

OCCUPATIONAL STRESS AS A PREDICTOR OF GENERAL WELL-BEING OF PREGNANT WOMEN IN BENUE STATE

Uchenna Gerald Eze¹, Sarah Chinaza Omeke², Paul Chibuike Okoli³, Nkiru Abumchukwu Enuhora^{4*}, Stephen Chijioke Eze⁵, Livinus Nnanyereugo Onah⁶, Chike Joachim Maduka⁷, Gabriel Sunday Mba⁸, Jonathan Chukwuemeka Eya⁹, Ikedichukwu Luke Onah¹⁰, Augustine Obumneme Ozougwu¹¹, Chika Gloria Ugwu¹², Calistus Obiora Nevo¹³, Victor Okey Dinwoke¹⁴, Innocent Onyemечи Obeta¹⁵, Perpetua Kelechi Enyinna¹⁶, Chidimma Akudo Omeke¹⁷ & Chinelo Helen Ogwuche¹⁸

^{1,3,11}Department of Psychiatry Enugu State University of Science and Technology, Enugu, Nigeria

²Department of Social Works and Community Development University of Nigeria, Nsukka, Nigeria

^{4,10}Department of Psychology University of Nigeria, Nsukka, Nigeria

⁵Department of Obstetrics and Gynaecology Federal Medical Centre, Abuja, Nigeria

^{6,7,8,13,14,17}Department of Obstetrics and Gynaecology Enugu State University of Science and Technology, Enugu, Nigeria

⁹Department of Anaesthesia Enugu State University of Science and Technology, Enugu, Nigeria

¹²Department of Psychology Enugu State University of Science and Technology, Enugu, Nigeria

^{15,16}Department of Obstetrics and Gynaecology Enugu State Teaching Hospital Parklane, Enugu, Nigeria

¹⁸Department of Psychology, Benue State University, Makurdi, Nigeria

*enukora.nkiru@gmail.com

ABSTRACT: The role stress plays in the general well-being of people has been a thing of major concern to health providers. This study examines the occupational stress on the general well-being of pregnant women in Benue state. It employs an ex-post-facto design. 370 pregnant women attending anti-natal clinic were sampled using multi-stage sampling technique from three geo-political zones of Benue State: Markudi 157(42%), Otukpo 123(33.2%), and Kastina – Ala 90(24.3%). Their age ranged between 18 and 43 years, with a mean age of 1.63 and a standard deviation of 0.48. Two instruments were used for data collection namely, the Job Related Tension Scale and the General Well-being Questionnaire. One hypothesis was generated and tested using regression analysis. Findings revealed that occupational stress predicted the general well-being of pregnant women [$F(1,369) = 11.744, P < .01$]. On the dimensions of general well-being, occupational stress predicted general health [$F(4,369) = 10.559, P < .01$] anxiety [$F(4,369) = 9.406, P < .01$] self-control [$F(4,369) = 4.174, P < .05$] depression [$F(4,369) = 16.926, P < .05$] and positive well-being [$F(4,369) = 9.041, P < .01$] but did not predict vitality [$F(4,369) = 6.024, P > .05$] among pregnant women in Benue State. It was concluded that stress at the workplace is a potential variable that can contribute immensely to the general well-being of pregnant women in Benue State. Based on these findings, it was recommended that pregnant women in Benue state should be actively involved in activities that are somehow stressful in order to enhance their general well-being.

Keywords: Occupational Stress, General Well-Being, Pregnant Women, Anxiety, Self-Control

INTRODUCTION

Well-being in the maternity period for women in general implies a complex interrelationship between simultaneously occurring physiological and psychological changes (Morrell, Cantrell, Evans & Carrick-Sen, 2013). As the episodes of pregnancy and childbirth are immense events reminisced for years afterwards, the emotional well-being is crucial for women's health in a lifecycle viewpoint afterwards. A positive experience in life facilitates a mother's personal growth and transformation of self. Numerous report an increase in self-esteem and a sense of optimism, especially during the second and third trimester of pregnancy (DiPietro, Ghera & Costigan, 2004). Conceptions of well-being are an individual's cognitive representations of the nature and experience of well-being. Several professional thinkers from a broad range of disciplines have theorized about the nature of well-being and the good life, providing explicit conceptualization of the experience of well-being. General well-being is defined as optimal psychological functioning that refers to subjective evaluation of happiness, and pleasant versus unpleasant experiences and it includes all judgments of good and bad elements of life (Ryan & Deci, 2001). In other words, general well-being has two aspects; subjective and objective wellbeing. (1) Subjective well-being includes two components – cognitive evaluation of satisfaction with life and affective aspect made of the presence of positive affects and absence of negative affects independent of each other. (2) Objective wellbeing which is the experience that the person is having physically. Contemporary psychological research has also begun to examine how laypersons conceptualize and think about the nature of well-being (Ng, Ho, Wong & Smith, 2003; McMahan & Estes, 2010), often focusing on the degree to which individuals define well-being in hedonic (e.g., the experience of pleasure) and eudaimonic (e.g., the experience of meaning) terms. As a fundamental representation of wellness, these conceptions likely exert a pervasive influence on behaviour and psychological functioning. In reality, general well-being connotes both physiological and psychological feelings.

One of the greatest significant organizational changes in the labour market in recent years has been the integration of women into paid employment (Marrero-Santos, Román-Hernández, & Salomon-Avich, 2013). According to recent research, from the National Institute of Statistics through the Labour Force Survey, it is estimated that the active population of Nigeria in 2020 reached 20 million people, of which 17 million were employed and more than 9 million were women (Nigeria National Statistics Institute, 2021). Disaggregated data by age and sex shows that female participation in the labour market reached 34.28% among women aged 20 to 24, and 70.05% among women aged 25 to 54. In terms of male participation, it was 38.49% and 80.69% for the same age groups, respectively (Moola, Munn, Tufanaru, Aromataris, Sears, Sfetcu, et al., 2020). The growth in the percentage of women in the labour force during these years has led to a parallel increase in women who continue working during pregnancy and who work for longer during pregnancy (Yang, 2014). In this sense, pregnancy can be considered as one more aspect of a woman's life, one which she has to combine with the other aspects of her life, work being one of them, and where the changes that occur in women during this stage will affect her working life in one way or another. Also according to recent research findings, the labour force participation rate in Nigeria was 77.3% in Q1 2024. Disaggregation by place of residence shows 82.5% in rural and 74.0% in urban areas. The participation rate among males was 77.5% and 77.1% for females (Nigeria labour force survey, 2023). This is a decrease in the ratio compared to the 71.1% and

80.7% in Q3 2023, respectively. It is Worthy to note that females were more likely to be in informal employment than males (Nigeria labour force survey, 2023).

Occupational stress is stress related to one's job. Occupational stress often stems from unexpected tasks and pressures that do not align with a person's knowledge, skills, or expectations, inhibiting one's ability to cope. Occupational stress can increase when employees do not feel supported by supervisors or colleagues, or feel as if they have little control over work processes (WHO, 2015). Occupational stress is the collaboration of the worker and the conditions at work (National Institute for Occupational Safety and Health, 1999). Stress is an inevitable consequence of modern living but it is an undesirable outcome. Occupational stress leads to physical disorders because the internal body system changes to try to cope with the stress. Some physical disorders are short-ranged such as an upset stomach while others are long-ranged such as a stomach ulcer (Asthana, 1985). The body responds to physical, mental, or emotional pressure by releasing stress hormones such as epinephrine and norepinephrine that increase blood pressure (BP), heart rate, and blood sugar levels. Therefore, people undergoing chronic stress can have digestive problems, fertility problems, urinary problems, and a weakened immune system. Also, people with chronic stress are more prone to viral infections such as the flu or common cold and to headaches, sleep trouble, depression, and anxiety (National Cancer Institute, 2013). According to current research findings, the gestational period brings about a series of biological, physical, hormonal, and emotional changes that enable adequate foetal development and that in certain cases, especially when the pregnancy is advanced, there may be certain conditions in the working environment that limit the pregnant's ability to work. It is exactly this line that has been the focus of some studies (Spanish National Statistics Institute, 2021), among others, whose research has aimed at analysing the risks existing in the workplace and how these can affect the normal development of pregnancy.

In Nigeria, research have shown that certain working conditions such as heavy physical work, long standing during the working day, carrying loads, among others, have been related to higher rates of adverse effects during pregnancy (Trocado, Rodrigues, Pinheiro, & Reis, 2020), as well as specific risks such as those derived from chemical products, thus requiring careful risk assessment (Trocado, 2020). The potential impact of employment on pregnancy is an important issue due to the increasing number of women entering the labour force and continuing employment throughout pregnancy. The majority of women remain well through their pregnancy. So, pregnancy should not be regarded as either an illness, or a contraindication for work (Lee et al., 2011).

Pregnancy presents both employers and employees with challenges not traditionally present in a male-dominated workforce. In a study conducted by the US Census Bureau among women who have had at least one pregnancy, two-thirds of the participants reported employment during their first pregnancy, and 80% of those who worked during pregnancy indicated that they worked up to ≤ 1 month until birth (Johnson, 2013). The incidence of working during pregnancy highlights the importance of understanding the challenges faced by women during this period and underscores the need to determine the most appropriate strategies to support women during pregnancy. Though current political and economic trends have favoured the adoption of safe workplaces, there are still some occupations that pose a certain risk to the normal development of pregnancy and wellbeing, such as the chemical industry, jobs that require long periods of standing, or continuous manual handling of loads (Trocado, Rodrigues, Pinheiro, & Reis, 2020).

Even though there are established research findings that stress contribute negatively to health and well-being over the years, recent research findings are beginning to prove otherwise. A recent study by Dzer, Atsehe and Tomen [2021] reported that stress made a significant positive contribution to the psychological well-being of students of Schools of Nursing and Midwifery Makurdi, Benue State. This emerging trend needs to be investigated the more. Also, even though there are enormous resource materials globally in the areas of stress and its impact on pregnancy, local resource materials seem to be lacking. Therefore, this study will bridge the gap in the area of available local literature. Given that data show that most women continue working during pregnancy, there is a certain vulnerability to some specific work settings and conditions, where it is necessary to work on prevention in order to identify possible risk factors during this process. Despite the probability that working women may have less favourable pregnancy outcomes, some studies of the health among working women provide conflicting results and leave the issue unresolved. Moreover, only a few such studies have been conducted in the developing countries, which necessities further study to clarify these issues. It is against this backdrop that the study is set to examine if occupational stress (performance, workload, organisational design responsibility and decision-making) influenced the general wellbeing (general health, anxiety, self-control, depression, vitality and positive well-being) of pregnant women in Benue State.

Richard S. Lazarus (1922-2002) began his influential research into psychological stress and coping processes which contributed substantially to the "cognitive revolution" that occurred in psychology during the 1960's.). Dr. Lazarus literature review on coping theory and research and three major concepts which includes: stress, appraisal, and coping Stress. Lazarus states that stress is a condition or feeling experienced when a person perceives that the "demands exceed the personal and social resources the individual is able to mobilize." this is called the 'transactional model of stress and coping. Neither the environmental event nor the people response defines stress, rather the individual's perception of the psychological situation is the critical factor. According to Lazarus, the effect that stress has on a person is based more on that persons' feeling of threat, vulnerability and ability to cope than on the stressful event itself. He defines psychological stress as a "particular relationship between the person and environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her wellbeing." Cognitive Appraisal; Lazarus stated that cognitive appraisal occurs when a person considers two major factors that majorly contribute in his response to stress. These two factors include: 1). the threatening tendency of the stress to the individual, and 2). the assessment of resources required to minimize, tolerate or eradicate the stressor and the stress it produces. In general, cognitive appraisal is divided into two types or stages: primary and secondary appraisal. Primary Appraisal - In the stage of primary appraisal, an individual tends to ask questions like, "What does this stressor and/ or situation mean?", and, "How can it influence me?" According to psychologists, the three typical answers to these questions are: 1) "this not important", 2)"this is good", 3) "this is stressful". To better understand primary appraisal, suppose a non-stop heavy rain suddenly pours at your place. You might think that the heavy rain is not important, since you don't have any plans of going somewhere today. Or, you might say that the heavy rain is good, because now you don't have to wake up early and go to school since classes are suspended. Or, you might see the heavy rain as stressful because you have scheduled a group outing with your friends. After answering these two questions, the second part of primary cognitive appraisal is to classify whether the stressor or the situation is a threat, a challenge or a harm-loss. When you see the stressor as a threat,

you view it as something that will cause future harm, such as failure in exams or getting fired from a job. When you look at it as a challenge, you develop a positive stress response because you expect the stressor to lead you to a higher class ranking or better employment. On the other hand, seeing the stressor as a “harm-loss” means that the damage has already been experienced, such as when a person underwent a recent leg amputation, or encountered a car accident. Secondary Appraisal - Unlike in other theories where the stages usually come one after another, the secondary appraisal actually happens simultaneously with the primary appraisal. In fact, there are times that secondary appraisal becomes the cause of a primary appraisal. Secondary appraisals involve those feelings related to dealing with the stressor or the stress it produces. Uttering statements like, “I can do it if I do my best”, “I will try whether my chances of success are high or not”, and “If this way fails, I can always try another method” indicates positive secondary appraisal. In contrast to these, statements like, “I can’t do it; I know I will fail”, “I will not do it because no one believes I can” and, “I won’t try because my chances are low” indicate negative secondary appraisal.

Although primary and secondary appraisals are often a result of an encounter with a stressor, stress doesn’t always happen with cognitive appraisal. One example is when a person gets involved in a sudden disaster, such as an earthquake, and he doesn’t have more time to think about it, yet he still feels stressful about the situation. Coping; is defined as a process of “constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person. There are two forms of coping: Problem-focused coping used when we feel we have control over the situation, thus can manage the source of the problem. There are four steps to manage this stress: 1. Define the problem, 2. Generate alternative solutions, 3. Learn new skills to dealing with stressors, 4. Reappraise and find new standards of behaviour. Emotion focused coping used when an individual feels as if they cannot manage the source of the problem. It involves gaining strategies for regulating stress. 1. Avoiding (I am not going to school), 2. Distancing (yourself from the stress, 'it doesn't matter'), 3. Acceptance (I failed that exam, but I have 4 other subjects), 4. Seeking Medical Support, 5. Turning to alcohol. The example framework of Lazarus theory; It can be seen the nursing process will take place. The example cases in the Black Swan Movie: Black Swan Nina, the main character of the film, demonstrates responses to events that exceed the normal expectations. Her responses to many of these events are abnormal and over dramatic, these emotions are caused from over excessive stress that Nina experiences. Nina does not get the part in a ballerina audition she was hoping for, while all of the other girls accepted their rejection, Nina 'glams' herself up to seduce her dance co-ordinator. This enabled her to get the part she wanted so bad. This is evidence for Lazarus' Theory for Nina's feeling of being stressed is based more on her feelings of threat, vulnerability and ability to cope than on the stressful event itself. Stress becomes more intense as Nina becomes jealous of other dancers. A ripped toenail while practicing her thirty-two fouettés occurs due to her stereo type of a 'strained dancer'. She becomes desperate as her dancing becomes more extravagant and dangerous. In Nina's mind, Lily is trying to steal her role and steal her glory, but this is not true. She has feelings of threat and vulnerability brought upon by other dancing causing stress, as Lazarus says. When Lily is cast as her double, Nina cries and begs her to be changed for another dancer and the stress mounts. Nina believes in her fit of rage that she has killed Lily, but in reality, she has only harmed herself. The movie culminates with a strong psychotic episode where Nina lets out all of her anger and resentment on Lily but this only leads to devastating results. She can't

control her anger. The feeling of threat and vulnerability is too much for Nina; all control is lost, and stress intoxicates her mind.

Research hypothesis

Occupational stress (performance, workload, organisational design and responsibility, and decision-making) significantly predicted the general well-being (general health, anxiety, self-control, depression, vitality and positive well-being) of pregnant women in Benue State.

METHOD

This study employed an ex-post-facto design. Ex-post-facto design studies primarily focus on describing events as they are without any manipulation being observed. The ex-post facto design involves the researcher predicting a possible effect that has already occurred (Ali, 1996).

Participants

The participants of this study were pregnant women who were working and married. The study consisted of 370 pregnant women drawn from three locations in Benue State. The distribution of respondents by location indicated that 157(42.4%) were from Makurdi, 123(33.2%) were from Otukpo and 90(24.3%) were from Katsina-Ala. Distribution of respondents by age indicated that 137(37%) were 18- 30 years while 233(63%) were 31 years older. Distribution of respondents by educational level indicated that O'level were 121(32.7%), OND/NCE were 107(28.9%), First degree/HND were 94(25.4%) while M.SC and above were 48(13%). Distribution of respondents by their tribes indicated that Tiv were 231(62.4%), Idoma was 80(21.6%) and others (un-indicated) were 59(15.9%). The distribution of respondents by their religion indicated that 358(96.8%) were Christians while 12(3.2%) were Muslim. The distribution of respondents by the number of children they had indicated that those having between 1 and 4 children were 296(80%), while those of 5 and above were 74(20%). Lastly, the distribution of respondents by the type of job indicated that 190(51.4%) were in the Civil Service while 180(48.6%) were in the private sector.

Sampling Technique

A multi-stage sampling technique was used for this study. A stratified sampling technique was used to select one Local Government Area in each geo-political zone. Simple random sampling was used to select one hospital from each of the three geo-political Zones of Benue State. Thus, Comprehensive Health Centre Township Katsina Ala for Zone A, Federal Medical Centre Makurdi for Zone B, and Comprehensive Health Centre Otukpo for Zone C. Quota sampling was used to get the number to represent each hospital according to their respective numbers. For the Federal Medical Centre which has a population of 804 pregnant women, 157 pregnant women were sampled. For the Comprehensive Health Centre Otukpo which has a population of 626 pregnant women, 123 pregnant women were sampled. Lastly for the Comprehensive Health Centre Township katsina Ala which has a population of 461 pregnant women, 90 pregnant women were sampled. The participants for this study were selected through a purposive sampling technique. This is because it was convenient for the researcher and not all the pregnant women were willing.

Moreover, it was not just any pregnant woman that was willing to be involved in the study, but those pregnant women that are working aside from their domestic responsibilities and are married. The researcher made use of several research assistants in collecting the data. These research assistants are people knowledgeable about the ethics and principles of research in psychology. The research assistants were trained on how to conduct the study, The researcher with his research assistants selected those women who were able and willing.

Instruments

Two instruments were used for this study. They are as follows:

Occupational stress was assessed using the job-related Tension Index (JTI), which was developed by Kahn, Wolfe, Quinn, Snock, and Rosenthal (1964). The scale comprises 15 items asking about the frequency of stressful events and the extent of role overload. It has four dimensions: performance, workload, organizational design and responsibility, and decision-making.

General well-being was assessed with the General Wellbeing Questionnaire, which was constructed by Dupuy in 1977. It is a self-administered questionnaire that focuses on one's subjective feelings of psychological well-being and distress. General well-being was assessed with the General Wellbeing Questionnaire, which was constructed by Dupuy in 1977. It is a self-administered questionnaire that focuses on one's subjective feelings of psychological well-being and distress

Scale properties

Job-related tension scale. The scale has an internal consistency of Cronbach Alpha of .85. in order to adopt the instrument for Nigerian use, a pilot study was carried out and the instrument yielded a Cronbach Alpha of .83

General well-being scale. The average correlation of the general well-being scale and six independent depression scales was 0.69. Correlations between individual subscales and criterion ratings were high, ranging between 0.65 and 0.90. The test re-test reliability coefficients after three months of 0.68 and 0.85 from two different groups were established. In order to adopt the instrument for Nigerian use, a pilot study was conducted, and the scale yielded a Cronbach alpha of 0.88 for the overall and for the subscales, it ranged from 0.83 to 0.91.

Justification for the use of purposive sampling.

This technique becomes necessary considering that most pregnant women who attend clinic are sometimes weak or have one challenge or another. Therefore, anyone who agrees should be involved.

Procedure

The researcher personally visited the three selected Local Government Areas Makurdi, Otukpo and Katsina-ala. He collected the data from Federal Medical Centre Makurdi, Comprehensive Health Centre Otukpo and Comprehensive Health Centre Township Katsina-Ala where he obtained permission from the authorities of the three institutions for the administration of the questionnaires. Prior to the administration of the questionnaires, informed consent of the pregnant women was obtained after which questionnaires were administered at the convenience of the pregnant women. Attached to each questionnaire was an informed consent note. On the note, it was clearly stated that participation in the study was voluntary and that responses to the questionnaires would be kept confidential and used solely for the purpose of research. Three research assistants assisted during the administration of the questionnaires. The assistants were trained on how to administer the questionnaires. The researcher and his assistants explained to the participants how to respond to the questionnaires. Also, the participants were encouraged to make sure they answered all the questions. The questionnaires were collected after completion and were sorted out to ensure that only those that were fully and correctly completed were processed. Cases of improperly completed questionnaires were discarded. In order to observe ethical principles guiding research of this kind, respondents were debriefed adequately. This was achieved by appreciating their participation and assuring them of confidentiality.

Data analysis

Multiple Linear Regression was used to test the hypothesis

RESULT

Test of hypothesis.

Occupational stress (performance, workload, organisational design and responsibility, and decision-making) significantly predicted the general well-being (general health, anxiety, self-control, depression, vitality and positive well-being) of pregnant women in Benue state.

Table 4.1: Multiple Linear Regression Showing the Independent and Joint Prediction of General Wellbeing by Occupational Stress of Pregnant Women in Benue State

DV	Variables	R	R ²	β	F	t	Sig
	Constant	.338	.114		11.744	1.196	.000
Overall	DV Performance			.068		1.157	.248
	Workload			.246		4.101	.000
	Organisational design responsibility			.137		2.294	.022

	Decision-making				-1.181	-2.901	.004
	Constant	.322	.104		10.559	1.591	.000
General	Performance				.042	.716	.475
	Workload				.217	3.594	.000
	Organisational design responsibility				.167	2.778	.006
	Decision-making				-.175	-2.796	.005
	Constant	.306	.093		9.406	1.024	.000
Anxiety	Performance				.154	2.607	.010
	Workload				.159	2.614	.009
	Organisational design responsibility				.078	1.293	.197
	Decision-making				-.130	-2.066	.040
	Constant	.209	.044		4.174	1.877	.003
Self-control	Performance				.024	.393	.695
	Workload				.103	1.646	.101
	Organisational design responsibility				.182	2.926	.004
	Decision-making				-.044	-.682	.496
	Constant	.396	.156		16.926	2.016	.045
Depression	Performance				-.045	-.793	.429
	Workload				.376	6.419	.000
	Organisational design responsibility				.122	2.093	.037
	Decision-making				-.282	-4.637	.000
	Constant	.249	.062		6.024	-.406	.685

Vitality	Performance			.206	3.421	.001
	Workload			.064	1.040	.299
	Organisational design responsibility			.074	1.204	.229
	Decision-making			.011	.173	.863
	Constant	.300	.090	9.041	3.276	.001
Positive-Performance				-.043	-.725	.469
Well-being Workload				.275	4.526	.000
	Organisational design responsibility			.043	.705	.481
	Decision-making			.258	-4.090	.000

The result above revealed that occupational stress significantly predicted the general wellbeing among pregnant women [$F(4,369) = 11.744, P < .01$]. This result further showed that occupational stress accounted for 11.4% of the variance observed in the general wellbeing among pregnant women. On their independent contribution, only performance ($\beta = .068, P < .05$) did not make significant contribution to the general wellbeing among pregnant women, while workload ($\beta = .246, P < .01$), organisational design and responsibility ($\beta = .137, P < .05$) contributed positively and significantly to the general wellbeing, decision making ($\beta = -.181, P < .05$) contributed negatively and significantly to the model.

Furthermore, occupational stress was also explored on the dimensions of general health and the result shows that occupational stress significantly predicted general health [$F(4,369) = 10.559, P < .01$]. The result also indicated that occupational stress accounted for 10.4% of the variance in general health among pregnant women in Benue State. Independently, only performance ($\beta = .042, P > .05$) did not significantly predicted general health, while workload ($\beta = .217, P < .01$), organisational design and responsibility ($\beta = .167, P < .05$) made positive and significant contribution to the general health of pregnant women, decision making ($\beta = -.175, P < .05$) contributed negatively and significantly to the model. With this result, hypothesis one (A) was confirmed for workload, organisational design and responsibility and decision making.

The result also shows that occupational stress significantly predicted anxiety [$F(4,369) = 9.406, P < .01$]. The result also indicated that occupational stress accounted for 9.3% of the variance in anxiety among pregnant women. Independently, only organization design and responsibility ($\beta = .078, P > .05$) did not make significant contribution to the model, while performance ($\beta = .154, P < .01$), workload ($\beta = .159, P < .05$) made positive and significant contribution to anxiety, decision making ($\beta = -.130, P < .05$) contributed significantly and negatively to the anxiety of pregnant women in Benue State. Based on this finding, hypothesis one (B) was confirmed for performance, workload and decision making.

The result again revealed that occupational stress significantly predicted self-control among pregnant women [$F(4,369) = 4.174, P < .05$]. The result also indicated that occupational stress accounted for 4.4% of the variance in the self-control dimension of general well-being among pregnant women. On their individual contribution, only organisational design and responsibility ($\beta = .182, P < .05$) made significant and positive contributions to the model, while performance ($\beta = .024, P > .05$), workload ($\beta = .103, P > .05$) and decision making ($\beta = -.044, P > .05$) did not make any significant contribution to self-control among pregnant women in Benue State. With this result, hypothesis one (C) was upheld for organisational design and responsibility.

It also shows that occupational stress significantly predicted depression among pregnant women [$F(4,369) = 16.926, P < .05$]. Further observation shows that occupational stress accounted for 15.6% of the variance in depression among pregnant women. Independently, only performance ($\beta = -.045, P > .05$) did not significantly contribute to depression, while workload ($\beta = .376, P < .01$), organisational design and responsibility ($\beta = .122, P < .05$) significantly and positively contributed to depression and decision making ($\beta = -.282, P < .01$) significantly and negatively predicted depression of pregnant women. With this result, hypothesis one (D) was confirmed for workload, organisational design and responsibility and decision making.

It further revealed that occupational stress did not significantly predict vitality among pregnant women [$F(4,369) = 6.024, P > .05$]. However, independently, performance ($\beta = .206, P < .01$) significantly and positively predicted vitality of pregnant women, while workload ($\beta = .064, P > .05$), organizational design and responsibility ($\beta = .074, P > .05$) and decision making ($\beta = .011, P > .05$) did not make any significant contribution to the model. With this result, hypothesis one (E) was confirmed for performance.

Lastly, it indicated that occupational stress significantly predicted positive wellbeing [$F(4,369) = 9.041, P < .01$]. The result further revealed that occupational stress accounted for 9.0% of the total variance in wellbeing among pregnant women in Benue State. On their individual contribution, performance ($\beta = -.043, P > .05$) and organisational design and responsibility ($\beta = .043, P > .05$) did not contribute significantly to the model, while workload ($\beta = .275, P < .01$) and decision making ($\beta = .258, P < .01$) significantly and positively predicted positive wellbeing among pregnant women in Benue State. Based on this result, hypothesis one (F) was confirmed for workload and decision making.

DISCUSSION OF FINDINGS

The hypothesis states that occupational stress will significantly predict the general well-being of pregnant women in Benue State. Result indicated that occupational stress positively and significantly predicted the general well-being of pregnant women in Benue State. This means as the level of occupational stress increased, the level of general well-being of pregnant women in Benue State increased. This finding agrees with Jasmani and Abdul (2011), who studied stress and the psychological well-being of government officers in Malaysia. Their result indicated that occupational stress has a significant positive correlation with psychological well-being. Also, the study agrees with Dzer, Atsehe, and Tomen (2021) who looked at personality traits and stress as

predictors of psychological well-being among students in schools of nursing and midwifery Makurdi found that stress positively and significantly predicted student psychological well-being.

Poormahmood, Moayedi and Haji-Alizadeh (2016) examined the relationships between psychological well-being, happiness and perceived occupational stress among primary school teachers in Iran. A cross-sectional study was carried out from September 23, 2014 to May 22, 2015, in Bandar Abbas, Iran. The sample size was 330, calculated according to the Morgan table. Three questionnaires were used for data gathering, specifically scales of perceived occupational stress and psychological well-being, and the Oxford Happiness Scale. The result showed Significant negative correlation was demonstrated of occupational stress with life satisfaction ($p<0.01$, $r=-0.81$), spirituality ($p<0.01$, $r=-0.64$), joy and optimism ($p<0.01$, $r=-0.52$), individual development ($p<0.01$, $r=-0.48$), positive relationships with others ($p<0.01$, $r=-0.74$), and autonomy ($p<0.01$, $r=-0.4$), as well as with overall psychological well-being ($p<0.01$, $r=-0.8$). In addition, a significant positive correlation was demonstrated between subjective well-being and happiness ($p<0.01$). Occupational stress in teaching may lead to poor psychological well-being and reduced happiness in primary school teachers.

Liu, Ren and Zhao (2016) explored the relationship between occupational stress and the well-being of the junior administrative staff in universities of China from the perspective of social networks. Thus, on the basis of the survey data from universities in the Shanxi Province of China in 2015, the factor analysis and multiple linear regression methods were employed to empirically investigate the relationship between occupational stress and the well-being of the junior administrative staff in universities from the perspective of social network. Results show that the occupational stress of the junior administrative staff in universities has a significant negative impact on their occupational well-being. Social networks produce a certain negative effect on occupational stress but a positive effect on occupational well-being. The social network of the junior administrative staff in universities can counteract the adverse effect of occupational stress on occupational well-being through the compensation effect. Social network can also cushion the effect of occupational stress on occupational well-being through the moderating effect. The conclusions obtained in this study provide a reference for the junior administrative staff in universities to effectively relieve occupational stress and enhance occupational well-being.

Meanwhile, this finding disagrees with some other research findings with these variables which had established a negative and significant influence of occupational stress on well-being. That is, as the level of occupational stress reduces, the general well-being increases, while the level of occupational stress increases, and the general well-being reduces. The study by Liu, Ren and Zhao (2016) confirmed that occupational stress had a significant negative impact on the well-being of junior administrative staff in universities in China. Also, the study by Poormahmood, Moayedi and Haji-Alizadel (2016) found a negative correlation between occupational stress and overall psychological well-being.

Hasnain, Naz and Bano (2010) aimed to find out the difference between civil and criminal ten years experienced lawyers and lawyers doing internships on stress and well-being with a 2 x 2 factorial design. There were 20 lawyers in each group, consisting of a total of 40 civil and 40 criminal lawyers. Aggarwal and Naidu's Life Stress Scale and Verma and Verma's PGI Well-

being Scale were administered. ANOVA showed a significant effect of practice experience on stress. t-test showed significantly higher stress levels among criminal-experienced lawyers than their counterpart civil lawyers. All the other comparisons were found to be non-significant. In the case of well-being, non-significant effects on all variables were obtained. Results were discussed in light of the nature of the work, the intricacies and risks involved in criminal cases, and the involvement of police and political pressure. What actually should account for this negative result among pregnant women in Benue State?

Benue, being an agrarian state, might have trained its women to have jobs, as we can observe some women using axes to chop firewood, using big hoes to dig during farming season, pounding food, etc. These strenuous activities they have been engaged in since they were adolescents might have developed their body systems with some strategy that helps them cope effectively.

This kind of activity already helped Benue women develop better coping strategies for stress, in that most of the time, the stress at the workplace is of a lighter dimension than what the person has been going through in life.

Furthermore, it might be that the joy that accompanies being pregnant with the great expectation of having a child at the end has overwhelmed whatever pressure the stressors may be having on them. Meanwhile, during pregnancy the existing laws which give pregnant women some privileges at the workplace and sometimes reduce their workload serves as a booster to their body system which has been going through tedious activities and thereby assumes the stress to be positive in nature therefore, enhancing their well-being.

Meanwhile the study by Hasnani, Naz and Bano (2010), found non-significant impact of occupational stress on well-being using lawyers. It, therefore, suggests that the type of job one is doing determines the nature of influence stress will have on the individual. This study has brought pregnant women who are doing different jobs together and this can influence the direction of influence. Furthermore, when the work load, and organisational design and responsibility are high, the general well-being of pregnant women in Benue is better. But when their decision-making is reduced, the general well-being of pregnant women becomes better.

Implications of the Study

From the result, it has been observed that occupational stress predicts general well-being among pregnant women. Meanwhile, looking at the dimension of general well-being, first, the general health of pregnant women in Benue State, occupational stress in general predicted general health. That is, as occupational stress increases, the general health of pregnant women gets better. However, it is only workload, organisational design, and responsibility that predict general health positively, while decision-making makes a negative contribution. That is, as decision-making reduces, general health increases, and decision-making involves the use of the brain.

Going further, occupational stress predicts anxiety. That is, as occupational stress increases, anxiety levels increase. However, it is workload and performance that contribute positively to anxiety. Organisational design and responsibility did not make any contribution, while decision-

making made a significant negative contribution to the anxiety of pregnant women. That is, as they get involved in decision making, their anxiety level decreases.

Still, on occupational stress, it was found that occupational stress predicted the self-control of pregnant women. Simply put, as their occupational stress increases, they learn how to control themselves better. In the same vein, it was only organisational design and responsibility that contributed positively to self-control. That is, as their organisational design and responsibility increase, their self-control increase. But all other domains of occupational stress (performance, workload and design making) did not make any significant contribution.

Also, occupational stress predicted depression among pregnant women in Benue State. That is, as their stress level increases, their depression increases. It was observed that workload and organizational design and responsibility contributed positively to depression which means an increase in workload and organizational design and responsibility increases depression. But decision making made a significant negative contribution to depression, which means that as decision making increases, depression reduces and vice versa, leaving only performance without any significant contribution.

However, occupation stress did not predict vitality. However, it is only performances that made a significant and positive contribution to vitality. That is, as performance increases, vitality of pregnant women increases while workload, organizational design and responsibility, and decision making did not make significant contributions.

Lastly on occupational stress, it predicted positive well-being which means as occupational stress increases positive well-being increases. But workload and decision making made significant and positive contributions to positive well-being. As workload and decision making increase, positive well-being also increases. Performance and organizational design and responsibility did not make any significant contributions.

Limitations of the Study

The study has the following limitations

1. Since it is a self-report, the researcher could not guarantee the degree of honesty in their responses since some may just tick anything just to fulfil all righteousness
2. Using only the urban areas in the study might have left valuable information in the hands of the rural people. This is because most people in the urban areas may be wealthy and may have a better way to cope with their stress but majority in the rural areas are poor and may have poor coping strategy

Recommendation

This study recommends that pregnant women should not be idle at work but engage in light activities that will help divert their minds away from the stress at work. Therefore, the owners of

institutions should create an enabling environment for pregnant women to engage in little exercises even at work, not just work only, as that will help improve their well-being.

Conclusions

The general well-being of pregnant women is very essential since their well-being, to a large extent, determines the well-being of the unborn baby and the entire family. Therefore, their general well-being should not be compromised at all in order to give both the family and the society the needed atmosphere to thrive well. Meanwhile, the following specific recommendations are made:

- i. Pregnant women should not be idle but should be actively engaged in some sort of activities that are stressful since their active involvement in stressful activities enhances their well-being. Such activities like swimming, walking, running and dancing, they help pregnant women not to concentrate on the stress which enhances their well-being unless there are medical conditions that prohibits it.
- ii. Pregnant women should engage in psychological self-care by reducing activities that will be tasking to their brains in order to mediate the progression of depression and anxiety.

Compliance to Ethical Standards; The entire participants filled out a consent form to declare their free will and interest in participating

Conflict of interest. All authors declare that they have no conflict of interest

REFERENCES

- Ali, A. (1996). *Fundamentals of research in education*. Meks.
- Asthana, H. S. (1985). The concept of stress: A phenomenological approach. *Social Science International*, 1, 39–44.
- Diener, E., Scollon, C. N., & Lucas, R. E. (2009). The evolving concept of subjective well-being: The multifaceted nature of happiness. In E. Diener (Ed.), *Assessing well-being: The collected works of Ed Diener* (pp. 67–100). Springer.
- DiPietro, J. A., Ghera, M. M., Costigan, K., & Hawkins, M. (2004). Measuring the ups and downs of pregnancy stress. *Journal of Psychosomatic Obstetrics and Gynaecology*, 25, 189–201.
- Dupuy, H. J. (1977). The General Well-being Schedule. In I. McDowell & C. Newell (Eds.), *Measuring health: A guide to rating scales and questionnaires* (2nd ed.). Oxford University Press.
- Dzer, B. T., Atsehe, J. I., & Tomen, E. A. (2021). Personality traits and stress as predictors of psychological wellbeing among students in School of Nursing Midwifery Makurdi. *International Journal of Advanced Academic Research*, 7(5), 2488–9849.

- Gunawan, J. (2013). Summary of Lazarus and Folkman's theory of stress, appraisal, and coping. Retrieved from <https://www.jokogunawan.com/>
- Hasnani, N., Naz, I., & Bano, S. (2010). Stress and wellbeing of lawyers. *Journal of the Indian Academy of Applied Psychology*, 36(1), 165–168.
- International Labour Organization. (2023). *Labour force survey (LFS) resources: The global reference for labour force survey design*. Retrieved from <https://ilostat.ilo.org/resources/lfs-resources/>
- Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snock, J. D., & Rosenthal, R. A. (1964). *Organizational stress: Studies in role conflict and ambiguity*. Wiley.
- Lee, B. E., Ha, M., Park, H., Hong, Y. C., Kim, Y., Kim, Y. J., et al. (2011). Psychosocial work stress during pregnancy and birth weight. *Journal of Psychosomatic Obstetrics and Gynaecology*, 25, 246–254.
- Liu, W., Ren, L., & Zhao, R. (2016). Exploration on the relationship between occupational stress and well-being of the junior administrative staff in universities of China from the perspective of social network. *Revista de Cercetare si Interventie Sociala*, 53, 145–170.
- McMahan, E. A., & Estes, D. (2010). Measuring lay conceptions of well-being: The beliefs about well-being scale. *Journal of Happiness Studies*, 4(2), 232–243.
- Morrell, C. J., Cantrell, A., Evans, K., & Carrick-Sen, D. M. (2013). A review of instruments to measure health-related quality of life and well-being among pregnant women. *Journal of Reproductive and Infant Psychology*, 31, 512–530.
- National Cancer Institute. (2013). *Psychological stress and cancer*. National Cancer Institute. Retrieved from <http://tinyurl.com/q4rymac>
- National Institute for Occupational Safety and Health. (1999). *Stress at work*. Cincinnati, OH.
- Ng, A. K., Ho, D. Y. F., Wong, S. S., & Smith, I. (2003). In search of the good life: A cultural odyssey in the East and West. *Genetic, Social, and General Psychology Monographs*, 129, 317–363.
- Marrero-Santos, M. L., Román-Hernández, J. J., & Salomon-Avich, N. (2013). Estrés psicosocial laboral como factor de riesgo para las complicaciones de la gestación y el bajo peso al nacer [Work psychosocial stress as a risk factor for pregnancy complications and low birth weight]. *Revista Cubana de Salud Pública*, 39(5), 864–880.
- Moola, S., Munn, Z., Tufanaru, C., Aromataris, E., Sears, K., Sfetcu, R., et al. (2020). Systematic reviews of etiology and risk. In E. Aromataris & Z. Munn (Eds.), *JBİ manual for evidence synthesis*. JBI. Retrieved from <https://synthesismanual.jbi.global>

- Poormahmood, A., Moayed, F., & Haji-Alizadeh, K. (2016). Relationships between psychological well-being, happiness and perceived occupational stress among primary school teachers. *Archives of Hellenic Medicine*, 34(4), 504–510.
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52, 141–166.
- Schuster, M., Hammit, E., & Moore, D. (2002). A theoretical model to measure the appraisal and coping response to hassles in outdoor recreation settings. *Leisure Sciences*, 25, 277–299.
- Spanish National Statistics Institute. (2021). *Employment rates by different age groups, sex and autonomous community*. Spanish National Statistics Institute. Retrieved from <https://www.ine.es/jaxiT3/Tabla.htm?t=4942>
- Trocado, V., Rodrigues, C., Pinheiro, P., & Reis, I. (2020). The impact of maternal working conditions on fetal weight: A risk factor for fetal growth restriction? *Acta Obstet Gynecol Port*, 14(3), 155–162.
- World Health Organization. (2015). Retrieved from <http://www.who.org/>
- Yang, H. J., Kao, F. Y., Chou, Y. J., Huang, N., Chang, K. Y., & Chien, L. Y. (2014). Do nurses have worse pregnancy outcomes than non-nurses? *Birth*, 41(3), 262–267. <https://doi.org/10.1111/birt.1211>
- Ziegler, M. S. (2005). *Theory-directed nursing practice* (2nd ed.). Springer Publishing Company.