JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

# "A study to assess the effectiveness of structured teaching programme on knowledge regarding prevention of pre-eclampsia among antenatal mothers in selected hospitals."

**Dr. John Glitus, Ph.D in Nursing, Ms. Kamlakumari Devkota Ms. Sneha Chavan Ms. Lata Choure**

**Ms. Bhagyashri Bhatapakhale Ms. Renuka Garde Ms. Anjali Bhise**

**Ms. Vaishnavi Fannase**

**ABSTRACT:**

**BACKGROUND OF STUDY:** Global (World) Incidence Globally, preeclampsia affects about 4.4% of all pregnancies according to a recent meta-analysis of more than 2.4 million pregnant mother. Vera-ponce vj (2025). In India, the incidence of preeclampsia is estimated to be around 8-10% of pregnancies, contributing significantly to maternal and neonatal complications (Dutta, 2018). In Maharashtra, the prevalence is reported to be around 6-8% of pregnancies. In Jalna, the prevalence is reported to be around 7-9% of pregnancies.

**M Dhinwa (2025) OBJECTIVES:**

**Primary Objective:** To find out the effectiveness of a structured teaching programme on knowledge regarding prevention of pre-eclampsia among antenatal mothers.

**Secondary Objectives:**

1. To assess the level of pre-test knowledge regarding prevention of pre-eclampsia among antenatal mothers.
2. To assess the level of post-test knowledge regarding prevention of pre-eclampsia among antenatal mothers.
3. To find out the effectiveness of a structured teaching programme on knowledge regarding prevention of pre-eclampsia among antenatal mothers.

**METHODS:** A pre-experimental one-group pre-test and post-test research design was used for the study. A total of 30 antenatal mothers were selected by consecutive sampling technique from selected hospitals. A structured knowledge questionnaire was used to assess the knowledge regarding prevention of pre-eclampsia. A pre-test was conducted before administering the structured teaching programme. The post-test was conducted after the intervention to evaluate the effectiveness of the programme. The collected data were analyzed using descriptive and inferential statistics.

**RESULTS:** The findings revealed that the post-test knowledge scores of antenatal mothers were significantly higher than the pre-test scores, indicating that the structured teaching programme effectively improved their knowledge regarding prevention of pre-eclampsia. Statistical analysis showed a significant difference between pre-test and post-test

knowledge scores ($p < 0.001$).

**CONCLUSION:** The present study was conducted to assess the effectiveness of a Structured Teaching Programme (STP) on knowledge regarding the prevention of pre-eclampsia among antenatal mothers in selected hospitals. The findings revealed that most antenatal mothers had inadequate knowledge before the intervention. After the Structured Teaching Programme, there was a significant improvement in their knowledge scores. The calculated paired t-test value confirmed that the improvement was statistically significant, proving the effectiveness of the programme. Therefore, Structured Teaching Programmes should be incorporated into routine antenatal care to improve maternal and fetal health outcomes.

**KEYWORDS:** Pre-eclampsia, Structured Teaching Programme, Knowledge, Prevention, Antenatal Mothers.

**INTRODUCTION:** Preeclampsia is a multisystem disorder characterized by the development of hypertension to the extent of 140/90 mm Hg or above with proteinuria after 20 weeks in a previously normotensive and nonproteinuric patient. **Sandeep Kaur (2021-22)**

Preeclampsia is a hypertensive disorder of pregnancy characterized by the development of high blood pressure after 20 weeks of gestation, often accompanied by proteinuria (protein in urine) or signs of organ damage. It can cause serious complications for both the mother and the fetus if not detected and managed early. **WHO (2025)**

**BACKGROUND OF STUDY:** Pre-eclampsia is a pregnancy-specific hypertensive disorder that usually develops after 20 weeks of gestation and is characterized by elevated blood pressure and signs of organ dysfunction, commonly involving the kidneys, liver, brain, and placenta. it is considered one of the most serious complications of pregnancy and can lead to severe maternal and fetal morbidity if not diagnosed and managed appropriately. the disorder is associated with abnormal placental development, endothelial dysfunction, and systemic inflammatory responses that affect multiple organs in the maternal body. early detection and proper antenatal care are therefore essential to prevent adverse pregnancy outcomes. **DC Dutta (2018).**

Global (World) Incidence Globally, pre-eclampsia affects about 4.4% of all pregnancies according to a recent meta-analysis of more than 2.4 million pregnant mother. **Vera-ponce VJ (2025)**

**STATEMENT OF PROBLEM**

"A study to assess the effectiveness of structured teaching programme on knowledge regarding prevention of pre-eclampsia among antenatal mothers in selected hospitals."

**OBJECTIVES**

**Primary Objective:**

To find out the effectiveness of a structured teaching programme on knowledge regarding prevention of pre-eclampsia among antenatal mothers.

**Secondary Objectives:**

1. To assess the level of pre-test knowledge regarding prevention of pre-eclampsia among antenatal mothers**.**
2. To assess the level of post-test knowledge regarding prevention of pre-eclampsia among antenatal mothers.

3. To find out the effectiveness of a structured teaching programme on knowledge regarding prevention of pre-eclampsia among antenatal mothers.

**HYPOTHESES**

**$H_0$:** There is no significant effectiveness between the pre-test and post-test knowledge and structured teaching programme of antenatal mothers regarding prevention of preeclampsia.

**$H_1$:** There is significant effectiveness between the pre-test and post-test knowledge and structured teaching programme of antenatal mothers regarding prevention of preeclampsia.

**METHODS AND MATERIALS**

**Study Design**

The study was adopted a pre-experimental one group pre-test and post-test design.

**Research Setting**

The study was conducted in selected hospital at Jalna in Maharashtra State.

**Sample**

The sample is a subject of a subset of population selected to participate in all research study. It refers to portion of population to represent entire population. The sample size selected for this study was 30 samples.

**Ethical Consideration**

The ethical clearance was obtained from the Vasantrao Naik Nursing College, Jalna ethical committee. Prior to the main study. Permission to conduct the study was obtained from the managing director of the Hospital Jalna. The subjects were informed by the researcher regarding the purpose of the study. Informed written consent was obtained individually from the study subjects participated in this research study. The dignity and confidentiality of data concerned to each subject were maintained and it was assured to all the study subjects.

**Data Collection Procedure**

The study was conducted to assess the effectiveness of structured teaching programme and knowledge regarding on prevention of pre-eclampsia among antenatal mothiers in selected hospital in Jalna.

A total of 30 samples were selected using a selected antenatal mother in selected hospital Jalna District. A total of 30 samples were selected using a Non-probability consecutive sampling technique, with 30 study subjects each in the pre-experimental one group pre-test and posttest. The research design adapted for this study was a quasi-experimental pre- test post- test group design. A structured questionnaire was used to collect demographic variables related to the antenatal mothers.

Data collection was done at selected hospitals in Jalna District in Maharashtra state, in this study prior permission was obtained from the Managing Director of the hospital informed consents was obtained from the antenatal mother and for participating in this study.

The researcher approached the antenatal mothers in selected hospital and explained the importance and benefits of structured teaching programme knowledge and prevention of preeclampsia.

On second day as a part of Intervention structured teaching programme on prevention of preeclampsia among antenatal mothers in selected hospital The teaching and programme session lasted for approximately 30 minutes.

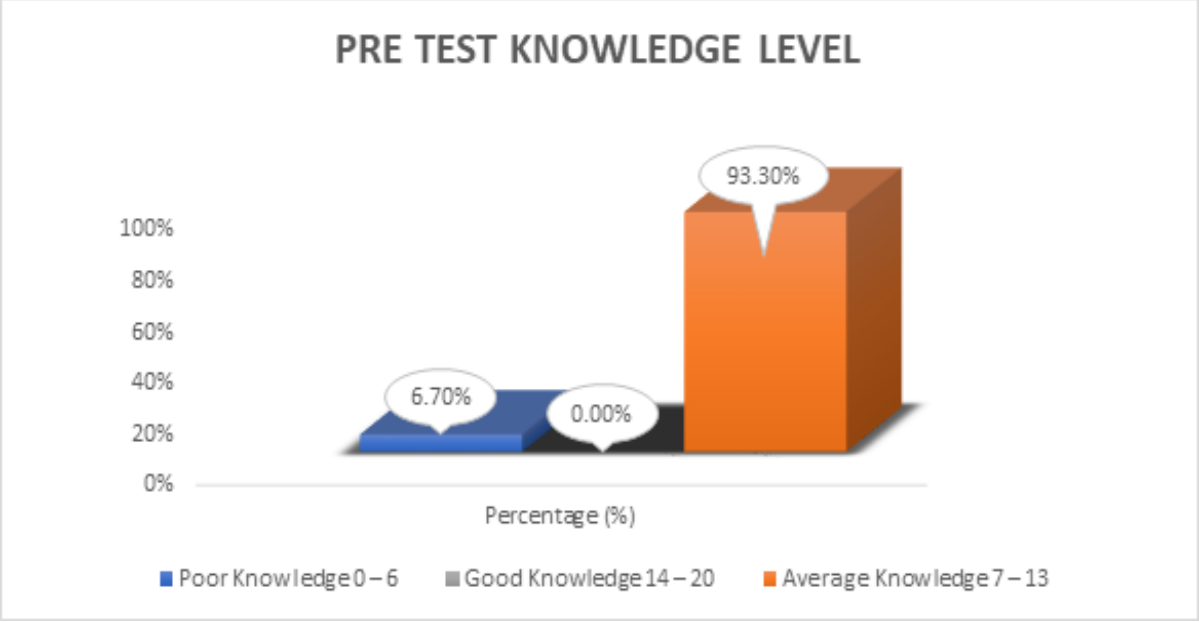
**Data Analysis**

The collected data were analyzed according to the objectives and hypotheses of the study. The analysis was carried out with the guidance of experts using both descriptive and inferential statistics. The demographic characteristics of the antenatal mothers were presented in terms of frequency and percentage. The pre-test and post-test knowledge scores regarding prevention of pre-eclampsia were summarized by using mean, median, standard deviation, and percentage. The effectiveness of the Structured Teaching Programme (STP) was determined by comparing the mean pre-test and post-test knowledge scores. Since the study adopted a pre-experimental one-group pre-test and post-test design, , the significance of the difference between the pretest and post-test scores was analyzed by using Student's paired 't' test. The association between the post-test knowledge scores and selected demographic variables such as age, educational status, occupation, type of family, and monthly family income was analyzed using the Chi-square ($\chi^2$) test. The level of significance was fixed at 0.001 ($p < 0.001$) for all statistical tests.

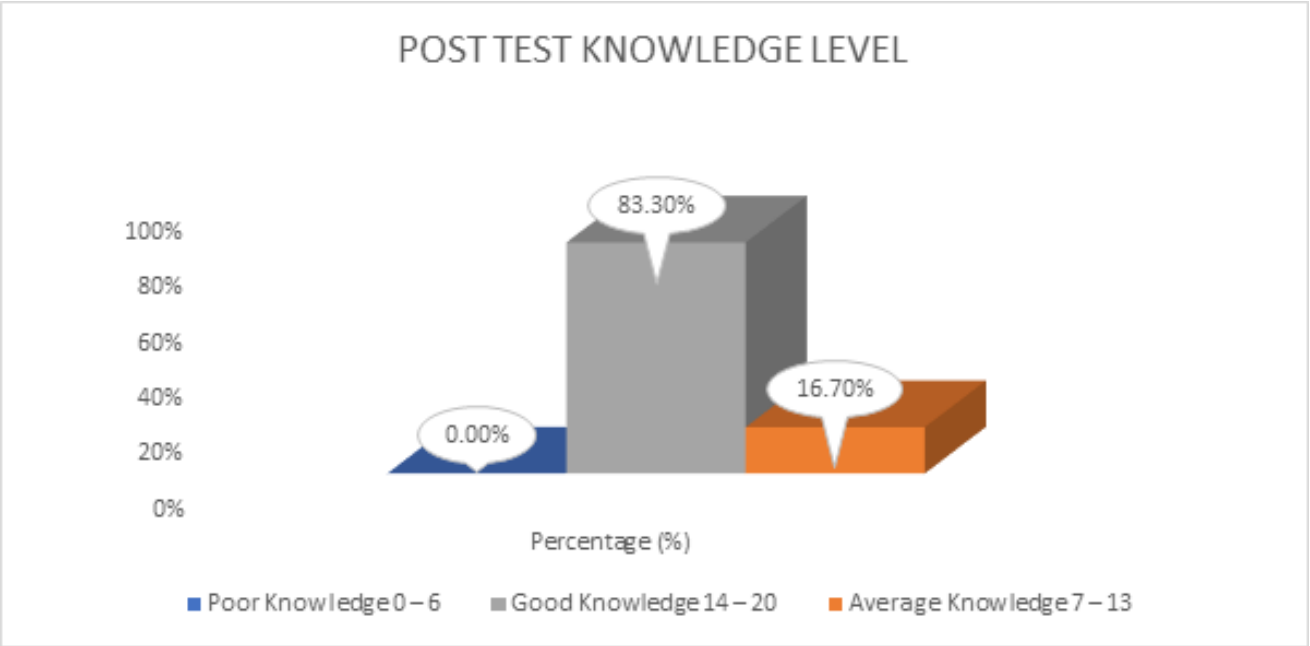
**RESULTS**

The findings revealed that the post-test knowledge scores of antenatal mothers were significantly higher than the pre-test scores, indicating that the structured teaching programme effectively improved their knowledge regarding prevention of pre-eclampsia. Statistical analysis showed a significant difference between pre-test and post-test knowledge scores ($p < 0.001$).

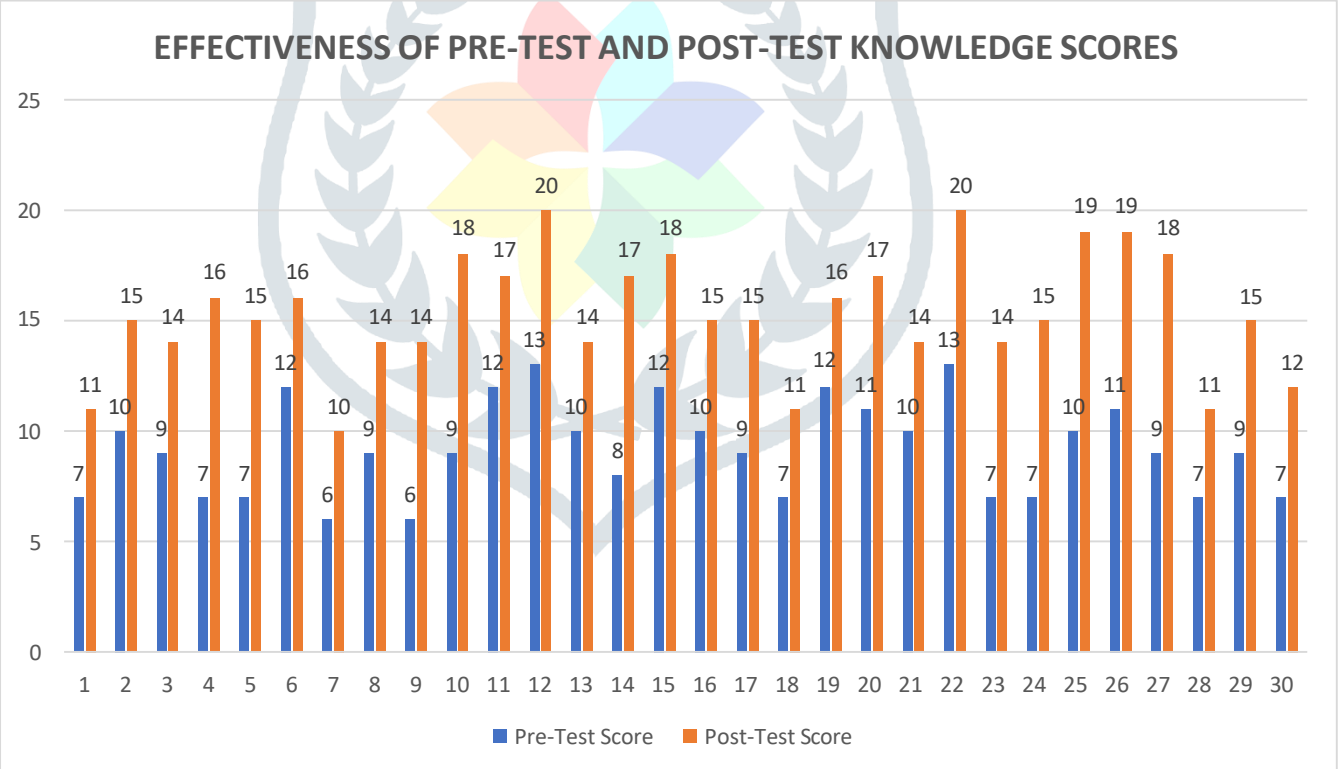
**Percentage distribution of antenatal mothers according to pre test knowledge level.**



**Percentage distribution of antenatal mothers according to post test knowledge level.**




**Effectiveness of pre-test and post-test knowledge scores**




## LIMITATIONS

1. The study was conducted among only 30 antenatal mothers; therefore, the findings cannot be generalized to the entire population of antenatal mothers.

2. The study was confined to selected hospitals in Jalna district, which limits the generalizability of the findings to other geographical areas and healthcare settings.

3. A pre-experimental one-group pre-test post-test design was adopted. Since there was no control group, external factors influencing knowledge improvement could not be completely controlled.

4. Participants were selected using a non-probability sampling technique, which may have introduced

sampling bias and reduced the representativeness of the sample.

5. The study assessed only the knowledge of antenatal mothers regarding prevention of pre-eclampsia. It did not evaluate actual preventive practices, behavioural changes, or clinical outcomes following the educational intervention.

6. The post-test measured immediate knowledge gain after administration of the Structured Teaching Programme. Long-term retention of knowledge was not assessed.

7. The accuracy of responses depended on the honesty, comprehension, and cooperation. of the participants during data collection.

8. Certain factors such as previous exposure to health education, personal experiences, media influence, and family support were beyond the control of the investigator and might have influenced the participants' knowledge.

## IMPLICATIONS FOR NURSING

Nursing implication includes specific information for Nursing Practice, Nursing Education, Nursing Administration and Nursing Research. Nursing implications for this present study.

## CONCLUSION

The present study was conducted to assess the effectiveness of a Structured Teaching Programme (STP) on knowledge regarding the prevention of pre-eclampsia among antenatal mothers in selected hospitals. The findings revealed that most antenatal mothers had inadequate knowledge before the intervention. After the Structured Teaching Programme, there was a significant improvement in their knowledge scores. The calculated paired t-test value confirmed that the improvement was statistically significant, proving the effectiveness of the programme. The study also found no significant association between pre-test knowledge and selected socio-demographic variables. These findings indicate that health education is beneficial for all antenatal mothers regardless of their background.

Structured teaching is a simple, cost-effective, and evidence-based nursing intervention. It helps promote early recognition and prevention of pre-eclampsia. Therefore, Structured Teaching Programmes should be incorporated into routine antenatal care to improve maternal and fetal health outcomes.

### REFERENCES JOURNAL REFERENCE

1. Chaudhari, M. K., Dandade, S. P., Borkar, S. D., Borkar, S. K., & Teltumbde, A. (2021). A Study to Assess the Effectiveness of Planned Teaching Programme on the Knowledge Regarding Management of Pre-Eclampsia among Antenatal Mothers. Journal of Pharmaceutical Research International, 33(58A), 595–603. DOI: 10.9734/JPRI/2021/v33i58A34156.

2. Debnath, R., & Singh, H. M. (2024). A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Importance of Iron and Folic Acid in Antenatal Mothers. International Journal of Development Research, 14.Int'l J of Development Research.

3. Duley, L. (2009). The Global Impact of Pre-eclampsia and Eclampsia. Seminars in Perinatology, 33(3), 130–137. (Frequently cited review on prevention and maternal outcomes.

4. Gardia, R. (2026). Efficacy of Educational Intervention on Knowledge Regarding High-Risk Pregnancy and Its Management among Antenatal Women. Research and Reviews: A Journal of Health Professions, 16(1), 1–5. STM Journals.

5. Giguère, Y., et al. (2019). Pre-eclampsia Educational Tool Impact on Knowledge, Anxiety, and Satisfaction in Pregnant

Women: A Randomized Trial. Journal of Obstetrics and Gynaecology Canada, 41(7), 960–970. https://doi.org/10.1016/j.jogc.2018.10.003ScienceDirect.

6. Hendra, D. Y., & Andini, F. T. (2023). Effect of Antenatal Training Program on Knowledge and Attitude of Pregnant Women in Preventing Preeclampsia. Journal of The Health Science and Nursing.ejournal.marqchainstitute.or.id.

7. Maddaraki, N., Praveen, S., & Dahiwadi, D. (2025). A Study to Assess the Effectiveness of Structured Teaching Program on Knowledge Regarding Utilization of Antenatal Health Services among Antenatal Mothers. International Journal of Obstetrics, Perinatal and Neonatal Nursing. JournalsPub.

8. Moura, S. B. M. E. H., Lopes, L. M., Murthi, P., & Costa, F. S. (2012). Prevention of Preeclampsia. ISRN Obstetrics and Gynecology, Article ID 435090. https://doi.org/10.5402/2012/435090PMC.

9. .Rocque, R. (2020). Effectiveness of Structured Teaching Programme on Knowledge Regarding Selected Government Schemes among Antenatal Mothers of Raipur. International Journal of Nursing Education and Research, 8(1), 76–78. DOI: 10.5958/2454-2660.2020.00014.9.Indian Journals +1.

10. Saba, I., & Akhter, Z. (2025). Effectiveness of the Structured Teaching Programme among Antenatal Mothers' Knowledge Regarding Early Detection of High-Risk Pregnancies. International Journal of Studies in Midwifery and Women's Health.MAT Journals

**BOOK REFERENCE**

1. American College of Obstetricians and Gynecologists. (2020). Practice Bulletin: Gestational Hypertension and Preeclampsia.

2. Basavanthappa, B. T. (2020). Community Health Nursing. Jaypee Brothers.

3. Basavanthappa, B. T. (2021). Nursing Research. Jaypee Brothers.

4. Brink, H., Van der Walt, C., & Van Rensburg, G. (2022). *Fundamentals of Research Methodology for Healthcare Professionals* (5th ed.). Juta & Company.

5. Cunningham, F. G., et al. (2018). Williams Obstetrics (25th ed.). McGraw-Hill.

6. Desai, P. (2021). Pre-eclampsia: Prevention, Prediction and Possibilities. CRC Press. Routledge

7. Dutta, D. C. (2022). Textbook Obstetrics (10th ed.). Jaypee Medical Publishers Jaypee Brothers Medical Publishers.

8. Edmonds, D. K., Lees, C., & Bourne, T. (2018). Dewhurst's Textbook of Obstetrics & Gynaecology (9th ed.). Wiley.W

9. Fraser, D. M., & Cooper, M. A. (2020). Myles Textbook for Midwives. Elsevier

10. Gabbe, S. G., et al. (2021). Obstetrics: Normal and Problem Pregnancies (8th ed.). Elsevier.

11. Grove, S. K., Burns, N., & Gray, J. (2021). The Practice of Nursing Research (9th ed.). Elsevier.

12. James, D. K., Steer, P. J., Weiner, C. P., & Gonik, B. (2017). High Risk Pregnancy: Mement Options.Elsevier.

13. Kothari, C. R. (2019). Research Methodology: Methods and Techniques (3rd ed.). New Age International.

14. Kumar, R. (2019). Research Methodology: A Step-by-Step Guide for Beginners (5th ed.). Sage.

15. Lowdermilk, D. L., Perry, S. E., Cashion, K., & Alden, K. R. (2020). Maternity and Women's Health Care (12th ed.). Elsevier.

16. Myles, M. F. (2020). Myles Textbook for Midwives (17th ed.). Elsevier.

17. National Institute for Health and Care Excellence. (2019). Hypertension in Pregnancy: Diagnosis and Management. NICE. NCBI

18. Parahoo, K. (2✓ Nursing Research: Principles, Process and Issues (3rd ed) palgrave Macmillan

19. Park, K. (2023). Park's Textbook Preventive and Social Medicine rom ed.). Banarsidas Bhanot.

20. Pillitteri, A. (2021). Maternal and Child Health Nursing (9th ed.). Lippincott Williams & Wilkins.

21. Polit, D. F., & Beck, C. T. (2021). Nursing Research: Generating and Assessing Evidence for Nursing Practice (11th ed.). Wolters Kluwer.

22. Potter, P. A., & y, A. G. (2021). Fundamentals Elsevier. ursing (10th ed.)

23. Ricci, S. S. (2021). Essentials of Maternity, Newborn and Women's Health Nursing (5th ed.). Wolters Kluwer.

24. Sharma, S. K. (2021). Nursing Research and Statistics. Elsevier.

25. Sudha A. Raddi, & Lekha Viswanath. (2023). Principles and Practices of Obstetrics and Gynaecology Nursing. Elsevier.

26. Suresh, K. P., & Chandrasekhar, S. (2020). Research Methodology and Biostatistics. Elsevier.

27. Usha Vishwanath. (2024). Textbook of Obstetrics (2nd ed.). Elsevier.

28. Varney, H., Kriebs, J. M., & Gegor, C. L. (2019). Varney's Midwifery (6th ed.). Jones & Bartlett.

29. World Health Oranization. (2011). WHO Recomntions for Prevention and Treatment of prevention of preeclampsia and eclampsia .WHO

30. World Health Organization. (2016). WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience. WHO. NCBI