

PERSONALITY DIFFERENCES AND COPING STRATEGIES IN STRESS SYMPTOMATOLOGY AMONG PREGNANT WOMEN IN ENUGU METROPOLIS

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ABSTRACT

The study investigated the role of personality difference, coping strategy and stress symptomatology among pregnant women in Enugu metropolis. Two hundred and twenty pregnant women were selected from two hospitals in Enugu Metropolis. One hundred and ten participants were selected from each of these hospitals. Three instruments were used to collect data for the study namely: the brief cope scale, type A behavior scale and psychophysiological symptom checklist. It was a survey design study and Hierarchical multiple linear regressions with variance were used to analyze the data. The results of this study shows that coping strategy and personality difference was not significant predictor of stress symptoms among pregnant women respectively and there was a significant difference among participants on the basis of stage of pregnancy, women in their first trimester of pregnancy experienced higher stress than women in their mid/third trimester of pregnancy. The study concludes that pregnant women should use both emotion focused strategy and problem focused strategy, psychological measures like relaxation and stress relieving exercise for more effective coping in pregnancy. It is recommended that mental health care workers/Midwives should also sensitize pregnant women on some of the symptoms to expect at each stage of pregnancy as well as sensitize family members that pregnant women should help especially in attending to most domestic work at home.

Key words: Personality differences, coping strategies, stress symptomatology, pregnant women.

INTRODUCTION

Background to the Study

Motherhood is surrounded with challenges at all stages of life. Every married woman aspires to be pregnant. When one is married for more than one year without pregnancy, she becomes worried. Women know that pregnancy is very challenging and stressful, yet they desire, and usually accommodate the challenges that come with it. Pregnancy stressors come from both within and outside sources; yet they are inevitable. Women know about the stressors but to them it is a journey that must be surmounted. The end product of successful pregnancy is child birth. A woman with a child is accepted and respected by her husband, family members and even the community at large. The birth of each child gives her a new identity, coverage and a new status. With these reasons every woman aspires to become pregnant irrespective of the stressful nature associated with pregnancy. At pregnancy, a human being is growing or developing inside a woman's uterus. Pregnancy results

from the union of a fertile sperm cell (spermatozoa) and fertile egg cell (ova). When such union occurs (i.e. when spermatozoa fertilizes the egg), the developing embryo is housed in the woman's uterus. During the development of the embryo in the uterus, women pass through physiological changes that usually affect their normal living. Ibeagha (2006) explained that conception is the impregnation of an ovum by a sperm. The infusion of a live sperm cell into a live ovum begins a series of cell divisions which, given adequate genes and environment, may result in a new human being. The process begins in the fallopian tube and moves to the uterus where it is nurtured till birth. The embryo stays for approximately 9 months in the uterus before it matures. There are three (3) stages in pregnancy: the first trimester, the second trimester and the third trimester.

First trimester is from first week to 12 weeks. These weeks are the formation weeks; the vital organs of the human being like brain, spinal cord and the heart, begin to form. In this stage the body undergoes many changes. Hormonal changes are obvious. It affects almost every organ and system in the body. At this period, pregnant women tend to be under severe stress. The hormonal changes trigger symptoms like: stoppage of menstrual period (amenorrhea) Menstruation is the shedding of the lining of the uterus each month. Other signs associated with the first trimester includes: extreme tiredness, tender/enlargement of the breast, upset stomach, morning sickness, cravings for certain foods, need to pass urine, weight gain or loss, nausea and vomiting (Derek, 2005). Fortunately, most of these discomforts go away or reduce as the pregnancy progresses. Just as each woman is different, so is each pregnancy, some women might not feel any discomfort at all when they are pregnant, while many others continue to complain on their discomfort.

Second trimester is from the 13 weeks to 28 weeks. Most women find the second trimester of pregnancy easier than the first. Some symptoms like nausea and fatigue are going away, but other new noticeable changes will begin to occur, like enlargement of the abdomen as the baby continues to grow. Before this trimester is over, the baby begins to move. As the woman's body changes to make room for the growing and moving baby; other changes include: body aches (e.g. back) abdomen, groin or thigh pain), stretch marks on the body (e.g. abdomen, breast, thighs or buttocks), darkening of the skin around the nipple, a line on the skin running from belly to the pubic hairline, patches of darker skin (called mask of pregnancy), itching on the abdomen, palms and soles of the feet, swelling of the ankles, face, and other changes (Derek, 2005).

The third trimester is 29 weeks to forty 40 weeks. At this stage, the baby's bones are fully formed, but soft, baby's kicks and jabs are forceful, lungs are not fully formed, but practice breathing, body begins to store vital minerals, such as iron and calcium, and baby is getting bigger and gaining weight, and as a result most women find it difficult to breathe. New changes that accompany third trimester are: shortness of breath, heartburn, swelling of the ankles, face, hemorrhoids, tender breast, which may leak a watery pre-milk called colostrums, belly button stick out, trouble in sleeping and baby dropping (moving to lower abdomen). As the woman nears her due date the cervix becomes thinner and softer, called effacing (Derek, 2005).

It is possible that sources of stress during pregnancy may include: (a) Negative life events (e.g. divorce, serious illness or death of a close relative or friend). (b) Daily hassles (e.g. domestic affairs and queuing in lines. (c) Unemployment (e.g. financial or relational problems, inability to buy what one needs). (d) Catastrophic events (e.g. armed robbery attacks, terrorist attacks, earthquakes and hurricanes). (e) Pregnancy related stress (e.g. worries about hormonal changes, worries about becoming a parent, fear of pains during delivery, worries about miscarriage, and poor preparation for delivery).

It has been opined by many gynecologist that stressors during pregnancy should be avoided; according to them, during exposure to a stressor, the whole system of stress regulation is affected, that is the hypothalamus-pituitary-adrenal cortex system (HPA axis) and the sympathetic nervous system-adrenal medulla system is activated. Various hormones including corticotrophin-releasing hormone (CHR), adreocorticotropin-releasing hormone (ACTH), cortisol and non adrenaline are released in large quantities to the blood. However, pregnant women may respond differently to an identical stressful stimulus. It seems that the degree of stress response depends also on genetic factors, personality characteristics, previous experience, support from the social environment and the way of one's coping with stress.

Pregnancy is usually a period of adjustment and periods of emotional stress for all women, although the amount of stress varies very considerably. Some women find pregnancy a joyous period of their life, others become emotionally distressed. According to Baum (1990), stress is a negative emotional experience accompanied by predictable biochemical, physiological, cognitive and behavioral changes that are directed either towards altering the stressful event or accommodating to its effects. Nweze, cited in Mefoh (2007), noted that stress has been viewed as a stressor, and as a process. A stressor is an event or a condition that may cause physiological and behavioral reactions, and which may present coping difficulties for the individual experiencing them. On the other hand, a process refers to the physiological and behavioral responses or reactions to stressors, such as fatigue, anger and high blood pressure (Mefoh, 2007). The explanation for stress when viewed as a stressor and as a process correlates with what happens to women during pregnancy. This is based on the fact that as the embryo is developing in the uterus, there are many physiological changes which women experience; the changes affect all the system or most part of their system; and such changes may give rise to behavioral responses like fatigue, anger and other negative emotions exhibited by pregnant women., when they are unable to cope with stress effectively. Lazarus (1993) argued that the impact of stress reaction is a reflection of how one perceives and appraises his transaction with the environment. The above assertion by Lazarus is correct and is somehow related to responses by different pregnant women. Example, the amount of stress on pregnant women varies differently; some women find pregnancy a joyous period of their life, others become emotionally distressed. Most of them are concerned about the mood changes they experience. Stresses which would be coped with easily when the woman is not pregnant may become distressing during pregnancy; and a pregnant woman may overreact emotionally to real or imagined insult. The behavioral responses of pregnant women are unpredictable.

Some researchers also refer to stress as an unpleasant emotional reaction a person has when he/she perceives an event to be threatening (Halgin and Whitebourne, 2006). These emotional reactions may include heightened physiological arousal due to increased reaction of the sympathetic nervous system. This definition means that stress is a subjective experience. That means, it depends on how an individual perceives a particular negative event. People have little stress when they have the time, experience and resources to manage a situation. They feel or perceive great stress when they think they cannot handle the demands put upon them by the situation. Pregnancy is not negative; but could be viewed as negative by some women; depending on circumstances surrounding some of them. For instance, a woman that is lacking financial support, teenage pregnancy, pregnancy out of wedlock or one that has gotten a desired number of children will see a new pregnancy as negative and very challenging; and the capacity to welcome the pregnancy is not there; the person will perceive high stress in such pregnancy if she eventually keeps the pregnancy. On the other hand, a woman who is looking for a particular sex of a baby and has no financial challenges will receive a new pregnancy irrespective of the stress attached to it.

As already stated pregnancy stress is inevitable this is because stressors are coming from both within and outside sources which can cause some physiological changes. These stressors include: dealing with discomfort of the pregnancy (e.g., nausea, dizziness, headache, constipation etc), changing of different hormones which cause mood change (e.g. anger, depression, transfer of aggression etc), worries about what to expect during labor and child birth. And worries on how to take care of the mother-in-law visit and other financial aspects attached to it. Reactions to stressors refer to the state of physical or psychological arousal that usually results from one's perception of stress (Thoits, 1995). Pregnant women experience physical and psychological reactions to stressors when they perceive excessive or negative stress. When stress is excessive, it may bring about some physical impairment on the pregnant woman. Buhler, cited in Ibeagha (2006), outlined some pregnancy hazards which may be associated with poor nutrition; infectious diseases, tranquilizer and aspirin; LSD and heroin; tobacco, marijuana, alcohol; radiation, Rhesus blood factor, age of the mother; emotional factors and position of the foetus. Excessive stress exposes women to pregnancy hazards; and so it needs to be avoided. Pregnant women with high stress are also at risk for preterm labor, spontaneous abortion and for having a mal-formed baby. Normal growth and development of the unborn child can be negatively influenced by a number of factors including complications of pregnancy. For instance, bleeding is a bad sign in pregnancy. If a woman begins to bleed during pregnancy, these may be the probability of having a miscarriage (losing the

baby). Without expert help, the woman could bleed to death. That was why World Health Organization (WHO, 2010) reported that complications in pregnancy and child birth are the leading cause of death among women in developing countries; and that the major complication that account for 80% of all maternal death are: severe bleeding, infections, high blood pressure during pregnancy (pre-eclampsia and eclampsia) and unsafe abortion. Other complications including swelling of the feet, hands and face; anaemia and disease like malaria should be treated when noticed. World Health Organization (WHO, 2012) reported that hemorrhage accounted for approximately one third of death. Based on these complications, the WHO (2010) reported that maternal mortality is unacceptably high. This global health body opined that about 800 women die from pregnancy or child birth-related complications around the world every day, and 99% of all maternal deaths occur in developing countries.

Therefore, pregnant women should be encouraged to come for regular prenatal check –ups. There have been international organizations who are out for the welfare of pregnant women. For instance, improving maternal health is one of the eight Millennium Development Goals (MDGS) adopted by the international community in 2000. Under MDGS, countries committed to reducing maternal mortality by three quarters between 1990 and 2015. Between (1990 and 2010) maternal deaths worldwide have dropped by 50%. Again, WHO is working to reduce maternal mortality by providing evidence – based clinical and programmatic guidance, setting global standards, and providing technical support to Member States. Then, during the United Nations MDG summit, in September (2010), UN Secretary-General, Ban Ki-moon Launched a Global strategy for women's and children's health, which aimed at saving the lives of more than 16 million women and children over the next four years (WHO, 2010) . World Health Organization (2010) reported that millions of births are not assisted by a midwife, a doctor or trained nurse. This is an indication of poor health care, among others, mostly in the developing countries. According to that report, factors that prevent women from receiving or seeking care during pregnancy and childbirth are: poverty, distance, lack of information, inadequate services and cultural practices. The report showed that maternal mortality is higher in women living in rural areas and among poorer communities. The report concluded that most maternal deaths can be prevented if births are attended to by skilled health personnel-doctors, nurses and midwives-who are regularly supervised, have the proper equipment and supplies, and can refer women in a timely manner to emergency obstetric care services when complications are diagnosed.

Danger signs and complications in pregnancy are preventable. Pregnant mothers should go for antenatal visits at the right time given to them by doctors. At the last month of pregnancy, antenatal visit should be made at weekly intervals. Proper examinations like pelvic examination, position of the baby (cephalic, breech and transverse) and general body check up should be made (Derek, 2005). That is, it is recommended that a pregnant mother should see her doctor every month for the first six months of her pregnancy, every two weeks for the next two months, and every week during the last month of pregnancy. Again, pregnant mothers should eat well. During pregnancy the body needs enough of all foods, particularly foods rich in proteins, vitamins minerals and iron. These foods will help to prevent anemia during pregnancy. Pregnant women should avoid sexual contact at the last month of pregnancy, to keep from breaking the bag of waters and causing an infection. Pregnant mothers should take mild anti-malaria to prevent malaria; then paracetamol or antacids should be taken once a while when needed, vitamin, folic acid, calcium tablets, iron pills are often helpful and do no harm when taken in the right dosage (Derek, 2005). It is obvious that a pregnant woman is under severe stress; due to many hormonal changes associated with pregnancy. There would be different kinds of negative emotions like anger, sadness and being unfriendly, the normal sign at each stage of pregnancy has its own stress. In the first trimester, some women experience stress symptoms like: fainting/dizziness, vomiting, headaches, poor appetite, easily irritated or annoyed, worrying over thing, fatigue, and weakness in parts of the body. At mid trimester some common stress symptoms in women are: heart burn, indigestion, heat sensation in parts of the body, over eating, back pains, stretch marks in some parts of the body, and itching. Late trimester is associated with stress symptoms like: heavy feeling in arms or legs, lower back pain, bowel movement, anxiety over labour, trouble getting your breath, difficulty in falling asleep, and loss of sexual interest. With the level of day to day pressure faced by pregnant women, it is easy for them to fall into negative patterns of thinking which have a big impact on how they feel, especially those carrying the pregnancy for the first time. Based on these reasons, pregnancy

needs adaptation and adjustments; hence, coping is an important phenomenon among pregnant women, therefore changing their negative ways of feeling and thinking means focusing on the best coping strategy.

Coping, generally helps people reduce stress and solve problems. Folkman, Lazarus, Dunkel, Delongis and Gruen (1986) define coping as the person's cognitive and behavioral efforts to manage the internal and external demands in the person-environment transaction. Lazarus and Folkman (1984) said that coping has been defined as the cognitive and behavioral efforts to manage external or internal demands that are appraised as taxing or exceeding the resources of the person. It is also the process of using emotional, cognitive or behavioral strategies to manage one's stress in order to reduce its potential harmful impact on psychological adjustment (Folkman and Lazarus, 1991). Coping is the use of thought and behaviors to adjust to life situations (Mona and Singh, 2010). Thus, coping strategies are the things individuals think, feel and do to adjust to life situations. Therefore coping in this study refers to as the cognitive and behavioral efforts used by pregnant women, to handle difficulties and stressors when they are pregnant. Various researches like: Lazarus and Folkman (1984); Mishel and Sorenson (1993); Carver (1997); Kershaw, Northouse, Kritpracha, Schafenacker and Mood, (2004); Kristiansen, Robert and Abrahamsen (2007); Yang, Brother and Hendersen (2008) categorized coping strategies but each of such grouping overlap and are similar and fall under two major groupings by Folkman and Lazarus (1984). According to Folkman and Lazarus (1984) coping strategies are categorized into two groups, which are problem focused and emotion focused. Problem focused strategies are efforts to do something actively to alleviate stressful circumstances. Problem focused is directed externally and it involves attempts to manage or change the problem causing the stress. Emotion focused is directed internally and it involves attempts to regulate emotional distress; that is effort to regulate the emotional consequences of stressful events.

Mishel and Sorenson (1993), in the ways of coping questionnaire identified 14 problems-focused coping items and 16 emotion-focused coping items. Carver (1997) in the brief cope identified 6 problem-focused coping items and 22 emotion-focused coping items but each subscale is seen as a form of coping strategy. Kershaw, Northouse, Kritpracha, Schafenacker and Mood (2004) divided coping strategies into active and avoidance coping. Roesch, S. C., Adams, Hines, Palmores, Vyas & Trans (2005). categorized coping strategies into approach and avoidant coping. Yang, Brother and Henderson (2008) identified engagement and disengagement coping strategies. Rijavec and Brdar (1997) classify coping strategies as taking responsibility, searching for comfort/forgetting the problem, and looking for parental help. Lazarus and Folkman (1984) added that people use both problem-focused and emotion focused coping when dealing with stress. That means that one strategy is not inherently good or bad, it all depends on the individuals situation. Lazarus and Folkman identified eight (8) coping strategies. They include: confrontative coping, distancing, self control, seeking social support, accepting responsibility, escape avoidance, plan problem solving and positive reappraisal. Confrontative coping means an aggressive effort to alter a situation that involves using some degree of hostility and risk taking behavior. Distancing means disengagement from a situation in an attempt to minimize the significance of the situation. Self control involves efforts to regulate one's feelings and actions. Seeking social support means efforts used to obtain emotional support from others. Recognizing one's role in solving a problem means accepting responsibility. Escape/avoidance means wishful thinking and behavioral efforts to avoid stressful situation or confronting a problem. Plan problem solving means efforts to alter the situation e.g. using analytic approach. Positive reappraisal means that a person uses spiritual dimension that may include giving positive meanings to situations by focusing on one's personal growth experience Lazarus and Folkman, (1984).

Although, coping strategies are categorized in different ways, the meaning of these different conceptualizations are similar (Buaniam, 2009; Folkman and Lazarus, 1984) Problem-focused is aimed at solving the problem while emotion focused coping is directed towards regulating the emotion of the person under stress (Latack and Havlovic, 1992). Adaptive, active, problem focused, engagement and approach coping strategies are the same and refer to strategies where individuals accept and actively attempt to deal with their situation. Maladaptive, avoidant, emotion-focused and disengagement refer to strategies where individuals try to avoid dealing with the problem by cognitively and physically distancing themselves from the situations. The approach in problem focused requires the individual to objectively appraise the situation, work out alternative solutions and decide on an appropriate strategy, take actions and evaluate feedback. Carson et al. (2000) used the term task oriented

coping which involves making changes in oneself, one's surroundings or both, depending on the situation. In emotion focused coping, the individual does not actually change anything about the situation but rather tries to improve his/her feelings about the stressful condition. Examples of the emotion-focused strategy include: thinking positively in which people use to make themselves feel better about under stressful condition. Looking at this explanation, in pregnancy there is a physiological modification of the body and the stressors of pregnancy carriers are coming from within. Most times, some can't change themselves or change the manifestations of symptoms (i.e., emotion- focused) then they have no option than to live with the symptoms and think positively on it (emotional focused). On the other hand, some pregnant women have the capacity to hold back negative symptoms like vomiting irrespective of the fact that the urges are coming from within; they may even avoid the environmental factors that will encourage the vomiting. This group are using problem focused. That means most pregnant women may use both problem and emotion focused coping during pregnancy. Developing adaptive coping strategies can help pregnant women. It will help them to manage emotional distress and understand that pregnancy is worth having based on the fact that the woman has to fulfill some cultural role as a married woman, provides evidence that she is biologically adequate and it gives her an opportunity to project herself and her husband into the next generation. Realizing the above facts and ruminating on the benefits will encourage a woman to develop coping strategies that will help her throughout the period of pregnancy. Again, pregnant women should realize that each individual is uniquely different when exposed to environmental, social or psychological trigger also the common symptoms in pregnancy like nausea, vomiting, (e.g., hyperemesis gravidarum), indigestion, (heartburn), swelling of the feet, low back pain, constipation, fatigue affect women of all personality types.

Personality difference refers to the two classificatory systems of personality (type A and type B) with their unique characteristics. Psychologist view human beings as being unique or different in their ways of behavior .According to them, we have: Type A personality and Type B personality. Type A personality and Type B personality are coined in 1950s by Meyer Friedman and Ray Rosenman. Type A personality refers to a type of personality that is characterized by perfectionism, high degree of stress, impatience, inappropriate expression of anger or frustration, constantly working hard to achieve more difficult goals, working hard even when they have achieved goals, feel the pressure of time constantly working flat out, highly competitive – if necessary create competition, highly educated as a result of their anxiety (Friedman and Rosenman, 1974). Type B personality generally live at a lower stress level and typically: they work steadily, enjoying achievements but not becoming stressed when they are not achieved, when faced with competition, they do not mind losing and either enjoy the game or back down, they may be creative and enjoy exploring ideas and concepts, they are often reflective, thinking about the outer and inner world Friedman and Roseman (1974). Research has established a relationship between personality type and susceptibility to heart disease (Friedman & Booth-Kewley, 1987). It is certainly true that people who are under a great deal of stress are more likely to suffer from heart disease and are at greater risk for heart attack. People with Type A personality seem to be more prone to heart disease Rosenman and Chesney (1982). Type A individuals tend to be easily aroused to anger or hostility, which they may or may not express. They appear to be the main factor linked to heart disease. In modern psychology, the one aspect of this personality that seems a reliable predictor of heart disease is aggression, and most people who would describe themselves as Type A are not truly so. The behavior Type A personality types makes them more prone to stress-related illnesses such as (CHD) coronary heart disease, raised blood pressure etc. such people are more likely to have their “flight or fight” response set off by things in their environment. As a result they are more likely to have the stress hormones present, which over a long period of time leads to a range of stress related illness Rosenman and Chesney, (1982). In contrast, people with personality Type B seem to take life more slowly, are more relaxed and less to likely develop heart disease. According to Omoluabi (1997), type A personality is characterized by ambitiousness, aggressiveness, competitiveness, impatience, muscle tension, rapid speech, irritation, hostility and anger. In the words of Omoluabi (1997), Type A personality is described by three of the following: speed and impatience, job pressure, hard- driving. Speed and impatience refers to time urgency, a tendency to hurry, feel pressure and be annoyed with anything that slows progress towards goals. Job pressure reflects self reported investment in work like amount of time spent, concern about job, feelings of motivation and challenge, planning career and the pursuit of success and polyphasic behavior. Hard driving refers to hostility, aggressiveness and putting more effort, precision, seriousness, and responsibility into one's work. Omoluabi described people with the above characteristics as

having type A personality type and other group of individual that score low in the above characteristics as being type B personality type.

People with Type A personality for example are rushed, ambitious, time conscious and driven. Studies suggest these traits, if not properly managed, can create stress-related illnesses like coronary heart disease and raised blood pressure. In contrast, the “Type B” personality is a much more relaxed, less time-conscious and driven person. Type B personalities are able to view things more adaptively. They are better able to put things into perspective, and think through how they are going to deal with situations. Consequently they tend to be less stress prone. Rosenman and Chesney (1982) In other words, personality type in this work is the unique characteristics that are being manifested by type A and type B individuals. That means that personality type A and personality type B are known for peculiar behaviors. These personality type A individual are likely to manifest: ambitiousness, aggressiveness, competitiveness, impatience etc and it create stress for them. On the other hand, type B personality manifest these behaviors such as: not ambitious, less aggressive, exhibit lots of patience or take things easy, are easy going etc, they tend to have less stress. Personality type as a psychological construct has been associated with pregnancy. It is possible, that when most women are pregnant they use to manifest some behavior which may not be in line with the way they behave before. Some of them may be very aggressive, unhappy and irritated, at a stage in pregnancy while others are not. That means because there are different personality types, some pregnant women are vulnerable at the very beginning of their pregnancy, others may stay healthy and stable throughout the period of pregnancy.

Psychologists over the years have noted that no one is completely a Type A or Type B personality. That means that it is true that people do not fall into one personality type in most cases, they are a mixture of both. Some people actually view Type A personality as a positive trait and most connect the ideas of perfectionism with high achievement rather than excess anger. Friedman, (1996). If a person says, “I’m a Type A” he or she is usually describing only perfectionist and also the rigid personality trait that keep him or her successful. In view of this, the present researcher intends to carry out this study among pregnant women in Enugu Metropolis, both those that are working and those who are not working. In Nigeria, studies in this area are lacking. Most researchers in Nigeria embark mostly on industrial stress like nurses stress; teachers stress and doctor’s stress and few empirical studies on pregnancy stress were basically carried out among foreign participants. It is out of these concerns that the researcher felt a need to embark on this study.

STATEMENT OF THE PROBLEM

Researchers have done much work on nurses stress, doctors stress, teachers stress or generally called industrial stress, but much study have not been recorded on pregnancy stress. But at pregnancy, everybody knows that a woman is under severe stress. In an industrial sector, you could see pregnant women. These groups of women are passing through work stress and pregnancy stress. These groups of women are entitled to monthly salary, sick leave (if they are sick), maternity leave or other benefits. The other group of women who are not working, with no monthly salary, not entitled to any form of leave at home; they are responsible for house chores and other responsibilities with their condition. In fact, pregnant women who are working and those who are not working are faced with many challenges. That is why we need to find out which coping strategies and personality type that adjust best to pregnancy stress.

The researcher addressed the following research questions:

1. Would coping strategy significantly predict stress symptoms?
2. Would personality difference significantly predict stress symptoms?

PURPOSE OF THE STUDY

The major aim of the study is to find out whether a pregnant woman’s personality type and coping strategies could contribute to stress symptoms. That means to find the relationship between coping strategies, personality difference and the stress symptoms they produce on the pregnant women.

Operational Definitions of Terms

Coping strategies refer to feelings, thoughts, and actions that individuals use in managing their stressful situation. In this work, it is categorized into two dimensions, which are: problem focused strategy and emotion focused strategy.

Problem focused strategy which was described as an effort to do something actively to alleviate stressful circumstances, was measured in this work by the scores on Brief Cope Scale (Carver, 1997). Therefore, participants whose score indicate problem focused coping as indicated in the Brief Cope Scale will be classified as problem focused copers.

Emotion focused strategy which was described as an attempt to regulate emotional consequences of stressful circumstances, was measured in this work by the scores on Brief Cope Scale (Carver, 1997). That means participants whose score indicate emotion focused coping as indicated in the Brief Cope Scale will be classified as emotion focused copers.

Personality difference is a psychological construct that signifies unique characteristics which people exhibit, as measured by Type A Behavior Scale (TABS) (Omoluabi , 1997). In this work, it is categorized into two dimensions, which are: type A personality and type B personality.

Stress symptomatology refers to the level of stress reaction reported by individuals. It was measured in this work using Psychophysiological Symptom Checklist (Omoluabi, 1987)

Pregnant woman refers to a female who indicates she is pregnant and attends antenatal care in a government recognized health facility.

HYPOTHESES

The following hypotheses were tested:

1. Coping strategy would not significantly predict stress symptoms.
2. Personality difference would not significantly predict stress symptoms.

METHODS

Participants

Participants in this study were made up of 110 pregnant women selected from Enugu State University Teaching Hospital (ESUTH) (n = 110) and 110 pregnant women selected from Poly Sub-District Hospital Asata Enugu (PSDH) (n = 110). A total of 220 pregnant women participated in the study; but the analysis was based on a total of 218 participants instead of the 220 that participated in the study. Purposive sampling technique was used for data collection; that means those pregnant women who volunteered to participate and gave oral consent was used for the study. By the participant's ages, one hundred and fifty three were less than 30 years and 65 participants were 30 years and above. By marital status, 217 of them were married and only one person was not married. By employment status, 106 were unemployed and 112 were employed. Based on educational status, 215 of the participants were educated and 3 of them were not educated. They were in various stages of pregnancy as follows: first trimester (24) and mid/third trimester (194). One hundred and six persons were pregnant for the first time. By number of children for those whose pregnancy were not the first, 75 among the women have less than three children and 37 have more than three children.

For the purpose of the present study, classification of the 218 participants into type A personality and type B personality were required. Of the 218 participants, 72 pregnant women were classified as type A while 146 pregnant women were classified as type B based on their scores on the Type A Behaviour Scale (Omoluabi, 1997). Similarly 98 pregnant women were classified as having used emotion focused strategy, while 120 pregnant women were classified as having used problem focused strategy based on their scores on the Brief Cope Scale (Carver, 1997).

Instruments

Three sets of instruments were employed in the study, namely; Brief Cope Scale (Carver, 1997), the Type A Behavior Scale (Omoluabi, 1997) and the Psychophysiological Symptoms checklist (Omoluabi, 1987).

The Brief Cope Scale, developed by Carver (1997), was used to measure coping strategies of pregnant women in the study. It was designed to identify the thoughts and actions an individual has used to cope with a specific stressful encounter. It is a 28-item self-report measure of problem-focused versus emotion-focused coping skills. The items are rated on frequency of use by the participant with a scale of 1 (I haven't been doing this at all) to 4 (I have been doing this a lot). Based on the definitions of problem-based coping and emotion-based coping, items 2, 7, 10, 14, 23, and 25 were classified as problem-based coping and the rest of the items fell into emotion-based coping. The brief cope scale has good internal consistency and test-retest reliability and concurrent validity has been established. It has internal reliabilities for the 14 subscales range from .57 to .90 (Carver, 1997). Yusoff, Low and Yip (2009) validated the Malaysian Version of the Brief Scope Scale and reported that internal consistencies range from 0.51 to 0.99. Test retest intraclass correlation coefficient (ICC) ranged from <0.00 to 0.98. A pilot study was carried out by the present researcher using 64 pregnant women in Redeemer Hospital and Maternity, Abakpa Nike, Enugu. Cronbach's alpha reliabilities were .74 (Emotion-focused) and .66 (Problem-focused). Higher scores on each coping strategy represent greater use of the specific coping strategy.

Type A Behavior Scale (TABS).

The Type A Behavior Scale (TABS) was developed by Omoluabi (1997) to measure the characteristics and proneness to Type A behavior pattern. It is a twenty eight 28-item inventory which is designed to assess the personality trait called Type A Behavior Pattern or Type A personality characterized by ambitiousness, aggressiveness, competitiveness, impatience, muscle tension, rapid speech, irritation, hostility and anger. Items score ranges from 1 (never true) to 4 (always true) with 9 items scored in speed/impatience (1,2,3,21,22,24,25,26,27), 9 items scored in job pressure (7,8,9,10,11,12,13,14,28) and 9 items scored in hard-driving (4,5,6,15,16,17,18,19,20). Agbu (1999) provided the Nigerian norm for interpreting scores (male:S-19.05, J-16.56,H-15.50) (Female:S-20.32, J-17.76, H-16.99). Scores higher than the norm indicate that the client manifests Type A behavior pattern, while scores lower than the norms indicate that the client manifests Type B behavior pattern. The psychometric property as reported by Agbu (1999) show that TABS has test-retest reliability. With Cronbach alpha internal consistency reliability coefficient of .70, Agbu (1999) obtained construct validity coefficient by correlating TABS total score with scores in each of the subscales of PSC (Omoluabi, 1987) S=.79, J=.80, H=.76 and PSC=.20. A pilot study was carried out by the present researcher using 64 pregnant women in Redeemer Hospital and Maternity, Abakpa Nike, Enugu. Cronbach's alpha reliabilities for the TABS were .88 (total), .70 (job pressure), .64 (hard-driving) and .74 (speed and impatience).

Psychophysiological Symptoms Checklist

The Psychophysiological Symptoms Checklist was developed by Omoluabi in 1987 to measure stress reaction. It is a fifty 50-item questionnaire which is designed to assess stress reactions. It has 5-point Likert response formats which are: No complaint, Slight, Mild, Moderate, Severe and very Severe and they are scored on 0, 1,2,3,4, and 5 respectively. Items are scored through quantitative scoring; that means adding together the values of the numbers shaded in all the items. Omoluabi (1996) provided the Nigerian norms for interpreting scores (Male = 49.89; Female 49.78). Scores higher than the norm indicate high stress level or reaction. Scores lower than the norms indicate low stress reaction (client is coping adequately). The author obtained reliability alpha coefficient of .78 and a spearman-Brown split-half coefficient of .88, Ebiai (1986) obtained concurrent validity coefficients by correlating PSC current version with the Social Readjustment Rating Scale (SRRS) by Holmes and Rahe (1967). In the present study, a Cronbach's alpha reliability of internal consistency of .89 and split-half reliability (Spearman-Brown) of .88 was obtained.

Procedure

The study was approved by the Ethics Committee of the Enugu State University Teaching Hospital (ESUTH), and Ministry of Health, Enugu State. The ethical clearance notwithstanding, the researcher equally obtained permission from the management of the two hospitals, specifically from ante-natal units. The researcher met the

participants during their morning shower (ante-natal lecture/talk) by the nurses on duty, the researcher introduced herself and her purpose; the researcher personally administered the questionnaire to the volunteered participants and once the questionnaires was given out, the researcher read out the instructions on top of the questionnaire and told the pregnant women to fill in the details requested. Administration of the questionnaires in poly sub-District Hospital took 6 weeks and administration of the questionnaires lasted for 4 weeks in Enugu State University Hospital. Therefore, administration of the questionnaires in the two hospitals lasted for two month and two week. At Poly Sub-District, Hospital, their ante-natal days were on Mondays, Tuesdays and Wednesdays. The researcher went every antenatal days for 6 weeks; each antenatal day, about 15 participants filled the questionnaire. At Enugu State University Teaching Hospital (ESUTH), their antenatal days were Mondays, Tuesdays, Wednesdays and Thursdays. The researcher went every antenatal day for 4 weeks; each antenatal day about 10 participants filled the questionnaire. The participants were not given any time limit for the completion of the questionnaire. Completed copies of the questionnaires were submitted to the researcher which she used for data analysis.

Design/Statistics

The design for the present study is cross sectional survey design. The statistics for the data analysis for the present study is Hierarchical Multiple linear regression with variance.

RESULTS

Table 1
Regression Model Summary of Coping Strategy and Personality Difference as predictors of Stress Symptomatology

R	R. Square	Adjusted	Std. Error of	R. square	F. Change	df1	df2
Sig F		R- Square	the Estimate	Change			
Change							
.28	.08	.04	12.33	.08	2.13	8	209
.28	.08	.37	12.35	.00	.42	1	208
.29	.09	.04	12.33	.01	1.72	1	207

a: Predictors were demographic variables – age, marital status occupation status, served by house help, position in family, educational level, husbands work, stage of pregnancy and number of children.

b: Predictor added was coping strategy.

c: Predictor added was personality difference.

Table 1 shows that when demographic variables were built into the regression model, the regression slope was moderately steep: $R = .28$. The inclusion of demographic variables into the model showed a significant prediction of stress symptomatology : R^2 - change = .08, F - change = 2.13, $P = .03$. The inclusion of coping strategy into the model showed a minor improvement in the prediction of stress symptomatology : R^2 - change = .002, F - change = 0.42, $P = .52$. The prediction of stress symptomatology by adding personality difference in the model was not robust, R^2 - change = .01, F - change = 1.72, $P = .19$.

Table 2
Regression Model Containing Sets of Demographic Variables with Predictor Variables on Stress Symptomatology

Model	Sum Of Squares	Df	Mean Square	F	Sig
Demographic variables only	2596.32	8	324.54	2.134	.03
Residual	31791.61	209	152.11		
Total	34387.93	217			

Demographic variables and coping strategy	2660.19	9	295.58	1.94	.05
Residual	31727.74	208	152.54		
Total	34387.93	217			
Demographic variables and coping strategy and personality difference	2921.87	10	292.19	1.92	.04
Residual	31466.06	207	152.01		
Total	34387.93	217			

Table 2 shows that the regression model containing only the set of demographic variables in this study was a more significant predictor of stress symptomatology $F(8,209) = 2.13, P = .03$ than the model containing the demographic variables with coping strategy: $F(9, 208) = 1.94, P = .05^C$: or the model containing the demographic variable with coping strategy and personality difference: $F(10, 207) = 1.92, P = .04$

Table 3
Coefficients of Prediction of Stress Symptomatology by Demographic Variables, Coping Strategy and Personality difference

Model VIF	Unstandardized coefficients					Collinearity statistics	
	B	Std Error	β	t	Sig.	Tolerance	
(Constant)	45.06	7.97		5.655	.00		
Age	2.29	1.95	.08	1.18	.24	.88	
Occupational Status	-.39	1.72	-.02	-.23	.82	.95	1.06
Served by Househelp	-3.14	2.07	-.11	-1.52	.13	.92	1.08
Position in Family	-1.33	1.71	-.05	-.77	.44	.95	1.05
Husband Work	-3.21	1.91	-.11	1.68	.10	.97	1.03
Stage of Pregnancy	-5.28	2.72	-.13	-1.95	.05	.97	1.04
Number of Children (2)	-.76	1.90	-.03	-.40	.69	.86	1.17
Number of Children(3)	4.22	2.43	.13	1.74	.08	.84	1.19
Coping Strategy	1.14	1.76	.05	.65	.52	.91	1.10
Personality difference	2.41	1.84	.09	1.31	.19	.93	1.07

Table 3 shows that stress symptoms among the participants differed significantly only on the basis of stage of pregnancy: $\beta = -.13, t = -1.95, P = .05$ And other demographic variables did not significantly explain stress symptomatology. Coping strategy and personality difference did not significantly explain stress symptomatology: $\beta = .05, t = .65, P = .52, \beta = .09, t = 1.31, P = .19$, respectively.

Table 4
Difference in Stress Symptoms on the basis of Stage of Pregnancy

Dependent Error Mean	Stage of Pregnancy	N	Mean	t	df	Sig	Std 2tailed	Std Deviation
Stress symptomatology	First trimester	24	31.83	2.31	216	.022	16.56	3.38
	Mid/late trimester	194	25.59				11.88	.85

Table 4 shows mean scores and t – test result on stress symptomatology of pregnant women on the basis of stage of pregnancy. The results revealed that the participants had significantly higher stress symptomatology in first trimester (Mean = 31.83; Standard Deviation = 16.56) than in second/third trimester (Mean = 25.59; Standard deviation = 11.88); $t = 2.31, P = .02$.

Table 5
Relationship of Coping Strategy, Personality Difference and Stress Symptoms among Pregnant Women

	Stress Symptomatology	Emotion focused coping	Problem focused coping
Emotion focused coping	-.07		
Problem focused coping	-.07	.68**	
Type A behavior	.09	-.14*	-.08

* $p < .05$; ** $p < .001$.

Result in Table 5 shows that there was a moderate correlation between use of problem focused and emotion focused coping strategies $r = .68$. That means that those who used one strategy also used the other strategy, but only moderately.

Summary of Results

1. Coping strategy and personality difference were not significant predictor of stress symptoms among pregnant women, $\beta = .045, p = .518, t = .647$; $\beta = .09, t = 1.31, p = .19$, respectively
2. There was however a significant difference among participants on the basis of stage of pregnancy, $\beta = -.13, t = -1.95, p = .05$; women in their first trimester of pregnancy experienced higher stress than women in their mid/third trimester of pregnancy.

DISCUSSION

The main goal of the study was to examine the relationship between coping strategy, personality difference and stress symptomatology among pregnant women in Enugu Metropolis. The results show that coping strategy was not significant predictors of stress symptomatology among pregnant women in Enugu Metropolis, ($\beta = .05, t = .65, p = .52$; see Table 3). This finding supports the first hypothesis of the study which stated that coping strategy would not significantly predict stress symptomatology. The result of the study indicated that there was a moderate correlation between the participants used of problem focused and emotion focused coping strategies. This means that those who used one strategy also used the other strategy but only moderately (see Table 5); the finding is in line with that of Lazarus, and Folkman, (1984). In their study, they found that people use both problem-focused and emotion-focused in coping with stress. According to them, one strategy is not inherently good or bad, it all depends on the individual's situation or circumstances. Their study is in confirmation with the finding. The result indicated that at pregnancy a pregnant woman is free to use both emotion focused strategy and problem focused strategy. Therefore if more use of problem focused coping would suit her to achieve her aim in pregnancy (childbirth) or more use of emotion focused coping, she should use them to achieve effective coping in pregnancy. Since the result of the finding revealed that, the researcher therefore suggest that strategies and psychological measures example, relaxation and stress relieving exercise should be used for more effective coping during pregnancy.

The finding that personality difference was not significant predictors of stress symptoms among pregnant women in Enugu Metropolis was expected, ($\beta = .09, t = 1.31$, see Table 3). The finding supports the second hypothesis of the study which stated that personality difference would not significantly predict stress symptomatology. The finding is not consistent with previous studies, (Friedman and Rosenman, 1974). According to them, type A personality experience more stress than type B personality. Based on their findings, there is a discrepancy between the result found in the present study and the earlier study. The previous study

made use of normal population in their study but the present study made use of pregnant women; this could be one possible explanation for the discrepancy between the findings. It is obvious that at pregnancy, a human being is growing or developing inside a women's uterus. During the development of the embryo in the uterus, women pass through physiological changes that usually affect their normal living. This result is not strange, this is because, a woman may act, behave, react and exhibit any type of behaviour in pregnancy. Some previous studies (Sharon, Thomas, and Lajos, 2004; Janjhua, and Chandrakanta, 2012) reported that type A individuals experience higher stress than type Bs. But, the present finding showed that pregnant women with type A personality experience almost the same level of stress with pregnant women with type B personality. The reason for such finding may be attributed to hormonal changes which is common to pregnant women. The other studies made use of normal population who are passing through normal job stress; which could be environmental sources but hormonal changes in pregnancy comes from within and affects every woman. It does not matter the type of personality type you have, ones you are pregnant, there are hormonal changes that must affect you. For instance, you may observe that women may be hardworking with type A personality; but when pregnancy comes, she begins to act and behave in a different way. She may even find it difficult to withstand the stressors that are coming within her. In fact, the findings from my study is clear and real; whether you are a type A personality or type B personality, the finding indicated that the pregnant women received almost the same level of stress. Pregnancy stressors do not make distinction of the type of personality you have. No matter the personality type, a pregnant woman must experience stress in pregnancy. No personality type was found to withstand stress better .

The study upholds that stress symptoms among the participants differed significantly only on the basis of stage of pregnancy ($\beta = .13$, $t = 1.95$, $p = .05$; see Table 3). The finding that women in their first trimester of pregnancy experience of higher stress symptoms than women in their mid/third trimester of pregnancy is expected, (mean = 31.83; see Table 4) The reason for this finding may be that in the first trimester; which is from first week to 12 weeks. These weeks are the formation weeks, the vital organs of the human being like brain, spinal cord and the heart, begin to form. In this stage, the body undergoes many physiological changes. The hormonal changes are obvious. It affects almost every organ and system in the body. At this period, pregnant women tend to be under severe stress. This is because the hormonal changes trigger symptoms like: morning sickness, hyperemesis gravidarum, extreme tiredness, upset, stomach, nausea, and vomiting (Derek, 2005). The second possible explanation for the higher stress experience by pregnant women in the first trimester could be the experience of morning sickness. Morning sickness is one of the minor disorders seen at the early stage of pregnancy (first trimester) The pregnant woman feels nauseated on rising in the morning; She may actually vomit or have nausea with excessive salivation.. At times these symptoms persist throughout the day and may, impair the person's appetite (Ojo and Briggs, 1976). Again, experience of hyperemesis gravidarum in most pregnant women could account for the higher stress in the first trimester than in the mid/third trimester. Hyperemesis gravidarum is excessive vomiting in pregnancy, occurring in the first trimester. The pregnant woman may vomit throughout the day till she empties both the stomach and duodenal contents. In such circumstances the vomitus contains bile. On the other hand she may feel continuously nauseated and can scarcely eat. In both cases, the patient's general health is usually affected as the vomiting, nausea and anorexia can produce a state of malnutrition and metabolic disturbance which may be fatal (Ojo & Briggs, 1976)

Furthermore, the finding that women in their mid/third trimester of pregnancy experience lesser or minor stress symptoms is obvious (mean = 25.59; see Table 4) Second trimester is from 13 weeks to 28 weeks. . Third trimester is 29 weeks to forty 40 weeks. Some noticeable changes in second trimester are: enlargement of abdomen, baby begins to move, stretch marks on the body, patches of darker skin, a line on the skin running from belly to the pubic hairline, constipation, varicose veins, darkening of the skin around the nipple. Noticeable changes in the third trimester include: heart burn, swelling of the ankles, face, shortness of breath, tender breast, insomnia, belly button stick out, baby moving to lower abdomen, frequency of micturition, cervix becomes thinner and softer (Derek 2005). The first possible reason for the minor stress in mid/third trimester is that as women progresses in pregnancy, most of the discomforts in the first trimester go away or reduce. The reason for the minor stress in mid/third trimester is that at these stages, baby in the uterus is getting to maturity or fully matured. According to the words of Derek, 2005, most women find the second/third trimester of

pregnancy easier than the first trimester. The reason is that in the second and third trimester, the baby in the uterus is fully formed and is no longer in the formation stage. Again, (Ojo and Briggs, 1976) emphasized that most symptoms that occur in the second/third trimester are normal and should be expected, for instance, during the third trimester pregnant women experience frequency of micturition. This is a case where pregnant women urinate always and frequently (Ojo and Briggs, 1976) the reason for such symptom is that the foetal head sinks into the pelvis (Ojo and Briggs, 1976). The stress symptom there is that the pregnant woman will have insomnia as a result of frequent urination. There is no much stress associated to it; just that the woman should be encourage to sleep in the afternoon to make up for the poor night's sleep. Backache and joint pains are major symptoms in second/third trimester. In these trimesters, baby is getting bigger and gaining weight and as a result most women may experience joint pains. This sign is normal as the baby kicks and jabs (Derek, 2005) Much stress symptoms is not associated to backache and joint pains; just that pregnant women are encouraged to rest. Therefore, these minor and normal symptoms which pregnant women experience in mid/third trimester support the result of my finding, that there is lesser stress in mid/third trimester.

Implications of the Finding:

Several implications have been deduced from this study which could be beneficial to both pregnant women, families, midwives, health workers and anybody who have something to do with pregnant women. Pregnant women should be sensitized on what emotion focused strategies and problem focused strategies are. They should be encouraged to use both emotion/problem focused strategies when dealing with stress during pregnancy. In the same vein, pregnant women should be advised that they are free to use emotion focused strategy, problem focused strategy or both strategies, provided it will suit them at the point of use. Midwives should educate or sensitize pregnant women more on stressor that come with pregnancy; pregnant mothers should be made to know that their stressors are inevitable because they are coming from within; which are as a result of physiological changes. That means to cope effectively requires both emotion focused, problem focused and some psychological measures like rest/stress relieving exercises.

The study has shown that type A personality and type B personality did not differ in stress symptoms among pregnant women. The study goes a long way to expose that pregnancy stress affects women of all personality type and that no matter the type of personality (A or B) one has, she must experience pregnancy stress.

Again, midwives and health workers should know that pregnancy stressors do not make distinction of the personality type that experience higher level of stress or lesser level of stress. That means whether you are type A personality or type B personality, you people will experience almost the same level or degree of stress during pregnancy. No personality type (A or B) is the best as far as pregnancy is concern. The difference found in the manifestation of stress symptomatology between pregnant women in terms of stage of pregnancy, calls for special attention, in its management among them. Women in their first trimester of pregnancy are found to experience more stress symptoms. The reason for this is that pregnancy at first trimester is still in the formation stage. On that note, special attention is needed, more especially at first trimester of pregnancy. Women by their nature, has a lot of domestic work to attend to. Women even at their place of work have also much to do. At first trimester, they should be advised by midwives to cut down what they are doing to allow for more time for rest and relaxation. They need to sleep more at this period. They should make sure that they are able to eat balance diet.

Again, at first trimester, many things about hormonal changes are not in their control; like morning sickness, hyperemesis gravidarum, nausea, vomiting and weakness. Pregnant women experiencing such symptoms above should be advised by midwives to accept the challenges and make amend where necessary; so as to make room for the developing embryo. Then, midwives should educate pregnant women on the importance of stress relieving exercise during pregnancy and highlight the ones to do at each stage of pregnancy especially, mild exercise during first trimester and harder exercise at mid/third trimester. Midwives should also sensitize pregnant women on some of the symptoms to expect at each stage of pregnancy. Normal symptoms should be highlighted and taken note of abnormal symptoms should be reported for doctors attention. Finally, the study goes a long way to tell families, that pregnant women need special attention. At any stage in pregnancy women need house-help who should help them to attend to most domestic work at home.

Limitations of the Study:

The present study has several strengths by which it provides a unique contribution to our knowledge. First, the study has been able to demonstrate empirically the level of relationship between coping strategy and stress symptoms with both emotion focused strategy and problem focused strategy producing almost the same level of stress symptoms among pregnant women. There are some limitations that should be considered in any attempt to generalize the findings of this study.

- (1) Stress symptomatology should be assessed using other sources, other than pregnant women self reports used in this work. This is because there may be difference in results obtained using other data.
- (2) The study is limited by the mere fact that other variables that may influence stress symptomatology such as anxiety, socio-economic status, depressive symptoms, personality, were not considered.
- (3) The study was conducted only in Enugu Metropolis (specifically, only two hospitals in Enugu Metropolis was used). There are lots of rural communities in Enugu Local Government Area and other Towns in Enugu Metropolis. These places were not explored. So the actual pregnant women population in Enugu State was not represented; including other states in Nigeria. The researcher could not actually reach out and explore these areas because of financial constraints and time limit for the programme. The finding therefore may be generalized with caution.

Recommendations/Suggestions for further Research:

The following recommendations were made for further research.

- (1) This study investigated good variables that did not significantly predict stress symptom, but there are still other strong variables like: anxiety, depressive symptoms, personality and socio-economic factors etc. These variables mentioned should be vigorously studied to ascertain their relationship on stress symptomatology.
- (2) To make generalization of result of this kind possible, the present researchers encourage subsequent researchers to increase their sample size to a reasonable number, considering the vast population of pregnant women in a given area. A large number of participants need to be studied.
- (3) It is possible that the results obtained using pregnant women assessments will differ somewhat from those obtained using other sources of data; there is a need therefore for further researchers to gather information from several sources.

Summary and Conclusion:

This study aimed at establishing the relationship between coping strategies, personality differences and stress symptoms among pregnant women. Participants in this study were two hundred and twenty (220) pregnant women selected on a voluntary basis from the antenatal unit of the Enugu State University Teaching Hospital (ESUTH, n = 110) and Poly Sub-District Hospital (PSDH, n = 110). The design for the present study was cross sectional design. The statistics for the data analysis for the present study was hierarchical multiple linear regression with variance. Results of this study showed that coping strategy was not significant predictor of stress symptoms among pregnant women. In addition, personality difference did not significantly predict stress symptoms among pregnant women. Finally, stage of pregnancy significantly predicts stress symptoms among pregnant women; with women in their first trimester experiencing higher level of stress than women in their mid/third trimester.

Conflict of interests: The authors declare that they have no financial or personal relationship(s) that may have inappropriately affected their report of the findings of this research.

Ethical approval: Ethical was granted by the Ethical Board of ESUT Teaching Hospital Parklane Enugu-Nigeria and Enugu State Ministry of health. All procedure performed in this study involving human participants were in accordance with the ethical standards of the Teaching Hospital and Enugu State Ministry of health

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