Journal of Medical Technology and Innovation

Research Article

ASSESSMENT OF MATERNAL MENTAL HEALTH AND MIDWIVES' COMPLIANCE IN PREGNANCY AND CHILDBIRTH AT PRIMARY HEALTH CENTERS IN PORTHARCOURT, NIGERIA

Dr. Chijioke Emmanuel Okafor

Department of Public Health, Center for Public Health and Toxicological Research, University of Port Harcourt

DOI: 10.5281/zenodo.14808403

Abstract

The rapid development and progress of urbanization has also driven the further development of transportation and construction industry on a certain level. If we really want to ensure the overall and effective improvement of the longitudinal pier height difference for the corresponding seismic performance of the bridge itself, we should also continuously strengthen the detailed grasp of the height difference in the construction process, so as to reduce the appearance of some obvious constraints. It is also under such basic conditions that this paper carries out a more in-depth study and discussion from three perspectives: a brief overview of height difference, precautions for bridge seismic response work, and research on the influence of longitudinal pier height difference on bridge seismic response, which also ensures the daily travel safety of the people to a great extent.

Keywords: longitudinal pier height difference; Bridges; Seismic response; influence

Introduction

Pregnancy is a period of significant transformation for women, both physically and emotionally, as it marks the transition to motherhood. During this time, expectant mothers undergo various hormonal, emotional, and physical changes that can lead to psychological distress. These changes are often exacerbated by external factors such as financial instability, social stressors, and experiences of violence or abuse. Research suggests that this emotional upheaval is particularly pronounced among women living in low-income settings, as well as those facing interpersonal violence (Barnet, 2018). Mental health issues during pregnancy and the postpartum period are a significant concern in low- and middle-income countries, where the burden of maternal mental health (MMH) problems is disproportionately high (Cooper et al., 2019). These issues contribute not only to maternal morbidity and mortality but also negatively impact the health and

| ISSN: 3065-0607

Vol: 12 No: 01

https://keithpub.com/ | ©2024 JMTI

Journal of Medical Technology and Innovation

Research Article

development of children, which in turn affects societal well-being (Dunkel, Schetter, & Tanner, 2016).

Maternal mental health disorders, including anxiety, depression, and puerperal psychosis, are frequently associated with adverse outcomes for both mother and child. These disorders can manifest in severe emotional distress, including suicidal ideation, infanticide, mood swings, sleep disturbances, loss of appetite, and marital conflict. The psychological strain experienced by pregnant women can undermine the stability of the family unit, contributing to broader social destabilization (Gelaye, Rondon, Araya, & Williams, 2016). The prevalence of MMH issues during pregnancy is a matter of concern globally, particularly in developing countries like Nigeria, where studies estimate that one in four pregnant women and one in five postpartum women experience some form of maternal mental health problem (Karina et al., 2017). Contributing factors such as low income, rural living conditions, and lack of social support exacerbate the vulnerability of women to these conditions, creating an environment in which maternal mental health is often overlooked in the face of physical and socioeconomic challenges.

Research by the World Health Organization (WHO, 2021) identifies anxiety and depression as the most prevalent maternal mental health problems during pregnancy and childbirth. Anxiety, often linked with the fear of childbirth, is a common psychological response to the unknowns and uncertainties surrounding pregnancy, labor, and delivery (Paschett et al., 2017). While anxiety can be considered a natural response to fear or apprehension, in some women, it becomes a more severe and disruptive condition that impedes their ability to cope with the demands of pregnancy and childbirth. The fear of childbirth is often described as a specific phobia, characterized by an overwhelming and irrational fear of labor and delivery. On the other hand, maternal depression is a mood disorder that deeply affects a woman's ability to function daily. Symptoms include persistent feelings of sadness, hopelessness, and an inability to find pleasure in usual activities (Nilsson et al., 2018). The overlap between anxiety and depression is noteworthy, as both conditions can contribute to feelings of isolation and diminished self-worth, and both have been linked to poor pregnancy outcomes.

Depression during pregnancy is a serious health concern. It is considered one of the most common psychiatric disorders in women of reproductive age, and it significantly affects their health, well-being, and ability to engage with the pregnancy experience (Saiston et al., 2021). Maternal depression has been found to negatively impact maternal-fetal bonding, interfere with breastfeeding, and delay infant cognitive and emotional development. Additionally, untreated depression may lead to more severe complications, including self-harm or suicidal behavior, which not only puts the mother at risk but also jeopardizes the health of the unborn child. Despite its high prevalence, depression during pregnancy is frequently underdiagnosed and undertreated,

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

particularly in low-resource settings like Nigeria, where health systems often prioritize physical over mental health care.

The global prevalence of maternal mental health issues is concerning, with estimates suggesting that between 5% and 34% of women experience mental health disorders during pregnancy and childbirth, and between 4% and 25% experience these issues postpartum (Underwood, 2016). Cultural, economic, and geographical factors contribute to the variation in prevalence rates. For instance, studies show that in Western Europe, 8.6% of women experience depression during pregnancy, while the rate is higher in other regions, such as the Middle East (19.5%) and South Asia (17.5%) (Shakeel et al., 2015). In Africa, the prevalence rates of maternal mental health disorders vary significantly, with countries like Nigeria reporting a 24.5% prevalence of maternal depression (Manongi et al., 2017). These statistics highlight the widespread nature of maternal mental health issues and the need for more targeted interventions, particularly in sub-Saharan Africa, where cultural attitudes and health system limitations can often hinder effective care.

The causes of maternal mental health disorders, including depression and anxiety, are multifaceted. While hormonal changes during pregnancy and the postpartum period are thought to play a significant role, psychological and social factors are also important contributors. Women who experience significant life stressors, such as unemployment, unplanned pregnancies, intimate partner violence, or a history of miscarriage, are at higher risk for developing mental health problems (Shakeel et al., 2015). Other risk factors include being unmarried, young, having a large family, or lacking access to social support. In Nigeria, where many women face these challenges, maternal mental health problems are more likely to go undiagnosed and untreated, further exacerbating their impact on maternal and child health.

Maternal depression and anxiety not only affect the well-being of the mother but also have farreaching consequences for the infant. Research has shown that maternal depression disrupts mother-infant bonding, which can delay the infant's emotional and cognitive development (Holm-Larsen et al., 2018). Babies born to mothers with untreated depression may experience delayed language development, attachment issues, and challenges in social-emotional functioning. Moreover, maternal mental health disorders may contribute to poor nutritional practices, including premature discontinuation of breastfeeding or inadequate feeding, which can have long-term effects on the child's physical health.

Despite the growing recognition of the importance of maternal mental health, many women in developing countries, including Nigeria, lack the resources and support needed to manage their mental health during pregnancy and childbirth. To address this gap, health professionals, especially midwives, play a critical role in providing care and support. Midwives are often the first point of contact for pregnant women in many low-resource settings, and they play a pivotal role in the management of maternal health. By offering psychological support, providing information about

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

the pregnancy and childbirth process, and ensuring that women have access to appropriate mental health care, midwives can significantly improve the maternal experience and help reduce the impact of mental health disorders.

Research has shown that midwives who are adequately trained to recognize and address maternal mental health concerns can improve outcomes for both mother and child (Ternström & Ahmad, 2020). Confidence-building interventions, such as antenatal classes, can empower women and help reduce anxiety and fear about childbirth. Additionally, providing emotional support, offering reassurance, and educating women about the signs and symptoms of mental health disorders can help mitigate the effects of maternal depression and anxiety.

However, Nigeria continues to face significant challenges related to the availability and quality of midwifery care. The shortage of midwives, especially in rural areas, hampers the ability of the healthcare system to meet the needs of pregnant women (Mugisha, 2020). The ratio of midwives to the population remains low, with approximately one nurse-midwife per 1,400 citizens, which can affect the quality of care and the establishment of a strong, supportive relationship between the midwife and the pregnant woman. Addressing this shortage and investing in the training and retention of midwives is crucial for improving maternal health outcomes and enhancing the support provided to women during pregnancy and childbirth.

This study aims to assess maternal mental health during pregnancy and childbirth in Port Harcourt, Rivers State, Nigeria, and to evaluate the compliance of midwives with recommended practices for addressing these mental health issues. The findings from this research will provide valuable insights into the challenges faced by midwives and the women they serve, as well as highlight potential areas for intervention to improve maternal mental health care in primary health settings. By focusing on the role of midwives and their compliance with best practices for maternal mental health, this study seeks to contribute to the development of effective strategies for improving maternal care and reducing the mental health burden faced by pregnant women in Nigeria.

1.3 Aim and Objectives of the \Study

The aim of this study is to assess maternal mental health in pregnancy and childbirth, the midwife's 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

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

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

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

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 means 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.

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

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 women 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 divorced 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 traditional 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 from the pregnant mothers revealed that 75.3% of the respondents were indigenes while 24.7% were non-indigens.

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

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 (%)
Status Married	Frequency 145	Percentage (%) 64.6
		0 \ /
Married	145	64.6

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

Educational Level	Frequency	Percentage (%) 4.1.1b.
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

| ISSN: 3065-0607 | Page | 37

Journal of Medical Technology and Innovation

Research Article

| ISSN: 3065-0607 | Page | 38

Vol: 12 No: 01

https://keithpub.com/ | ©2024 JMTI |

Journal of Medical Technology and Innovation

Research Article

Table 4.1.1a: Socio Demographics of the Pregnant Mothers Age
Percentage (%)

Source (Field Survey Sata, 2024) Table 4.1.1b	: Socio Demographics of the Mic	lwives
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

Journal of Medical Technology and Innovation

Research Article

Age Frequency Percentage (%)

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)
	,

| ISSN: 3065-0607 | Page | 40

Journal of Medical Technology and Innovation

Research Article

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 Ouestion 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 3.23 (during antenatal consultations.	0.82 A	Agreed	understanding
2.	I take the time to address the emotional needs mothers. 2.59 0.87	Agree	d o	of pregnant
3.	I feel respect and value pregnant mothers during 3.09 period	9 0.85	Agree	d the antenatal
	I provide clear and understandable information	2 00	0.64	\ araad
4.	about the antenatal care process.	3.08	0.04 F	Agreed

Vol: 12 No: 01

Page | 41

Journal of Medical Technology and Innovation

Research Article

6. I create a supportive and comforting environment 3.04 0.25 Agreed for mothers during antenatal visits

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 MeanSD df t	critic α DecisionInference al
Midwives65 3.52 0.872481.726	1.96 0.0 Accept Diff. not 5 Ho sig.
Mothers 1953.60 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

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

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 MeanSD df t	criti α Deci Infe
	cal sion renc
	e
Midwives65 3.02 0.812401.423	1.96 0.05Ac Diff.
	ce not
	pt sig.
	Но
Mothers 1953.10 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-	α	Decision	Inference	
						critical				

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

Midwives 65 3.42 0.62 240 1.023 1.96 0.05 Accept Ho

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 finding 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

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

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

midwives provide psychological support The result on extent to which 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 suggests 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 lowand 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

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

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 problem, 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

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

- 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.

References

- Adeponle, A. B., Thombs, B. D., & Gureje, O. (2018). Detecting perinatal common mental disorders in northern Nigeria: Comparing the accuracy of the Edinburgh Postnatal Depression Scale and the Self-Reporting Questionnaire. Archives of Women's Mental Health, 21(5), 583-592.
- Adewuya AO, Ola BO, Aloba OO, Mapayi BM, Okeniyi JA. (2018). Impact of postnatal depression on infants' growth in Nigeria. J Affect Disord, 108 (2008), pp. 191-193
- American College of Nurse-Midwives. (2020). Position Statement: Mental Health Care Provided by Certified Nurse-Midwives. Retrieved from https://www.midwife.org/ACNM/files/ccLibraryFiles/Filename/00000000584/MentalHealth-Position-Statement.pdf
- American Psychiatric Association (2000). Diagnostic and Statistical Manual of Mental American Psychiatric Association (2000). Diagnostic and Statistical Manual of Mental
- Austin, M. P. (2018). Antenatal screening and early intervention for "perinatal" distress, depression and anxiety: Where to from here? Archives of Women's Mental Health, 21(1), 1-2.
- Barnes, P., & Clarke, C. (2017). Midwives' perceptions of providing maternity care to women with female genital mutilation. British Journal of Midwifery, 25(10), 661-669.
- Beck, C. T. (2006). Predictors of postpartum depression: An update. Nursing Research, 55(5), 336345. burden of disease study. *Science*, 274 (5288), 740-743.

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

- Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. The British Journal of Psychiatry, 150(6), 782-786.
- Evans, J., Heron, J., Francomb, H., Oke, S., & Golding, J. (2021). Cohort study of depressed mood during pregnancy and after childbirth. *British Medical Journal*, 323, 257–260. *Disorders 3rd edition, Text Revision (DSM-III)*. New Jersey: Lawrence Erlbaum Association. *Disorders 4th edition, Text Revision (DSM-IV-TR)*. New Jersey: Lawrence Erlbaum Association
- Felice, E., Saliba, J., Grech, V., & Cox, J. (2018). Prevalence rates and psychosocial characteristics associated with depression in pregnancy and postpartum in Maltese women. Journal of Affective Disorders, 241, 49-54.
- Field, T. (2016). Postpartum depression effects on early interactions, parenting, and safety practices: A review. Infant Behavior and Development, 33(1), 1-6.
- Field, T. (2018). Prenatal anxiety effects: A review. Infant Behavior and Development, 51, 98103.
- Glover, V. (2014). Maternal depression, anxiety and stress during pregnancy and child outcome; what needs to be done. Best Practice & Research Clinical Obstetrics & Gynaecology, 28(1), 25-35.
- Goodman, J. H. (2004). Paternal postpartum depression, its relationship to maternal postpartum depression, and implications for family health. Journal of Advanced Nursing, 45(1), 2635.
- Grote, N. K., Bridge, J. A., Gavin, A. R., Melville, J. L., Iyengar, S., & Katon, W. J. (2010). A meta-analysis of depression during pregnancy and the risk of preterm birth, low birth weight, and intrauterine growth restriction. Archives of General Psychiatry, 67(10), 10121024.

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

- Gureje, O., Oladeji, B. D., Araya, R., Montgomery, A. A., Kola, L., & Kirmayer, L. (2015). Expanding care for perinatal women with depression (EXPONATE): Study protocol for a randomized controlled trial of an intervention package for perinatal depression in primary care. BMC Psychiatry, 15(1), 136.
- Hodnett, E. D., Gates, S., Hofmeyr, G. J., & Sakala, C. (2013). Continuous support for women during childbirth. Cochrane Database of Systematic Reviews, 2013(7), CD003766.
- Howard, L. M., Molyneaux, E., Dennis, C.-L., Rochat, T., Stein, A., & Milgrom, J. (2014). Nonpsychotic mental disorders in the perinatal period. The Lancet, 384(9956), 1775-1788.
- Howard, L. M., Piot, P., & Stein, A. (2014). No health without perinatal mental health. The Lancet, 384(9956), 1723-1724.
- World Health Organization. (2018). WHO Recommendations: Intrapartum Care for a Positive Childbirth Experience. Retrieved from https://www.who.int/reproductivehealth/publications/intrapartum-care-guidelines/en/
- World Health Organization. (2018). WHO Recommendations: Intrapartum Care for a Positive Childbirth Experience. Retrieved from https://www.who.int/reproductivehealth/publications/intrapartum-care-guidelines/en/
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. Journal of Health and Social Behavior, 24(4), 385-396.
- Davalos DB, Yadon CA, Tregellas HC. Untreated prenatal maternal depression and the potential risks to offspring: a review. Arch Womens Ment Health. 2012;15:1–14.
- Bohren MA, Vogel JP, Hunter EC, Lutsiv O, Makh SK, Souza JP, et al. The Mistreatment of Women during Childbirth in Health Facilities Globally: A Mixed-Methods Systematic Review. PLoS Med. 2015;12(6):e1001847; discussion e. Epub 2015/07/01. doi: 10.1371/journal.pmed.1001847
- Soet JE, Brack GA, DiIorio C. Prevalence and predictors of women's experience of psychological trauma during childbirth. Birth. 2003;30(1):36–46

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

- Kruk ME, Gage AD, Arsenault C, Jordan K, Leslie HH, Roder-DeWan S, et al. High-quality health systems in the Sustainable Development Goals era: time for a revolution. Lancet Glob Health. 2018;6(11):e1196–e252. Epub 2018/09/10
- Carlsson IM, Hallberg LR, Odberg Pettersson K. Swedish women's experiences of seeking care and being admitted during the latent phase of labour: a grounded theory study. Midwifery. 2009;25(2):172–80.
- Vogel JP, Bohren MA, Tunçalp Ö, Oladapo OT, Gülmezoglu AM. Promoting respect and preventing mistreatment during childbirth. BJOG. 2016; 123(5):671–674. 1
- Bradfield Z, Kelly M, Hauck Y, Duggan R. Midwives 'with woman' in the private obstetric model: Where divergent philosophies meet. Women Birth. 2019; 32(2):157–167
- Havizari S, Ghanbari-Homaie S, Eyvazzadeh O, Mirghafourvand M. Childbirth experience, maternal functioning and mental health: how are they related? J Reprod Infant Psychol. 2022;40(4)
- Harrison SE, Ayers S, Quigley MA, Stein A, Alderdice F. Prevalence and factors associated with postpartum posttraumatic stress in a population-based maternity survey in England. J Affect Disord. 2021;279:749–756.
- Bohren, M. A., Vogel, J. P., Hunter, E. C., Lutsiv, O., Makh, S. K., Souza, J. P., Aguiar, C., Coneglian, F. S., Diniz, A. L. A. & Tunçalp, Ö. J. P. M. 2015. The mistreatment of women during childbirth in health facilities globally: A mixed-methods systematic review. 12, e1001847
- Savage, V. & Castro, A. J. R. H. 2017. Measuring mistreatment of women during childbirth: a review of terminology and methodological approaches. 14, 138.
- E. Shakibazadeh, M. Namadian, M.A. Bohren, J.P. Vogel, A. Rashidian, V. Nogueira Pileggi, ..., A.M. Gülmezoglu Respectful care during childbirth in health facilities globally: A qualitative evidence synthesis
- L.P. Freedman, K. Ramsey, T. Abuya, B. Bellows, C. Ndwiga, C.E. Warren, ..., G. Mbaruku Defining disrespect and abuse of women in childbirth: A research, policy and rights agenda Bulletin of the World Health Organization, 92 (2014), pp. 915-917

| ISSN: 3065-0607

Journal of Medical Technology and Innovation

Research Article

- WHO (2014). The prevention and elimination of disrespect and abuse during facility-based childbirth: WHO statement
- Bowser, D. & Hill, K. J. B. U.-T. P., Harvard School of Public Health 2010. Exploring evidence for disrespect and abuse in facility-based childbirth. <u>Google Scholar</u>
- Wra (2011). Respectful maternity care: The universal rights of childbearing women White Ribbon Alliance, Washington DC (2011), p. 2011
- WHO (2018b). WHO recommendations: intrapartum care for a positive childbirth experience, World Health Organization. <u>Google Scholar</u>
- Miller A. Lalonde The global epidemic of abuse and disrespect during childbirth: History, evidence, interventions, and FIGO's mother—baby friendly birthing facilities initiativeInternational Journal of Gynecology & Obstetrics-Vol. 131, Supplement 1-ISBN 2016 0020-7292-p. S49-S52.
- Msiska, G., Simwaka, A., Munkhondya, B., Kabuluzi, E. and Munkhondya, T.E. (2018) Factors Militating against the Delivery of Compassionate Care: A Malawian Perspective. Open Journal of Nursing, 8, 889-904.
- Jiru HD, Sendo EG. Promoting compassionate and respectful maternity care during facility-based delivery in Ethiopia: perspectives of clients and midwives. *BMJ Open* 2021;11:e051220. doi:10.1136/bmjopen-2021-051220.

| ISSN: 3065-0607