



Knowledge of Puerperal Psychosis among Pregnant Women Attending Antenatal Clinic in Obafemi Awolowo University Teaching Hospital Complex, Ile-Ife, Osun State

Ademiliyu Helen¹ Oyeyemi Olajumoke Oyelade¹
Adebiyi Munirat Olayinka¹ Adewole Grace Ololade² Emmanuel Olufemi Ayandiran¹
& Olufemi Oyediran¹

Department of Nursing Science, Obafemi Awolowo University, Ile-Ife, Nigeria¹
Department of Demography and Social Statistics, Obafemi Awolowo University, Ile-Ife, Nigeria²

Corresponding Author: Oyeyemi Olajumoke Oyelade¹

Corresponding Email: yemilad13@gmail.com

Abstract

Objectives: Puerperal psychosis is the most severe and uncommon form of postnatal mental illness, with rates of 1-2 episodes per 1000 deliveries. The clinical onset is rapid, with the symptoms presenting as early as the first 2 to 3 days postpartum and the majority of episodes developing within the first 2 weeks after delivery. Therefore, this study seeks to assess the knowledge of causes/risk factors, signs & symptoms, effects, and treatments/prevention of puerperal psychosis among pregnant women. **Design:** This descriptive study utilises a cross-sectional design for data collection. The study was carried out at Obafemi Awolowo University Teaching Hospital Complex, Ile-Ife among pregnant women attending the antenatal clinics to assess their knowledge about puerperal psychosis. A sample of two hundred and fifty-five pregnant women was included in this study using the purposive sampling technique. Data collection was done through a self-administered structured questionnaire and the data collected were analysed using a statistical package for the social sciences version. **Results:** The result of this study showed that about one-fifth of the respondents had good knowledge of the causes/risk factors of puerperal psychosis, one-fourth had good knowledge of signs, symptoms, and effects of puerperal psychosis while the majority of the respondents had good knowledge on treatment/prevention of puerperal psychosis. Generally, this study concludes that about one-fourth of the respondents attending the antenatal clinic in Obafemi Awolowo University Teaching Hospital Complex, Ile-Ife, had good knowledge about puerperal psychosis. **Conclusion:** This study concludes that although the majority of the respondents possess good knowledge of treatment and prevention of puerperal psychosis, only a few had good knowledge of the causes/risk factors as well as knowledge of signs, symptoms, and effects of puerperal psychosis.

Keywords: Puerperal psychosis, Pregnancy, Women Health, Puerperal Care, Antenatal Care

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Introduction

Puerperium is an unpleasant phase of motherhood that has been related to adverse physical and psychological effects. Despite the recurrence of childbearing in everyday life, it remains a noteworthy occurrence, loaded with emotions and associated with superstitious and irrational feelings (Oyewole et al., 2014). A variety of mental and behavioural disorders which include

schizophrenia, mild to severe affective disorders, psychosis, and anxiety disorders occur in different phases of the puerperal period (Oyewole et al., 2014). Puerperal psychosis, also known as postpartum psychosis, is a severe mental illness that usually manifests within days of childbirth affecting 1-2 of every 1000 mothers, characterized by hallucinations and delusions, cognitive disorganization and confusion,

mood swing (depressed or elated mood), grandiosity, anxiety and sleep disorders (Davies, 2017).

Puerperal psychosis is the most severe and uncommon form of postnatal mental illness, with rates of 1-2 episodes per 1000 deliveries. The clinical onset is rapid, with the symptoms presenting as early as the first 2 to 3 days postpartum and the majority of episodes developing within the first 2 weeks after delivery (Shehu & Yunusa, 2015). The most severe symptoms last from 2 to 12 weeks and recovery takes 6 months to a year (Jefferies et al., 2021). Although rare, maternal suicide and infanticide has been observed in some cases in which mothers may attempt to injure themselves or their child. It is estimated that the risk for suicide is 5% and 4% for infanticide (Davies, 2017). The associated risk factors of puerperal psychosis include personal or family history of bipolar disorder or related psychotic disorder, primiparity, maternal age, stress during puerperium, and maternal sleep problems (Davies, 2017). There are also vulnerability factors that expose mothers to puerperal psychosis and these include lack of a confiding relationship with a husband and marital conflict, unemployment, lower social class, and being unmarried (Oyewole et al., 2014). Puerperal psychosis is also associated with obstetric factors which include previous histories of spontaneous abortion, neonatal weight, preterm delivery, perinatal death, caesarean section, and pre-eclampsia (Davies, 2017).

Puerperal psychosis is considered a psychiatric emergency and can have profound consequences for the mother and her family. These implications include impaired bonding between mother and child, marital breakup, and poor breastfeeding practices with adverse effects on infant development (Engqvist et al., 2011). Therefore, as an emergency, it necessitates an urgent evaluation, psychiatric referral and possible hospitalization (Shehu & Yunusa, 2015). A study conducted showed that the incidence rate of puerperal psychosis ranges from 0.89 to 2.6 in 1000 women and a prevalence rate of 5 in 1000 women which

confirmed the relatively low rate of puerperal psychosis and yet this morbidity is noted to be significant from a global public health perspective as it is given the potential for serious consequences (VanderKruik et al., 2017). Studies revealed that once a woman has had an episode of postpartum psychosis, the risk of recurrence after a subsequent pregnancy can be more than 50%. Postpartum psychosis occurs in 20% to 30% of women with known bipolar disorder. Also, the rate of postpartum psychosis in women with bipolar disorder and a family history of postpartum psychosis in a first-degree relative is almost twice that of women with bipolar disorder without such a history (74% vs 30%). Women with known schizophrenia have a 25% risk of relapse following childbirth (Monzon et al., 2014).

Findings have shown that women are at increased risk of developing severe psychiatric illnesses during the puerperium. 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. Up to 12.5% of all psychiatric hospital admissions of women occur during the postpartum period (Jefferies et al., 2021). Puerperal psychosis often requires hospitalization, where treatment is antipsychotic medication, mood stabilizers, and electroconvulsive therapy in cases of risk for suicide (Jones et al., 2014). Recent evidence from epidemiological and clinical studies suggests that psychotic illnesses following childbirth are not significantly different from affective illnesses that occur in women at other times.

Mental illness is a major contributor to the global burden of disease (Vanderkruik et al., 2017). World Health Organization approximates that for women of reproductive age (15-49), mental and behavioural disorders accounted for approximately 64 million global Disability Adjusted Life Years (DALYs) which increase from 5.9% to 7.3% between 2000 to 2012 (WHO, 2012). 10% of pregnant women and 13% of postpartum women experience some type of mental disorder on

average. In developing countries, prevalence rates have even been shown to be greater with an average rate of 16% during antenatal and 20% during the postnatal period (Fisher, 2012).

The consequences of postpartum mental illness, specifically, puerperal psychosis can be grievous as the mental disorder is associated with maternal complications and adverse risk of neonatal developmental effects (Vanderkruik et al., 2017). The potential effects of puerperal psychosis are encompassing as it involves the physical, mental and social health of the mother, child, and family. Puerperal psychosis can lead to poor mother-child bonding, difficulty with breastfeeding and child abuse or neglect, and most concerning the effect risk of suicide and infanticide. Due to the detrimental effects of puerperal psychosis, knowledge of the risk factors, early identification of the signs and symptoms, and prompt treatment are very important. In some cases, early detection can prevent a major episode (Engqvist et al., 2011). It is therefore essential that pregnant women are aware and possess adequate knowledge and understanding of this serious disorder in order to promote their health following childbirth.

This study, therefore, focuses on the assessment of knowledge of causes/risk, signs and symptoms, effects, and treatment/prevention of puerperal psychosis among pregnant women attending an antenatal clinic in Obafemi Awolowo University Teaching Hospital Complex, Ile-Ife.

Methods

Data

This descriptive study adopted a -cross-sectional design to assess the knowledge of puerperal psychosis among pregnant women attending the antenatal clinic, Obafemi Awolowo University Teaching Hospital Complex, Ile-Ife. This teaching hospital focuses on an integrated health care delivery system approach with emphasis on comprehensive healthcare service based on a pyramidal structure comprising primary health

care services at the base and secondary and tertiary services at hospital settings, designed to secure improvement in the physical, mental and socio-economic wellbeing of Nigerians through preventive, promotive, diagnostic, restorative and rehabilitative services. The available target population for this study was pregnant women attending the antenatal clinic at Ife Hospital Unit, Obafemi Awolowo Teaching Hospital Complex. Using a purposive sampling method, pregnant women attending the antenatal clinic of the Ife hospital of Obafemi Awolowo Teaching Hospital Complex were selected. The sampling size was calculated using Cochran's Formula. Therefore, the sample size was 255 pregnant women. Data was collected using a self-structured questionnaire which was administered to the respondents individually in the year 2019.

Variables Definition and Measurement

In the survey, questions were asked on the socio-demographic data of the respondents which include their age, religion, tribe, educational status, occupation, marital status, family type, number of children, and sexes of children respondents. A series of questions were asked about the knowledge of respondents about causes/risks factors of puerperal psychosis. They are to show what they think it is and what they think it is not by answering yes or no. The questions on causes/risks of puerperal psychosis were the previous history of mental illnesses, family history of puerperal psychosis, maternal age, obstetric risk factors such as primiparity, pregnancy, and delivery complications, delivery by caesarean section, hormonal factors and sleep deprivation (Vesga-Lopez et al., 2009; Upadhyaya, Sharma and Raval, 2014; Upadhyaya , 2014; Hannah , 2012; Forman , 2010; Jones . 2014). Also, the respondents were asked about the knowledge of respondents about the signs/symptoms of puerperal psychosis. These include delusions, hallucinations, disorganized thinking, grossly disorganized or abnormal motor behaviour, and negative symptoms (Monzon et al., 2014) Moreover, they were asked about the

knowledge of respondents on the effects of puerperal psychosis such as neglect of the baby, suicide or infanticide and non-puerperal recurrences (Jones . 2014). Lastly, they were asked their knowledge of respondents on the treatment/prevention of puerperal psychosis. It could be non-pharmacological treatment (Shashi et al., 2015) or pharmacotherapy treatment (Sit et al., 2014). Examples of pharmacotherapy treatment are antipsychotics, lithium, anticonvulsants, benzodiazepines, electroconvulsive therapy, and breastfeeding (Klinger et al., 2013; Bergink et al., 2012; Sachs HC, 2013; Bergink et al., 2012; Focht et al., 2012; Shashi et al., 2015).

The choice of these variables is informed by the theory propounded by the health belief model (HBM). Health Belief Model is a psychological health behaviour change model developed to help healthcare providers understand and influence behavioural factors that impact individual wiliness to engage in specific health behaviours (Abotchie and Shokar, 2009). HBM was developed in the early 1950s by psychologists at the U.S. Public Health Service to understand the reason why people refuse to adopt disease prevention strategies or screening tests for the early detection of disease. The HBM suggests that a person's belief in a personal threat of an illness or disease together with a person's belief in the effectiveness of the recommended health behaviour or action will predict the likelihood the person will adopt the behaviour (Morte, 2016). HBM derived from psychological and behavioural theory with the foundation advocates that there are two components of health-related behaviour that i. the desire to avoid illness, or conversely get well if already ill, and; ii. the belief that a specific health action will prevent, or cure illness. The health belief model proposes that a person's health-related behaviour depends on the person's perception of six crucial areas: i. perceived susceptibility: the greater the perceived risk, the greater the likelihood of engaging in behaviours to decrease the risk (Wit et al., 2005); ii. Perceived severity: There is wide variation in a person's feelings of

severity, and often a person considers the medical consequences (e.g., death, disability, complications) and social consequences (e.g., family life, social relationships) when evaluating the severity (Morte, 2016); iii. Perceived benefits a person will engage in health-promoting behaviour such as engaging in positive mental health habits, avoiding factors that promote stress, reaching out to people for help, proper and adequate rest and sleep, and family therapy so as to relieve the symptoms and reduce the effects of puerperal psychosis (Morte, 2016); iv. perceived barriers: if an individual perceives a health condition such as puerperal psychosis as a threat and believes that a particular action will effectively reduce the threat, barriers such as cost or expenses, danger (e.g. side effects), discomfort (e.g. pain), and inconvenience in engaging in the behaviour may discourage the individual from taking effective actions against the threat (Morte, 2016); v. cue to action: this is the stimulus needed to trigger the decision-making process to accept a recommended health action. These cues can be internal (e.g., sleeplessness, hallucination etc.) or external (e.g., advice from others, illness of a family member, newspaper, article, etc.); and vi. self-efficacy: This refers to a person's perception of his or her confidence to successfully perform a behaviour. Self-efficacy is the belief in one's ability to do something (Morte, 2016). Essentially, these areas exert influence on the knowledge of puerperal psychosis among pregnant women attending an ante-natal clinic in Obafemi Awolowo University Teaching Hospital Complex, Ile-Ife.

Statistical analysis

Data from filled questionnaires were analysed using a statistical package for service solution (SPSS) version 20. Simple descriptive analysis such as percentage, frequency distribution, and measures of central dispersion was used to summarize the data collected. In addition, charts were used to depict the results.

Results

The results from Table 1 show the percentage distribution of the demographic characteristics of the respondents. Their mean age is 29.4 with a standard deviation of 6.7. The majority of the respondents were of the age range 25-34 years (54.5%), were Christian (69.4%), were Yoruba (69.8%), have a tertiary level of education (38.0%), and were married (86.7%). Moreover, more than three-quarters of them have a nuclear type of family (78.8%) and one-third of them have a child (32.9%), and most have a male child (60.4%).

Figure 1 shows the knowledge of respondents on the causes/risk factors of puerperal psychosis. The result shows that some of the respondents display a knowledge of the causes/ risks of puerperal psychosis. From the result presented, most of the respondents, 81.6% agreed that puerperal psychosis is a mental illness that occurs shortly after birth. The majority also agreed that pregnancy and delivery complications can be risk factors (78.8%), family history of mental illnesses increases its risk (72.9%). Conversely, few of the respondents agreed that unmarried pregnant woman is not at risk of puerperal psychosis (48.2%), caesarean section increases the risks (43.9%), sleeplessness during or after delivery decreases the risk and hormonal changes during pregnancy can cause puerperal psychosis (42.7%). In addition, Figure 2 shows a summary of respondents' knowledge of the cause/risk factors of puerperal psychosis. The majority, 48.3% were reported to have fair knowledge while over one-fourth, 29.0% have good knowledge and 22.7% have poor knowledge.

Results presented in Figure 3 showed the knowledge of the sign and symptoms of puerperal psychosis. About one-fourth of the respondents had a good knowledge of the sign and symptoms of puerperal psychosis. The majority of the respondents, 77.3% of respondents have a correct knowledge that severe confusion was a sign of puerperal psychosis, and 70.2% of the respondents have a right knowledge that puerperal psychosis is characterized by seeing, hearing, and smelling

something that is not there. About two-fifth, 39.6% agreed that the belief that you occupy a higher position when you do not is not a sign of puerperal psychosis. Overall knowledge of signs and symptoms of puerperal psychosis as shown in Figure 4, less than half, 44.3% of the respondents reported having a fair knowledge while 29.8% have poor knowledge and one-fourth of the respondents, 25.9% have good knowledge.

The knowledge of the effects of puerperal psychosis is summarized in Figure 5. The result showed that most of the respondents, 74.9% agreed that puerperal psychosis can lead to impaired bonding between mother and child, and 63.9% also agreed that puerperal psychosis can lead to neglect of the baby by the mother. About half of the respondents, 49.4% agreed that puerperal psychosis, when left untreated, may lead to the attempt of the mother to kill or harm her baby. Few of the respondents, 14.9% agree that puerperal psychosis, when left untreated, may lead to the attempt of the mother to kill or harm herself. In summary, knowledge of signs and symptoms of puerperal psychosis shows that the majority, 52.2% of the respondents reported having poor knowledge while about one-fourth of the respondents, 26.7% have good knowledge and few of them, 21.2% have a fair knowledge as shown in Figure 6.

In Figure 7, the knowledge of the treatment/prevention of puerperal psychosis was shown. The result shows that four out of five respondents agreed puerperal psychosis requires emergency treatment. Also, a good number of the respondents (71.8%) had a correct knowledge that reassurance and emotional support towards the mother improve quick recovery of the mother and 57.3% knew atpsychotherapy is an essential treatment for puerperal. Furthermore, less than half of the respondents, 47.5% and 46.7% agreed that adequate rest and sleep improve the recovery of the mother and that seeking medical care does aid the treatment of puerperal psychosis respectively. A summary of knowledge on the treatment/prevention of puerperal psychosis as shown in Figure 8,

shows that two out of five of the respondents (38.4%) reported having a good knowledge while 37.3% have poor knowledge and 24.3% have fair knowledge.

Table 1: Socio-demographic characteristics of the respondents N=255

Characteristics	Frequency	Percentage
Age { \bar{X} (SD) =29.4 (6.7)		
15-24	62	24.3
25-34	139	54.5
35 -44	51	20.0
Above 44	3	1.2
Religion		
Christianity	177	69.4
Islam	71	27.8
Others	7	2.8
Ethnicity		
Hausa	178	69.8
Igbo	52	20.4
Yoruba	25	9.8
Education		
None	38	15.0
Primary	37	14.5
Secondary	83	32.5
Tertiary	97	38.0
Occupation		
House wife	80	31.4
Civil servant	66	25.9
Trading/business	91	35.6
Others	18	7.1
Marital status		
Married	221	86.7
Single	25	9.8
Divorced	6	2.3
Separated	3	1.2
Family type		
Nuclear	201	78.8
Extended	54	21.2
Number of children { \bar{X} (SD) =2.4 (1.4)		
1	84	32.9
2	65	25.5
3	53	20.8
Above 3	53	20.8
Sexes of children		
Male	154	60.4
Female	101	39.6

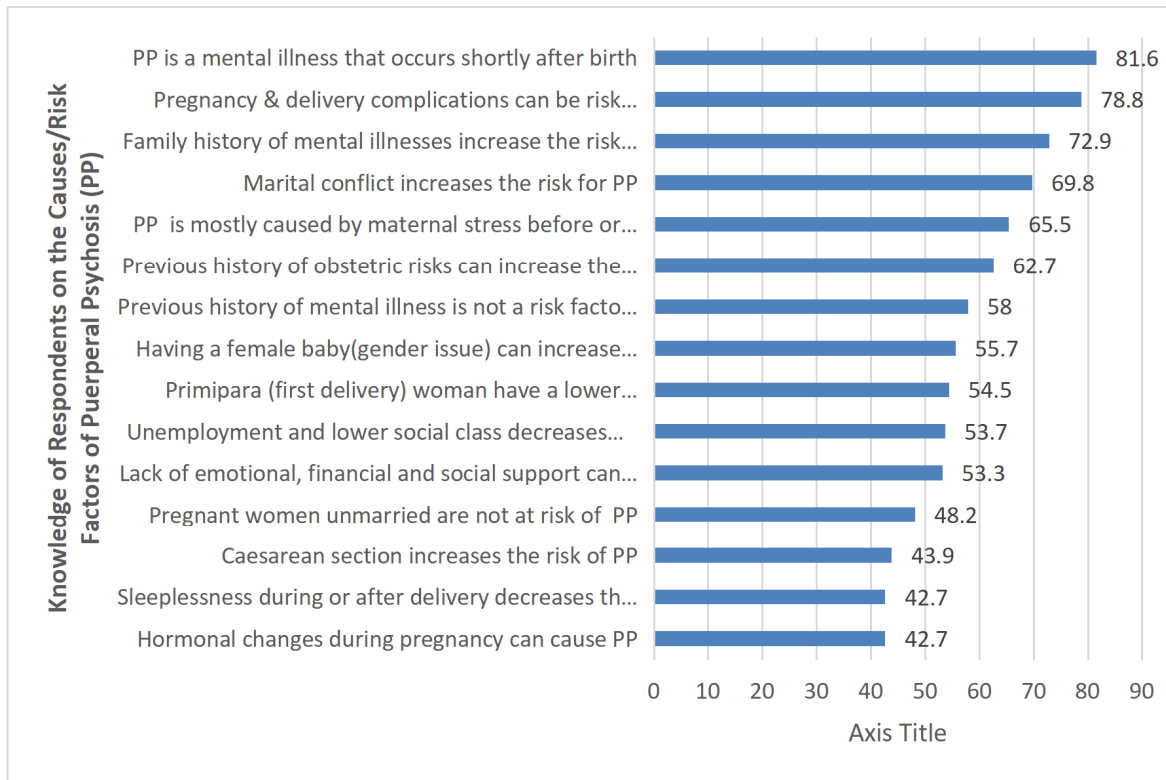


Figure 1: Knowledge of respondents on the causes/risk factors of puerperal psychosis

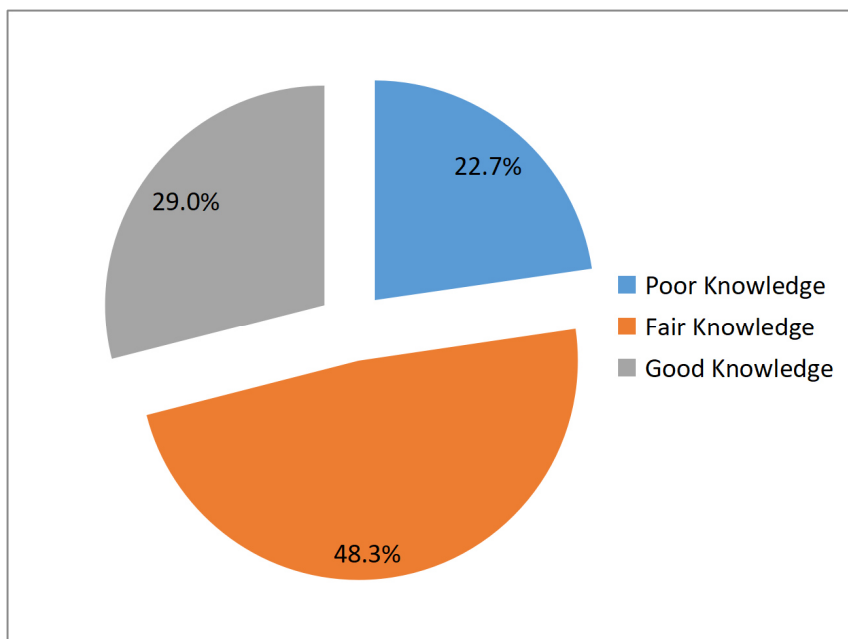


Figure 2: A pie chart summary showing respondents' knowledge on the causes/risk factors of puerperal psychosis

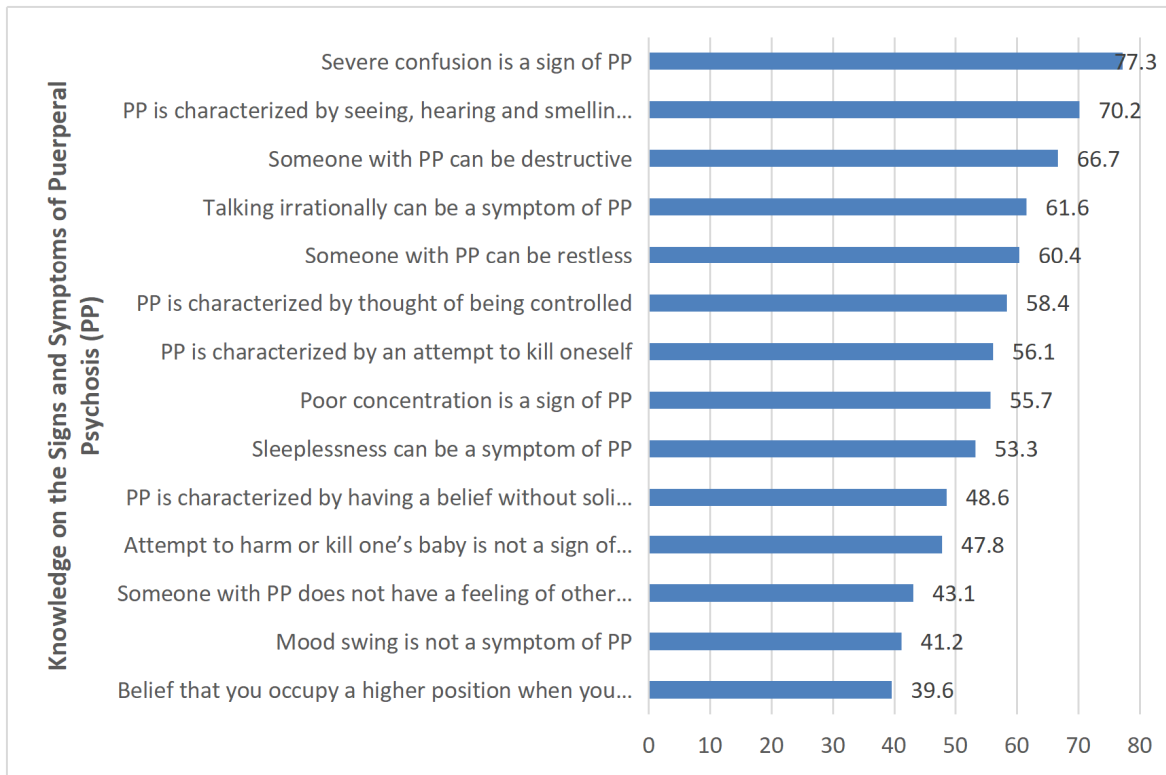


Figure 3: Knowledge on the signs and symptoms of puerperal psychosis

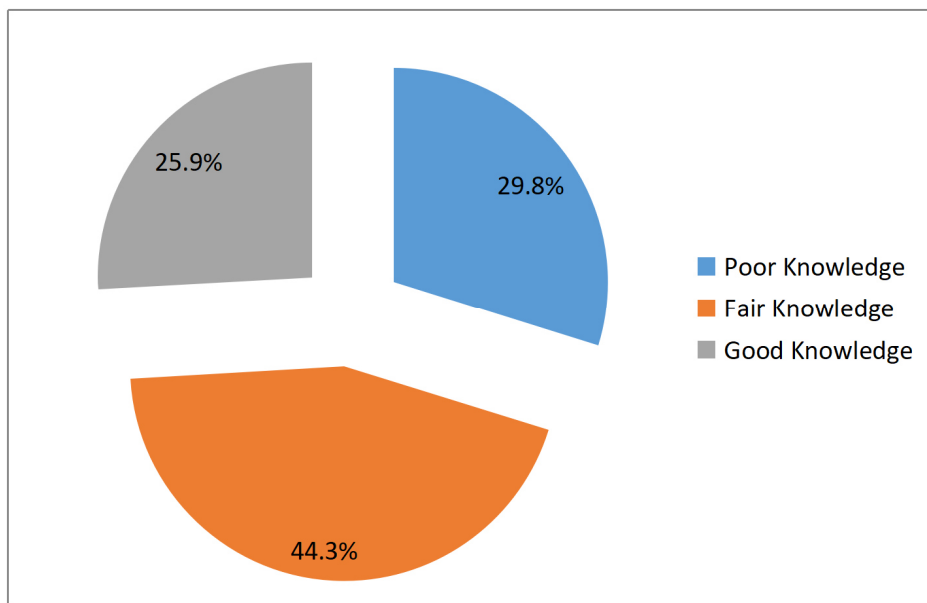


Figure 4: A pie chart showing summary of the respondents' knowledge on signs and symptoms of puerperal psychosis

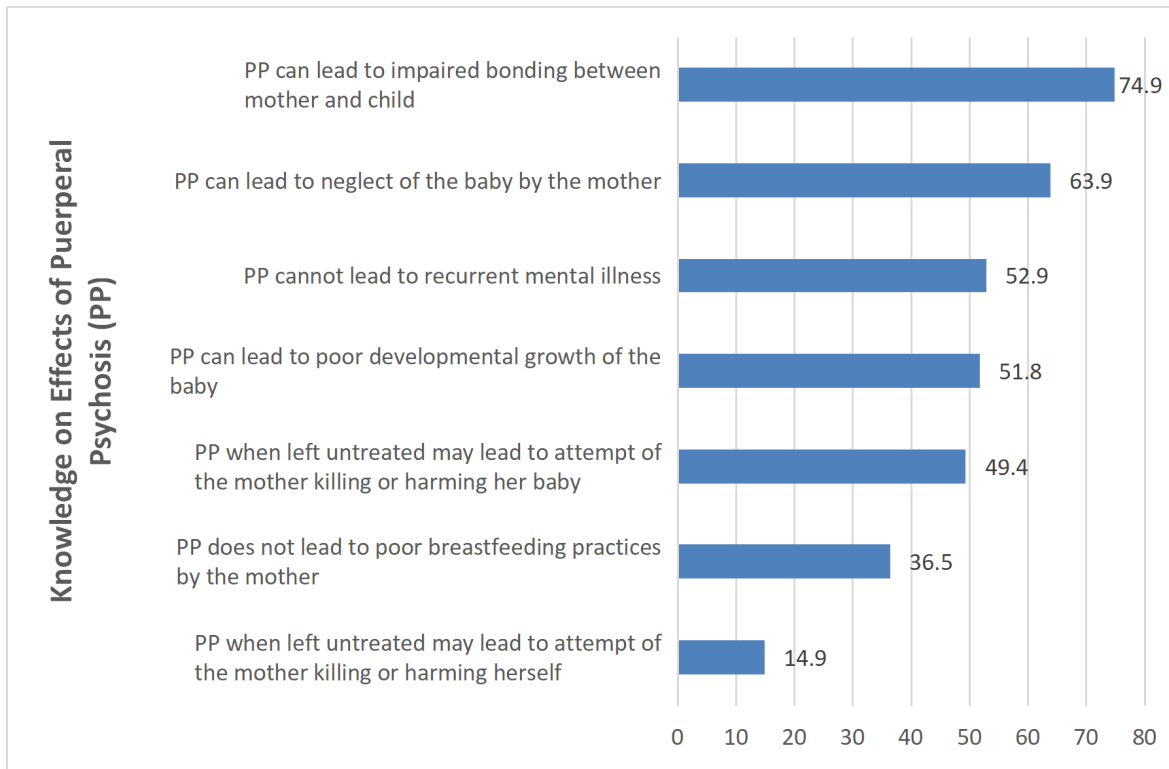


Figure 5: Knowledge on effects of puerperal psychosis

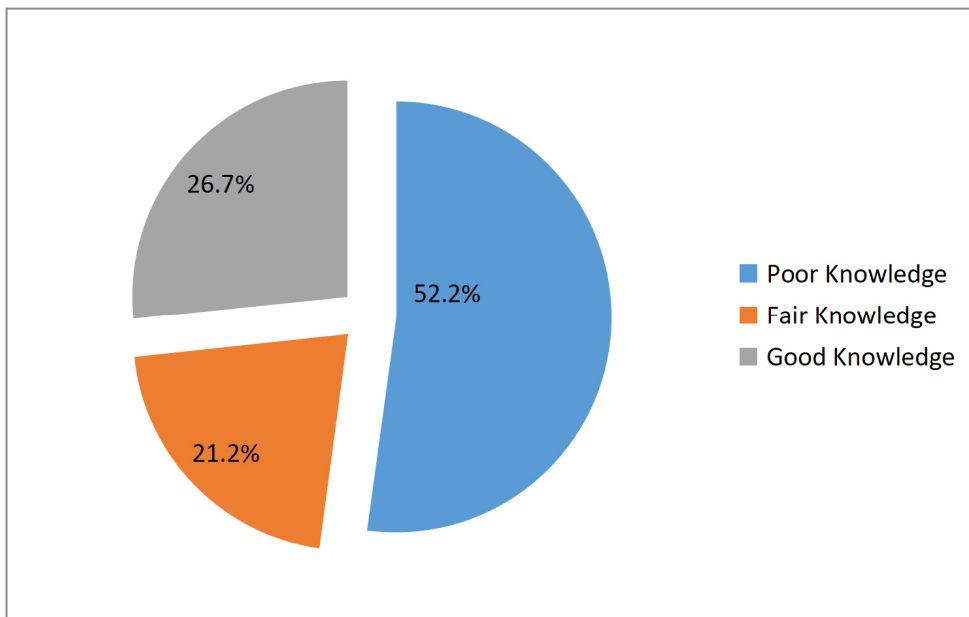


Figure 6: A pie chart summary of knowledge on effects of puerperal psychosis

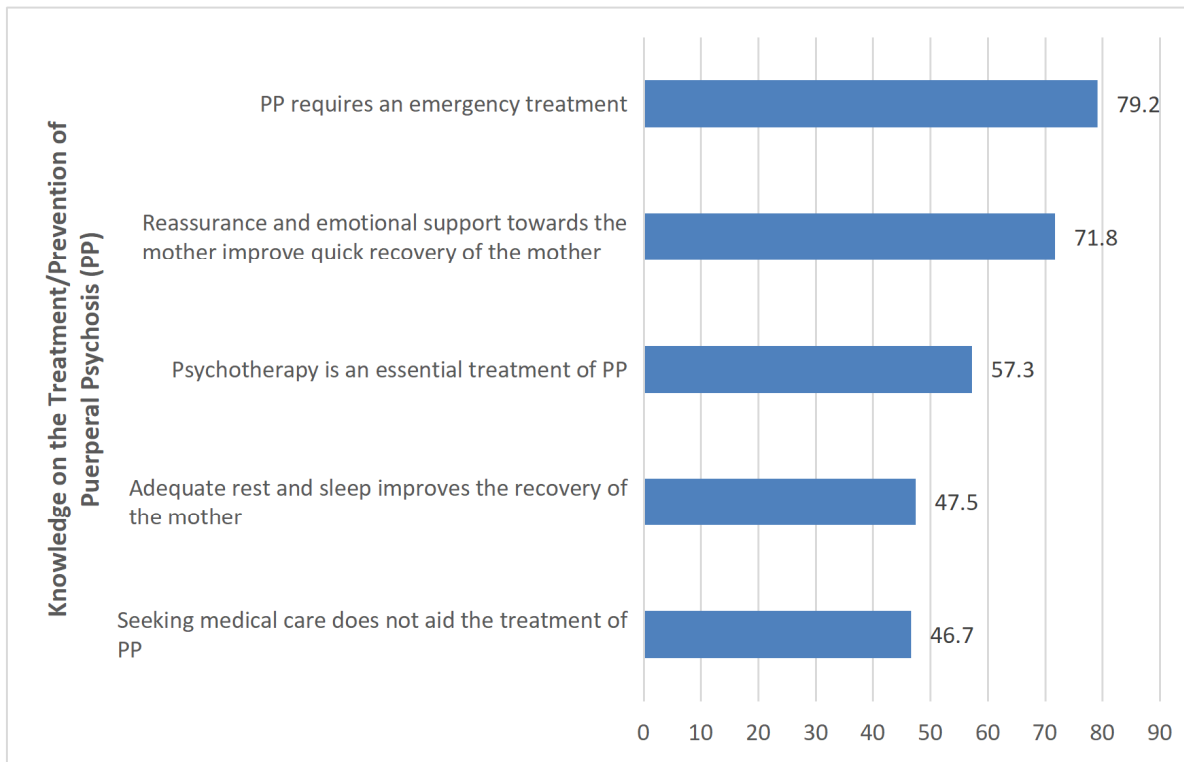


Figure 7: Knowledge on the treatment/prevention of puerperal psychosis

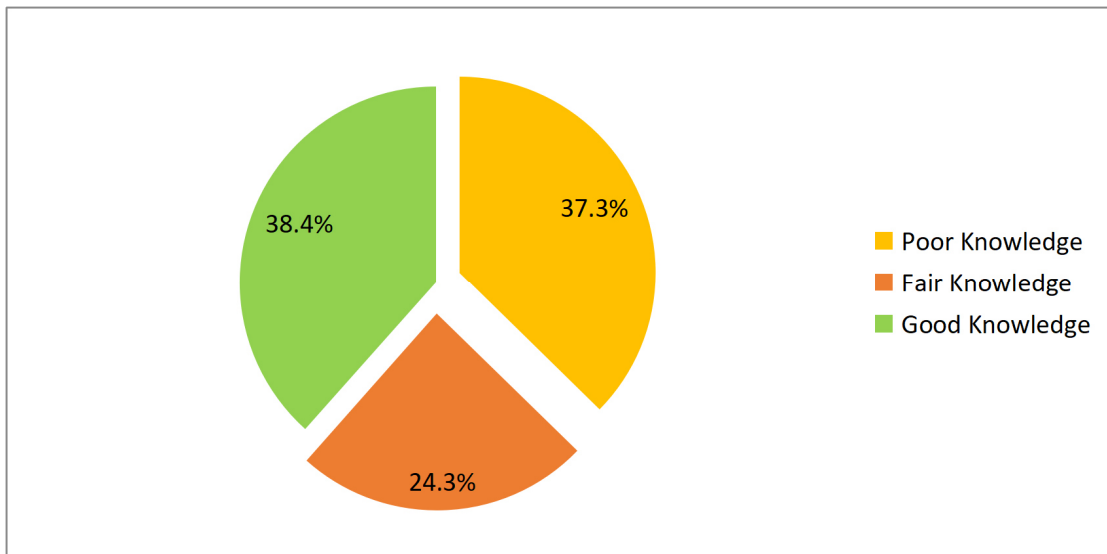


Figure 8: A pie chart summary of knowledge on the treatment/prevention of puerperal psychosis

Discussion

This study assessed the knowledge of puerperal psychosis among pregnant women attending antenatal clinics in Obafemi Awolowo University Teaching Hospital Complex, Ile-Ife.

The result from this study showed that most of the respondents agreed that puerperal psychosis is a mental illness that occurs shortly after birth. More so, respondents agreed that previous history of mental illness is a risk factor for puerperal psychosis and that a family history of mental illnesses increases the risk of puerperal psychosis. This

report is supported by a review done by Royal College of Psychiatrists, (2014) in which women with a history of bipolar disorder, schizophrenia, prior episode of postpartum psychosis or a family history of postpartum psychosis are at increased risk of puerperal psychosis. Also, a study done by Wesseloo et al. (2016), showed that women with a previous episode of postpartum psychosis have about a 30% risk of having another episode in their next pregnancy.

About half of the respondents disagree that a Caesarean section increases the risk of puerperal psychosis. Studies were done by Forman et al. (2010) and Johnstone et al. (2011) supported this result which showed that there is no significant correlation between elective or emergency caesarean section and subsequent puerperal psychosis. However, findings done by Boyce et al (2012) contradict this report which found a significant relation between caesarean section and developing puerperal psychosis at 3 months postpartum. It was reported that women within their study who had an emergency caesarean section had more than six times the risk of developing puerperal psychosis. This result was also concurred by Hannah et al. (2012) who found a strong association between caesarean section and puerperal psychosis at 6 weeks puerperium.

Furthermore, above-average of the respondents agreed that having a female baby can increase the risk for puerperal psychosis. This result contradicts a study done by Upadhyaya (2014), which reported that a mother's wish for a particular sex of the baby and its non-fulfillment did not have any impact on puerperal psychosis. The majority of the respondents agreed that previous history of spontaneous abortion, preterm baby, prenatal death, and low neonatal weight can increase the risk for puerperal psychosis. This report was supported by a study done on risk factors identification of puerperal psychosis which revealed that delivery complications such as respiratory disorder in the neonate, severe birth asphyxia, preterm birth, caesarean section, small gestational age infant and

perinatal death are associated with a higher chance of women having puerperal psychosis during puerperium (Nager, 2008).

The report from this study showed that not more than half of the respondents were reported to have fair knowledge while about one-fifth, have good knowledge or poor knowledge of the causes/risk factors of puerperal psychosis, revealing that just a few of the respondents had good knowledge about the causes/risk factors of puerperal psychosis.

The report from this study showed that about one-fourth of the respondents have good knowledge, less than half of the respondents are reported to have fair knowledge and few of the respondents have a piece of poor knowledge. The majority of the respondents agreed that severe confusion was a sign of puerperal psychosis and above average and this is in agreement with a report on clinical features of puerperal psychosis in which many women with puerperal psychosis have a feeling of perplexity, they are greatly confused as it is difficult for them to make sense of day to day activities (Berrisford 2015). Above average agreed that poor concentration was a sign of puerperal psychosis, three out of five agreed that talking irrationally can be a symptom of puerperal psychosis, and more than half agreed that puerperal psychosis is characterized by an attempt to kill oneself. The majority of the respondents agreed that someone with puerperal psychosis can be destructive while more than half agreed that puerperal psychosis is characterized by the thought of being controlled and not up to half of the respondents agreed that the belief that you occupy a higher position when you do is not a sign of puerperal psychosis.

All these are in agreement with a review done by Montzon et al. (2014), who identified puerperal psychosis as an illness characterized by poor concentration, suicide, infanticide, rambling speech, grandiosity, and paranoia. One of the findings in this study depict that more than half of the respondents disagreed that puerperal psychosis is characterized by

having a belief without solid facts or basis. This contradicts the study done by Berrisford (2015) as delusion was identified as one of the symptoms of puerperal psychosis.

The result showed that about half of the respondents agreed that puerperal psychosis cannot lead to recurrent mental illness. This result is contrary to a study done by whoo et al. (2016), which revealed that women with a previous episode of postpartum psychosis have about a 30% risk of having another episode in their next pregnancy. Also, Robertson et al. (2012), found that following index episodes of puerperal psychosis, three out of five of women experienced at least one non-puerperal affective episode during an average of 9 years.

Most of the respondents disagree that puerperal psychosis, when left untreated, may lead to the attempt of the mother to kill or harm herself. This also contradicts a finding done by Davies (2017), which showed that the risk for suicide is 5% as the woman may want to harm herself. About average of the respondents agreed that puerperal psychosis when left untreated may lead to the attempt of the mother to kill or harm her baby. This finding concurred with the study done by Davies (2017), which revealed that women with puerperal psychosis have a 4% risk of attempting to kill their baby.

More than half of the respondents were reported to have poor knowledge while one-third have good knowledge and one-fifth have a fair knowledge of the effects of puerperal psychosis which depict just a few of the respondents are knowledgeable about the effects of puerperal psychosis.

It is further noted that most of the respondents agreed that puerperal psychosis requires emergency treatment. More so, a little more than half of the respondents had a piece of correct knowledge on the psychotherapy as an essential treatment of puerperal psychosis while close to three quarters agreed that reassurance and emotional support towards the mother improve quick recovery of the

mother. Furthermore, about half of the respondents agreed that adequate rest and sleep improve the recovery of the mother and also agreed that seeking medical care does aid the treatment of puerperal psychosis respectively. All these findings are supported by the study done by Chilaka, & Muriithi (2021), in which treatment of puerperal psychosis is generally holistic and includes reassurance, familial and social support, psycho-education, and in some cases, psychotherapy and/or pharmacologic treatment.

About two-fifth of the respondents were reported to have good knowledge and poor knowledge while a few have a fair knowledge on the treatment/prevention of puerperal psychosis.

Conclusion

This study concludes that about one-fourth of the respondents attending the antenatal clinic in Obafemi Awolowo University Teaching Hospital Complex, Ile-Ife, had good knowledge about puerperal psychosis. However, some of the respondents had poor knowledge about puerperal psychosis as the majority of them could not indicate the causes/risk factors, signs & symptoms, effects, and treatment/prevention of puerperal psychosis.

Implications for Nursing Practice and recommendations

The findings from this study translate to the fact that a good percentage of these pregnant women still lack health information concerning puerperal psychosis as the majority of them did not know the causes/risk factors, signs & symptoms, effects, and prevention of puerperal psychosis. This implies the need for nurses and other health professionals to health educate pregnant women while attending antenatal clinics during their pregnancy period so that they can be knowledgeable about puerperal psychosis. Also, it implies the need to create awareness among pregnant women and even women who are yet to conceive through the use of media such as television, radio, internet, etc in

reaching these set of people thereby, making them knowledgeable about puerperal psychosis and its effects.

Based on the findings in this study, knowledge significantly influenced the prevention/treatment of puerperal psychosis. Therefore, interventions should focus on adequate health education. Hence, the following recommendations are made i. Health practitioners should embark on educating puerperal psychosis with emphasis on the risk factors, effects, and prevention/treatment of puerperal psychosis ii. there is also a need to maximize the use of mass-media in the dissemination of puerperal psychosis prevention, especially through television and radio to reach out to the masses and iii. Special counseling and preventive measure should be done by health workers with women with a history of bipolar disorder, schizophrenia, prior episode of postpartum psychosis, or a family history of postpartum psychosis.

References

1. Bergink, V., Berg Lambregtse-van, M.P., Kathelijne, M., Koorengevel, R. K., & Kushner, S. A., (2011). "First-onset psychosis occurring in the postpartum period: a prospective cohort study." *The Journal of clinical psychiatry*72, no. 11:1531-1537.
2. Bergink, V., Bouvy, P. F., Vervoort, J. S., Koorengevel, K. M., Steegers, E. A., & Kushner, S. A. (2012). Prevention of postpartum psychosis and mania in women at high risk. *American Journal of Psychiatry*, 169(6), 609-615.
3. Berrisford, G., Lambert, A., & Heron, J. (2015). Understanding postpartum psychosis. *Community Practitioner*, 88(5), 22-24.
4. Boyce, P., & Barriball, E. (2012). Puerperal psychosis. *Archives of women's mental health*, 13(1), 45-47.
5. Chilaka, V. N., & Muriithi, F. G. (2021). Mental Health Disorders in Pregnancy and Puerperium. In *Contemporary Obstetrics and Gynecology for Developing Countries* (pp. 375-382). Springer, Cham.
6. Davies, W. (2017). Understanding the pathophysiology of postpartum psychosis: challenges and new approaches. *World journal of psychiatry*, 7(2), 77.
7. Engqvist, I., Åhlin, A., Ferszt, G., & Nilsson, K. (2011). Comprehensive treatment of women with postpartum psychosis across health care systems from Swedish psychiatrists' perspectives. *The Qualitative Report*, 16(1), 66-83.
8. Fisher, J., Mello, M. C. D., Patel, V., Rahman, A., Tran, T., Holton, S., & Holmes, W. (2012). Prevalence and determinants of common perinatal mental disorders in women in low- and lower-middle-income countries: a systematic review. *Bulletin of the World Health Organization*, 90, 139-149.
9. Focht, A., & Kellner, C. H. (2012). Electroconvulsive therapy (ECT) in the treatment of postpartum psychosis. *The journal of ECT*, 28(1), 31-33.
10. Jefferies, D., Schmied, V., Sheehan, A., & Duff, M. (2021). The river of postnatal psychosis: A qualitative study of women's experiences and meanings. *Midwifery*, 103, 103165.
11. Jones, I., Chandra, P. S., Dazzan, P., & Howard, L. M. (2014). Bipolar disorder, affective psychosis, and schizophrenia in pregnancy and the post-partum period. *The Lancet*, 384(9956), 1789-1799.
12. Klinger, G., Stahl, B., Fusar-Poli, P., & Merlob, P. (2013). Antipsychotic drugs and breastfeeding. *Pediatric endocrinology reviews: PER*, 10(3), 308-17.
13. Monzon, C., di Scalea, T. L., & Pearlstein, T. (2014). Postpartum psychosis: updates and clinical issues. *Psychiatric times*, 31(1), 26-26.
14. Nager, A., Sundquist, K., Ramírez-León, V., & Johansson, L. M.

- (2008). Obstetric complications and postpartum psychosis: a follow-up study of 1.1 million first-time mothers between 1975 and 2003 in Sweden. *Acta Psychiatrica Scandinavica*, 117(1), 12-19.
15. Oyewole, A. O., Adelufosi, A. O., & Abayomi, O. (2014). Prevalence and correlates of puerperal psychiatric morbidity among attendees of a tertiary hospital in Northern Nigeria. *International Journal of Medical Science and Public Health*, 3(11), 1402-1407.
 16. Shehu, C.E., Yunusa, M.A., (2015). Obstetric characteristics and management of patient with postpartum psychosis in a tertiary hospital setting. *Obstet Gynecol Int* Article ID 386409;2015:5.
 17. Sit, D., Luther, J., Buysse, D., Dills, J. L., Eng, H., Okun, M., ... & Wisner, K. L. (2014). Suicidal ideation in depressed postpartum women: associations with childhood trauma, sleep disturbance and anxiety. *Journal of psychiatric research*, 66, 95-104.
 18. Upadhyaya, S. K., Sharma, A., & Raval, C. M. (2014). Postpartum psychosis: risk factors identification. *North American journal of medical sciences*, 6(6), 274.
 19. VanderKruik, R., Barreix, M., Chou, D., Allen, T., Say, L., & Cohen, L. S. (2017). The global prevalence of postpartum psychosis: a systematic review. *BMC psychiatry*, 17(1), 272.
 20. Vesga-Lopez, O., Blanco, C., Keyes, K., Olfson, M., Grant, B. F., & Hasin, D. S. (2009). Psychiatric disorders in pregnant and postpartum women in the United States. *Archives of general psychiatry*, 65(7), 805-815.
 21. Wesseloo, R., Kamperman, A.M., Munk-Olsen, T., Pop, V.J.M., Kushner, S.A., Bergink, V., (2016). Risk of Postpartum Relapse in Bipolar Disorder and Postpartum Psychosis: A Systematic Review and Meta-Analysis. *Am. J. Psychiatry* 173, 117–127.
 22. World Health Organization (2000). Health statistics and information systems (2000–2012). Disease and injury regional estimates. Retrieved from: http://www.who.int/healthinfo/global_burden_disease/estimates_regional_2000_2012/e