

“A Study to Assess the Knowledge Regarding Puerperal Sepsis Between Rural and Urban Postnatal Mother at Selected Area.”

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ABSTRACT OF THE STUDY

BACKGROUND OF THE STUDY: Puerperal sepsis is infection of the genital tract occurring at any time after 24 hour of delivery up to the 42nd days of postpartum. Globally 6 million had developed Puerperal sepsis and around 77,000 mothers died of it. It is one of the fifth common cause of maternal mortality worldwide. However there were limited evidences on factors affecting the occurrence of Puerperal sepsis in Ethiopia generally and in the study area particularly

OBJECTIVES OF THE STUDY: To assess the level of knowledge regarding Puerperal sepsis among Rural postnatal mother. To assess the level of knowledge regarding Puerperal sepsis among urban postnatal mother. To compare the knowledge score regarding Puerperal sepsis between rural and urban postnatal mother. To find the association between the knowledge score regarding the Puerperal sepsis among rural and urban area postnatal mother with their selected demographic variables.

METHODOLOGY: A quantitative research approach with a comparative descriptive research design was adopted. The study was conducted among 120 postnatal mothers, comprising 60 rural and 60 urban postnatal mothers, in selected areas. The samples were selected using a non-probability convenience sampling technique. Data were collected using a structured knowledge questionnaire developed by the researcher to assess knowledge regarding puerperal sepsis. The questionnaire included items related to the meaning, causes, risk factors, signs and symptoms, preventive measures, complications, handwashing, perineal care, and regular postnatal check-ups. The collected data were analyzed using appropriate descriptive and inferential statistics.

RESULT: The study findings revealed that urban postnatal mothers had significantly higher knowledge regarding puerperal sepsis than rural postnatal mothers. The mean knowledge score was higher among urban mothers (16.83 ± 2.19) compared with rural mothers (13.60 ± 4.16), and the difference was statistically significant ($t = 5.31, p < 0.05$). Among rural mothers, 5% had poor knowledge, 33.33% had average knowledge, 50% had good knowledge, and 11.67% had very good knowledge, whereas among urban mothers, 3.33% had average knowledge, 73.33% had good knowledge, and 23.33% had very good knowledge. Knowledge was significantly associated with selected demographic variables, including age, educational status, monthly family income, and mode of delivery. The findings highlight the need for strengthening health education regarding puerperal sepsis, particularly among rural postnatal mothers, to promote early recognition and prevention of postpartum infections.

CONCLUSION: The study concluded that urban postnatal mothers had significantly higher knowledge regarding puerperal sepsis compared with rural postnatal mothers, indicating a need for focused health education among rural postnatal mothers.

Keywords: Puerperal Sepsis, Knowledge, Postnatal Mothers, Rural and Urban Areas, Maternal Health, Comparative Study.

Date of Submission: 09-09-2026

Date of Acceptance: 21-10-2026

I. INTRODUCTION

Maternal sepsis, a life-threatening condition defined as organ dysfunction resulting from obstetric infections during pregnancy, childbirth, post abortion, or postpartum period, is a major public health concern and one of the top five causes of maternal death in pregnancy and postpartum periods. Direct obstetric infections are the third most common cause of maternal mortality.

Background Of The Study

Puerperal sepsis is infection of the genital tract occurring at any time after 24 hour of delivery up to the 42nd days of postpartum. Globally 6 million had developed Puerperal sepsis and around 77,000 mothers died of it. It is one of the fifth common cause of maternal mortality worldwide. However there were limited evidences on

factors affecting the occurrence of Puerperal sepsis in Ethiopia generally and in the study area particularly. Objective: To assess prevalence of Puerperal sepsis and associated factors among mothers who utilize postnatal care at University of Gondar referral hospital, North West Ethiopia, 2017.

Problem Statement

“A study to assess the knowledge regarding Puerperal sepsis between rural and urban postnatal mother at selected area.”

Objectives

1. To assess the level of knowledge regarding Puerperal sepsis among Rural postnatal mother.
2. To assess the level of knowledge regarding Puerperal sepsis among urban postnatal mother.
3. To compare the knowledge score regarding Puerperal sepsis between rural and urban postnatal mother.
4. To find the association between the knowledge score regarding the Puerperal sepsis among rural and urban area postnatal mother with their selected demographic variables

Hypothesis

H₀: There is no significant difference in level of knowledge regarding Puerperal sepsis between rural and urban postnatal mother in selected area.

H₁: There is a significant difference in level in the level of knowledge regarding Puerperal sepsis between rural and urban postnatal mother in selected area.

Assumption

1. Postnatal mothers have some level of knowledge regarding Puerperal sepsis.
2. Knowledge regarding Puerperal sepsis varies between rural and urban postnatal mothers
3. Lack of adequate knowledge regarding Puerperal sepsis may increase the risk of maternal complications.

II. RESEARCH METHODOLOGY

Research Approach

A quantitative research approach was adopted for the present study to assess the level of knowledge regarding Puerperal sepsis among postnatal mother.

Research Design

A descriptive research design was used to assess the existing level of knowledge regarding Puerperal sepsis between urban and rural area among postnatal mother, without manipulating any variables.

Setting of the Study

The study was conducted in selected area. The setting was chosen based on feasibility, availability of subjects, and accessibility to the investigator.

Population

The population of the present study comprised all postnatal mother who have undergone Puerperal sepsis.

Sample and sampling Technique

The sample consisted of 120 postnatal mother who had undergone Puerperal sepsis between the rural and urban area at selected area. Non-probability convenience sampling technique was adopted to select the samples.

Tool for data collection

The tool used for gathering relevant data was a structured knowledge questionnaire designed to assess the level of knowledge regarding Puerperal sepsis between urban and rural among postnatal mother.

Ethical Considerations

Ethical permission was obtained from the concerned hospital authorities. Informed consent was taken from all participants prior to data collection. Confidentiality and anonymity of the participants were maintained throughout the study.

Data Analysis Plan

The collected data were analyzed using descriptive and inferential statistics. Frequency, percentage, mean, and standard deviation were used for descriptive analysis, and appropriate statistical tests were used to determine the effectiveness of the structured teaching programme.

III. RESULTS OF THE STUDY

Section A : Distribution of rural and urban postnatal mothers with regards to demographic variables.

Table 1: Percentage wise distribution of Postnatal Mothers according to their demographic characteristics.

n=120		
Demographic Variables	Rural	Urban Area (n=60)

	(n=60)	
Age(yrs)		
15-25 yrs	47(78.3%)	44(73.3%)
26-35 yrs	13(21.7%)	15(25%)
36-45 yrs	0(0%)	1(1.7%)
>45 yrs	0(0%)	0(0%)
Educational Status		
Illiterate	10(16.7%)	11(18.3%)
Primary	30(50%)	16(26.7%)
Secondary	17(28.3%)	33(55%)
Graduate and above	3(5%)	0(0%)
Socio-economic Status		
10000-20000 Rs	18(30%)	4(6.7%)
20000-30000 Rs	28(46.7%)	11(11.3%)
30000-40000 Rs	14(23.3%)	24(40%)
>40000 Rs	0(0%)	21(35%)
Gravida		
Primigravida	32(53.3%)	31(51.7%)
Multigravida	28(46.7%)	29(48.3%)
Place of delivery		
Home	14(23.3%)	19(31.7%)
Hospital and Medical	46(76.7%)	41(68.3%)
Mode of delivery		
Normal Vaginal	32(53.3%)	33(55%)
Assisted Vaginal	14(23.3%)	8(13.3%)
LSCS	14(23.3%)	18(30%)
Vacuum	0(0%)	1(1.7%)

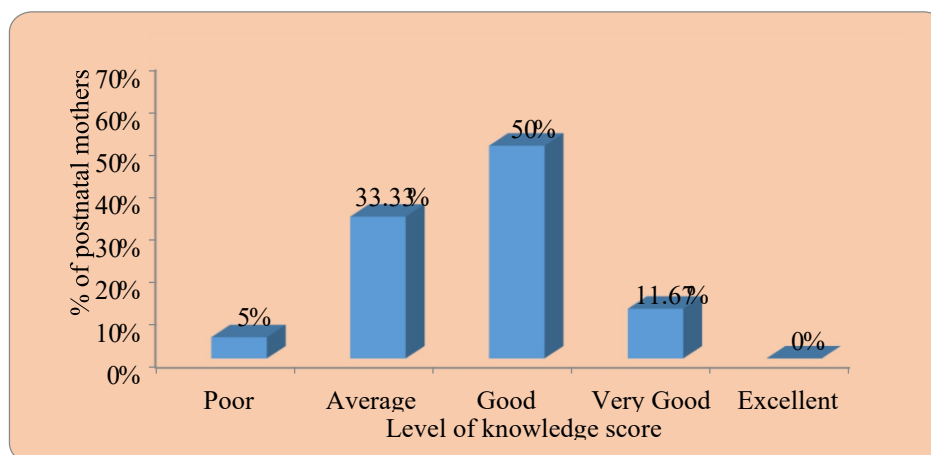
Section B :Assessment Of Level Of The Knowledge Regarding Puerperal Sepsis Among Rural And Urban Postnatal Mothers Of Selected Area

In the Rural area knowledge score is 5% of postnatal mothers had poor level of knowledge score, 33.33% had average, 50% had good and 11.67% of postnatal mothers had very good level of knowledge score. Minimum knowledge score in pretest was 4 and maximum knowledge score in pretest was 19.

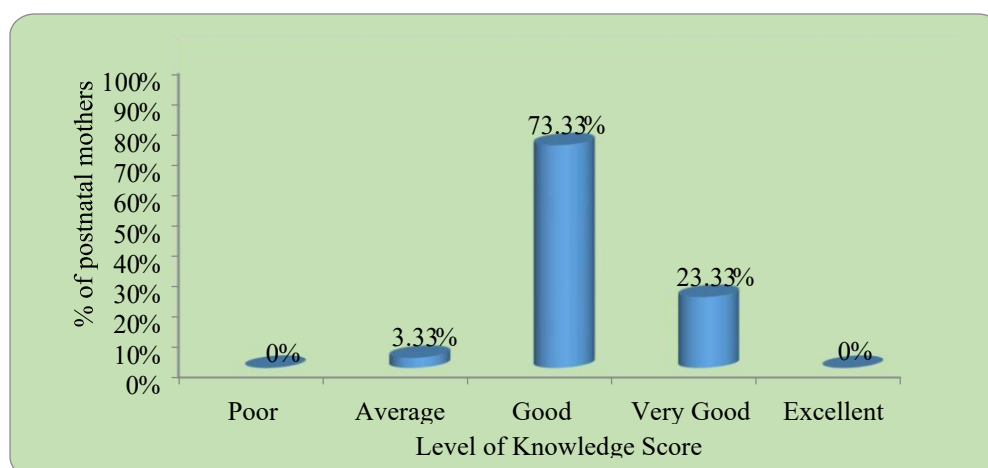
In the Urban area knowledge score is 3.33% of postnatal mothers had average level of knowledge score, 73.33% had good and 23.33% of postnatal mothers had very good level of knowledge score.

Minimum knowledge score in pretest was 10 and maximum knowledge score in pretest was 20.

Graph 7: Assessment with level of knowledge score (Rural Area)



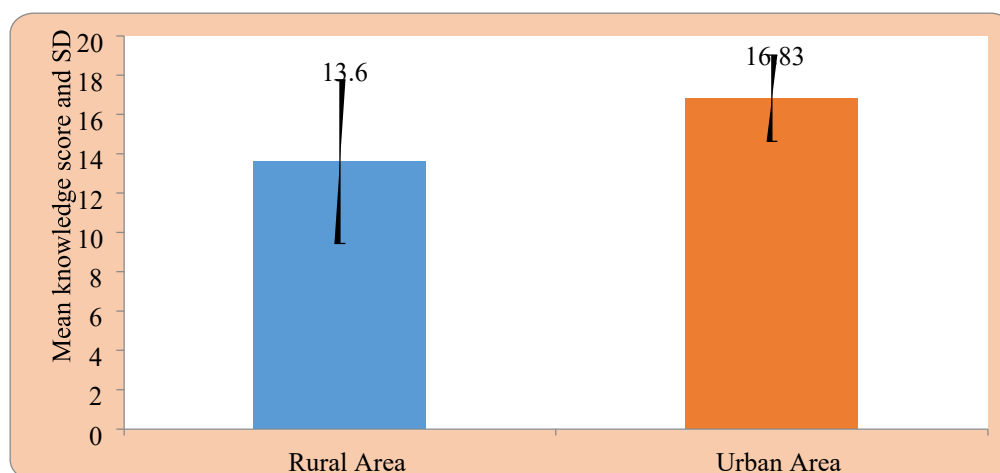
Graph 8: Assessment with level of knowledge score (Urban Area)



Section C: Comparison Of Knowledge Regarding Puerperal Sepsis Among Rural And Urban Postnatal Mothers Of Selected Area

Graph 9: Significance of difference between knowledge score in Rural and Urban Postnatal Mothers

The comparison of knowledge scores of rural and urban postnatal mothers regarding Puerperal Sepsis from selected areas. Mean, standard deviation and mean difference values are compared and student's unpaired 't' test is applied at 5% level of significance. The tabulated value for $n=60+60-2$ i.e. 118 degrees of freedom was 1.98. The calculated 't' value i.e. 5.31 are much higher than the tabulated value at 5% level of significance for overall knowledge score of Postnatal Mothers which is statistically acceptable level of significance. Hence it is statistically interpreted that the knowledge regarding Puerperal Sepsis among urban postnatal mothers is higher than rural postnatal mothers in selected areas was effective. Thus the H_1 is accepted.



Section D: Association of the level of the knowledge score regarding Puerperal sepsis among postnatal mothers from selected rural And urban areas in relation to their demographic variables

1. The association of the level of knowledge score rural area age in years of Postnatal Mothers from selected areas. The tabulated 't' values was 2.00(df=58) which is less than the calculated 't' i.e. 5.41 at 5% level of significance. Also the calculated 'p'=0.0001 which was less than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that age in years of Postnatal Mothers is statistically associated with their knowledge score.
2. The association of knowledge score rural area with Educational Status of Postnatal Mothers from selected areas. The tabulated 'F' values was 2.76(df=3,56) which is less than the calculated 'F' i.e. 13.08 at 5% level of significance. Also the calculated 'p'=0.0001 which was less than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that Educational Status of Postnatal Mothers is statistically associated with their knowledge score.
3. The association of knowledge score rural area with Monthly Family Income(Rs) of Postnatal Mothers from selected areas. The tabulated 'F' values was 3.15(df=2,57) which is less than the calculated 'F' i.e. 3.72 at 5% level of significance. Also the calculated 'p'=0.030 which was less than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that Monthly Family Income(Rs) of Postnatal Mothers is statistically associated with their knowledge score.
4. The association of knowledge score rural area with Gravida of Postnatal Mothers from selected areas. The tabulated 't' values was 2.00(df=58) which is higher than the calculated 't' i.e. 0.072 at 5% level of significance. Also the calculated 'p'=0.94 which was less than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that Gravida of Postnatal Mothers is statistically associated with their knowledge score.
5. The association of knowledge score rural area with Place of Delivery of Postnatal Mothers from selected areas. The tabulated 't' values was 2.00(df=58) which is higher than the calculated 't' i.e. 1.05 at 5% level of significance. Also the calculated 'p'=0.29 which was higher than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that Place of Delivery of Postnatal Mothers is statistically not associated with their knowledge score.
6. The association of knowledge score rural area with Mode of Delivery of Postnatal Mothers from selected areas. The tabulated 'F' values was 3.15(df=2,57) which is higher than the calculated 'F' i.e. 1.25 at 5% level of significance. Also the calculated 'p'=0.29 which was higher than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that Mode of Delivery of Postnatal Mothers is statistically not associated with their knowledge score.
7. The association of knowledge score urban with age in years of Postnatal Mothers from selected areas. The tabulated 'F' values was 3.15(df=2,57) which is less than the calculated 'F' i.e. 9.67 at 5% level of significance. Also the calculated 'p'=0.0001 which was less than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that age in years of Postnatal Mothers is statistically associated with their knowledge score
8. The association of knowledge score urban area with Educational Status of Postnatal Mothers from selected areas. The tabulated 'F' values was 3.15(df=2,57) which is higher than the calculated 'F' i.e. 0.82 at 5% level of significance. Also the calculated 'p'=0.44 which was higher than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that Educational Status of Postnatal Mothers is statistically not associated with their knowledge score.

9. The association of knowledge score urban area with Monthly Family Income(Rs) of Postnatal Mothers from selected areas. The tabulated 'F' values was 2.76(df=3,56) which is higher than the calculated 'F' i.e. 0.94 at 5% level of significance. Also the calculated 'p'=0.42 which was higher than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that Monthly Family Income(Rs) of Postnatal Mothers is statistically not associated with their knowledge score.
10. The association of knowledge score urban area with Gravida of Postnatal Mothers from selected areas. The tabulated 't' values was 2.00(df=58) which is higher than the calculated 't' i.e. 0.09 at 5% level of significance. Also the calculated 'p'=0.92 which was less than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that Gravida of Postnatal Mothers is statistically associated with their knowledge score.
11. The association of knowledge score urban area with Place of Delivery of Postnatal Mothers from selected areas. The tabulated 't' values was 2.00(df=58) which is higher than the calculated 't' i.e. 1.64 at 5% level of significance. Also the calculated 'p'=0.10 which was higher than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that Place of Delivery of Postnatal Mothers is statistically not associated with their knowledge score.
12. The association of knowledge score urban area with Mode of Delivery of Postnatal Mothers from selected areas. The tabulated 'F' values was 2.76(df=3,56) which is less than the calculated 'F' i.e. 2.82 at 5% level of significance. Also the calculated 'p'=0.043 which was less than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that Mode of Delivery of Postnatal Mothers is statistically associated with their knowledge score.

IV. Discussion

The findings of the present study revealed that urban postnatal mothers had significantly better knowledge regarding puerperal sepsis than rural postnatal mothers. The mean knowledge score was higher among urban postnatal mothers compared to rural postnatal mothers, indicating a difference in their level of knowledge regarding puerperal sepsis. Similar findings have been reported in earlier studies, which highlighted variations in maternal knowledge related to the meaning, causes, risk factors, signs and symptoms, prevention, and complications of puerperal sepsis. The observed difference in knowledge suggests the importance of providing appropriate health education to postnatal mothers, particularly those from rural areas. Nurses and other healthcare professionals play an important role in educating mothers regarding personal hygiene, handwashing, perineal care, regular postnatal check-ups, early recognition of warning signs, and timely treatment to prevent puerperal sepsis.

V. Conclusion

The study concluded that urban postnatal mothers had significantly better knowledge regarding puerperal sepsis than rural postnatal mothers. The findings indicate that there was a notable difference in the level of knowledge between rural and urban postnatal mothers. The study highlights the importance of continuous health education regarding puerperal sepsis, particularly among rural postnatal mothers. Nurses and other healthcare professionals should provide appropriate education on the causes, risk factors, signs and symptoms, preventive measures, personal hygiene, handwashing, perineal care, and the importance of regular postnatal check-ups to promote early recognition and prevention of puerperal sepsis.

Recommendations

1. Similar studies may be conducted among a larger population of postnatal mothers to improve the external validity of the findings.
2. The study may be replicated in different hospitals, primary health centres, and community settings to compare the knowledge regarding Puerperal sepsis among postnatal mothers.
3. Qualitative studies may be conducted to explore the beliefs, attitudes, and barriers influencing the prevention and early recognition of Puerperal sepsis among postnatal mothers.
4. Community-based research may be undertaken to assess the effectiveness of awareness programmes in promoting safe postnatal practices and reducing the risk of Puerperal sepsis.

Limitations Of The Study

1. The study was limited to 120 postnatal mothers, comprising 60 rural and 60 urban postnatal mothers.
2. The study was conducted only in selected rural and urban areas; therefore, the findings may not be generalizable to all postnatal mothers.
3. A non-probability convenient sampling technique was used, which may limit the representativeness of the sample.
4. The study assessed the knowledge regarding puerperal sepsis using a structured knowledge questionnaire; it did not directly assess the actual preventive practices of postnatal mothers.

5. The study was limited to selected socio-demographic variables, including age, area of residence, educational status, socioeconomic status, gravida, place of delivery, and mode of delivery.
6. The study assessed and compared knowledge between rural and urban postnatal mothers but did not evaluate the effectiveness of any educational intervention.

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