Maternal Mental Health in Pregnancy, Childbirth and Midwives Compliance at Selected PHC in Port-Harcourt Metropolis of Rivers State

Oweredaba Ibiene Theodore, Prof. Noreen Agbapuonwu and Mrs. Blessing Onyemachi
Center for Public Health And Toxicological Research University Of Port Harcourt

Abstract
Background: Current evidence shows that the prevalence of maternal mental health problems such as anxiety Post traumatic stress disorder and depression is between 5 and 30% during pregnancy and between 5 and 20%after birth in developing countries including Nigeria.

Aims: This study aimed at assessing maternal mental health in pregnancy and childbirth and midwivescompliance at selected primary health centers in Port-Harcourt metropolis of Rivers State.

Methods: A descriptive cross sectional study design was employed for this study. The population of the study consisted of consenting women across the trimesters of gestation and nurses/midwives who attended routine antenatal care at the 13 primary health centers in Port-Harcourt Metropolis during the study period. The sample size was 260 participants.

The self-reporting questionnaire (SRQ)-20 of the World Health Organization (WHO) was used to evaluate maternal mental health problem in pregnancy and childbirth (Depression, Anxiety and Post Traumatic Stress Disorder). While a self-structured questionnaire was used to gather information on the MidwivesCompliance to Maternal Mental Health. The data was analyzed using SPSS version 21 software.

Results: The results indicate that severe and extremely severe depression were reported in 7.2% and 6.4% of participants, respectively. Analysis alsorevealed that 3.3% and 7.7% of women had severe and extremely severe anxiety, respectively. In total, 23% of the participating women had severe stress while 16.7% reported extremely severe stress. Also, findings on the midwives compliance to maternal mental healthe revealed that level of compliance was moderate with regard to provision of compsossionate care psychological support, comfort and privaacy, familiaring the mothers with birth environment and assessment of mothers with suspected mental health problems,

Conclusion: This study has shown that midwives compliance to maternal mental health problems in the various selected health facilities in Port-Harcourt was encouraging. The study recommends adequate training for the midwives with regard to assessment of maternal mental health.

INTRODUCTION

Pregnancy is a transition time to motherhood during which expectant mothers can experience psychological distress due to hormonal, emotional, and physical changes. As they approach birth, some women feel uncertain and anxious particularly those living in poverty, or with violence and abuse (Barnet, 2018). The burden of maternal mental health in pregnancy and childbirth in low and middle-income countries is high (Cooper, et al, 2019). Maternal mental health (MMH) problems during pregnancy and puerperium are major contributors to maternal morbidity and mortality, and have negative effects on the health and development of children (Dunkel, Schetter & Tanner, 2016).

The problems of Maternal Mental Health such as depression, anxiety, puerperal psycho-sis, are associated with adverse effects like feelings of self-harm (suicide ideations) or harm to the baby (infanticide), suicide, severe mood swings, loss of interest (apathy), disturbed sleep, loss of appetite and marital strife among many others . Essentially, poor maternal mental health can substantially undermine the core of family stability and ultimately contribute to community disintegration (Gelaye, Rondon, Araya, Williams 2016). In developing countries including Nigeria,, one in four pregnant women and one in five postpartum women experience Maternal Mental Health problems respectively, indicating a high disease burden (Karina, et al; 2017). Premature births, living in a rural area, low self-esteem, and little access to social support, intimate partner violence, and low family income are among the risk factors for Maternal Mental Health problems that are highly prevalent in Nigeria.

However, maternal mental health problems in pregnancy and childbirth that frequently occur according to WHO (2021) is anxiety and depression. Anxiety and depression are among the common non-psychotic perinatal mental disorders. Anxiety or fear of childbirth   is commonly categorized as a phenomenon under a specific phobia within anxiety-related disorders (Paschett, et al, 2017) Anxiety is an emotional response to a known, external, definite, or non conflictual threat. Though there is no clear definition of anxiety or fear of child birth, as it encompasses a wide range of emotions, the particular threat in studies was pregnancy, labor, and childbirth (Storksen, 2017).

Thus, maternal anxiety of fear of child birth refers to feeling fearful or worried about pregnancy and childbirth. In contrast, depression is a mood disorder that affects an individual's ability to function and is characterized by overwhelming sadness and inability to experience pleasure (Nilsson, et al, 2018). Depressive symptoms (DS) are a range of emotions that include feeling sad or hopeless and can also cause difficulty with thinking, memory, eating, and sleeping. Symptoms and treatment of maternal anxiety and depression can overlap. Maternal depression may occur in depressive and bipolar disorders. Depressive disorders include premenstrual dysphoric disorder, depressive disorder due to another medical condition, and major depressive disorder (American Psychiatric Association, 2019). A major depressive episode is diagnosed if DS lasts for at least two weeks, and a major depressive episode persisting for at least two years is termed persistent depressive disorder.

There is insufficient evidence to suggest that the presentation of a major depressive episode during antenatal or postnatal periods differs considerably from depressive episodes that occur in women at other times. Consequently, neither antenatal nor postnatal depression is classified as a distinct type of depression in the Diagnostic and Statistical Manual of Mental Disorders, Fifth

Edition (DSM-5) (American Psychological Association, 2019). An episode of major depressive disorder with onset during pregnancy or within four weeks after childbirth is termed as a major depressive disorder with peripartum onset. It has been commonly referred to as antenatal or postpartum depression. Depressive symptoms Psychological features like DS may affect a woman's attitude toward pregnancy and upcoming childbirth. DS also has high clinical significance as it can affect the health outcomes for both mother and the infant (Saiston, et al, 2021).

Maternal mental health problems are global health concern, with prevalence rates of 5–34% during pregnancy and child birth and 4–25% after childbirth (Underwoodm, 2016). A multi-ethnic prospective cohort study revealed that the prevalence of maternal mental health such as depression was 8.6% in Western Europeans, 19.5% in Middle Easterners, 17.5% in South Asians, and 11.3% in other groups (Shakeel, et al, 2015). In China, a prevalence of antenatal depression of 28.5% has been reported (Zeng, et al, 2015). In an African context, the prevalence has been reported to be within the global range and varying from region to region: 24.5% in Nigeria, 11.5% in Tanzania, and 33.8%, also in Tanzania (Manongi, et al, 2017)..

The causes of maternal mental health such as anxiety and depression among others are unclear but assumed to be a mixture of emotional and physical influences, such as hormonal changes during pregnancy and the period following childbirth (Zhangac, et al, 2016). However, there are acknowledged predictors of prenatal and postnatal anxiety and depression, such as being single, divorced, or separated, not having a formal education, unemployment, being younger, having a large family, having financial instabilities, having previous C/S, having an unplanned pregnancy, a history of miscarriage, lack of preparation for childbirth, being a victim of gender-based violence – mainly intimate partner violence, lack of social support, lack of parenting knowledge, and low self-efficacy (Shakeel, et al, 2015).

In Nigeria and other African countries, studies have explored the prevalence of mental health in pregnancy and childbirth. The prevalence differs with ethnic background. The health of fetuses, infants, and children is related to the well-being of their mothers. Thus, maternal depression affects the quality of the family environment as it interrupts women's daily activities, mother-infant bonding, and infant sleep patterns. Also, it can lead to maternal suicidal ideation, delays cognitive and language development in children, and contributes to the discontinuation of breastfeeding or early interruption of exclusive breastfeeding (Holm-larsen, et al, 2018).

Coping strategies and support can be both internal (individual women) and external. Expanding on previous studies by Ternström and Ahmad (2020), feeling confident regarding pregnancy and childbirth was one of the personal strategies to reduce maternal mental health problems. Self-confidence increased women's self-control during labor and their ability to cope with labor. Confidence could be enhanced by having positive thinking, raising awareness of pregnancy and birth, getting adequate support, and being spiritually strong (Ternström and Ahmad (2020). Antenatal classes enable women to prepare and understand what they need during labor. Inviting women to tour the delivery room where they plan to give birth can help them cope with mental health problems during pregnancy and child birth, Negative stories about childbirth can induce anxiety and depression, so the midwives should try avoiding exposing the pregnant women to stressful environments, events, and individuals with negative birth experiences can help women reduce maternal mental health problems in pregnancy and childbirth. The midwives can help pregnant mother cope with mental health problems through adequate compliance.

The midwives are the key implementers of reproductive and child health service provision in Nigeria and the backbone of primary health care services. The midwives cooperate with women and their partners to provide appropriate and individualized midwifery care. For complicated pregnancies, birth, or puerperium, midwives report and work in cooperation with clinical officers at lower-level, medical officers, and specialists in obstetrics and gynecology at higher-levels. One of the midwives' roles is to ensure pregnancy, childbirth, and the postnatal period are managed based on available evidence, reducing unnecessary medical interventions. However, the shortage of midwives continues to be challenging, with approximately one nurse-midwife per 1,400 citizens (Mugisha, 2020). This can interfere with the midwife-pregnant woman's relationship, affecting the birth experience. The birth experience has been reported to contribute to maternal mental health either positively or negatively (Hartley et al, 2017). Investing in midwives and increasing access to competent midwives is vital to promote positive childbirth, preventing maternal and newborn death, and improving maternal mental health status.

The midwives compliance in maternal mental health and childbirth is very important. Taking this into consideration the midwife compliance has garnered a lot of attention (Anderson, 2017). Midwifery is an integral component of an obstetric care unit in low-, middle- and high-income countries. The approach has been reported to influence maternal and neonatal health-related outcomes during pregnancy (Ten-Hooper, 2018). Nevertheless, to date and to the best of the researchers knowledge, no study has been carried out on the assessment of maternal mental health in pregnancy and childbirth, the midwives compliance at selected primary health centers in Port-Harcourt metropolis of Rivers State. Such an attempt would be useful for primary healthcare providers to determine best practice evidence for developing effective interventions for antenatal psychological care. Therefore, in this present study was carried out to assess maternal mental health in pregnancy and childbirth, the midwives compliance at selected primary health centers in Port-Harcourt metropolis of Rivers State.

1.3   Aim and Objectives of the \Study

The aim of this study is to assess maternal mental health in pregnancy and childbirth, the midwives compliance at selected primary health centers in Port-Harcourt metropolis of Rivers State. The specific objectives of the study are to:

1. Identify the maternal mental health problems in pregnancy and childbirth among mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis
2. determine the extent to which midwives provide compassionate care to mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis

1.5.   Hypotheses

The following null hypotheses were formulated and will be tested at 0.05 alpha level of significance in this study.

1. There is no significant difference in the mean responses of midwives and mothers on extent midwives provide compassionate care to mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis

2. There is no significant difference in the mean responses of midwives and mothers on extent midwives provide psychological support   to mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis?

METHODOLOGY

A cross sectional study design was   employed for this study. The population of the study consist of consenting women across the trimesters of gestation and nurses/midwives who attended routine antenatal care at the 28 primary health centers in Port-Harcourt Metropolis during the study period.. Therefore, the population of this will be 2,120 (two thousand one hundred and twenty). The sample for the study comprised of 260 respondents representing 10 per cent of the study population. The self-reporting questionnaire (SRQ)-20 of the World Health Organization (WHO) was   used to evaluate maternal mental health (Depression, Anxiety and Post Traumatic Stress). It is a 20-item questionnaire that inquiries about depressive, anxious, panic, and somatic symptoms. Each of the twenty items received a score of 1 or 0 to indicate the presence or absence of symptoms. The measure ranged from 0 to 20, with higher scores indicating poor mental health and lower values indicating good mental health. The tool was used to provide information to research objective 1 which sought to gather information on the maternal mental health problems in pregnancy and childbirth.. The scale will be administered in English. The other components of the questionnaire will include socio-demographic information such as age, parity, marital status, religion, ethnicity, educational status, employment status, husband's educational status, and occupation.

Another tool that was used to gather information in this study is the Midwives Compliance to Maternal Mental Health Questionnaire (MCMMHQ). This questionnaire was used to address research objective 2-4 and it consist of 8 items. It was structured on five-point scale of Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (SD). The total items on this questionnaire will be 40items. Split-half method was used to establish the reliability of the instrument. The instrument will be administered to 20 pregnant mothers and midwives that will not be part of the study. The Split-half method of assessing the reliability of an instrument was done by dividing the items into two equivalent parts and correlating the scores in one part with the scores in the other part (Framekfort-Nachmias & Nachmias, 2006). The items was splitted into even and odd numbers. The relationship of two halves was compared using Spearman Rank-Order Correlation. Osuala, (1982) asserted that Spearman Rank-Order is used to measure the strength of association between pairs of variables measured in ordinal scale. The correlation co-efficient index that was obtained was up to .60 and above, to ensure that the questionnaire is considered reliable for the present study.

3.8   Method of Data Collection

In order to gain access to and co-operation from the respondents, a letter of introduction duly signed by the Research Ethical Committee of University of Port-Harcourt was obtained introducing the researcher and seeking permission to carry out the research on assessment of maternal mental health in pregnancy and childbirth, the midwives compliance at selected primary health centers in Port-Harcourt metropolis of Rivers State. The researcher presented the letters to Medical Director/Matron of the each of the thirteen PHC selected for the study. Copies of the questionnaire was administered to the respondents in each PHC by the researcher and four research

assistants (midwives nurses). These midwives/nurses was used as research assistants because of the professional knowledge they have on the subject matter and also these midwives/nurses will be serving in different PHC in Port-Harcourt Metropolis. The instrument administered after filling by the respondents, was collected back by the researcher and her assistance on the spots. The research assistants assisted the illiterate mothers by interpreting and explaining the questions, eliciting the answers from them and also filling the questionnaire.

3.9   Methods of Data Analysis

The questionnaire that was returned by respondents was properly cross- checked for completeness of the responses. The information from the questionnaire will be analyzed using the Statistical Packages for the Social Sciences (SPSS) batch system. The responses obtained from the questionnaire will be presented and analyzed using tables and relative measures such as percentages and cross tabulations as well as graphic illustrations. This process will allow data to be subjected to varying levels of mathematical and statistical manipulations in order to find out the underlying features, characteristics, and relationships inherent in the body of data. .The research questions concerning the midwives compliance to maternal mental health will be analyzed on four point scale using criterion mean and standard deviation. Hence, a criterion mean value of 2.50 will be used in decision making. Where the mean score will be equal to or greater than the criterion mean of 2.50, it will be concluded that the midwives complied to maternal mental health guidelines whereas if the mean score will be less than criterion mean value it will be concluded that midwives did not complied to maternal mental health guidelines. The hypotheses will be tested using t-test statistics all at .05 level of significance.

3.10   Ethical Issues

Ethical approval for the study was obtained from Ethical committee of University of Port Harcourt (UPH). Permission was obtained and purpose of the study will be explained formally to the midwives and pregnant women attending antenatal season in the primary health centers in Port-Harcourt   metropolis where the study will be carried out. No medical procedure was performed and the data collection method consists of administration of questionnaires only.

RESULTS

4.1 Data Presentation and Analysis

Table 4.1.1 showed that 22.7% of the pregnant womwen were between the age bracket of 15-24 years, 47.2% were of 25-34 years age group, 28.8% were between 35-44 years while 1.4% were above 44 years respectively. Also, majority of the respondents 64.6% were married, 7.2% were divored while 98 28.2% were single. It was further revealed that 45.4% respondents has completed primary level of education, 30.4% had secondary level of education while 8 24.4% had tertiary level of education. From the table   78.4% of the respondents were christians while 21.4% were tradtional worshipper. The result also showed that 34.4% of the respondents were petty traders, 33.0% were farmers, 15.8% were civil servants while 16.7% were students respectively. Similarly, 32.1% of the respondents had 1-2 children, 61.7% had 3.5 children while 6.2% had 6-8 children respectively. Finally, result form the pregnant wmothers revealed that 75.3% of the respondents were indigenes while 24.7% were non-indgienes.

The responses of the midwives to the sopcio-demographic data revealed that majority of the midwives 52.1% were within the age bracket of 36-49 years. Also, majority 61.1% were married and 53.8% were registered midwives with RN/Rm qualifications. On work experience, 51.0% of the respondents had 7-10 years working experience at the maternity ward. This is show in Table 4.1.1b.

Table 4.1.1a: Socio Demographics of the Pregnant Mothers

Age	Frequency	Percentage (%)
15-24	30	22.7
25-34	1	47.2
35-44	40	28.8
>44	5	1.4
Total	195	100
Status	**Frequency**	**Percentage (%)**
Married	145	64.6
Divorced	5	7.2
Single	45	28.2
Total	195	100
Educational Level	**Frequency**	**Percentage (%)**
Primary	120	45.2
Secondary	40	30.4
Tertiary	35	24.4
Total	195	100
Religion	**Frequency**	**Percentage (%)**
Christianity	120	78.4
traditional	75	21.6
Total	195	100
Occupation	**Frequency**	**Percentage (%)**
Petty trader	80	34.4
Farmer	75	33.0
Civil servant	30	15.6
Student	10	16.7
Total	195	100
Number of Children	**Frequency**	**Percentage (%)**
1-2	75	32.1
3-5	112	61.7
6-8	8	6.2
Total	195	100
Ethnicity	**Frequency**	**Percentage (%)**
Indigene	155	75.3
Non-indigene	40	24.7
Total	195	100

Source (Field Survey Sata, 2024)

Table 4.1.1b: Socio Demographics of the Midwives

Age	Frequency	Percentage (%)
18-25	10	15.4
26-35	25	38.5
36-49	35	53.1
Total	65	100
Status	**Frequency**	**Percentage (%)**
Married	40	61,5
Divorced	-	-
Single	25	38.5
Total	65	100
Qualification:	**Frequency**	**Percentage (%)**
Associate Nurse	15	23.1
Registered Nurse	15	23.1
Registered Midwife	35	53.8
Total	65	100
Which unit are you working:	**Frequency**	**Percentage (%)**
Maternity Ward	65	100
Emergency	-	-
Surgical	-	-
Total	65	100
Work Experience:	**Frequency**	**Percentage (%)**
1-3 years	12	18.3
4-6 years	20	30.7
7-10 years	33	51.0
Total	65	100

Source (Field Survey Sata, 2024)

Research Question One: What are the maternal mental health problems in pregnancy and childbirth among mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis?

Table 4.1.2: Maternal Mental Health Problems in Pregnancy and Childbirth (Depression Anxiety and Post Traumatic Stress)

Mental Health category	Frequency (%)
Depression	
Normal	100 (54.8)
Mild	20 (18.2)
Moderate	65 (13.4)
Severe	7 (7.2)
Extremely severe	3 (6.4)
Anxiety	

Normal	144 (62.5)
Mild	67 (14.7)
Moderate	35 (11.8)
Severe	10 (3.3)
Extremely severe	5 (7.7)
Post-Traumatic Stress	
Normal	157 (43.2)
Mild	20 (5.5)
Moderate	13 (11.6)
Severe	3 (3.0)
Extremely severe	2 (1.7)

Source (Field Survey Sata, 2024)

Table 4.1.2 shows the mental health problems of the participants. DASS-21 assessment showed that depression was reported in 45.2% of participants: 31.6% had mild-to-moderate depression, 7.2% had severe depression, and 6.4% had extremely severe depression. The study also found that 37.5% of the women surveyed reported anxiety symptoms. Of these, mild-to-moderate anxiety was reported by 26.5% of participants. Severe and extremely severe anxiety were reported by 3.3% and 7.7% of the study participants, respectively. Of the 195 pregnant mother's participants, 56.8% reported stress symptoms. Analysis also showed that 17.1% of women reported mild-to-moderate stress symptoms; 23% and 16.7% reported severe and extremely severe stress, respectively. These were the identified maternal mental health problems in pregnancy and childbirth among mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis.

Research Question 2:

To what extent does midwives provide compassionate care to mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis?.

Table 4.1.3: Mean ratings and Standard Deviation on extent midwives provide compassionate care to mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis. N = 250

S/N	Items	$\bar{x}$	S.D	Decision
1.	As a midwife, I demonstrate empathy and understanding during antenatal consultations.	3.23	0.82	Agreed
2.	I take the time to address the emotional needs of pregnant mothers.	2.59	0.87	Agreed
3.	I feel respect and value pregnant mothers during the antenatal period	3.09	0.85	Agreed
4.	I provide clear and understandable information about the antenatal care process.	3.08	0.64	Agreed

5. ss	I actively involve mothers in decision-making regarding theirantenatal care.	3.23	0.87	Agreed
6.	I create a supportive and comforting environment for mothersduring antenatal visits	3.04	0.25	Agreed
	Grand Mean	**3.05**	**0.83**	**Agreed**

Source (Field Survey Sata, 2024)

Table 4.1 presented the mean ratings and standard deviation of respondents on extent to which midwives provide compassionate care to mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis. All 6 items analyzed, were rated agreed with mean rating of 2.59 and 3.23 indicating that the respondents agreed that the midwives provided compassionate care to mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis. This was indicated by the grand mean of 3.05 and corresponding standard deviation of 0.83.

Hypotheses Testing

Ho1: There is no significant difference in the mean responses of midwives and mothers on extent midwives provide compassionate care to mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis

Table 4.1.8: T-test analysis showing no significant difference in the mean responses of midwives and mothers on extent midwives provide compassionate care to mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis

Group	N	Mean	SD	df	t	t-critical	α	Decision	Inference
Midwives	65	3.52	0.87	248	1. 726	1.96	0.05	Accept Ho	Diff. not sig.
Mothers	195	3.60	0.98						

The t-test in Table 4.1.8 found probability less than alpha, leading to the acceptance of the null hypothesis. The result revealed that the t-calculated value of 1.726 is less than the table t-value of 1.96 at 0.05 level of significance. This means that the null hypothesis is retained that there is no significant difference in the mean responses of midwives and mothers on extent midwives provide compassionate care to mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis.

Ho2: There is no significant difference in the mean responses of midwives and mothers on extent midwives provide psychological support to mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis

Table 4.1.9: Summary of T-test analysis on is on significant difference in the mean responses of midwives and mothers on extent midwives provide psychological support to mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis

Group	N	Mean	SD	df	t	t-critical	α	Decision	Inference
Midwives	65	3.02	0.81	240	1.423	1.96	0.05	Accept Ho	Diff. not sig.
Mothers	195	3.10	0.58						

The t-test in Table 4.1.9 found probability less than alpha, leading to the acceptance of the null hypothesis. The result revealed that the t-calculated value of 1.423 is less than the table t-value of 1.96 at 0.05 level of significance. This means that the null hypothesis is retained that there is no significant difference in the mean responses of midwives and mothers on extent midwives provide psychological support to mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis.

Ho3: There is no significant difference in the mean responses of midwives and mothers on extent midwives assess women with suspected mental health problems during the antenatal period at selected primary health centers in Port-Harcourt metropolis

Table 4.1.10: Summary of T-test analysis on significant difference in the mean responses of midwives and mothers on extent midwives assess women with suspected mental health problems during the antenatal period at selected primary health centers in Port-Harcourt metropolis

Group	N	Mean	SD	df	t	t-critical	α	Decision	Inference
Midwives	65	3.42	0.62	240	1.023	1.96	0.05	Accept Ho	Diff. not sig.
Mothers	195	3.38	0.75						

The t-test in Table 4.8 found probability less than alpha, leading to the acceptance of the null hypothesis. The result revealed that the t-calculated value of 1.023 is less than the table t-value of 1.96 at 0.05 level of significance. This means that the null hypothesis is retained that there is no significant difference in the mean responses of midwives and mothers on extent midwives assess

women with suspected mental health problems during the antenatal period at selected primary health centers in Port-Harcourt metropolis

Discussion of Findings

The findings of the study on the maternal mental health problems in pregnancy and childbirth among women attending the primary health centers in Port-Harcourt Metropolis showed that from the DASS-21 assessment of maternal mental health problems depression was reported in 45.2% of participants:31.6% had mild-to-moderate depression, 7.2% had severe depression, and 6.4% had extremely severe depression. The study also found that 37.5% of the women surveyed reported anxiety symptoms. Of these, mild-to-moderate anxiety was reported by 26.5% of participants. Severe and extremely severe anxiety were reported by 3.3% and 7.7% of the study participants, respectively. Of the 195 pregnant mothers participants, 56.8% reported stress symptoms. Analysis also showed that 17.1% of women reported mild-to-moderate stress symptoms; 23% and 16.7% reported severe and extremely severe stress, respectively. These maternal mental health problems in pregnancy and childbirth were common among mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis. The findings suggested that Pregnant women who were between the ages of 38 and 45 years, and those who had occupations that required physical contact, such as trading, were more likely to be affected. This findings is similar to the report of Evans et al., (2021) that antenatal depression affects 10–20% of pregnant women.

The result on extent midwives provide compassionate care to mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis were accepted as agreed at mean value of 3.05 and standard deviation of 0.85 with p-value= (0.00<0.05). the finding also indicate that the midwives complied to mental health problem of pregnant women through rendering compassionate care in demonstrating empathy and understanding during antenatal consultations, take time to address the emotional needs of pregnant mothers., respect and value pregnant mothers during the antenatal period, provide clear and understandable information about the antenatal care process, actively involve mothers in decision-making regarding their antenatal care. And create a supportive and comforting environment for mothers during antenatal visits. This finding is not surprising because compassionate care is widely acknowledged as one of the most highly valued attributes in nursing and midwifery care, often recognized as a core element. The finding is in agreement with Menage, et al, (2017) that compassionate care starts with a non-judgmental approach. Midwives should create a safe and welcoming environment in which mothers feel comfortable discussing their mental health concerns without fear of stigma or discrimination. Each mother's experience with maternal mental health issues is unique. Midwives should work with the mothers to develop individualized care plans that address their specific needs, concerns, and treatment preferences

The result on extent to which midwives provide psychological support to mothers during antenatal period at selected primary health centers in Port-Harcourt metropolis were accepted as agreed at mean value of 3.60 and standard deviation of 0.68 with p-value= (0.00<0.05). The finding also indicate that the midwives in this study agreed to carry out the following; address the emotional needs of mothers during the antenatal period., make mothers

feel comfortable discussing their psychological concerns with midwives, provide information and resources to help mothers cope with psychological challenges during pregnancy, actively listen to mothers' psychological concerns during antenatal consultations, offer encouragement and positive reinforcement during the antenatal period. And provide a safe and non-judgmental space for mothers to express their psychological needs. This finding suggest that if the maternity team is unaware of a woman's psychosocial requirements, it can lead her to experience a sense of powerlessness and isolation during labor and delivery. The finding is in agreement with Bohren et al (2016) that absence of psychological support in healthcare settings during childbirth are prevalent occurrences in low- and middle-income countries

The result on extent to which midwives assess women with suspected mental health problems during the antenatal period at selected primary health centers in Port-Harcourt metropolis were accepted as agreed at mean value of 3.20 and standard deviation of 0.70 with p-value= (0.00<0.05). The finding indicate that the participants midwives agreed that they involve mothers in discussions about mental health and tailor support based on individual needs., provide referrals to mental health professionals when necessary based on their assessments, take appropriate actions if they express concerns about their mental health during antenatal visits, use standardized tools or questionnaires to screen for potential mental health issues in pregnant women, attentive to and inquire about their mental well-being during the antenatal period and routinely assess women for signs of mental health problems during antenatal check-ups. The findings implies that assessment of women with suspected mental health problems during the antenatal period by midwives involves a comprehensive and sensitive approach such as use of tools. From the findings, the midwives at the various PHC in Port-Metropolis were able to assess the pregnant women mental health status through the use of tools such as Edinburgh Postnatal Depression Scale (EPDS) for depression and the Generalized Anxiety Disorder 7 (GAD-7) for anxiety. This finding is in line with Cox,, Holden, & Sagovsky, (2017), who reported that midwives should create a supportive and non-judgmental environment to help the woman feel comfortable sharing her concerns. Building trust is essential for an effective assessment. Midwives often begin with standardized screening tools to identify potential mental health issues. These may include questionnaires or interviews designed to assess mood, anxiety, and stress. Midwives should take a detailed personal and medical history, including any previous mental health diagnoses or treatments. Inquire about family history as well.

Conclusion

In conclusion, this study sheds light on the significant issues surrounding maternal mental health during pregnancy and childbirth, as well as midwives' compliance with care standards, within selected primary health centers (PHCs) in Port-Harcourt Metropolis of Rivers State. The findings reveal a concerning maternal mental health problems, including depression, anxiety, and post-traumatic stress disorder, among mothers during the antenatal period, underscoring the urgent need for targeted interventions and support services in this area. Furthermore, the study highlights both strengths and areas for improvement in midwives' compliance with care standards. While midwives are generally perceived to provide compassionate care, psychological support, and a supportive birthing environment, comfort and privacy there are opportunities for enhancement,

particularly in the systematic assessment of maternal mental health issues and ensuring consistent provision of comfort and privacy during delivery. These findings emphasize the importance of prioritizing maternal mental health within the context of antenatal care and childbirth services provided at PHCs in Port-Harcourt Metropolis of Rivers State.

Recommendations

The following recommendations were made based on the findings of the study;

   i.   The ministry of health should provide training programs for midwives to improve their knowledge and skills in identifying, assessing, and managing maternal mental health issues such as depression, anxiety, and post-traumatic stress disorder. This training should also include strategies for providing effective psychological support to mothers during the antenatal and perinatal periods.
   ii. The various Primary Healthcare Centers in Rivers State should develop and implement standardized protocols for routine mental health screening of pregnant and postpartum women during antenatal visits at PHCs. These protocols should ensure systematic assessment of mental health concerns and facilitate timely referral to appropriate mental health services when needed.
   iii. Efforts should be made to encourage and support midwives to prioritize compassionate care practices by fostering a culture of empathy, respect, and emotional support in maternal healthcare settings. This may involve providing ongoing training, supervision, and feedback to reinforce compassionate care behaviors among midwives.
   iv. There is need to facilitate collaboration between midwives, mental health professionals, and other healthcare providers to ensure integrated care for pregnant and postpartum women with mental health concerns. This collaboration can enhance the coordination of services and improve the continuity of care for women experiencing maternal mental health issues.
   v.   Effort should be made to Improve the physical environment of PHCs to create a supportive and calming atmosphere for childbirth. This may include measures such as ensuring adequate privacy, promoting cleanliness and hygiene, and providing amenities to enhance women's comfort during labor and delivery.

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