Original Article

Perceived Social Support, Mental Health State and Coping Strategies among Pregnant Women Attending a Tertiary Hospital in Ibadan, Nigeria

Alabi Morufat, RN, RMHN, RPHN, MSc
Lecturer, Department of Mental Health and Psychiatric Nursing, Faculty of Nursing, University of Ibadan, Nigeria

Ogundipe Deborah, RN, RM
Researcher, Faculty of Nursing, University of Ibadan, Nigeria

Akomolede Oluwatosin, RN, RM, RPHN, BNSc
Clinical instructor, Department of Medical Surgical Nursing, Faculty of Nursing, University of Ibadan, Nigeria

Adebisi Temitayo, RN, RM, RPHN, MSc
Lecturer, Department of Maternal and Child Health Nursing, Faculty of Nursing, University of Ibadan, Nigeria

Correspondence: Adebisi Temitayo, RN, RM, RPHN, MSc, Lecturer, Department of Maternal and Child Health Nursing, Faculty of Nursing, University of Ibadan, Nigeria E-mail: temmytayo1695@gmail.com

Study site: University College Hospital, Ibadan, Nigeria. E-mail: info@uch-ibadan.org.ng

Abstract

Background: Pregnancy is a critical period that impacts a woman's mental health and social support have been found to have a significant influence.

Objective: To assess perceived social support, impact on mental health and coping strategies utilized by pregnant women in University College Hospital, Ibadan.

Methodology: Descriptive cross-sectional design was utilized. Data was obtained from 113 pregnant women using standardized tools and analyzed with STATA version 22. Descriptive statistics were used for data presentation, while Chi-square was used to test the hypotheses at a p-value of <0.05.

Results: Mental health concerns were reported in 47.8% of the women with lower social support. Religious practices (20.4%), positive thinking (17.7%) and socialization (16.8%) were the most utilized coping strategies while education level (p=0.032) and employment status (p=0.041) were the most significant predictors of use of coping strategies.

Conclusions: There should be increased sensitization on the importance of providing quality social support to women during pregnancy. Also, women should be encouraged to seek help and utilize healthy coping strategies to minimize the incidence of mental health issues during pregnancy and post-partum.

Keywords: Social support, Mental health, Pregnancy, Coping strategies, Pregnant women, Ibadan

Introduction

Pregnancy is a dynamic period characterized by significant changes in a woman's emotional state with accompanying psychological challenges (Soyemi et al., 2022). Although, there are conflicting perspectives regarding the extent of psychological distress experienced during this time, maternal mental health is a critical determinant of both fetal development and postpartum recovery (Naaz and Muneshwar, 2023). Mental health concerns during pregnancy, including anxiety and

depression, are linked to adverse pregnancy outcomes such as preterm birth, low birth weight, and complications during labor and delivery (Davis et al., 2022).

Social support is pivotal in maternal well-being because it fosters a sense of belonging, emotional security, and mutual assistance (Acoba, 2024). Women with strong social support systems, including supportive partners and access to mental health resources, experience lower levels of stress and anxiety during pregnancy (Bedaso et al., 2021). However, many pregnant women, particularly those in low-resource settings where there is inadequate social and emotional support are particularly vulnerable to mental health issues (Bedaso et al., 2021). Moreover, many social determinants of health including socioeconomic status, access to healthcare, and community support which are grossly inadequate in many resource-limited settings have been found to significantly influence pregnancy experiences and outcomes (Wang et al., 2020).

Despite growing evidences on the importance of social support on maternal mental health, there remains a dearth of information on the interaction of these variables in specific contexts, such as among pregnant women in tertiary healthcare facilities in Nigeria. therefore, addressing this gap is crucial for developing targeted interventions to enhance maternal well-being and improve pregnancy outcomes.

Research questions and hypothesis

1) What is the prevalence of mental health issues among pregnant women at the University College Hospital, Ibadan?

2) What are the social supports available to pregnant women attending antenatal clinic of the University College Hospital, Ibadan?

3) How does socio-demographic factors relate to mental health outcomes among pregnant women at the University College Hospital, Ibadan?

4) What coping strategies do pregnant women at the University College Hospital, Ibadan, employ to manage mental health challenges during pregnancy?

Ho1: There is no significant relationship between relationship between social support and mental health outcomes among pregnant women in the University College Hospital.

Ho2: There is no significant relationship between socio-demographic variables and perceived social support among pregnant women in the University College Hospital.

Background

Globally, about 140 million women give birth each year, with the majority falling within the reproductive age group of 15 to 49 years (United Nations, 2021). In Africa, pregnancy rates remain high, with approximately 27 million births annually, representing a significant portion of the global maternal population (World Health Organization, 2021). In Nigeria, about 7 million births occur annually (National Population Commission, 2021) with an average age at first childbirth being 19 years, highlighting the prevalence of early pregnancies in the country (Ogunbode et al., 2022).

Social support is often characterized as the connections with a specific group that offers emotional help when needed. This supportive network typically consists of family, friends, and colleagues. (Mbee et al, 2022). Social support during pregnancy can ease both emotional and physical stress, enhancing the well-being of both mother and child. To better assist women, it's crucial to understand their personal experiences and views on social support during this time (Al-Mutawtah et al, 2023) as almost all women are at risk of developing mental disorders during pregnancy and the first year postpartum. However, factors such as poverty, migration, extreme stress, exposure to violence (domestic, sexual, and gender-based), emergency and conflict situations, natural disasters, and low social support significantly heighten the risk of specific disorders (Kirkbride, 2024).

Previous studies on the importance of social support in mitigating mental health challenges during pregnancy have been carried out in various settings (Zee et al., 2020; Melchior et

al., 2021) with limited studies in tertiary health care facilities. UCH Ibadan is a leading tertiary hospital that provides a unique setting to explore these dynamics, given its role in delivering specialized care and support. Hence, this study aims to assess how perceived social support affects mental health among pregnant women attending UCH Ibadan. This should provide insights that could inform targeted interventions to improve maternal mental health and contribute valuable data to the discourse on maternal mental health and support mechanisms.

Methodology

Research Design: The research was a descriptive cross-sectional survey.

Setting: The research took place in the Ante-natal clinic, in the University College Hospital, Ibadan, Oyo State.

The University College Hospital (UCH) Ibadan is the first Teaching Hospital in Nigeria established in 1957 and situated in Ibadan North Local Government of Oyo State. The physical development of the hospital commenced in 1953 in its present site and was formally commissioned after completion on 20th November 1957. The hospital was established to provide health care services for the masses. Clinical teaching and research facilities are provided for nursing students, medical students and other health professional groups. The Antenatal clinic is a unit in the University College Hospital.

Study population: Were pregnant women who booked and accessed antenatal care on the designated clinic days at the University College Hospital, Ibadan, Oyo State, Nigeria.

Sample size: This was derived using the Leslie Kish's formula. This gave rise to 113 (inclusive of a 10% attrition rate).

Sample size and sampling: The study setting, UCH, was selected using convenience sampling. The participants were randomly selected using simple ballot method at each Ante-natal clinic until the sample size was completed.

Data collection tool: The study utilized three standardized, self-administered questionnaires. These covered information on socio-demographic data, perceived social support, mental health outcomes and coping strategies. The Multidimensional Scale of Perceived Social Support (MSPSS) was used to assess perceived social support, Mini International Neuropsychiatric Interview (MINI)-Mental State Examination (MMSE)- was used to assess the mental status of the respondents, and Brief-Coping Orientation to Problem Experienced (Brief-COPE) Inventory was used to assess coping strategies. These tools were selected because of their flexibility and adaptability in getting reliable and precise information from the respondents that are in line with the study objectives.

The MSPSS is a 12-item questionnaire that assesses an individual's perceived level of social support among family, friends, and significant others. Each item on this instrument is scored on a scale from 1 to 7: where '1' represents 'very strongly disagree', '2' represents 'strongly disagree', '3' represents 'mildly disagree', '4' represents 'neutral', '5' represents 'mildly agree', '6' represents 'strongly agree', while '7' represents 'very strongly agree'. It has also been widely used and validated with a Cronbach alpha score of the subscales ranging between 0.75-0.82 (Jafaru et al., 2022). The Cronbach alpha in the present study was 0.8

The MINI Mental State Examination (MMSE)-I is a standardized instrument for measuring a person's thinking and communication with the aim to evaluate 6 areas of mental ability: knowing where you are (the date and place), attention and concentration, short-term memory (recall), language skills, visual and spatial relationships between objects, ability to understand and follow instructions. It has 11 items and a Cronbach alpha of 0.71 and above with high test-retest coefficients ranging from 0.80 to 0.89 and a good inter-rater reliability of 0.75 (Truong et al., 2024). In this present study the Cronbach alpha was 0.78.

The Brief COPE is a 28-item questionnaire developed by Charles S. Carver in 1997 with a Cronbach alpha of 0.74 to 0.89 (Peters et al., 2020). It assesses three coping mechanisms: problem-focused coping, emotion-focused coping and avoidant coping. Items 2, 7, 10, 12, 14, 17, 23 & 25 assesses problem-focused coping and high score in this domain is

indicative of psychological strength, grit, a practical approach to problem solving and it is predictive of positive outcomes. Items 5, 9, 13, 15, 18, 20, 21, 22, 24, 26-28 evaluates emotion-focused coping and a high score indicates coping strategies that are aiming to regulate emotions associated with the stressful situation. Avoidant coping is assessed by items 1, 3, 4, 6, 8, 11, 16 & 19 and a high score indicate physical or cognitive efforts to disengage from the stressor while low scores are typically indicative of adaptive coping. All the items on this tool are assessed on a Likert scale of 4 where '1' represents 'I have not been doing this at all'; '2' means 'I have been doing this a little bit'; '3' translates to 'I have been doing this a medium amount' and '4' is interpreted as 'I have been doing this a lot'. Then, Scores for each subscale are calculated by summing two items, with higher scores indicating more frequent use of that particular coping strategy. The Cronbach alpha for this present study was 0.81.

Institutional Review Board: The study protocol was thoroughly reviewed and approved by the UI/UCH Institutional Review Committee, with the approval number **UI/EC/24/0887.** Informed consent was gotten from the participants, before distributing the questionnaire. Participants were informed about their autonomy, voluntariness, confidentiality, and right to withdraw at any stage without any form of harm or hindrance to their care in the hospital.

Method of Data Analysis: The STATA Package for data analysis version 22, was utilized. Data presentation was through descriptive and inferential statistics. Descriptive statistics: mean, and standard deviation were used to analyze the data and provide answers to each of the research questions. Chi-square was used to test the hypotheses at a 0.05% significance level.

Results

The participants' age ranged from 15 to 43 years, with a mean of 30.1 years (SD=5.49). Most of the participants were between 31-33 years (26.5%), employed (92.0%), married (85.8%), live with their partners (77.0%), had tertiary education (75.2%) and Christians (62.0%). 50.4% of the respondents had at most, 1 labour/delivery experience, (52.2%) were in their second trimester of pregnancy, 60% visited antenatal clinic monthly while 33.6% of the respondents earn from 100000-150000 in Naira monthly (**Table 1).**

A 79.7% of the respondents had high perceived social support (**Fig. 1).**

A higher percentage of women (57.5%) reported having good mental health (**Table 2).**

Majority of the respondents 26.5% utilized emotional support as a coping strategy, 20.4% reported religious coping, 17.7% reported utilization of positive thinking as a coping strategy, 16.8% of the respondents reported socializing as a coping strategy (**Fig. 2).**

Hypotheses testing

There is a significant relationship between perceived social support and mental health outcomes (x^2 =3.43, p-value = 0.000) (**Table 3).**

Education level was significantly associated with perceived social support (p=0.296), with women having tertiary education reporting higher perceived support levels. Employment status showed a significant relationship with social support (p=0.473), as employed women reported higher levels of perceived support compared to unemployed women. Income level was also significantly associated with perceived social support (p=0.472), where higher income earners reported stronger support networks (**Table 4).**

Table 1: Socio-demographic characteristics of the respondents

Socio-demographic variables	N	%
Age		
26+	29	25.6
27-30 years old	27	23.9
31-33 years old	30	26.6
34-43 years old	27	23.9
Marital Status		
Single	14	12.4
Married	97	85.8
Separated/divorced	2	1.8
Level of Education		
No education/ primary	9	8.0
Secondary	19	16.8
Tertiary	85	75.2
Employment Status		
Unemployed	9	8.0
Employed	104	92.0
No of Child birth (Dead/Alive		
0-1	57	50.4
2-5	56	46.0
Income	25	22.1
90000+		
100000-150000	38	33.6
170000-216000	22	19.5
220000-700000	28	24.8
Lives with		
Spouse	87	77.0
Family members	14	12.4
Friends	12	10.6

Primary support in pregnancy		
Spouse	80	70.8
Parents	25	22.1
Friends	8	7.1
Trimester of Pregnancy		
First trimester	18	15.9
Second trimester	59	52.2
Third trimester	36	31.96
Antenatal Visits		
Weekly	32	28.3
Monthly	60	53.1
Occasionally	21	18.6

Table 2: Prevalence of mental health issues among pregnant women

Variables	N	%
Mental status		
Poor mental state	48	42.5
Good mental state	65	57.5

Table 3: Relationship between perceived social support and mental health outcomes

Mental status	Perceived social support			
	Low	High	x^2	p
Poor	11 (47.8)	37 (41.1)	3.4	0.000
Good	12 (52.17)	53 (58.9)		

Table 4: Relationship between socio-demographic variables and social support

Socio-demographic characteristics	**Perceived social support**			
	Low	**High**	**x^2**	**p-value**
Age				
30+	11	45	0.03	0.852

31 – 43	12	45		
Employment status				
Unemployed	1	8	0.52	0.473
Employed	22	82		
Education				
No education/primary education	4	5	4.91	0.296
Secondary	3	16		
Tertiary	16	69		
Income				
90,000 +	5	20	2.52	0.032
100,000-150,000	10	28		
170,000-216,000	5	17		
220,000-700,000	3	25		
Religion				
Christian	11	59	5.43	0.06
Islam	10	30		
Traditional	2	1		
No of childbirth				
0-1	12	45	0.04	0.852
2-5	11	45		
Lives with				
Spouse	13	74	17.76	0.000
Family members	2	12		
Friends	8	4		
Trimester of pregnancy				
First	5	13	7.14	0.028
Second	16	43		
Third	2	34		
Antenatal clinic attendance				
Weekly	2	30	6.31	0.00
Monthly	17	43		
Occasionally	4	17		

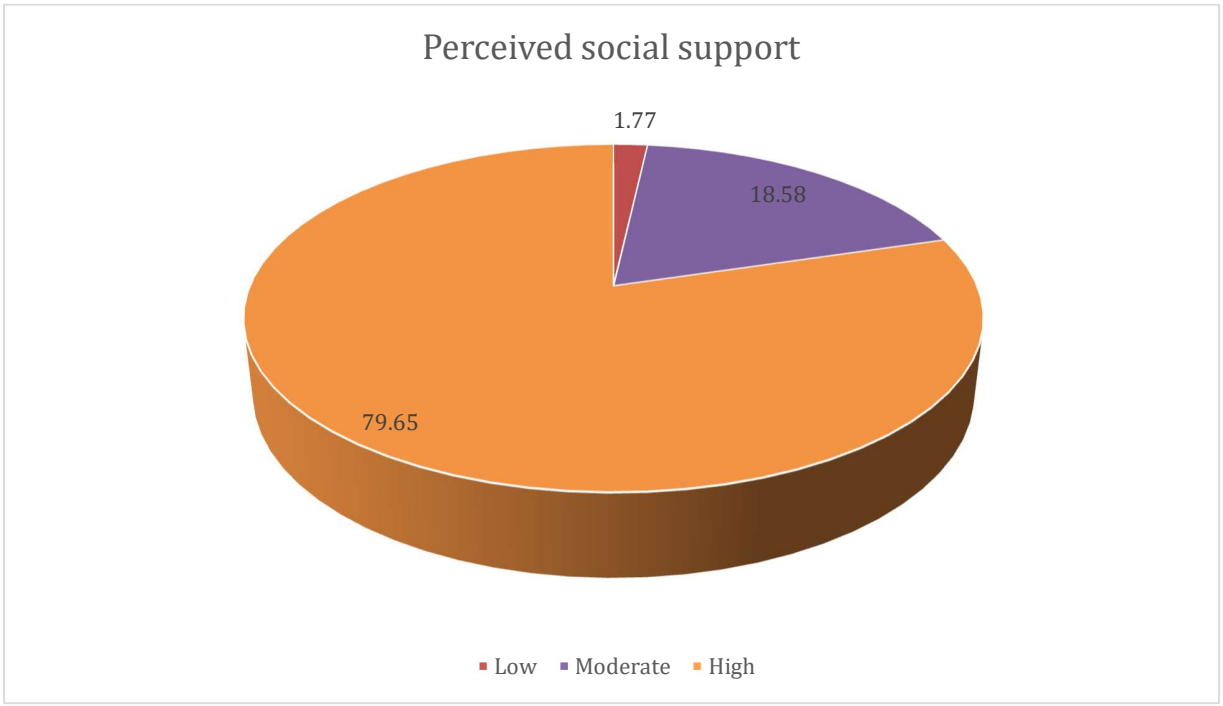

Fig 1: **Level of perceived social support in pregnant women**

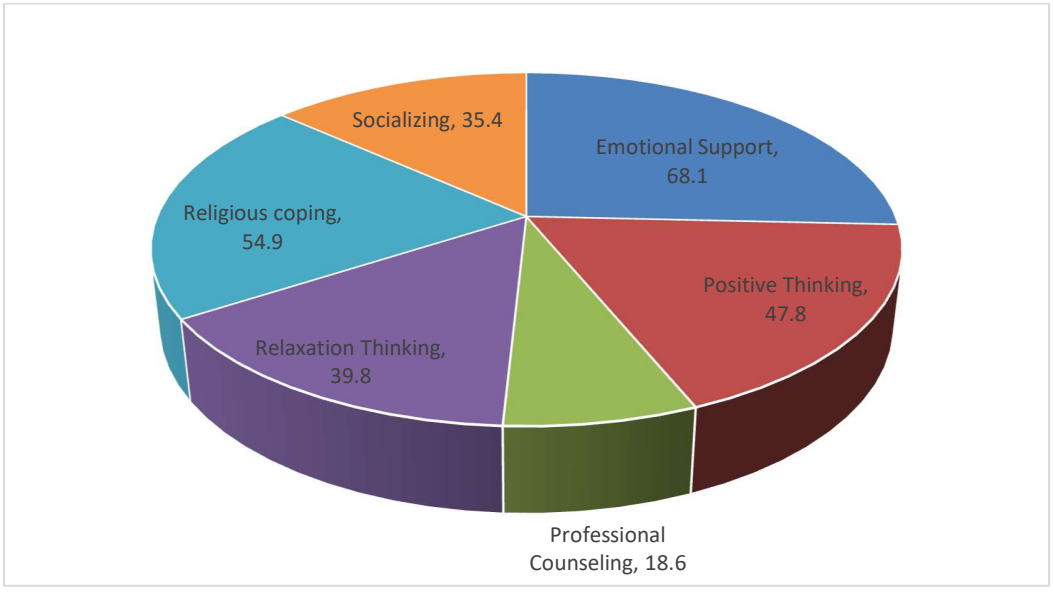

Fig 2: Coping strategies employed by pregnant women

Discussion

Women's socio-demographic characteristics

Most of our respondents were young adults ranging from ages 31-33 years. The concentration of their age suggests that women within this age group are in their reproductive years. Majority of the respondents were married. This high proportion of married women is consistent with cultural norms around pregnancy and childbearing in many African contexts, and is similar to the study conducted in Ibadan (Deniran and Ladokun, 2023). A good number of the respondents had tertiary education as their highest education level. This may have influenced their awareness of mental health and coping strategies; as education has been associated with increased health literacy and engagement with health services (Raghupathi and Raghupathi, 2020).

Level of perceived social support

Many of the pregnant women that participated in this study had a high level of social support which did not directly translate to a good mental health state among them. This can be explained by a meta-analysis on the relationship between level of social support and mental health state which reported that the relationship between social support and antenatal depression and anxiety have not been conclusive (Bedaso et al., 2021).

Women's Mental health state

A little bit low than average of our participants had poor mental health state. This is higher than the 10% prevalence of mental disorder among pregnant women documented by World Health Organization (WHO, 2025). However, a study in Ethiopia, found out that the prevalence of depression and anxiety among pregnant women during COVID-19 was 25% and 35% respectively (Wondmeneh and Wogris, 2024). The higher prevalence of mental health issues observed in this study could be attributed to under-diagnosis due to under-reporting as a result of stigma associated with mental health issues in Nigeria. Cultural perceptions often discourage open discussions about mental health, leading to reluctance in seeking professional help (Labinjo et al., 2020).

Coping strategies employed by pregnant women

Most of our respondents identified their spouse as their primary source of social support during pregnancy. This finding aligns with a previous study in Southwestern Nigeria, where their respondents received maximum support from their spouses during pregnancy (Ogadinmma et al., 2021). This high prevalence of spousal support observed aligns with cultural norms in Nigeria, where family structures are pivotal in providing emotional and practical assistance during pregnancy.

A good number of our respondents reported emotional support as a coping strategy including seeking social support, engaging in religious activities, and utilizing relaxation techniques. In contrast to this finding, a study by in Ethiopia reported that a significant number of pregnant women did not rely on emotional support as a primary coping strategy (Tesfaye, Bunte and Tsegay, 2023). Instead, they were more likely to use problem-focused coping mechanisms, such as seeking professional counseling or engaging in religious practices, to manage stress and anxiety during pregnancy.

Factors influencing the choice of coping strategy: However, our study highlighted that socio-demographic factors influenced the choice of coping mechanisms. Women with higher education and income levels engaged in proactive coping strategies, such as seeking professional counseling and participating in structured relaxation activities. In contrast, those with fewer resources may rely more on informal support systems or personal resilience.

Conclusion and recommendation: The prevalence of reported mental health issues was relatively high, there is need to improve access to mental health care, reducing socio-economic disparities, and fostering stronger support networks can significantly enhance maternal mental well-being. Our findings underscore the influence of socio-demographic factors, with higher education, stable employment, and better income contributing to better mental health outcomes and improved coping strategies. Overall, addressing maternal mental health

requires a holistic approach that integrates social, economic, and psychological interventions. Stakeholders, including healthcare providers, policymakers, and community leaders, must collaborate to ensure that pregnant women receive adequate support throughout pregnancy and beyond.

Acknowledgement: The authors wish to appreciate all staff at the University College Hospital antenatal clinic and women that participated in this study for their support and contribution to the study.

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