

FACTORS CONTRIBUTING TO STRESS AMONG PREGNANT WOMEN AND MANAGEMENT IN GIWA LOCAL GOVERNMENT AREA, KADUNA STATE, NIGERIA

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Abstract

The study investigated the factors contributing to stress among pregnant women in Giwa Local Government Area of Kaduna State, Nigeria. Specifically, the study examined the physical and physiological, domestic, economic, and emotional factors that contribute to stress among pregnant women. Four research questions guided the study. A descriptive survey research design was adopted for the study. The population comprised 426 pregnant women attending antenatal clinics in Giwa Local Government Area, Kaduna State, Nigeria. A sample of 85 pregnant women, representing 20% of the population, was selected using proportionate random sampling technique. Data were collected using a structured questionnaire titled Factors Contributing to Stress among Pregnant Women Questionnaire (FCSPWQ). The instrument consisted of two sections: Section A elicited demographic information, while Section B contained items clustered under physical and physiological, domestic, economic, and emotional factors contributing to stress among pregnant women. The instrument was subjected to face and content validation by experts, while its reliability was established through a pilot study using an appropriate reliability testing technique. Data collected were analyzed using frequencies and percentages. The findings revealed that respondents agreed that physical and physiological factors contribute to stress among pregnant women (54.64%). The respondents also agreed that domestic factors (56.5%), economic factors (76.0%), and emotional factors (61.5%) contribute to stress during pregnancy. Economic factors emerged as the most prominent contributors to stress among the respondents. Based on the findings, the study concluded that stress among pregnant women in Giwa Local Government Area is influenced by a combination of physical and physiological, domestic, economic, and emotional factors. The study recommended that government and other stakeholders should implement measures aimed at reducing stress among pregnant women through financial empowerment programmes, improved social support systems, and health education interventions to safeguard the health of both mothers and their babies.

Keywords: Stress, pregnancy, physiological factors, domestic factors, economic factors, emotional factors

Introduction

Pregnancy is a gestation period in a woman's life when her vulnerability exposes her to significant amount of stress and anxiety. The emotional and physiological adaptations occurring throughout pregnancy affects virtually every body system. (Fraiser & Cooper, 2009). The woman's emotions and that of the family are changing. Though the woman may welcome these changes, they can add new stresses to her life. Stress is a response to an inappropriate level of pressure. It can be described as the distress that is caused as a result of demands placed on physical or mental energy (Selye, 2014). Stress is generally seen as a threat to the fulfillment of basic needs; to the functioning of nervous system including homeostasis and to growth development (skills, 2016). This type of stress is referred to as distress. Pregnancy is a natural physiological process that marks a significant period in a woman's life.

During this period, a woman experiences numerous physical, emotional, social, and economic changes as her body adapts to support the growth and development of the fetus. For

a healthy pregnancy outcome, adequate nutrition, regular antenatal care, emotional support, financial stability, and a conducive home environment are essential. These requirements contribute significantly to maternal well-being, fetal growth, safe delivery, and positive postpartum outcomes. When these requirements are not adequately met, pregnant women may experience several challenges, including anxiety, emotional instability, fatigue, poor health outcomes, and stress.

Stress is a psychological and physiological response that occurs when individuals perceive that environmental demands exceed their ability to cope effectively. According to Skills You Need (2016), stress can be described as a state of mental or physical tension resulting from adverse or demanding circumstances. Stress may be positive or negative. Positive stress, commonly referred to as eustress, motivates individuals to adapt to challenges, improve performance, and achieve desired goals. Negative stress, known as distress, occurs when an individual is unable to cope effectively with demands and pressures, thereby resulting in adverse physical, emotional, and psychological outcomes. Stress can be classified into acute stress and chronic stress. Acute stress refers to an individual's immediate response to a perceived challenge, threat, or demanding situation. Chronic stress, on the other hand, occurs when stressors persist over a prolonged period without adequate resolution, thereby exposing individuals to increased health risks and adverse psychological outcomes (Healthline Media, 2016). Chronic stress has been associated with cardiovascular disorders, weakened immunity, mental health challenges, and reduced quality of life. During pregnancy, exposure to persistent stress may negatively affect both maternal and fetal health.

Although a moderate level of emotional arousal may facilitate adaptation to the demands of pregnancy, excessive or prolonged stress can overwhelm a woman's coping capacity and adversely affect her physical and psychological well-being. Elevated stress levels stimulate the release of cortisol and other stress-related hormones that influence maternal physiological functioning (Teixeira, 2009). Contemporary studies have shown that prolonged exposure to stress hormones during pregnancy may increase the risk of adverse maternal and neonatal outcomes, including poor maternal mental health, pregnancy complications, low birth weight, and preterm birth (Woods et al., 2010; Dunkel-Schetter & Tanner, 2012). Stress among pregnant women may manifest through various behavioural and emotional symptoms such as irritability, sleep disturbances, persistent fatigue, excessive worry, social withdrawal, difficulty concentrating, mood fluctuations, loss of appetite, and feelings of hopelessness. These symptoms may negatively affect adherence to antenatal care recommendations and reduce overall maternal well-being. Consequently, understanding the factors that contribute to stress during pregnancy is essential for developing effective interventions aimed at promoting maternal and child health.

Empirical studies indicate that stress can perhaps cause miscarriage and very likely bring about preterm labour and delivery. Shanna (2016) stated that stress can cause the body, to release hormone in response to the threat that the body perceives- the higher the stress level, the more hormone the body produces. Chronic stress may also contribute to subtle differences in brain development that might lead to behavioral issues as the baby grows (Boader, 2012). According to Dunkel and Tanner (2012) some stressors that commonly affect woman in pregnancy around the globe are low material resources, unfavorable employment conditions, heavy family and household responsibility, strain in intimate relationship and pregnancy complication. Boarder (2012) stated that financial and relationship troubles may lead to stress and its outcome. The emotional consequence of stress can range from a mild sense of being overwhelmed to severe depression. They can eventually lead to a pregnant woman being withdrawn (Fraiser & Cooper, 2009). Certain measures could be taken to cope with stress and they include – talking a few deep breaths, taking a quick walk, identifying stressor and preventing them. (Boarder, 2012). Succinctly coping strategies to include

sleeping, jotting down things that keep one up at night and seeking help when necessary. According to March of Dime Foundation (2012) measures of coping with stress include eating healthy food, exercise, sleep, good support network from partner, family and friends, asking help from people you trust and relaxation activities. The researcher based on literature, organized factors contributing to stress among pregnant women into physiological, domestic, economic and emotional factors.

Statement of the Problem

Stress is a universal condition that is known around the world, affecting different people in many different ways while pregnancy is expected to be a period characterized by adequate physical care, emotional support, financial stability, and a conducive domestic environment. However, evidence from healthcare facilities and community observations suggests that many pregnant women encounter challenges that expose them to varying levels of stress. Physiological discomforts such as nausea, vomiting, back pain, heartburn, fatigue, and frequent urination may interfere with daily functioning and reduce quality of life during pregnancy. Similarly, excessive domestic responsibilities, including childcare, household chores, and family obligations, may increase physical and emotional burden among pregnant women. Economic challenges constitute another major concern for many pregnant women. Rising living costs, unemployment, inadequate income, and insufficient financial support may hinder access to quality healthcare services, nutritious diets, and other necessities required for healthy pregnancy outcomes. Furthermore, emotional challenges such as fear of childbirth, uncertainty regarding pregnancy outcomes, mood changes, and inadequate emotional support from family members may contribute significantly to stress experiences among pregnant women. Although studies have examined stress during pregnancy in different settings, there is limited empirical evidence regarding the specific contributions of physiological, domestic, economic, and emotional factors to stress among pregnant women in Giwa Local Government Area of Kaduna State. Consequently, the present study seeks to investigate these factors with a view to providing evidence-based information that may assist healthcare providers, policymakers, and other stakeholders in developing interventions aimed at reducing stress and improving maternal well-being.

Purpose of the Study

Specifically, the study seeks to:

1. identify the physiological factors that contribute to stress among pregnant woman
2. identify domestic factors that contribute to stress among pregnant women
3. identify economic or financial factors that contribute to stress among pregnant women
4. find out emotional factor that contribute to stress among pregnant woman

Research Questions

The following research questions were formulated to guide this study;

1. What are the physiological factors that contribute to stress in pregnant woman.
2. What are the domestic factors that contribute to stress among pregnant women
3. What are the economic factors that contribute to stress among pregnant women
4. What are the emotional factors that contribute to stress among pregnant women.

Methods

The study adopted a descriptive survey research design because it enabled the researcher to obtain information directly from respondents regarding factors contributing to stress among pregnant women within their natural setting. The study was conducted in Giwa Local Government Area of Kaduna State, Nigeria. The population comprised all 426 pregnant women attending antenatal clinics within the study area. A sample of 85 pregnant women, representing approximately 20 percent of the study population, was selected using proportionate random sampling technique. Data were collected using a structured

questionnaire titled Factors Contributing to Stress among Pregnant Women Questionnaire (FCSPWQ). The instrument consisted of two sections. Section A elicited demographic information of the respondents, while Section B was organized into four clusters corresponding to the objectives of the study: Cluster A (Physiological Factors), Cluster B (Domestic Factors), Cluster C (Economic Factors), and Cluster D (Emotional Factors). The instrument was subjected to face and content validation by experts in Health Education, Maternal Health, and Measurement and Evaluation to ensure clarity, relevance, and adequacy of the items. Following validation, a pilot study was conducted among pregnant women outside the study area. The instrument was subsequently tested for reliability using an appropriate reliability estimation technique, and an acceptable reliability coefficient was obtained, indicating that the instrument was suitable for data collection. The questionnaires were administered personally by the researcher with the assistance of trained research assistants during antenatal clinic sessions in selected healthcare facilities within Giwa Local Government Area. All completed questionnaires were retrieved immediately after completion, resulting in a 100 percent return rate. Data collected were analyzed using frequencies and percentages. A benchmark of 50 percent and above was adopted as the criterion for acceptance, while percentages below 50 percent were regarded as non-acceptance.

Results

Table 1: Frequency and percentage scores on physical and physiological factors that contribute to stress among pregnant women

S/N	Items	Yes		No	
			%		%
1	Minor disorders like vomiting	47	58.75	33	41.25
2	Weight of growing uterus	40	50	40	50
3	Waist pain	55	68.75	25	31.25
4	Heart burn	35	43.75	45	56.25
5	Release of stress hormones	40	50	40	50
6	Increased Salivation	28	35	52	65
7	Frequent Urination	61	76.25	19	23.75
Aggregate percentage			54.64		45.35

Table 1 presents the frequency and percentage scores on physical and physiological factors contributing to stress among pregnant women. A majority of respondents agreed that minor disorders like vomiting contribute to stress (58.75% Yes), followed by waist pain (68.75% Yes) and frequent urination (76.25% Yes). Other factors such as the weight of the growing uterus (50% Yes), release of stress hormones (50% Yes), and heartburn (43.75% Yes) received moderate to lower agreement, while increased salivation had the lowest agreement (35% Yes). The aggregate percentage for Yes responses was 54.64%, indicating overall acceptance of physical and physiological factors as contributors to stress during pregnancy.

Tables 2: Frequency and percentage scores on domestic factors that contribute to stress among pregnant women

S/N	Items	Yes		N	
			%		%
1	Fetching of water	57	71.25	23	28.75
2	Cleaning the house	47	58.75	33	41.25
3	Caring for other children /family members	39	48.75	41	51.25
4	Cooking	34	42.5	46	57.5

5	Laundering	54	67.5	26	32.5
6	Going for shopping	40	50	40	50
Aggregate percentage		56.5		43.5	

Table 2 shows the frequency and percentage scores on domestic factors contributing to stress among pregnant women. Respondents strongly agreed that fetching water (71.25% Yes), laundering (67.5% Yes), cleaning the house (58.75% Yes), and going for shopping (50% Yes) contribute to stress. Caring for other children/family members (48.75% Yes) and cooking (42.5% Yes) received relatively lower but notable agreement. The aggregate percentage for Yes responses was 56.5%, confirming that domestic factors are accepted as significant stressors for pregnant women.

Table 3: Frequency and percentage score on economic factors that contribute to stress among pregnant women

S/N	Item	Yes	%	No	%
1	Joblessness	50	62.5	30	37.5
2	Poor salary	56	70	24	30
3	High cost of living	65	81.25	15	18.75
4	Inability to meet financial obligations	71	88.75	9	11.25
5	Lack of financial support from partner/ husband	62	77.5	18	22.5
Aggregate percentage		76		24	

Table 3 displays the frequency and percentage scores on economic factors contributing to stress among pregnant women. All items received strong agreement: inability to meet financial obligations was the highest (88.75% Yes), followed by high cost of living (81.25% Yes), lack of financial support from partner/husband (77.5% Yes), poor salary (70% Yes), and joblessness (62.5% Yes). The aggregate percentage for Yes responses was 76%, indicating that economic factors are strongly perceived as major contributors to stress during pregnancy.

Table 4: Frequency and percentage score on emotional factors that contribute to stress among pregnant women

S/N	Items	Yes	%	No	%
1	Mood swing in pregnancy	43	53.75	37	46.25
2	Anxiety due to unknown outcome of pregnancy	51	63.75	29	36.25
3	Fear of losing partner	42	52.5	38	47.5
4	Lack of affection from family members	54	67.5	26	32.5
5	Lack of essential needs	56	70	24	30
Aggregate percentage		61.5		38.5	

Table 4 presents the frequency and percentage scores on emotional factors contributing to stress among pregnant women. Respondents agreed that lack of essential needs (70% Yes), lack of affection from family members (67.5% Yes), anxiety due to unknown outcome of pregnancy (63.75% Yes), fear of losing partner (52.5% Yes), and mood

swings in pregnancy (53.75% Yes) all contribute to stress. The aggregate percentage for Yes responses was 61.5%, supporting the acceptance of emotional factors as important stressors.

Discussion

The result presented showed that the subject accepted the articulate physical and physiological factors that contribute to stress among pregnant women. This finding agrees with that of Fraiser and Cooper (2009) who stated that emotional and physiological adaptation occurring, throughout pregnancy affect virtually every system. The result of the analysis also showed that domestic factors that contribute to stress among pregnant mothers include fetching water, cleaning the house, going for shopping among others. This finding agrees with Dunkel and Tanner (2012) who stated that some stressors that commonly affect women in pregnancy around the globe are low material resource, unfavorable employment conditions, heavy family and household responsibilities. This shows that the women still need education and enlightenment on how to reduce stressors during pregnancy.

In addition, the respondents strongly accepted all the articulate economic factors as contributing to stress among pregnant women. However, inability to meet financial obligations was shown to be the highest factor. This finding agrees with Boarder (2012) who opined that financial and relationship troubles may lead to stress and its outcome the findings is also in line with Dunkel and Tanner (2012) who stated that some stressors that commonly affect women in pregnancy around the globe are low material resources, unfavorable employment conditions, heavy family and household responsibilities, strain in intimate relationship and pregnancy complications. There is need for women to be empowered financially to reduce stress during pregnancy.

Furthermore, the findings showed that the respondents accepted all articulated emotional factors as contributing to stress among pregnant women like mood swing, anxiety, lack of attention from family members and lack of essential needs. This finding is in line with Woods, Melville and Guo (2010) who found out in their recent study of diverse urban sample that 78% of the population used in their study experienced low-to-moderate antenatal psychological stress and 6% experience high levels. The findings equally agree with Fraiser and Cooper (2009) who stated that the emotional consequence of stress can range from a mild sense of being overwhelmed to a severe depression. They can eventually lead to a pregnant woman being withdrawn which is a type of emotional illness. These findings reveal that adequate measures need to be taken to reduce stress during pregnancy in order to safeguard both maternal and child health.

Conclusion

Based on the findings the following conclusions that Physiological, domestic, economic and emotional factors contribute significantly to stress among pregnant women in the study area.

Recommendations

Based on the findings of the study, the following four recommendations are made:

1. Pregnant women should get more information on how to prevent and manage stress during pregnancy, especially the physical and physiological changes they face.
2. Family members should help pregnant women with domestic tasks like fetching water, cleaning, laundering, and shopping to reduce stress from household work.
3. Government and other stakeholders should empower women financially by providing job opportunities and support so they can meet their needs and reduce economic stress.
4. Partners, family, and friends should give pregnant women more love, affection, and emotional support to help them cope with anxiety, mood swings, and fear.

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