A Study to Assess the Knowledge Regarding "Prevention of Puerperal Sepsis" in Early Puerperium among Postnatal Mothers Admitted in the Maternity Unit of NMCH, Jamuhar, Rohtas

Chandan Kumar, Vikarant Kumar, Neha Kumari

Narayan Nursing College, Jamuhar, Bihar, India

Abstract: *Introduction: According to survey conducted by World Health Organization (WHO) in 1998 only a small proportion of women in developing countries i.e. less than 30% receive adequate postpartum care and in very poor countries and regions only 5% of women receive such care where as in developed countries 90% of mothers receive postpartum care. World health organization reported about 358000 maternal deaths occurring during labour and childbirth and 15% were related with puerperal sepsis in 2019.*

Background: Postpartum period or puerperium is the period following childbirth and of great importance for both mother and baby as it is an aspect of maternity care which receives less attention compared to pregnancy and delivery. Also, the others are less aware of their health while taking care of newborn baby and also many alarming complications can arise due to lack of knowledge in preventive measures. So it is necessary to assess the knowledge of postnatal mothers regarding the prevention of puerperal sepsis, in a selected hospital. It was conducted at selected hospital in NMCH jamuhar, Rohtas among 60 postnatal mothers selected by using convenient sampling technique and who met the inclusion criteria.

Objectives: To assess the level of knowledge of postnatal mothers regarding prevention of puerperal sepsis in early puerperium. To find out the association between the knowledge of postnatal mothers regarding prevention of puerperal sepsis in early puerperium with selected demographic variables. The population of sample consists of postnatal mothers in NMCH, jamuhar, Rohtas.

Methodology: A non-experimental descriptive approach is using for this study as it is considered as suitable one to assess the knowledge regarding prevention of puerperal sepsis among postnatal mothers. The research design for present study is descriptive Design.

Results: In order to collect the scientific data we used self structured questionnaire index. According to the Majority of sample (8.33%) postnatal mothers were having poor knowledge change, (88.33%) postnatal mothers were having average knowledge change and (3.33%) postnatal mothers were having good knowledge change. With the help of self structure questionnaire knowledge has been assess that majority of the participant average knowledge about puerperal sepsis.

Conclusion: the study concluded that assess the level of knowledge of postnatal mothers regarding prevention of puerperal sepsis in early puerprium. The level of knowledge significantly different between postnatal mothers.

Keywords: Puerperal sepsis, Postnatal mother, Maternity unit.

I. INTRODUCTION

- To assess the level of knowledge of postnatal mothers regarding prevention of puerperal sepsis in early puerperium.
- To find out the association between the knowledge of postnatal mothers regarding prevention of puerperal sepsis in early puerperium with selected demographic variables.

Need for the Study

Maternal mortality rate is defined internationally, as the maternal death rate per 1, 00,000 live births.

Maternal mortality rate is the sensitive index to know the quality of obstetric care. Globally every year over 500,000 die of pregnancy related causes and 99 percent of these occurs in developing countries.

Some studies from high-incident countries reported that an incident due to sepsis has been increased from 0.65 per 1000 deliveries in 2002 to 1.13 per 1000000 maternities in 2008.

In India, where population is more than one hundred crore, to get the status of maternal mortality is a complex problem. In India, 70% deliveries are being conducted by traditional birth attended and most of them are untrained.

New WHO global report says that globally one woman die every minute due to complication during pregnancy and childbirth.

Despite long term efforts to reduce maternal mortality the risk of dying during pregnancy or childbirth remains significant for women in developing countries. Women in India remain to be victims of discrimination, be it nutritional, educational, and social or economical.

The bias against woman is mainly due to illiteracy. Malnutrition is the most important factors affecting women's health in India.

While working in the postnatal wards, the investigator has observed that postpartum women suffer with various types of infection due to lack of knowledge, ignorance, social customs, and practices. This inspired the investigator to assess the knowledge of postnatal mothers and help them to themselves in reducing infection.

II. REVIEW OF LITERATURE

Debora Charles Kajeguka (2020) conducted a Descriptive cross-sectional study on, A Descriptive Study among Postnatal Women who Attended Kilimanjaro Christian Medical Centre. The objectives of the study were to estimate the prevalence, document factors and causes of puerperal sepsis among postnatal women who attended postnatal care in Kilimanjaro Christian Medical Centre Hospital in the year 2015. A systematic sampling technique was used to select the files. The hospital has annual delivery of 3,300, a list of all deliveries in 2015 was requested from the KCMC medical records department. Data was collected from the Medical Record Department. Information about isolated causative organism was retrieved from the Laboratory Information System. The prevalence of puerperal sepsis was 11.5% (21/183). The most common factors and causes of puerperal sepsis included caesarean section 66.7% (14/21), postpartum haemorrhage 57.1% (12/21), moderate to severe anemia 61.9% (13/21), prolonged labour 76.2% (16/21) and bacterial infection 90.5% (19/21).

Mohamed Issa Ahmed (2013) We prospectively studied, This study was design to identify the common pathogens causing puerperal infections and their susceptibility to current antibiotics. This study was design to identify the common pathogens causing puerperal infections and their susceptibility to current antibiotics. We prospectively studied 170 women from January, 2011 through January 2012 attended Hussein Mustafa Hospital for Obstetrics and Gynecology at Gadarif State, Sudan. We included patients if they met the criteria proposed by the WHO for definition of maternal sepsis.

Binita Pradhan, SS Duwal, Shital Bhandary (2015) This was retrospective study. Puerperal Sepsis and its Cause in Patan Hospital. Aims: This study was done to find out morbidity related with puerperal pyrexia/sepsis and its risk factors. Methods: This was retrospective study conducted from January 2011 to December 2012 at Department of Obstetrics and Gynaecology, Patan Hospital, Kathmandu, Nepal. All women who delivered in this hospital within 42 days of delivery with puerperal pyrexia/sepsis diagnosed on clinical examination and relevant investigations were included in the study.

M.A. Momoh, O.J. Ezugworie and H.O. Ezeigwe (2010) This study was carried out to throw light on the causes and management of puerperal sepsis from the health personnel's view point in Nnamdi Azikiwe University Teaching Hospital Nnewi, Anambra State. Four objectives and corresponding research questions were posed to guide the findings. Descriptive research design was used and data was collected using questionnaire. The population size was 60 health personnel. Responses were presented in tables, bar charts and pie chart. Findings showed that poor attendance to antenatal clinic, non-adherence to asepsis during delivery/ prolonged rupture of membrane, retain products of conception as well as anemia in pregnancy are the major predisposing factors to puerperal sepsis. Findings also showed that the management of puerperal sepsis involves a multidisciplinary collaboration for a better prognosis.

Addisu Melese (2020) Puerperal sepsis is any bacterial infection of the genital tract that occurs after childbirth. It is among the leading causes of maternal morbidity and mortality especially in low-income countries including Ethiopia. The aim of this study was to determine the proportion of bacterial isolates, their antimicrobial susceptibility profile and factors associated with puerperal sepsis among post-partum/aborted women at a Referral Hospital in Bahir Dar, Northwest Ethiopia. Methods A cross sectional study was conducted from January to May 2017 among 166 post-partum/aborted women admitted to Felege Hiwot Referral Hospital for medical services and suspected for puerperal sepsis.Results: The overall proportion of bacterial isolates among post-partum/aborted women was 33.7% (56/166); of which 55.4% was caused by Gram-negative and 44.6% was by Gram-positive bacteria. The most frequently isolated bacteria were Escherichia coli (32.1%) from Gram-negatives and Staphylococcus aureus (33.9%) from Grampositives.

H Lalitha (2016) conducted a descriptive design study to assess the knowledge and practice of postnatal mothers on prevention of selected puerperal infections. The objectives of the study were selected maternity hospital. A purposive sampling technique was used to select the sample. The samples include 50 postnatal mothers from the selected maternity hospital. The tool developed and used for data collection was structure interview schedule. The results of the study are the overall mean percentage of knowledge score was 52% and the overall practice score was 66.8% on prevention of puerperal infections. The study concludes that the knowledge and practice of postnatal mothers on preventions of puerperal infections was not adequate and the study recommended for health educational packages for the postnatal mothers on prevention of puerperal infections.

Kamlesh Rani (2018) A quantitative, non-experimental study. A study to assess the Knowledge and Practice of Postnatal Mothers on Prevention of Infections in Early Puerperium. The objectives of the study were to assess the knowledge and practices of postnatal mothers regarding prevention of infection in early puerperium to correlate the knowledge and practices of postnatal mothers regarding prevention of infection in early puerperium with each other.

Shirin Sultana (2018): A descriptive cross-sectional study, Knowledge and practice regarding prevention of puerperal sepsis among postpartum women attending a private hospital in Bangladesh. A total of 150 postpartum mothers who attended Ibn Sina Medical College Hospital (ISMCH) Bangladesh, during the period of this study (August to December 2017) were selected using purposive sampling technique.

Dr. V. Indra (2015) A retrospective study, a Study to Assess the Knowledge and Practice on Prevention of Puerperal Sepsis among Postnatal Mothers in Selected Hospital, Pondicherry with a View to Develop an Information Booklet. Aim of to assess the existing level of knowledge and practice of postnatal mothers on prevention of puerperal sepsis. To correlate the level of knowledge with practice of postnatal mothers on prevention of puerperal sepsis. To associate the level of knowledge of postnatal mothers with selected demographic variables

Shirin sultana (2018) a descriptive cross-sectional study, knowledge and practice regarding prevention of puerperal sepsis among postpartum women attending a private hospital in Bangladesh. A descriptive cross-sectional study was conducted among 150 postpartum mothers who attended Ibn Sina Medical College Hospital (ISMCH) Bangladesh during August to December 2017. A non-probability purposive sampling technique was used to select the study participants and the data was collected using pretested semi structured questionnaire by face to face interview.

Pratap Kumar (2019): The research approach for this study is a quantitative approach. A Study to Assess the Knowledge of Postnatal Mothers Regarding Prevention of Puerperal Complications in Selected Hospital at Chinakakani, Guntur (Dt), Andhra Pradesh. The study aim of to assess the knowledge of Postnatal Mothers regarding prevention of puerperal complications and to find the association between the knowledge with their demographic variables. method and material descriptive study was done at NRI general hospital, Chinakakani, Guntur, AP. A total of 100 postnatal mothers were select by non-probability convenient sampling. Data was collected by using a structured questionnaire. Out of 100 participants 36(36%) has inadequate knowledge 13(13%) has moderate 51 (51%) has adequate knowledge.

ANYANWU, T. & KENNETH, M (2018) The purpose of this study was to assess the knowledge and practice for prevention of puerperal sepsis among traditional birth attendants in Calabar South Local Government Area of Cross River State, Nigeria. Three research objectives and their corresponding research questions were formulated to guide the study. The results obtained showed that most of the respondents 65 (54.2%) affirmed that a pregnant woman can contract puerperal sepsis during child birth.

III. METHODOLOGY

3.1 Research Approach

Research Design: The research design for present study is descriptive Design.

Setting of the Study: NMCH, Jamuhar, Sasaram

Population: Postnatal mothers

Sampling Technique: Convenient sampling technique

Sample Size: In this study, sample 60.

Sampling Criteria:

Inclusion-

- The study includes postnatal mothers who are admitted in NMCH
- Residing in local areas of Sasaram.
- Age group of the postnatal mothers must be within 18-37 yrs.

Exclusion-

The study excludes post natal mothers who are

- Not able to understand and speak Hindi and Bhojpuri.
- Not willing to participate in the study.
- Woman age group of <18 yrs and their parent are not included in data collection.

Instruments

The instrument consisted of a background performa to collect demographic data.

Demographic data: Demographic data had a set of items oriented to socio-demographic variables include age, gender, address, marital status, religion, occupation, annual family income, types of family.

Questionnaire: Related to prevention of puerperal sepsis.

Validity

The tool was given to four experts including one doctor and three nursing experts in obstetrical nursing. They were requested to give their opinion regarding relevancy accuracy and appropriateness of items for further modifications. Based on the suggestions given by the experts, modification and rearrangement of few items were done. The demographic of 13 items according to experts opinion. The first drafts of questionnaire consisted of 20 items there was 100 % agreement.

3.2 Reliability of Tool

Reliability of the instrument is the degree of consistency with which it measures attribute it suppose to measure, it refers to the extent to which the same results are obtained on repeated administration of instrument. The reliability of measuring tool can be assessed in the aspect of stability, internal consistency and equivalence depending on the nature of the instrument and aspect of reliability concept. The reliability of the instrument was estimated by test - retest method by using Karl Pearson correlation. The reliability value of the instrument was 0.8 for knowledge and it was founded to be statistically reliable for the main study.

3.3 Data Collection Procedure

By Convenient sampling technique, a subject who fulfilled the inclusion criteria was selected. A written informed consent was taken from all the subjects. The demographic data and questionnaire were collected through the question sheet.

IV. RESULTS

Percentage distribution of age 15% postnatal mothers were 18-22 years, 35% postnatal mothers were under 23-27 years, 41.60 % postnatal mothers were 28-32 years, and

8.30% postnatal mothers were 33-37 years.

Percentage distribution of postnatal mother's religion 71.60% postnatal mothers were 43 members, 3.30% postnatal mothers were 2 members, 5% postnatal mothers were 3 members, 20% postnatal mothers were 12 members, 0% postnatal mothers were 0 members.

Percentage distribution of postnatal mother's residence 56.60% postnatal mothers was 34 rural, 28.30% postnatal mothers were 17 urban, and 15% postnatal mothers were 9semi urban.

Frequency and Percentage Level of Knowledge on Distribution of Postnatal Mothers

Table.4.2

S.N	LEVEL OF KNOWLEDGE	FREQUENCY	PERCENTAGE (%)
1	GOOD	5	8.33%
2	AVERAGE	53	88.33%
3	POOR	2	3.33%

Revels that the Majority of sample (8.33%) postnatal mothers were having poor knowledge, (88.33%) postnatal mothers were having average knowledge and (3.33%) postnatal mothers were having good knowledge. With the help of self structure questionnaire knowledge has been assess that majority of the participant average knowledge about puerperal sepsis. Chi Square Analysis association between the knowledge of postnatal mothers regarding prevention of puerperal sepsis in early puerperium with selected demographic variables.

Table 4.3

N-60

Demographic al data	Poor knowledge		Average knowledge		Good knowledge		X^2	df	p value	Inference
	F	%	F	%	F	%				
Q1. AGE (IN YEARS)							10.1168	6	0.3411	NS
18-22 years	0	0%	7	77.77%	2	22.22%				
23-27 years	2	9.52 %	16	76.19%	3	14.28%				
28-32 years	0	0%	25	100 %	0	0%				
33-37 years	0	0%	5	100 %	0	0%				
Q2. RELIGION										
Hindu	1	2.32%	39	90.69%	3	6.97%	10.460	10	0.314	NS
Sikh	0	0%	2	100%	0	0%				
Christian	1	33.33%	2	66.66%	0	0%				
Muslim	0	0%	10	83.33%	2	16.66%				
Other	0	0%	0	0%	0	0%				
Q3. OCCUPATIO-N										
Private service	1	5.88%	14	82.35%	2	11.76%	3.5595	4	0.7360	NS
Government Service	1	6.66%	14	93.33%	0	0%				
House Maker	0	0%	25	89.28%	3	10.71%				
Q4. EDUCATION										

No formal education	0	0%	6	100%	0	0%	6.8259	12	0.8688	NS
Primary (1-5th)	2	7.40%	24	88.88 %	1	3.70%			
Secondary (6-10th)	0	0%	16	88.88%	2	11.11%			
Senior Secondary	0	0%	6	75%	2	25%			
Graduate	0	0%	1	100%	0	0%			
Post Graduate	0	0%	0	0%	0	0%			
Q5. RESIDENCE									
Rural	1	2.94%	31	91.17 %	2	5.88%	3.2426	4	0.7778	NS
Urban	1	5.88%	15	88.23 %	1	5.88%			
Semi urban	0	0%	7	77.77%	2	22.22%			
Q6. TYPE OF FAMILY									
Nuclear	2	15.38%	10	76.92%	1	7.69%	7.4899	4	0.2779	NS
Joint	0	0%	33	91.66%	3	8.33%			
Extended	0	0%	10	90.90%	1	9.09%			
Q 7. MONTHLY FAMILY INCOME									
<Rs. 10,000	0	0%	3	100%	0	0%	5.7311	6	0.7664	NS
Rs.10,001Rs.20000	1	3%	24	80%	5	16.66%			
Rs.2000130000	1	4%	23	95.83%	0	0%			
>Rs.30000	0	0%	3	100%	0	0%			
Q 8. MODE OF DELIVERY									
Normal vaginal delivery	0	0%	14	87.50%	2	12.50%	2.3161	6	0.9854	NS
Normal with episiotomy	1	6.25%	20	86.95%	2	8.69%			
Caesarean section	1	5%	18	90%	1	5%			
Obstetrical operation	0	0%	1	100%	0	0%			
Q 9. PARITY									
None	1	9.09%	8	72.72%	2	18.18%	3.9717	8	0.9839	NS
One child	1	3.57%	25	89.28%	2	7.14%			
Two children	0	0%	17	94.44%	1	5.55%			

Three children	0	0%	2	100%	0	0%			
More than three children	0	0%	1	100%	0	0%			
Q 10. DELIVERY SETTING									
Health centre	2	3.84 %	45	86.53 %	5	9.61 %	1.1291	6	0.9759	NS
Institutional & Home	0	0%	7	100%	0	0%			
Home	0	0%	1	100%	0	0%			
Health care centre (CHC&PHC)	0	0%	0	0%	0	0%			
Q 11. PAST PUERPERAL COMPLICATION									
Yes	2	4.46%	35	83.33%	5	11.30%	3.3962	2	0.3344	NS
No	0	0%	18	100%	0	0%			
Q 12. SOURCE OF INFORMATION									
Newspaper/ Magazines	0	0%	0	0%	0	0%	18.91	8	0.0023	S
Radio / Television	0	0%	0	0%	0	0%			
Health personnel	2	3.33%	53	88.33%	5	8%			
Friends	0	0%	0	0%	0	0%			
Others	0	0%	0	0%	0	0%			
Q 13. PREVIOUS KNOWLEDGE REGARDING PREVENTION ON PUERPERAL SEPSIS									
Yes	2	3.84%	45	86.53%	5	3.61%	1.2191	2	0.7484	NS
No	0	0%	8	100%	0	0%			

*$P \leq 0.05$ is significant

To find out and test the significance association knowledge of postnatal mothers regarding prevention of puerperal sepsis in early puerperium with selected demographic variables following research hypothesis and null hypothesis are tested.

$H0_1$ - there is no significant association between knowledge of postnatal mothers regarding prevention of puerperal sepsis in early puerperium with selected demographic variables.

H_1 - there is significant association between knowledge of postnatal mothers regarding prevention of puerperal sepsis in early puerperium with selected demographic variables.

The data in table 4.3 represents the association between level of knowledge and socialdemographic variable of postnatal mothers which was using chi-square test. The finding revealed that was no significant association between age, Religion, Occupation, education, Residence, Type of family, Monthly family income, Mode of delivery, Parity, Delivery setting, past puerperal complication, previous knowledge. However there was statistical significant association between the level of knowledge and social demographic variable such as source of information p<0.5.

V. SUMMARY

The purpose of the study is to assess the knowledge among postnatal mothers and find out the association between demographical variables. The data collected by the using of self-structured questionnaire, in first section in demographic data and in second section questionnaire regarding assess the knowledge on postnatal mothers. The setting of the study was NMCH jamuhar, Sasaram, data collection by descriptive survey approach there was 60 participants. The data analysis was performed by using both descriptive frequency and percentage.

VI. CONCLUSION

The present study was aimed at assessing the knowledge among postnatal mothers and its consequences. Revels that the Majority of sample (8.33%) postnatal mothers were having poor knowledge, (88.33%) postnatal mothers were having average knowledge and (3.33%) postnatal mothers were having good knowledge. With the help of self structure questionnaire knowledge has been assess that majority of the participant average knowledge about puerperal sepsis. This shows that these variables had influence level of knowledge in the study.

Limitation

The present study cannot generalize, as it is limited to
1. Those woman who are postnatal mothers
2. Smaller sample size.
3. Lack of higher analysis.
4. Presence of extraneous variables.

Implication for Nursing Education:

- Nursing curriculum should the nurse for imparting health information regarding management of knowledge.
- Nurse educator should educate the student nurses about how to cope up with knowledge .
- Nurse educator should educate the student nurses how to carry out the knowledge.

Implication of Nursing Research:

- Many more research studies could be done to assist the knowledge level of highly feasible and less expensive therapy in various other conditions and settings.
- Nurses are encouraged to conduct the interventional study regarding knowledge.

Recommendation

- The findings of the present study can be used as a guide of future research
- Interventional study can be under taken to reduce the knowledge.
- A study can be conducted in preventing aspect of stress.
- To make the recommendation to the government to arrange compulsory medical checkupon the yearly basis for the nursing personnel.

REFERENCES

[1]. Debora Charles Kajeguka (2020)A Descriptive Study among Postnatal Women who Attended Kilimanjaro Christian Medical Centre, December 2020 DOI: 10.24248/eahrj.v4i2.639 https://www.researchgate.net/publication/346975291

[2]. H Lalitha (2016). A study to assess the knowledge and practice of postnatal mothers on prevention of selected puerperal infections in a selected maternity hospital Dr. International Journal of Medical and Health Research ISSN: 2454-9142 www.medicalsciencejournal.com Volume 2; Issue 2; February 2016; Page No. 01-03]

[3]. Dr. V Indra (2015) a Study to Assess the Knowledge and Practice on Prevention of Puerperal Sepsis among Postnatal Mothers in Selected Hospital, Pondicherry with a View to Develop an Information Booklet. Int. J. Nur. Edu. and Research 3(4): Oct.-Dec., 2015; Page 410-418. doi: 10.5958/2454-2660.2015.00032.0

[4]. Shirin sultana (2018) International Journal of Research in Medical Sciences | October 2018 | Vol 6 | Issue 10 Page 3264Sultana S et al. Int J Res Med Sci. 2018 Oct;6(10):3264-3269www.msjonline.org

[5]. Rita Sarkar (2019) International Journal of Nursing Education, October-December 2019, Vol.11, No. 4 10.5958/0974-9357.2019.00098.9

[6]. Sheeba Marwah (2017) J Clin Diagn Res. (2017) May; 11(5): QC04–QC08.PMCID: PMC5483754, PMID: 28658852 Published online 2017 May, doi: 10.7860/JCDR/2017/23710.9815

[7]. Pratap Kumar, Subha Sri ,Mary Meena.(2019) International Journal of Nursing Education, October-December 2019, Vol.11, No. 4 8 r-December 2019, Vol.11, No. 4

[8]. Mohamed Issa Ahmed (2013) International Journal of Gynaecology & Obstetrics, Jan, 2013. P.41-44. doi: 10.5455/msm.2013.25.19-22. PMID: 23678336 PMCID: PMC3633386

[9]. Kamlesh Rani (2018) A study to assess the Knowledge and Practice of postnatal mothers on prevention of puerperal infection. International Journal of Medical and Health Research, India. BJOG. 2018 Mar; 111 (3):pp3-8

[10]. Mutyaba, Ibrahim (2018) DiplomaClinical Medand Community Health http://dspace.ciu.ac.ug/handle/123456789/1373?show=full

[11]. OuonujuCN, Nyeugidiki TK, UgbomaHAA, BasseyG (2015) Trop J om"" Giraffe/, j) (1), August 2015 file:///C:/Users/HP/Downloads/125067-Article%20Text-341036-1-1020151103.pdf

[12]. F O Dare, MD, A U Bako, MD, O C Ezechi, MD (1998) First Published April 1, 1998 Research Article Find in PubMed https://doi.org/10.1177/004947559802800212

[13]. JosephNgonzi, YarineFajardo, Peterkivunike(2016) Puerperal sepsis the leading cause of maternal deaths at a Tertiary University Teaching Hospital in Uganda BMC Pregnancy and Childbirth 16(1)DOI:10.1186/s12884-016-0986-9 Project: Postpartum sepsis/infection Ngonzi et al. BMC Pregnancy and Childbirth (2016) 16:207 https://www.researchgate.net/publication

[14]. Binita Pradhan, SS Duwal, Shital Bhandary (2015) Puerperal Sepsis and its Cause in Patan Hospital Nepal Journal of Obstetrics and Gynaecology 10(1):33DOI:10.3126/njog.v10i1.13192 https://www.researchgate.net/publication/

[15]. M.A. Momoh, O.J. Ezugworie and H.O. Ezeigwe (2010) Advances in Biological Research 4 (3): 154-158, 2010 ISSN 1992-0067 IDOSI Publications, 2010 https://www.researchgate.net/publication

[16]. Bilal Sulaima, Karima Abubakar Tuna,Sadiya Nasir,Mairo Hassan, Yakubu Ahmed (2018) ejpmr, 2018,5(4), 569-573 review article ISSN 2394-3211 https://www.researchgate.net/publication

[17]. Addisu Melese (2020) DOI:10.1186/s13756-019-0676-2 Proportion of bacterial isolates their antimicrobial susceptibility profile and fctors associate with puerperal sepsis among post partum aborted women https://www.researchgate.net/publication/33839304 Review Article ISSN 2394-3211 Review Article ISSN 2394-3211

[18]. ANYANWU, T. & KENNETH, M (2018) "knowledge and practice for prevention of puerperal sepsis among traditional birth attendants in calabar south local government area, cross river state, nigeria." afribary (2018). accessed February 27, 2022. https://afribary.com/works/knowledge-and-practice-for-prevention-of-puerperal-sepsisamong-traditional-birth-attendants-in-calabar-south-local-government-area-cross-riverstate-nigeria#citework

[19]. Abouzahar and Wardlow (2001) Women and children – an overview of their situation universal declaration of human rights 1948, articles 25,pp 11-12.

[20]. Bang RA, Bang AT, Reddy MH, Deshmukh MD, Baitule SB, Filippi V .Maternal morbidity during labour and the puerperium in rural homes and the need for medical attention: A prospective observational study in Gadchiroli, India.BJOG. 2004

[21]. Mar;111(3):pp3-8 JNPE, June 2018, Vol. 4, Issue 2, pp. 23 – 26 ISSN No. 2395-   1974 26 21. Bobak I (1995) Maternity and women health care. Transfusion Medicine Reviews,9, 53-59

[22]. Chabra S, Verma P(1996) Quality of postpartum care. The journal of Obs. & gyane of India;23(4):78-84.

[23]. Chhabra S, Kaipa A, Kakani A .Production in maternal mortality due to sepsis. j Obstet Gynaecol. 2005 feb;25(2):140-2.

[24]. D.C Dutta, Text book of obstetrics, sixth edition, 2008, P 328-329.

[25]. Jacab, A Comprehensive textbook of midwifery, second ed, jaypee publications, 2008, P 175-18