

EVALUATION OF PERCEIVED CAUSES OF PUERPERAL PSYCHOSIS AMONG POST CESAREAN SECTION PATIENTS IN GENERAL HOSPITAL, WUSHISHI, NIGER STATE, NIGERIA

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ABSTRACT: *Background: Puerperal psychosis is a rare psychiatric emergency in which symptoms of high mood and racing thoughts, depression, severe confusion, loss of inhibition, paranoia, hallucinations and delusions set in, beginning suddenly in the first two weeks after childbirth. For the fact that majority of pregnant women perceived Cesarean section as a complicated birth option, various complications attached to the Post Cesarean section have proven that, there is need for special attention on caesarean section option. Methodology: A descriptive survey research design was employed. A total of 38 respondents were selected using judgmental and convenience sampling techniques due to the busy schedule of these health practitioners after determining the sample size using the Okpanachi (2011) restructured Yemane (1967) sampling model. Data were collected using self-structured questionnaire that was pilot tested with the Cronbach Alpha of 0.78. Data collected were analyzed with SPSS software using both descriptive and inferential statistics. Results: The study revealed that the incidence of Puerperal psychosis among Post Cesarean section patient was very high, Knowledge of Respondents on Puerperal psychosis was also high, the identified causes of Puerperal psychosis among Post Cesarean section patient include, history of bipolar disorder, schizophrenia, prior episode of postpartum psychosis, or a family history of postpartum psychosis, Mutations in chromosome and in specific genes involved in serotonergic, hormonal, and inflammatory pathways, giving birth for the first time, Depression or anxiety during pregnancy, stressful recent life events, poor social support and a previous history of depression. the identified Management strategies employed towards control of Puerperal psychosis among Post Cesarean section patient include, Psycho-education and psychotherapy, Pharmacotherapy, Lithium Treatment and Prophylaxis, Antiepileptic drugs (AED). However, Electroconvulsive Therapy and Breastfeeding of baby are alternative methods often used to manage Puerperal psychosis. Conclusion: It was concluded that family care and financial status of family were also very good predictor of Puerperal psychosis, thus Management of Health facilities should intensify the need for self-financial assessment before planning on having babies.*

KEYWORDS: Puerperal Psychosis, Post Ceasarean Section, Evaluation, Perceived Causes, General Hospital, Patients.

INTRODUCTION

Background of the Study

In recent time women in Nigeria have expressed worries about choices of childbirth especially on issues surrounding cesarean section. Aside the fact that majority of pregnant women perceive Cesarean section as a complicated birth option, various complications attached to the Post Cesarean section have proven that, there is need for special attention on caesarean section option. Based on this Adeoye and Kalu (2011) cited in Robinson-Bassey and Uchegbu (2016) affirmed that, among women in the developing countries, caesarean section is still being perceived as a 'curse' of an unfaithful woman. The authors further assert that caesarean section is seen among weak women. In addition, caesarean section is surrounded with suspicion, aversion, misconception, fear, guilt, misery and anger among the women in Nigeria.

Caesarean section is the birth of a fetus through surgical incisions in the anterior abdominal wall and the uterine wall after the age of viability. Elective Caesarean Section which is also known as scheduled caesarean section is a planned procedure. Caesarean section arranged ahead of time and mostly commonly arranged for medical indication which have been developed before or during the pregnancy (Molina, Weser, Lepoits and Esquiver, 2015). This have been perceived by health workers as safer for both mother and fetus compared to emerging counterpart. The indication for elective Caesarean section include contracted pelvic, major degree of placenta previa, two or more previous vesico vaginal fistula repair and bad obstetric history such as mal-presentation, pre-eclampsia, cord prolapsed, HIV in pregnancy (Nwodo, Isah and Panti, 2011). The procedure for caesarean section take up to 45 minutes to 1 hour plus. It is performed under general anaesthesia or spinal block and incision is made on the uterus to deliver the baby and placenta then sutured back. Apart from the fact that, it takes a longer time to heal than vaginal birth (Lowdermilk and Perry, 2007), the risk associated with the process cannot be taken for granted. A very good example which was considered in this study is Puerperal psychosis.

Puerperal psychosis is a rare psychiatric emergency in which symptoms of high mood and racing thoughts, depression, severe confusion, loss of inhibition, paranoia, hallucinations and delusions set in, beginning suddenly in the first two weeks after childbirth. The symptoms vary and can change quickly (Jones, Chandra, Dazzan, and Howard, 2014). The most severe symptoms last from 2 to 12 weeks, and recovery takes 6 months to a year (Jones, *et al.*, 2014). About half of women who experience it have no risk factors; but women with a prior history of mental illness, especially bipolar disorder, a history of prior episodes of postpartum psychosis, or a family history are at a higher risk (Jones *et al.*, 2014). It is not a formal diagnosis, but is widely used to describe a condition that appears to occur in about 1 in a 1000 pregnancies. It is different from postpartum depression and from maternity blues (Royal College of Psychiatrists, 2014).

Puerperal psychosis is an illness that occurs shortly after childbirth. It is marked by symptoms of mood liability, cognitive disorganization, delusional beliefs, and hallucinations that resemble a clinical picture of delirium but is most likely an overt presentation of bipolar illness. Predictors of recurrence include a personal or family history of PP, bipolar disorder, and cessation of antimanic treatment. It may also be a form of bipolar disorder (Wesseloo, Kamperman, Munk-Olsen, Pop, Kushner, Bergink, 2016). It often requires hospitalization, where treatment is antipsychotic medication, mood stabilizers, and, in cases of strong risk for suicide, electroconvulsive therapy (Jones *et al.*, 2014). Women who have been hospitalized for

a psychiatric condition immediately after delivery are at a much higher risk of suicide during the first year after delivery (Orsolini, 2016).

Evidences have shown that, women are at increased risk of developing severe psychiatric illness during the puerperium. Studies have shown that a woman has a greatly increased risk of being admitted to a psychiatric hospital within the first month postpartum than at any other time in her life (Donna, Robertson, Cindy-Lee, Sherry & Tamara, 2008 citing Kendell et al., 1987; Paffenbarger, 1982). Up to 12.5% of all psychiatric hospital admissions of women occur during the postpartum period (Donna et al., 2008). Recent evidence from epidemiological and clinical studies suggests that mood disturbances following childbirth are not significantly different from affective illnesses that occur in women at other times. By this and other incidence of Puerperal psychosis, the study is set to do an evaluation of perceived causes of Puerperal psychosis and Post Cesarean section patients in general hospital, Wushishi, Niger State. Nigeria.

Statement of the Problem

The potential effects of Puerperal psychosis involve the physical, mental, and social health of the mother, child, and family. The financial healthcare burden of treating the ailment is significant. Research done by Dagher, McGovern, Dowd and Gjerdingen (2012) showed that health care spending is considerably higher in women with psychosis. Puerperal psychosis can contribute to poor mother-child bonding, difficulty with breastfeeding, and child abuse or neglect. One of the most concerning consequences of Puerperal psychosis is the risk of suicide and infanticide. As described in the DSM-IV (American Psychiatric Association, 2013). Symptoms that are common in Puerperal psychosis -onset episodes include fluctuation in mood, mood liability, and preoccupation with infant well-being, the intensity of which may range from over concern to frank delusions. The presence of severe ruminations or delusional thoughts about the infant is associated with a significantly increased risk of harm to the infant.

In a study conducted by Lucic (2013) cited O'Hara, Zekoski, Philipps & Wright (1990) found that the prevalence of nonpsychotic mental disorders does not increase in the postpartum period as compared to the general population. In that study, the incidence of Puerperal psychosis was found to be 10.4%, which is not significantly higher than the rate of depression experienced by non-childbearing women. O'Hara et al (1990) cited in Lucic (2013) summarize studies that have investigated the prevalence of depression across the general population and it ranges from 8% to 23%. Therefore this study evaluated perceived causes of Puerperal psychosis among Post Cesarean section patients in general hospital, Wushishi, Niger State. Nigeria.

Aim/Broad Objective

The broad objective of this study was to evaluate the perceived causes of Puerperal psychosis among Post Cesarean section patients in general hospital, Wushishi, Niger State. Nigeria.

Specific Objective

The specific Objectives of the study include to:

- Evaluate the rate of incidence of Puerperal psychosis among Post Cesarean section patient in general hospital, Wushishi, Niger State Nigeria.

- Evaluate the Knowledge of Health Workers on Puerperal psychosis in general hospital, Wushishi, Niger State Nigeria.
- Assess the causes of Puerperal psychosis among Post Cesarean section patient in general hospital, Wushishi, Niger State Nigeria.
- Examine the adjustment strategies employed towards control of the ailment in general hospital, Wushishi, Niger State Nigeria.

Research Questions

The following questions were drafted based on the specific objectives above:

1. What is the level of incidence of Puerperal psychosis among Post Cesarean section patient in general hospital, Wushishi, Niger State Nigeria?
2. What is the Knowledge of respondents on Puerperal psychosis in general hospital, Wushishi, Niger State Nigeria?
3. What are the perceived causes of Puerperal psychosis among Post Cesarean section patient in general hospital, Wushishi, Niger State Nigeria?
4. What are the adjustment strategies employed towards control of the ailment in General Hospital, Wushishi, Niger State. Nigeria?

Significance of the Study

The findings will be beneficial to health educators who will utilize the result to educate women on the dimensions of causes of Puerperal psychosis. When women acquire adequate knowledge about it, they can guide themselves against the occurrences, The findings will also be useful for nurses and midwives who will enlighten women on the causes of Puerperal psychosis in the course of rendering maternal health care services for women. Nurses and midwives will utilize the findings to educate women on the causes and early signs of Puerperal psychosis.

The findings will be beneficial to the health educators who will organize an enlightenment campaign to educate women on causes and preventive measures of Puerperal psychosis to avert maternal mortality. This study will also be beneficial to management of hospital, policy maker, among others as the findings will generate indicators that will help in making right policies that will help in reducing the rate of occurrence of causes of Puerperal psychosis. This study would also benefit institutions of learning, by providing literatures for future studies.

Delimitation/Scope of the study

This study is conducted in general hospital, Wushishi, Niger State Nigeria. It is restricted to patients of Post Cesarean section and medical practitioners. It was delimited to the respondents' irrespective age, parity, level of education, occupation, socio-economic status and religious affiliation.

Definition of Terms

The definition were carried out operationally

Puerperal Psychosis: Puerperal psychosis is an illness that is one of the mental disorders which occurs shortly after childbirth. It is marked by symptoms of mood lability, cognitive disorganization, delusional beliefs, and hallucinations that resemble a clinical picture of delirium but is most likely an overt presentation of bipolar illness. The onset of puerperal psychosis occurs in the first 1–4 weeks after childbirth. The data suggest that postpartum psychosis is an overt presentation of bipolar disorder that is timed to coincide with tremendous hormonal shifts after delivery. The patient develops frank psychosis, cognitive impairment, and grossly disorganized behavior that represent a complete change from previous functioning.

Elective Cesarean Section: A voluntary consent given by a pregnant woman to give birth through surgical operation.

Patient: A sick person under evaluation

Post Cesarean Section: This implies the aftermath of a Cesarean section

LITERATURE REVIEW

Causes of Puerperal Psychosis

Women with a history of bipolar disorder, schizophrenia, prior episode of postpartum psychosis, or a family history of postpartum psychosis are at high risk; about 25-50% of women in this group will have postpartum psychosis. According to Royal College of Psychiatrists (2014) around 37% of women with bipolar disorder have a severe postpartum episode. According to Wesseloo, Kamperman, Munk-Olsen, Pop, Kushner, Bergink (2016) Women with a prior episode of postpartum psychosis have about a 30% risk of having another episode in the next pregnancy. They also opines that, for a woman with no history of mental illness who has a close relative (a mother or sister) who had postpartum psychosis, the risk is about 3% (Royal College of Psychiatrists (2014)). There may be a genetic component; while mutations in chromosome 16 and in specific genes involved in serotonergic, hormonal, and inflammatory pathways have been identified, none had been confirmed as of 2014 (Jones *et al.*, 2014).

Family history of affective psychosis, prenatal depression, and autoimmune thyroid dysfunction also increase the risk of postpartum psychosis (Essali, Alabed, Guul, Essali, 2013). About half of women who experience postpartum psychosis had no risk factors (Jones *et al.*, 2014). Many other potential factors like pregnancy and delivery complications, caesarean section, sex of the baby, length of pregnancy, changes in psychiatric medication, and psychosocial factors have been researched and no clear association has been found; the only clear risk factor identified as of 2014 was that postpartum psychosis happens more often to women giving birth for the first time, than to women having second or subsequent deliveries, but the reason for that was not known (Jones *et al.*, 2014). There may be a role for hormonal changes that occur following delivery, in combination with other factors; there may be a role changes in the immune system as well (Jones *et al.*, 2014).

Research study conducted by Donna *et al.*, (2013) have shown that the following risk factors are strong predictors of Puerperal psychosis: depression or anxiety during pregnancy, stressful recent life events, poor social support and a previous history of depression. Moderate predictors of Puerperal psychosis are childcare stress, low self-esteem, maternal neuroticism and difficult

infant temperament. Small predictors include obstetric and pregnancy complications, negative cognitive attributions, single marital status, poor relationship with partner, and lower socioeconomic status including income. No relationship was found for ethnicity, maternal age, level of education, parity, or gender of child (in Western societies).

Adjustment Strategies Employed towards Control of Puerperal Psychosis

Donna *et al.*, (2013) opines that, while Puerperal psychosis is a major health issue for many women from diverse cultures, this condition often remains undiagnosed. Although several measures have been created to detect depressive symptomatology in women who have recently given birth, the development of a Puerperal psychosis screening program requires careful consideration. Evidence-based decisions need to be made regarding:

- (1) the most effective screening test that not only has good sensitivity and specificity, but is quick, easy to interpret, readily incorporated into practice, and culturally sensitive; and
- (2) health care system issues such as cost-effectiveness, potential harm, and policies for referral. Auspiciously, preliminary research suggests postpartum depression is amenable to treatment interventions thus providing a rationale for the development of a screening program.

However, few well-designed randomized controlled trials have been conducted to effectively guide practice and policy recommendations and further research is required before evidence based programs are widely implemented. One certainty is that there is no single aetiological pathway by which women develop Puerperal psychosis, thus it is improbable that a single preventive/treatment modality will be effective for all women.

Further findings shows that, the potential adverse effect of Puerperal psychosis upon the maternal-infant relationship and child development reinforces the need for early identification and effective treatment models. Unfortunately, there are few studies of public health interventions that can prevent or mitigate the impact of (Jones *et al.*, 2014) (Jones *et al.*, 2014) on these outcomes. A few studies, of variable quality, have explored the impact of interventions such as home visiting, telephone counseling, interactive coaching, group interventions, and massage therapy. The results of these studies are still very preliminary and must be interpreted with caution. Large, well-controlled longitudinal studies that specifically measure maternal-infant relations and child development are required

Risk factors for Puerperal psychosis

Robertson, Celasun, and Stewart (2013) studied risk factors for Postpartum Depression. Databases relating to the medical, psychological and social science literature were searched using specific inclusion criteria and search terms, to identify studies examining risk factors for postpartum depression. The findings from the meta-analyses of over 14,000 subjects, and subsequent studies of nearly 10,000 additional subjects found that the following factors were the strongest predictors of postpartum depression: depression during pregnancy, anxiety during pregnancy, experiencing stressful life events during pregnancy or the early puerperium, low levels of social support and having a previous history of depression. Moderate predictors were high levels of childcare stress, low self-esteem, neuroticism and infant temperament. Small predictors were obstetric and pregnancy complications, negative cognitive attributions, quality of relationship with partner, and socioeconomic status. Ethnicity, maternal age, level of

education, parity and gender of child (in Western societies) were not predictors of postpartum depression.

Detection, prevention, and treatment of Puerperal psychosis

Dennis (2013) in Detection, prevention, and treatment of Puerperal psychosis. Databases relating to the medical, psychological and social science literature were searched using specific inclusion criteria and search terms to identify studies, which examined screening procedures and/or the effect of various preventive and treatment interventions on depressive symptomatology among expectant and new mothers. Findings revealed that, The long-term consequences of Puerperal psychosis suggest preventive approaches are warranted. Manipulation of a risk factor may improve the associated likelihood of developing Puerperal psychosis through many different ways. The most obvious is to decrease the amount of exposure to a given risk factor or, alternatively, reduce the strength or mechanism of the relationship between the risk factor and Puerperal psychosis. However, translating risk factor research into predictive screening protocols and preventive interventions has met with limited success, as complex interactions of biopsychosocial risk factors with individual variations need to be contemplated. Numerous studies have been examined in this review with the diverse aetiology of Puerperal psychosis reflected in the broad range of approaches considered.

Genetic and Biological Factors in relation to Puerperal Psychosis

Research evidence has shown that risk factors for puerperal psychosis are biological and genetic in nature (Jones et al., 2011). Psychosocial and demographic factors are probably not major factors in the development of puerperal psychosis (Brockington et al., 2010). Compelling evidence from recent studies of puerperal psychosis suggest that the major risk factor for developing the illness is genetic. Jones & Craddock (2011) found that the rate of puerperal psychosis after deliveries in women with bipolar disorder was 260 / 1000 deliveries, and the rates of puerperal psychosis for women with bipolar disorder who also had a family history of puerperal psychosis was 570 / 1000 deliveries. This compares to a risk in the general population of 1-2 / 1000 deliveries. Because of these serious consequences, early diagnosis and treatment interventions of postnatal illnesses are imperative for the health and well being of the mother and child (Attia et al., 2009). Puerperal psychosis requires hospitalization for treatment (Nonacs & Cohen, 2008). Although the prognosis is generally favourable and women fully recover they are at risk of developing further puerperal and nonpuerperal episodes of bipolar affective disorder.

Association between Caesarean section and Puerperal psychosis

The evidence relating to Caesarean section and Puerperal psychosis suggests that there is no association between the two variables. Forman et al. (2010) found no significant association between elective or emergency caesarean section and subsequent Puerperal psychosis. Johnstone et al. (2011) reported a nonsignificant trend between postpartum depression and caesarean section.

Boyce et al (2012) found a highly significant correlation between caesarean section and developing Puerperal psychosis at 3 months. They reported that women within their study who had an emergency caesarean section had more than six times the risk of developing Puerperal psychosis. These results were supported by Hannah et al. (2012) who found a strong association between caesarean section and Puerperal psychosis at 6 weeks. It is highly probable that the

positive findings reported merely reflect statistical trends. Within such large samples, one would expect by probability alone to achieve statistically significant results for 1 in 5 tests.

Unwanted pregnancy and Puerperal psychosis

Beck (2008) examined the effects of an unplanned or unwanted pregnancy and developing Puerperal psychosis. She included the results from 6 studies that comprised 1200 subjects, and found a small effect size. These results were supported by Warner et al. (2008) who found a significant relationship between unplanned pregnancy and psychosis at 6 weeks postpartum in a sample of 2375 women. Unplanned or unwanted pregnancy as a risk factor for Puerperal psychosis should be interpreted very cautiously. It does not measure the woman's feelings towards the growing fetus but merely the circumstances in which the pregnancy occurred.

Breastfeeding and Puerperal psychosis

Warner et al. (2008) found that not breastfeeding at 6 weeks postpartum was significantly associated with Puerperal psychosis (N=2375). Hannah et al. (2012) supported these findings in a sample of 217 women. However, Forman et al. (2010) (N=5292) did not find any relationship between not breastfeeding and Puerperal psychosis. The reasons for the equivocal findings reported between breastfeeding and the onset of Puerperal psychosis may reflect non-illness related factors, such as the woman's preference or hospital policy rather than an aetiological relationship.

Beck's (2011) metaanalyses included 11 studies which examined approximately 1000 subjects. The results of both meta-analyses found that a previous history of depression was a moderate to strong predictor of subsequent Puerperal psychosis. Subsequent studies consistently report that women with a previous history of postpartum depression are at increased risk of developing Puerperal psychosis.

RESEARCH METHODOLOGY

Research Design

Descriptive survey research design was employed. Frankfort-Nachmias and Nachmias (2006) stated that descriptive survey design is a research design used most predominantly is survey as it facilitates the gathering of information about a larger population by collecting information from a portion of that very population from where generalizations can be inferred. The design is, therefore, considered appropriate for use in the present study because it will give current information on topic in discourse.

Research Setting

The study setting is Wushishi general hospital, Wushishi, Niger State, Nigeria. The hospital was founded 26th May 1991 under general Ibrahim Babangida. The hospital at inception was a rural hospital and was named Aishetu Innawuro Babangida, however in 2012 the immediate past government upgraded it to A general Hospital and renamed it Wushishi General Hospital. The hospital has five major wards and several departments or units. Some of the wards include, Maternity ward, Out Patients ward, Male ward, Female ward and Pediatrics ward. Departments in the hospital include, pharmacy, medical laboratory, peri-operative, radiography, ophthalmic, Immunization, HIV screening among others.

Study Population

The population of this study constitutes all the Nurses and Medical Practitioners in general hospital, Wushishi, Niger State, Nigeria. all the health workers are about 126.

Sample Size Determination

The sample population for this study were calculated from the target population using the Okpanachi (2011) restructured Yemane (1967) sampling model to justify the sufficiency of the sample size. The formula applied is given as

$$n = N / (3 + N e^2)$$

Where n = Number of samples, N = Total population, e = Error tolerance and 3 = adjusted constant. n selecting the sample size for this study, the Okpanachi (2011) restructured Yemane (1967) sampling model is employed to justify the sufficiency of the sample size. The formula applied is given as

$$n = N / (3 + N e^2)$$

Where n = Number of samples, N = Total population, e = Error tolerance and 3 = adjusted constant.

$$n = 126 / (3 + 126 \times 0.05^2)$$

$$n = 126 / (3 + 126 \times .0025)$$

$$n = 126 / (3 + .315)$$

$$n = 126 / 3.315$$

$$n = 38.009$$

Approximately the sample size is 38.

Sampling Technique

This study adopted Judgmental Sampling techniques to select both conveniences to select Nurses and Medical Practitioners in general hospital, Wushishi as the respondents. Then the study also uses, Convenience sampling techniques due to the busy schedule of these health practitioner.

Inclusion Criteria: respondent must be health workers, strictly restricted to Nurses, Midwives and Medical Doctors in Wushishi general Hospital. They must also be willing to participate. Information to be provided is restricted to that of patient with Puerperal psychosis after CS.

Exclusion Criteria: any one workers aside from those mentioned in the inclusion. Also those that are not willing to participate. Information on patient with Puerperal psychosis without CS is excluded.

Instrumentation

In order to have a comprehensive and reliable source of information, self structured questionnaire was administered to respondents in the general hospital, Wushishi to obtain

information. Respondents were assured of total confidentiality of any information provided and they were not forced to complete the questionnaire. The questionnaire is divided into four sections. section A consist of background information about the respondents; while section B, C & D contained structured questions/statements that points to obtaining information about the objectives of the study.

Pilot Study

In order to ensure that the research instrument maintains consistency in measuring what it intends to, a Pilot study of 10 respondents was carried out among Nurses of general hospital, Wushishi, Niger State. The questionnaire was administered to the Nurses at once and Cronbach Alpha estimate was used to obtain 0.78.

Psychometric Properties of Research Instrument

Validity of the Instrument

Face and Content validity were ensured before proceeding to the field. This was carried out to ensure the items capture the needed data. The original items drawn were critically examined by the researcher's supervisor. All the corrections made were taken into consideration while drawing the final items for the questionnaire.

Reliability of the Instrument

Reliability is the degree to which a test is consistent in measuring whatever it does measures; that is degree to which the test measures the same thing time after time and item after items. To ensure the reliability of this instrument, test retest form of reliability was used. The questionnaire was administered on staff of the selected categories that were targeted in this study at an interval of two weeks. Cronbach's alpha was used to test the internal reliability of the measuring instrument. In this study .60 or higher is considered acceptance (Sekrran, 2003). The Cronbach's Alpha (α) is 0.78, thus establishing the reliability of the survey questionnaire. As the values of alpha are higher than 60%, this indicates that for each measurement of a variable, the items are highly correlated and hence highly consistent.

Data Collection Method

Data was collected by the researcher with the assistance of the Deputy Director of Nursing Services (DDNS) in charge of each wards and units in the hospital. The medical practitioner and nurses were asked to complete the questionnaire according to how each items applies to them without bias or prejudice after which all correspondents responded accordingly. The research questionnaires were finally returned and analyzed.

Method of Data Analysis

The research questions were answered using percentage, frequency tables while the null hypotheses were tested using inferential statistics on SPSS version 21 at 0.05 level of significance.

Ethical Consideration

A letter of introduction for permission to carry out the research was collected from the researcher's head of department and given to the management of General Hospital, Wushishi,

Niger State for necessary approval before it was finally taken to each ward where the respondents were assured of confidentiality and the questionnaires were administered under free will and not compulsion.

RESULTS:

Table 1: Frequency Distribution of Socio-Demographic Variables

Question	Frequency	Percentage
Age		
20-29 years	17	44.7
30-39 years	16	42.1
50 years & above	5	13.2
Total	38.0	100.0
Tribe		
Yoruba	4	10.5
Hausa	20	52.6
Others	14	36.8
Total	38.0	100.0
Religion		
Christianity	13	34.2
Islam	21	55.3
Traditional	4	10.5
Total	38.0	100.0
Categories		
Nurses	18	47.4
Midwives	16	42.1
Medical Doctors	4	10.5
Total	38.0	100.0
Most Family of CS patient shows adequate care		
Yes	29	76.3
No	9	23.7
Total	38.0	100.0
Most Family of CS patient are Financially Buoyant		
Yes	4	10.5
No	34	89.5
Total	38.0	100.0

Source: Field survey, 2018

Table 1 above presents Frequency Distribution of Socio-Demographic Variables. 44.7% of the respondents were 20-29 years old, 42.1% were 30-39 years old and 13.2% were 50 years and above. Results on tribes revealed that, 10.5% represents the Yoruba, 52.6% represents the Hausa and 36.8% represents others among which Nupes are major. Results on religion revealed that, 34.2% were Christians, 55.3% were practices Islam and 10.5% practices African Traditional Religion. On categories, 47.4% were Nurses, 42.1% were Midwives and 10.5%

were Medical doctors. Also, 76.3% of the respondents affirmed that, Most Family of CS patient shows adequate care, while 23.7% disaffirmed the statement. More so, 10.5% affirmed that, Most Family of CS patient shows are financially Buoyant while 89.5% disaffirmed the statement.

Answering of Research Question

Research Question One: What is the rate of incidence of Puerperal psychosis among Post Cesarean section patient in general hospital, Wushishi, Niger State Nigeria?

Table 2: Frequency Distribution of the respondents showing incidence of Puerperal psychosis among Post Cesarean section patient

s/n	Items		SA	A	D	SD	Total
1	Puerperal psychosis is common among patient of post CS	F	0	26	12	0	38
		%	0.0	68.4	31.6	0.0	100.0
2	Most CS patients often show symptoms of Puerperal psychosis	F	5	16	13	4	38
		%	13.2	42.1	34.2	10.5	100.0
3	I have attended to several Puerperal psychosis patients since i have been working in this hospital	F	4	8	33	4	38
		%	10.5	21.1	57.9	10.5	100.0
4	Every post CS patients manifest at least a symptoms of Puerperal psychosis	F	4	9	17	8	38
		%	10.5	23.7	44.7	21.1	100.0
5	Puerperal psychosis is becoming endemic in this part of the country	F	0	13	21	4	38
		%	0.0	34.2	55.3	10.5	100.0

Source: Field survey 2018

Table.1 Frequency Distribution of the respondents showing rate of incidence of Puerperal psychosis among Post Cesarean section patient. Majority (A=68.4%) affirmed that, Puerperal psychosis is common among patient of post CS, while others disaffirmed (D= 31.6%). Results also shows that, most (SA=13.2%; A= 42.1%) of the respondents declined that, Most CS patients often show symptoms of Puerperal psychosis, while other disaffirmed (D= 34.2%; SD= 10.5%). Furthermore results show that, higher percentage (D= 57.9%; SD= 10.5%) of the respondents disagree that, they have attended to several Puerperal psychosis patients since they have been working in this hospital, other agreed (SA=10.5%; D= 21.1%). More results revealed that, most disaffirmed that, (D=44.7%; SD= 21.1%) Every post CS patients manifest at least a symptoms of Puerperal psychosis, other affirmed (SA= 10.5%; A= 23.7%). Further results reveal that, a higher percentage (D= 55.3%; SD= 10.5%) declined that Puerperal psychosis is becoming endemic in this part of the country, others (A= 34.2%) affirmed.

Research Question Two: What is the level of Knowledge of Respondents on Puerperal psychosis among Post Cesarean section patient in general hospital, Wushishi, Niger State Nigeria?

Table 2: Frequency Distribution of the respondents showing level of Knowledge of Respondents on Puerperal psychosis

s/n	Items		SA	A	D	SD	Total
1	Puerperal psychosis is a rare psychiatric emergency in which symptoms of high mood and racing thoughts set in	F	9	29	0	0	38
		%	23.1	76.3	0.0	0.0	100.0
2	Affective depression, severe confusion, loss of inhibition, paranoia, hallucinations and delusions are characteristics of Puerperal psychosis	F	17	17	0	4	38
		%	44.7	44.7	0.0	10.5	100.0
3	Puerperal psychosis begins suddenly in the first two weeks after childbirth and last may last for 2 to 12 weeks	F	0	22	12	4	38
		%	0.0	57.9	31.6	10.5	100.0
4	Postpartum psychosis can serve as a valuable first indicator of an underlying diagnosis of bipolar disorder	F	4	34	0	0	38
		%	10.5	89.5	0.0	0.0	100.0
5	postpartum psychosis is a key marker for the risk of future affective disorder	F	13	12	13	0	38
		%	34.2	31.6	34.2	0.0	100.0
6	Treatment of Puerperal psychosis may include, antipsychotic medication, mood stabilizers, and, in cases of strong risk for suicide, electroconvulsive therapy	F	9	21	0	8	38
		%	23.7	55.3	0.0	21.1	100.0

Source: Field survey 2018

Table 2 Frequency Distribution of the respondents showing level of knowledge of Cardiopulmonary Resuscitation Techniques. All (SA= 23.1%; A=76.3%) affirmed that, Puerperal psychosis is a rare psychiatric emergency in which symptoms of high mood and racing thoughts set in. Results also shows that, majority (SA=44.7%; A= 44.7%) of the respondents opines that, Affective depression, severe confusion, loss of inhibition, paranoia, hallucinations and delusions are characteristics of Puerperal psychosis, while other disaffirmed (SD= 10.5%). Furthermore results show that, higher percentage (A= 57.9%) of the respondents agree that, Puerperal psychosis begins suddenly in the first two weeks after childbirth and last may last for 2 to 12 weeks, other disagreed (D=31.6%; SD= 10.5%). More results revealed that, all affirmed that, (SA=10.5%; A= 89.5%) Postpartum psychosis can serve as a valuable first indicator of an underlying diagnosis of bipolar disorder. Further results reveal that, a higher percentage (SA= 34.2%; A= 31.6%) Opines that postpartum psychosis is a key marker for the risk of future affective disorder, others (D= 34.2%) disaffirmed. Results also revealed that, a higher percentage (SA= 23.7%; A= 55.3%) agrees that Treatment of Puerperal psychosis may include, antipsychotic medication, mood stabilizers, and, in cases of strong risk for suicide, electroconvulsive therapy, others (SD= 21.1%) disaffirmed.

Research Question Three: What are the causes of Puerperal psychosis among Post Cesarean section patient in general hospital, Wushishi, Niger State Nigeria?

Table 3: Frequency Distribution of the respondents showing causes of Puerperal psychosis among Post Cesarean section patient

s/n	Items		SA	A	D	SD	Total
1	Women with a history of bipolar disorder, schizophrenia, prior episode of postpartum psychosis, or a family history of postpartum psychosis are at high risk	F	8	25	5	0	38
		%	21.1	65.8	13.2	0.0	100.0
2	Mutations in chromosome and in specific genes involved in serotonergic, hormonal, and inflammatory pathways have been identified as real cause of Puerperal psychosis	F	4	26	8	0	38
		%	10.5	68.4	21.1	0.0	100.0
3	Prenatal depression, and autoimmune thyroid dysfunction also increase the risk of postpartum psychosis	F	12	22	4	0	38
		%	31.6	57.9	10.4	0.0	100.0
4	Postpartum psychosis happens more often to women giving birth for the first time, than to women having second or subsequent deliveries	F	0	21	17	0	38
		%	0.0	55.3	44.7	0.0	100.0
5	Depression or anxiety during pregnancy, stressful recent life events, poor social support and a previous history of depression are risk factors of Puerperal psychosis	F	4	18	12	4	38
		%	10.5	47.4	31.6	10.5	100.0

Source: Field survey 2018

Table.3 Frequency Distribution of the respondents showing causes of Puerperal psychosis among Post Cesarean section patient. Majority (SA= 21.1%; A=65.8%) affirmed that, Women with a history of bipolar disorder, schizophrenia, prior episode of postpartum psychosis, or a family history of postpartum psychosis are at high risk, others (D= 13.2%) disaffirmed. Results also shows that, majority (SA=10.5%; A= 68.4%) of the respondents opines that, Mutations in chromosome and in specific genes involved in serotonergic, hormonal, and inflammatory pathways have been identified as real cause of Puerperal psychosis, while other disaffirmed (D= 21.1%). Furthermore results show that, higher percentage (SA=31.6%; A= 57.9%) of the respondents agree that, Prenatal depression, and autoimmune thyroid dysfunction also increase the risk of postpartum psychosis, other disagreed (D=10.4%). More results revealed that, higher percentage (A= 55.3%) affirmed that, Postpartum psychosis happens more often to women giving birth for the first time, than to women having second or subsequent deliveries, other disaffirmed (D= 44.7%). Further results reveal that, a higher percentage (SA= 10.5%; A= 47.4%) Opines that Depression or anxiety during pregnancy, stressful recent life events, poor social support and a previous history of depression are risk factors of Puerperal psychosis, others (D= 31.6%; SD= 10.5%) disaffirmed.

Research Question Four: What are the Management strategies employed towards control of the ailment in General Hospital, Wushishi, Niger State. Nigeria?

Table 4: Frequency Distribution of the respondents showing Management strategies employed towards control of the ailment

s/n	Items		SA	A	D	SD	Total
1	Psycho-education and psychotherapy is an important form of management of Puerperal psychosis	F	13	20	5	0	38
		%	34.2	52.6	13.2	0.0	100.0
2	Pharmacotherapy Overview is also good for managing Puerperal psychosis	F	21	8	5	0	38
		%	61.8	23.5	14.7	0.0	100.0
3	Lithium Treatment and Prophylaxis is used to treat of Puerperal psychosis	F	0	21	17	0	38
		%	0.0	55.3	44.7	0.0	100.0
4	Antiepileptic drugs (AED) is often administered on of Puerperal psychosis patients	F	8	21	9	0	38
		%	21.1	55.3	23.7	0.0	100.0
5	Electroconvulsive Therapy is often used to manage of Puerperal psychosis	F	8	13	17	0	38
		%	21.1	34.2	44.7	0.0	100.0
6	Breastfeeding of baby can also help cure of Puerperal psychosis patients	F	8	12	18	0	38
		%	21.1	31.6	47.4	0.0	100.0

Source: Field survey 2018

Table.4 Frequency Distribution of the respondents showing Management strategies employed towards control of the ailment. Majority (SA= 34.2%; A=52.6%) affirmed that, Psycho-education and psychotherapy is an important form of management of Puerperal psychosis, others (D= 13.2%) disaffirmed . Results also shows that, majority (SA=61.8%; A= 23.5%) of the respondents opines that, Pharmacotherapy Overview is also good for managing Puerperal psychosis, while other disaffirmed (D= 14.7%). Furthermore results show that, higher percentage (A= 55.3%) of the respondents agree that, Lithium Treatment and Prophylaxis is used to treat of Puerperal psychosis, other disagreed (D=44.7%). More results revealed that, higher percentage (SA= 21.1%; A= 55.3%) affirmed that, Antiepileptic drugs (AED) is often administered on of Puerperal psychosis patients, other disaffirmed (D= 23.7%). Further results reveal that, a higher percentage (SA= 21.1%; A= 34.2%) Opines that Electroconvulsive Therapy is often used to manage of Puerperal psychosis, others (D= 44.7%) disaffirmed. Results also revealed that, a higher percentage (SA= 21.1%; A= 31.6%) agrees that Breastfeeding of baby can also help cure of Puerperal psychosis patients, others (D= 47.4%) disaffirmed.

Test of Research Hypotheses

In order to test hypotheses 1 and 2, a multiple regression was performed on the data. The results are shown in Table 4.2:

H₀₁: There is no relationship between the types of care rendered by Family and incidence of Puerperal psychosis

Table 5: Summary of Linear Regression showing relationship between the types of care rendered by Family and incidence of Puerperal psychosis

Variable	β	t	R^2	R	dt	F
Family Care						
	1.241	-2.089	.108	.329 ^a	37	4..044
Incidence						

** $p < 0.01$, * $p < 0.05$ **Source: Field survey 2018**

From table 5, types of care rendered by Family had a positive influence on incidence of Puerperal psychosis among Post Cesarean section patient. This means that, types of care rendered by Family has a direct relationship with incidence of Puerperal psychosis among Post Cesarean section patient ($\beta = -1.241$; $t = -2.089$; $p < 0.05$). Therefore hypothesis 1 is rejected. This implies that, there is relationship between the types of care rendered by Family and incidence of Puerperal psychosis in such a way that good family care will be related with low incidence of Puerperal psychosis among Post Cesarean section patient.

On the contribution of independent variables (types of care rendered by Family) to the prediction of occurrence of Puerperal psychosis among Post Cesarean section patient, the outcome of the table 4.2 revealed that, the independent variable when pulled together yielded a R of 0.329 and R^2 of 0.108 [$F(1, 36) = 4.364$, $P < .05$]. This is an indication that the independent variable contributed 10.8% of the variance in lincidence of Puerperal psychosis among Post Cesarean section patient. Meanwhile, other variable not considered in his study accounts for 89.2%.

H₀₂: There is no relationship between the Financial Status of the Family and incidence of Puerperal psychosis.

Table 6: Summary of Linear Regression showing relationship between the Financial Status of the Family and incidence of Puerperal psychosis

Variable	β	t	R^2	R	dt	F
Financial Status						
	-3.412	-5.164	.652 ^a	.426	37	26..669
Incidence						

** $p < 0.01$, * $p < 0.05$ **Source: Field survey 2018**

From table 6 Family Financial Status had a relationship on incidence of Puerperal psychosis among Post Cesarean section patient. This means that, Family Financial Status has a direct relationship with incidence of Puerperal psychosis among Post Cesarean section patient ($\beta = -3.412$; $t = -5.164$; $p < 0.05$). Therefore hypothesis 2 is rejected. This implies that, there is a relationship between the Financial Status of the Family and incidence of Puerperal psychosis in such a way that increased level of the higher the Financial Status of the family the lower the incidence of Puerperal psychosis among Post Cesarean section patient.

On the contribution of independent variables (Family Financial Status) to the prediction of occurrence of Puerperal psychosis among Post Cesarean section patient, the outcome of the table 4.2 revealed that, the independent variable when pulled together yielded a R of 0.652 and R^2 of 0.426 [$F(1, 36) = 26.669$, $P < .05$]. This is an indication that the independent variable contributed 42.6% of the variance in occurrence of Puerperal psychosis among Post Cesarean section patient. Meanwhile, other variable not considered in this section accounts for 57.4%.

DISCUSSION OF FINDINGS

Findings on incidence of Puerperal psychosis

Findings of this study revealed that, incidence of Puerperal psychosis among Post Cesarean section patient was very high. This is evidence in the result presented in table 4.2.1 where most of the respondents revealed that, it is common as most of the respondents shows the symptoms of Puerperal psychosis. However, further hint depicted that, the occurrence is well pronounced recently as most of the respondents have not really had the opportunity to attend to patients. This findings is against the study of Jones, Chandra, Dazzan & Howard, (2014), where they opines that, Puerperal psychosis is relatively uncommon when compared to other mental disorders

Findings on Knowledge of Respondents on Puerperal psychosis

More Findings revealed that, Knowledge of Respondents on Puerperal psychosis is very high. This was evidence in the results presented in table 3, where majority were outstanding in the items posed to them. They revealed that, Puerperal psychosis is a rare psychiatric emergency in which symptoms of high mood and racing thoughts, affective depression, severe confusion, loss of inhibition, paranoia, hallucinations and delusions set in. among others.. This findings was in consonance with the study of Monzon, Lanza di Scalea, Pearlstein, (2014) who opines that, Clinical features of Puerperal psychosis include elated, dysphoric or labile mood, agitation, bizarre or disorganized behavior and thought processes, and insomnia, while psychotic symptoms can often include mood-incongruent delusions, hallucinations, or delusions of control, with content often related to the infant or self

Findings on identified causes of Puerperal psychosis

Based on the findings of the study, the identified causes of Puerperal psychosis among Post Cesarean section patient include, history of bipolar disorder, schizophrenia, prior episode of postpartum psychosis, or a family history of postpartum psychosis, Mutations in chromosome

and in specific genes involved in serotonergic, hormonal, and inflammatory pathways, giving birth for the first time, Depression or anxiety during pregnancy, stressful recent life events, poor social support and a previous history of depression. This findings agrees with the findings of Robertson, Celasun, and Stewart (2013) studied risk factors for Postpartum Depression. Databases relating to the medical, psychological and social science literature were used with specific inclusion criteria and search terms, to identify studies examining risk factors for postpartum depression. The findings from the meta-analyses of over 14,000 subjects, and subsequent studies of nearly 10,000 additional subjects found that the following factors were the strongest predictors of postpartum depression: depression during pregnancy, anxiety during pregnancy, experiencing stressful life events during pregnancy or the early puerperium, low levels of social support and having a previous history of depression.

Findings on identified Management strategies employed towards control of Puerperal psychosis

Based on the findings of the study, the identified Management strategies employed towards control of Puerperal psychosis among Post Cesarean section patient include, Psycho-education and psychotherapy, Pharmacotherapy, Lithium Treatment and Prophylaxis, Antiepileptic drugs (AED). However, Electroconvulsive Therapy and Breastfeeding of baby are alternative method often used to manage Puerperal psychosis. This findings agrees with the findings of Warner et al. (2006) found that **not** breastfeeding at 6 weeks postpartum was significantly associated with Puerperal psychosis (N=2375). Hannah et al. (2012) supported these findings in a sample of 217 women. However, Forman et al. (2010) (N=5292) did not find any relationship between not breastfeeding and Puerperal psychosis.

Discussion of Hypothesis One

The first hypothesis tested revealed that, Family Care had a positive influence on occurrence of Puerperal psychosis among Post Cesarean section patient. It was also depicted that, family care contributed 10.8% of the variance in occurrence of Puerperal psychosis among Post Cesarean section patient. This findings is supported by the findings of Jones et al., (2011) who explored the impact of interventions such as home visiting, telephone counseling, interactive coaching, group interventions, and massage therapy. The results of these studies affirmed that, home visiting is key to quick recovery from puerperal psychosis.

Discussion of Hypothesis Two

The second hypothesis tested revealed that, Family financial status had a positive influence on occurrence of Puerperal psychosis among Post Cesarean section patient. It was also depicted that, Family financial status contributed 42.6% of the variance in occurrence of Puerperal psychosis among Post Cesarean section patient.

CONCLUSION

This study concluded that, perceived causes of Puerperal psychosis and Post Cesarean section patients in general hospital, Wushishi, Niger State. Nigeria included history of bipolar disorder, schizophrenia, prior episode of postpartum psychosis, or a family history of postpartum psychosis, Mutations in chromosome and in specific genes involved in serotonergic, hormonal, and inflammatory pathways, giving birth for the first time, Depression or anxiety

during pregnancy, stressful recent life events, poor social support and a previous history of depression. The study further concluded that Family care and Financial status of family were also very good predictor of Puerperal psychosis.

Implication of the Study to Nursing Practice

The findings in this study imply that, nurses should be more saddled with emphasizing preventive measures. More so, they have to step up care as part of their basic assignment to cover up for some family that lack care. More so, National Association of Nigeria Nurses and Midwives (NANNM) should begins to look into partnering with donor agencies, NGOs on CS to relieve women of humble background of psychological and emotional trauma that may later degenerate into Puerperal psychosis. Nurses should Endeavour to assist in organizing selected progress to illustrate the breadth and diversity of successful precaution efforts.

More so nurses are to step up by rendering quality care towards patients of Puerperal psychosis, as proper care would do a lot in helping patients recuperated easily. More so, management of public hospitals (hospitals owned by government) should as well ensure adequate availability of drugs and medications that would help treat the ailment. While the management of private hospital should step up their facilities to help curtail the menace of Puerperal psychosis. If any of them lacks adequate facility to take care of patients, there should be no delay in referring patients to government hospitals.

Limitation

The researcher encountered several challenges such as reluctance by the respondents in giving information fearing that the information sought would be used to intimidate them or paint a negative image about their organization. Also the research encountered time constraint, as time given was very short.

Summary

This research studied evaluation of perceived causes of Puerperal psychosis and Post Cesarean section patients in general hospital, Wushishi, Niger State. Nigeria. Descriptive survey research design was employed. The population of this study constitutes all the Nurses and Medical Practitioners in general hospital, Wushishi, Niger State. the study uses Okpanachi (2011) restructured Yemane (1967) sampling model to justify the sufficiency of the sample size. The calculated sampled was 38. This study adopted both Judgmental Sampling and Convenience techniques to select Nurses and Medical Practitioners in general hospital, Wushishi as the respondents. In order to have a comprehensive and reliable source of information, self structured questionnaire was administered to respondents. Data collected was subjected to analysis using Frequency count and percentage; linear regression on SPSS software.

Recommendation for further Study

Based on the findings of this study, he following recommendations were made

1. Families of every pregnant women should also be occasional be asked to come o hospital and be counsel towards caring for the expectant mothers. This however would probably help reduce rate of Puerperal psychosis even if they had o delivers through CS

2. Management of Health facilities should intensifies the need for self financial assessment before planning on having babies.
3. Policies makers should as well make policy that promote creation of special insurance scheme for delivery.
4. Proper counseling and preventive measure should be done by health workers with women with Women with a history of bipolar disorder, schizophrenia, prior episode of postpartum psychosis, or a family history of postpartum psychosis.
5. Women giving birth for the first time, should be placed under special monitoring for Postpartum psychosis.
6. Management of hospital facility should partner with governor that equipment for sterilization should be provided which will reduce the infection

Suggestions for Further Studies

This study worked in a general hospital, future studies may increase their scope to cover a large number of respondents.

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