, 11.7% had a score of 13 and higher on the Edinburgh Postnatal Depression Scale, indicating probable depression among less than 15% of the sample. However, a higher frequency of depression was revealed for pregnant than for postpartum participants. Hence, it is statistically significant $p < 0.005$ (Figure: 1).

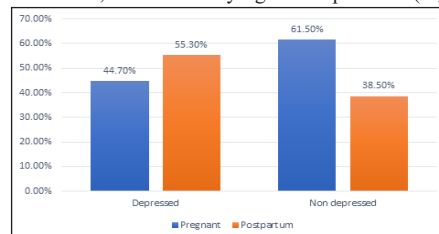


Figure: 1 Comparison of the prevalence of depression between pregnant and postpartum adolescents

DISCUSSION

In poor and middle-income nations, prenatal and postpartum depression are estimated to be 15.6 percent and 19.8 percent, respectively. Antenatal depression was shown to be prevalent in 15.9% of pregnant individuals and 8.8% of postpartum participants in our research. Many investigations on the frequency and risk factors of prenatal and postpartum depression in adult women of reproductive

age have been conducted. Few research, however, have looked at the incidence of depression and its risk factors in pregnant and parenting teenage women. [10] Because there are few studies [11,12] of teenagers in this area, the comparisons in our discussion also pertain to research of prenatal and postpartum depression in adult women of reproductive age.

In China (participants aged 20 to 35 years) and coastal South India (participants aged 19 to 44 years), the prevalence of prenatal depression was fairly comparable, at 13.7 percent and 16.3 percent, respectively. In Nigeria (participants aged 15 to 49 years), Malawi (participants aged 20 to 29 years), and Ethiopia, the prevalence rates of prenatal depression were reported to be 24.5 percent, 21 percent, and 25 percent, respectively. In Ethiopia, adolescents accounted up 8.7% of the 393 people who were tested for prenatal depression. [13-17]. The prevalence of postpartum depression in our sample of participants was 8.8%, which was equivalent to a prevalence of 7% in a research done in Ghana (participants aged 18 to 51 years and above). In a research in Kolkata, India, postpartum depression was shown to be prevalent in 34.1 percent of a sample of 911 postpartum adolescents. [18,19]

Mother age, socioeconomic position, unplanned pregnancies, violence, social support, past mental illness history, social support, and pregnancy-related difficulties have all been identified as risk factors for maternal depression in the literature. Meta analysis additional studies have found a link between intimate relationship violence and postpartum depression, and researchers believe that intimate partner violence is harmful to sexual and reproductive health. [20] Because adolescent moms' sexual and reproductive health has already been impaired by early pregnancy, intimate partner violence exacerbates their sexual and reproductive health and well-being. Adolescent girls and women have incorrect ideas about love and abuse, which contributes to a lack of disclosure of intimate relationship violence. Pregnancy-related changes can also lead to unpleasant and destructive thoughts, particularly in women who have experienced abuse in the past. [21] As a result, pregnancy and parenting may be a stressful time for abused women, perhaps increasing their risk of depression.

CONCLUSION:

Antenatal depression was shown to be more common than postpartum depression. Physical violence, verbal abuse, and a lack of relationship support were all linked to prenatal and postpartum depression, with intimate partner violence being the most common link. There is a lot of variance in the prevalence rates of prenatal and postpartum depression throughout the world, according to the research, and this might be linked to socioeconomic variables, cultural factors, and health system issues. According to the literature, parental depression and interpersonal violence are also being investigated.

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