iJRASET
International Journal For Research in Applied Science and Engineering Technology

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 13 **Issue:** X **Month of publication:** October 2025

DOI: https://doi.org/10.22214/ijraset.2025.74448

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International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 13 Issue X Oct 2025- Available at www.ijraset.com

A Study to Effectiveness of Self-Instructional Module on Knowledge of Maternal Postpartum Depression among Husbands of Antenatal Mothers in Selected Hospitals of Thrissur District

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Abstract: ***Maternal postpartum depression (PPD) is a prevalent but often underdiagnosed mental health issue that can adversely affect mothers, infants, and family dynamics. This study was conducted to assess the effectiveness of a self-instructional module (SIM) in enhancing the knowledge of husbands of antenatal mothers regarding maternal PPD in selected hospitals of Thrissur district, Kerala. The objectives of the study included assessing the existing knowledge of participants, evaluating the effectiveness of the SIM, and identifying any association between pre-test knowledge and selected demographic variables. A quasi-experimental one-group pre-test post-test design was employed. Sixty husbands of antenatal mothers were selected using non-probability purposive sampling from antenatal out patient departments. A structured knowledge questionnaire was administered before and after the SIM intervention. Data were analyzed using descriptive and inferential statistics. The findings revealed a significant improvement in post-test knowledge scores (t = [insert value], p < 0.001), indicating that the SIM was effective in increasing awareness of maternal PPD. No significant association was found between pre-test knowledge levels and demographic variables. The study concludes that self-instructional modules are an effective, low-cost educational tool to improve husbands' knowledge of maternal mental health. Integration of such targeted interventions into antenatal care is recommended to promote early recognition and support for postpartum depression.***

I. INTRODUCTION

"Being a new mother is supposed to be happiest times of your life, but postpartum depression and anxiety strip that away for a time, but trust that it will not last forever"

Judy Dipple

Postpartum depression (PPD) is a serious and often unrecognized mental health condition that affects many women following childbirth. It typically develops within the first few weeks to months after delivery and is characterized by symptoms such as persistent sadness, loss of interest or pleasure, fatigue, changes in sleep and appetite, feelings of worthlessness, and difficulty bonding with the newborn. While hormonal changes, physical exhaustion, and emotional stress contribute to its onset, the societal stigma and lack of awareness often delay diagnosis and treatment. Left unaddressed, PPD can negatively affect not only the mother's well-being but also the Infant's development and the overall health of the family unit.

In many societies, particularly in developing regions, there is limited awareness and understanding of maternal mental health. Husbands and other family members often remain unaware of the signs of PPD, mistaking them for normal postpartum experiences. Since spouses are typically the closest caregivers and emotional partners during the postpartum period, their knowledge and attitude towards PPD play a crucial role in identifying early symptoms and ensuring that the mother receives appropriate support and care. Emotional support from the husband can significantly reduce the burden of postpartum stress and create a supportive environment that encourages timely help-seeking.

Therefore, this study aims to assess the level of knowledge among husbands regarding postpartum depression in women. By evaluating their understanding of the signs, causes, consequences, and available support systems, the research seeks to highlight knowledge gaps and the need for educational interventions. Improving male partners' awareness can contribute to better maternal mental health outcomes, reduce stigma, and promote a more holistic approach to postpartum care.

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A. BACKGROUND OF THE STUDY

Maternal mental health is a foundational element of public health, yet it remains one of the most neglected areas of maternal care. Among maternal mental health disorders, Postpartum Depression (PPD) stands out due to its high prevalence, long-term adverse effects, and frequent underdiagnosis. The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) defines PPD as a major depressive episode with peripartum onset, occurring during pregnancy or within four weeks following delivery, although symptoms often persist far longer.

PPD is characterized by symptoms such as persistent low mood, anxiety, fatigue, irritability, sleep disturbances, loss of appetite, feelings of hopelessness, low self-esteem, and, in severe cases, thoughts of self-harm or harming the baby. These symptoms, if left untreated, have serious repercussions, not only for the mother but also for the child's growth, neurodevelopment, and emotional bonding. Research shows that infants of mothers with PPD are at increased risk of malnutrition, poor immunization, lower cognitive scores, and behavioral disorders. Moreover, PPD can compromise family relationships, reduce overall quality of life (QoL), and increase the risk of chronic depression in mothers later in life.

Postpartum depression (PPD) is a prevalent mental health disorder that affects a significant proportion of women worldwide. It typically manifests within the first year after childbirth, with a range of symptoms such as mood swings, excessive crying, anxiety, loss of appetite, and feelings of hopelessness. PPD can severely impact the well-being of mothers, infants, and families, affecting bonding, breastfeeding, and overall family dynamics.

Globally, PPD affects approximately 10-20% of women following childbirth. However, the prevalence of PPD varies significantly across countries, with different healthcare systems, cultural norms, and socioeconomic factors influencing the rates.

Studies conducted in United states suggest that around 15% of women in the United States experience PPD. Research conducted by the Centers for Disease Control and Prevention (CDC) estimates that approximately 1 in 8 women in the U.S. report depressive symptoms after giving birth. Moreover, the American Academy of Pediatrics emphasizes the importance of early screening for PPD, especially considering the social, emotional, and developmental impact on children.

In the,United Kingdom it is estimated that 10-15% of women experience postpartum depression. A study conducted by the National Institute for Health and Care Excellence (NICE) found that nearly 20% of women reported experiencing mild to moderate depressive symptoms, with 10% experiencing severe PPD.

According to the Australian National Postnatal Depression Register, approximately 13% of women in Australia experience PPD. A 2013 report indicated that maternal depression rates are on the rise, with concerns about the effects on maternal-infant bonding and child development.

Studies in Canada reveal that 10-12% of women suffer from PPD, with some regional variations. A nationwide study found that postpartum depression in women is highly correlated with socioeconomic factors, such as low income and lack of social support.

In India, PPD is a significant but often underrecognized issue. Cultural norms and limited mental health awareness contribute to underreporting and inadequate care. Research indicates that approximately 11-26% of women in India experience symptoms of PPD, with higher rates observed in certain rural areas, where mental health support services are limited, and social stigma is more pronounced.

RT According to the Indian Journal of Psychiatry, 12-15% of women in India experience PPD, with studies highlighting that low socioeconomic status, lack of emotional support, and lack of education are key factors contributing to higher rates of PPD.

study conducted in 2002 found that urban women had better access to healthcare services and mental health resources, which reduced the incidence of PPD compared to rural women. In rural areas, where access to healthcare professionals and mental health education is limited, the prevalence can be higher due to lack of knowledge and stigma surrounding mental health.

The primary factors contributing to the high rates of PPD in India include poor social support, financial stress, pregnancy complications, and the societal pressures placed on women to fulfill traditional roles. Furthermore, mental health awareness remains low, and cultural taboos surrounding mental illness contribute to the underreporting of PPD symptoms.

Kerala, known for its high literacy rates and advanced healthcare system, presents a unique context for understanding PPD. Despite the state's positive health indicators, including literacy and maternal healthcare, there is still a gap in mental health awareness, particularly concerning maternal depression. Recent studies conducted in Kerala show that the prevalence of PPD is comparable to or slightly higher than national rates.

A study published in the *Indian Journal of Psychological Medicine* (2019) reported that the prevalence of postpartum depression in Kerala is approximately 13-15%, which is higher than the national average. This is attributed to the increasing stress related to modern parenting, work-life balance issues, and a shift in family structures.

One of the key studies in Kerala, conducted by the Department of Psychiatry at the Government Medical College in Thrissur, found that 13.9% of postnatal mothers attending immunization clinics in Thrissur exhibited symptoms of PPD. Despite the growing prevalence, there is no major initiative targeting male awareness of postpartum mental health, leaving many men unaware of the signs of PPD and unable to offer essential emotional support.

Kerala's unique sociocultural fabric, which values high education and progressive healthcare, often masks the deeper mental health issues. The traditional notion of male superiority in family decision-making, combined with a lack of education on mental health, contributes to minimal involvement of husbands in maternal health issues, especially postpartum depression.

Increasingly, research is emphasizing the role of male partners in maternal mental health. Men can play a crucial role in the early identification of PPD symptoms, emotional support, and encouraging women to seek professional help. However, studies show that men's awareness of PPD is often insufficient.

In Western countries, studies have shown that men who are informed about PPD are more likely to recognize its symptoms in their partners and provide appropriate support. A study conducted in the UK indicated that **70%** of male partners lacked awareness of PPD, and those who received education about it were more proactive in supporting their wives.

In India, male involvement in maternal health is generally minimal. Most men in India are unaware of the potential mental health challenges women face postpartum, which can exacerbate the effects of PPD. According to a study by Agarwal et al. (2018), only 10-15% of Indian men were aware of PPD, and their understanding of the condition was often limited to superficial knowledge. This lack of awareness reduces the ability of husbands to provide appropriate support to their wives, impacting maternal recovery.

Structured educational interventions targeting men are essential to improve awareness, promote early detection, and ensure timely interventions. These programs can teach husbands about the symptoms of PPD, the importance of emotional support, and how to encourage their wives to seek professional help. Male involvement is a crucial factor in reducing maternal stress and promoting a healthier postpartum experience for both mothers and babies.

B. NEED FOR STUDY

1) Growing Recognition of Postpartum Depression (PPD) as a Global Mental Health Concern

Postpartum depression (PPD) is increasingly being recognized as a significant mental health issue affecting women worldwide. It is well-established that PPD can have lasting effects on maternal-infant bonding, child development, and overall family dynamics. However, despite its high prevalence, PPD is often underdiagnosed and undertreated, especially in resource-limited settings such as rural areas of India. The need for early identification, appropriate intervention, and community-based awareness campaigns has never been more urgent.

2) The Lack of Male Awareness and Involvement in Maternal Mental Health

In most cultures, including India, postpartum depression is often viewed as a "women's issue," leading to limited involvement of male partners in recognizing and addressing maternal mental health issues. Studies have shown that a significant gap exists in the awareness of postpartum depression among men, which limits their ability to support their partners during this critical period. Male involvement is crucial in the early identification of PPD symptoms, encouraging timely professional help, and providing emotional and practical support. By targeting male partners through structured educational interventions, this study aims to address the gap in male awareness and foster greater involvement in maternal mental health care.

3) The Need for Contextualized Interventions in India and Kerala

India, with its diverse cultural context, requires targeted interventions to address postpartum mental health. In Kerala, despite high literacy rates and strong healthcare infrastructure, awareness of mental health conditions—especially postpartum depression—remains relatively low. Traditional gender roles and cultural stigma around mental health often hinder open discussions about PPD and prevent timely help-seeking behavior. The prevalence of PPD in Kerala (13-15%) is a clear indicator of the need for intervention. Given the lack of structured programs focusing on male awareness of postpartum mental health, this study aims to fill the gap by evaluating the effectiveness of a self-instructional module tailored specifically for husbands of antenatal mothers in Thrissur district.

4) Empowering Husbands to Act as Supportive Partners

The role of the husband in maternal health, particularly in the postpartum period, is critical. Husbands can provide the necessary emotional and physical support to their wives, which can reduce stress, promote mental well-being, and help prevent or mitigate the severity of PPD.

Despite the significance of this role, many men remain unaware of the challenges faced by new mothers and the symptoms of postpartum depression. Educating husbands can empower them to act as informed and supportive partners, enhancing maternal recovery and fostering a healthier family environment. This study will assess the impact of a structured educational module aimed at improving the knowledge and attitudes of husbands regarding PPD, which could lead to a more supportive postpartum experience for mothers.

5) . Lack of Focused Research on Male Awareness of PPD in Kerala

While there has been considerable research on postpartum depression in women, studies focusing on male awareness and involvement in maternal mental health are limited, especially in the Indian context. Kerala, despite its advanced healthcare infrastructure, has not yet implemented significant programs targeting male involvement in maternal mental health. Local studies indicate that approximately 13.9% of postnatal mothers in Thrissur display symptoms of PPD, yet few educational interventions have focused on raising awareness among male partners. This study seeks to fill this gap by providing evidence on the effectiveness of a self-instructional module designed specifically for husbands, which could serve as a model for similar initiatives in other regions of Kerala and India

6) Promoting Gender Equality and Reducing Stigma Around Mental Health

The societal stigma surrounding mental health issues, particularly in rural and semi-urban areas, often leads to a delay in seeking help for conditions like PPD. This study will not only contribute to improving male awareness of PPD but also foster a more open dialogue about mental health issues in families and communities. By involving husbands in maternal mental health care, the study promotes gender equality and reduces the stigma associated with mental health conditions, encouraging a more supportive and inclusive approach to maternal health.

7) Policy Implications for Maternal Mental Health Programs

The findings of this study can inform policy decisions and the design of future maternal mental health programs in Kerala and other states in India. By demonstrating the effectiveness of a self-instructional module for husbands, this research can lead to the development of broader educational initiatives aimed at men, with potential for integration into public health strategies. It can also help advocate for the inclusion of male partners in maternal health policies, encouraging healthcare providers and policymakers to consider the mental health needs of both mothers and fathers during the postpartum period.

8) Contribution to Evidence-Based Practice in Nursing and Healthcare

Nurses and healthcare professionals play a critical role in maternal health, and their involvement in educating both mothers and fathers about PPD is essential. This study will contribute to evidence-based practice by providing reliable data on the effectiveness of educational interventions for husbands, which can be integrated into nursing curricula, training programs, and clinical practices. Healthcare providers can use the findings to enhance patient education and improve care delivery during the postpartum period.

9) Strengthening Family Dynamics and Improving Overall Family Well-Being

PPD does not only affect the mother but also has far-reaching consequences on the father and the infant. The emotional and psychological strain on fathers who are unaware of PPD can lead to marital conflict, increased stress, and impaired family dynamics. Educating husbands about the signs, symptoms, and impacts of postpartum depression can reduce the psychological burden on both parents, leading to improved family well-being. The knowledge gained from this study can promote a healthier family environment, ensuring that both partners are better equipped to navigate the challenges of early parenthood.

C. STATEMENT OF THE PROBLEM

"A study to assess effectiveness of self-instructional module on knowledge of maternal postpartum depression among husbands of antenatal mothers in selected hospitals in Thrissur district "

D. OBJECTIVES OF THE STUDY

1) To assess the knowledge of maternal postpartum depression among husbands of antenatal mothers before and after exposure to a self-instructional module in selected hospitals in Thrissur district.

2) To evaluate the effectiveness of the self-instructional module in improving the knowledge of maternal postpartum depression among husbands of antenatal mothers.

3) To examine the relationship between demographic variables and the knowledge gained by husbands regarding maternal postpartum depression after the intervention.

E. OPERATIONAL DEFINITION

1) EFFECTIVENESS

In this study "Effectiveness "refers to, the degree to which the structured teaching program brings about a measurable improvement in the knowledge level of husbands of antenatal mothers regarding maternal postpartum depression, as determined by the difference between pre-test and post-test knowledge scores.

2) SELF INSTRUCTIONAL MODULE

In this study"Self-Instructional Module" refers to a structured, self-paced educational material designed to enhance the knowledge of husbands of antenatal mothers regarding maternal postpartum depression (PPD). It consists of written content, visual aids, and interactive activities (such as quizzes or case studies) that provide information about the causes, signs, symptoms, risks, and management of PPD.

3) KNOWLEDGE

In this study "Knowledge" refers to, the understanding or awareness of maternal postpartum depression—including its definition, causes, symptoms, risk factors, consequences, and supportive measures measured using a structured, validated knowledge questionnaire developed by the researcher.

4) MATERNAL POSTPARTUM DEPRESSION

In this study "maternal postpartum depression" refers to, mental health condition affecting mothers after childbirth, characterized by persistent sadness, fatigue, loss of interest, and other psychological symptoms, as defined in standard psychiatric manuals and health literature, and used as the content basis for the structured teaching program.

5) HUSBAND

In this study the "Husband" refers, to a man who is married to someone. He is the male partner in a marriage

6) ANTENATAL MOTHERS

In this study "Antenatal Mothers" refers to, women who are Pregnant and receiving care before the birth of their baby

F. HYPOTHESIS

1) H_0: There is no significant difference between the pre-test and post-test knowledge scores of husbands of antenatal mother regarding maternal postpartum depression after the implementation of the structured teaching programme.
2) H_1: There is a significant difference between the pre-test and post-test knowledge scores of husbands of antenatal mothers regarding maternal postpartum depression after the implementation of the structured teaching programme.
3) H_2: There is a significant association between post-test knowledge scores and selected demographic variables.

G. CONCEPTUAL FRAMEWORK

A conceptual framework provides a structured approach to understanding the relationships between key variables in a research study. It serves as a visual or written representation that guides the research process by illustrating the connections between theoretical concepts and real-world phenomena.

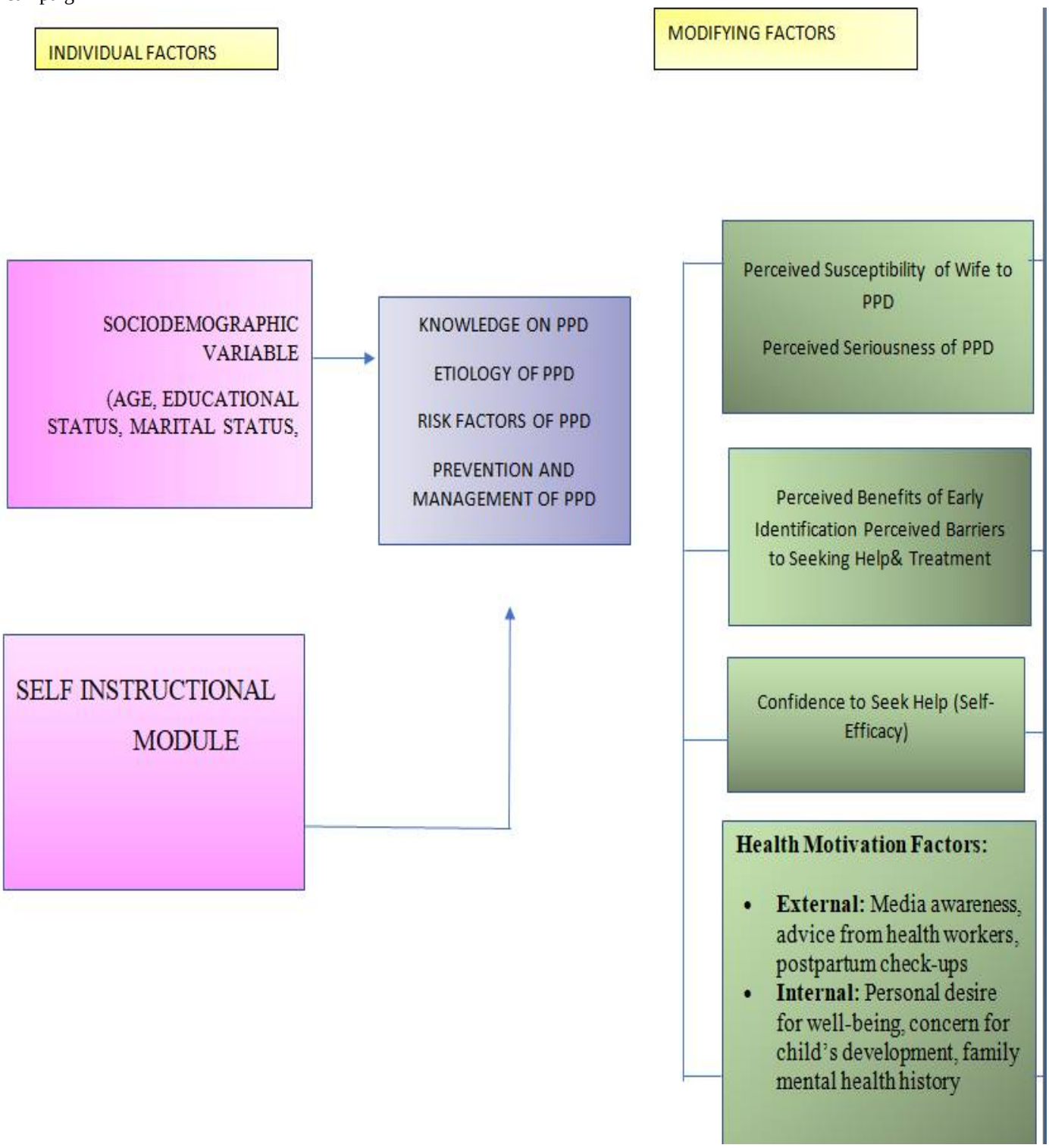
The conceptual frame work of the study was developed based on health belief model (HBM). United States Public Health Service (USPHS), created the HBM, a widely used conceptual framework of health behavior, in the 1950s. The main contributors to the development of the model were Irwin M. Rosenstock, Godfrey M. Hochbaum, S. Stephen Kegels, and Howard Leventhal.

The model focuses on how individuals perceive health threats and decide to act based on the value individuals place on a particular goal and the likelihood that actions taken toward that goal will be successful in achieving the goal. It consists of 6 primary cognitive constructs, or "dimensions" that influence behavior: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, self-efficacy, and cues to action

H. CONCEPTS USED IN THE STUDY

1) Perceived susceptibility: assessing the probability of acquiring an illness or encountering an undesirable outcome.
2) Perceived severity: understanding the severity of the illness, condition, or unfavorable outcome and what could happen if no additional action is taken.
3) Perceived benefits: how the effectiveness of various available actions to reduce the risk of illness are perceived.

4) Perceived barriers: obstacles to performing a recommended health action that may stop one from doing what is recommended
5) Self-efficacy: an individual's belief in their capacity to perform a specific behavior or task effectively. It is also related to the likelihood of a person engaging in a desired behavior.
6) Cues to action: cues to action are the stimuli that initiate the decision-making process to embrace a recommended health intervention. These cues can be either internal or external, from noticing symptoms of an illness to being exposed to a health campaign



II. REVIEW OF LITERATURE

The reviewed literature is organized under the following headings:

- Maternal Postpartum Depression
- Paternal Postpartum Depression
- Maternal Knowledge of Postpartum Depression

A. Maternal Postpartum Depression (PPD)

Postpartum depression (PPD) is a major public health issue impacting mothers across the globe. In India, the estimated prevalence is around 22%, with urban mothers particularly vulnerable due to psychosocial and lifestyle stressors. A study by Lanjewar, Nimkar, and Jungari (2021) in Pune, India, revealed that 26.3% of the 240 urban mothers surveyed scored 13 or higher on the Edinburgh Postnatal Depression Scale (EPDS), indicating clinically significant depressive symptoms. This is notably above the national average and emphasizes the need for targeted mental health support in urban areas.

Upadhyay et al. (2017) conducted a study in rural Nepal to assess the prevalence and risk factors of PPD in a low-resource setting. The findings highlighted a similarly high prevalence of PPD in rural mothers, despite differences in socioeconomic and healthcare access compared to urban settings. These results align with global observations, indicating that PPD is a widespread issue regardless of geography, and needs context-specific interventions in both rural and urban areas.

Further emphasizing the importance of support systems, Shorey et al. (2018) conducted a randomized controlled trial to evaluate a structured postnatal support program. The study demonstrated that mothers who participated in the intervention showed significantly fewer depressive symptoms compared to those who received standard care. This supports the effectiveness of structured, ongoing support during the postpartum period in preventing or reducing PPD.

Fisher et al. (2012), in a comprehensive review published in The Lancet, explored the broader impact of maternal mental health on child outcomes. The review noted that untreated maternal depression, especially during the perinatal period, can severely affect fetal development, infant health, and early childhood growth. This underscores the critical need to integrate mental health screening and care into standard maternal and child health services to ensure the well-being of both mother and child.

B. Paternal Postpartum Depression (PPD)

While maternal PPD has been widely studied, paternal mental health during the postnatal period is gaining increased attention. Paulson and Bazemore (2010) conducted a meta-analysis published in JAMA that explored depression in fathers during the prenatal and postnatal periods. The study found that approximately 10% of fathers experience depressive symptoms during these phases. Importantly, the analysis revealed a strong association between maternal and paternal depression, indicating that when mothers are affected, fathers are also at increased risk. This finding stresses the importance of including fathers in mental health assessments and developing family-centered support strategies.

C. Maternal and Paternal Knowledge, Attitudes, and Literacy

Understanding of mental health and attitudes towards seeking help play a vital role in the management and prevention of PPD. Pradeep et al. (2019), in a study from South India, investigated men's knowledge, attitudes, and practices regarding mental health. Although many men acknowledged the importance of mental well-being, the study highlighted significant gaps in their understanding of specific mental disorders and available treatment options. Moreover, stigma and traditional norms often discouraged men from seeking mental health services. These findings call for gender-sensitive educational campaigns that address stigma and promote mental health awareness among men.

Sapkota et al. (2014) conducted a study in Nepal that assessed the impact of health education on mental health literacy. The results demonstrated that structured educational interventions significantly improved participants' recognition of mental disorders and awareness of treatment options. This shows the potential of health education programs to enhance mental health literacy, reduce stigma, and encourage help-seeking behaviors.

Kulkarni et al. (2016), in a study published in the Indian Journal of Public Health, examined the involvement of fathers in maternal and child health. While the study affirmed that fathers play a critical role in supporting mothers and contributing to child development, it also revealed that their involvement is often limited due to prevailing societal expectations and gender norms. The study advocates for strategies that promote active paternal participation in healthcare decisions and caregiving roles to improve maternal outcomes and family dynamics.

Prevalence Highlights

Postpartum depression is a globally prevalent condition, affecting an estimated 10–30% of mothers. In India, the national average stands at around 22%, with urban centers often reporting even higher rates. For instance, Lanjewar et al. (2021) found that 26.3% of urban mothers in Pune showed signs of PPD. This highlights the disproportionate burden faced by urban women due to stress, isolation, and shifting family structures.

On the paternal side, Paulson and Bazemore (2010) identified that about 10% of father's worldwide experience depression during the prenatal or postpartum period. Their study also established a strong link between maternal and paternal depression, reinforcing the need for mental health support systems that address the needs of both parents.

III. METHODOLOGY

This chapter outlines the methodology adopted to carry out the present study. Methodology refers to the overall strategy and rationale behind the research. It provides a detailed plan of action for collecting, analyzing, and interpreting data in order to answer the research questions and achieve the objectives of the study. This chapter describes the research approach, research design, study setting, population, sampling technique, data collection tools, procedure, and ethical considerations involved in the study.

A. Research Approach

The study uses a quantitative research approach, which focuses on collecting and analyzing numerical data to assess changes in knowledge before and after the intervention.

B. Research Design

The research design outlines the type of study, the methods of data collection, the tools used, the sampling technique, and the plan for data analysis. It serves as a blueprint for conducting the study, ensuring that each step aligns with the objectives and hypothesis. The study adopts a quasi-experimental one-group pre-test and post-test research design.

C. VARIABLES

1) Independent Variable

Self-instructional module on maternal postpartum depression

2) Dependent Variable

Knowledge score of husbands of antenatal mothers regarding maternal postpartum depression

3) DemographicVariable

Age, Religion, Marital status, Family type, Residence, Number of children

4) Socio-Economic variable

Education, Occupation, Monthly income, Socioeconomic class

5) Clinical variable

Antenatal period, Awareness of PPD, Mental health history, Pregnancy complications

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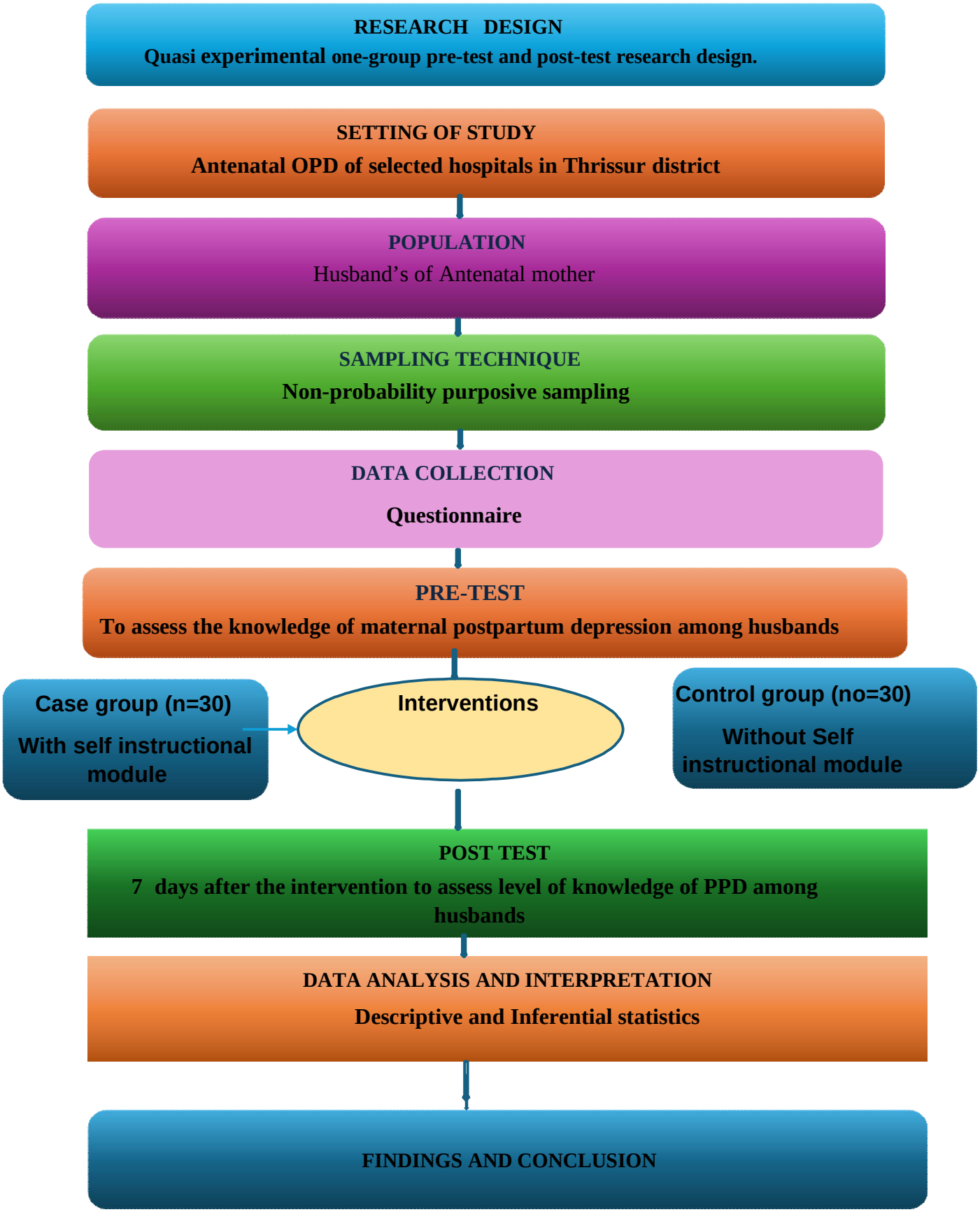
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 13 Issue X Oct 2025- Available at www.ijraset.com

D. SCHEMATIC REPRESENTATION OF RESEARCH METHODOLOGY



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- Setting

Specific location Setting is theor environment where the research is carried out. It includes details such as the institution, community, or geographical area selected for conducting the study. In this study, the setting will be a selected hospital, Thrissur district.

- Population

The population of a study refers to the complete group of individuals or elements who share specific characteristics relevant to the research problem. The population includes husbands of antenatal mothers within a selected age group residing in the Thrissur district

- Sampling Technique

Sampling technique is thespecific method used to select individuals from the population to be included in the study. It is a crucial component of research design, as it affects the representativeness of the sample and, consequently, the validity and generalizability of the findingsNon-probability purposive sampling technique was used to select the subjects for the study

- Sample size

Sample size refers to the number of individuals or units selected from the population to participate in the study. It plays a critical role in determining the validity, reliability, and generalizability of the research findings.60 husbands of antenatal mothers of selected age group.

- Sample

A sample is a subset of the population that is selected for participation in the research study. It should accurately represent the larger population to ensure that the results are generalizable and meaningful. The selection of the sample is guided by the study's objectives, research design, and inclusion and exclusion criteria.
Husbands of antenatal mothers

E. CRITERIA FOR SAMPLE COLLECTION

1) Inclusion criteria:

- Husband who are willing to participate.
- Husband who understand English or Malayalam.
- Husband who are available at the time of data collection.

2) Exclusion criteria:

- Husbands with communication difficulties (e.g., speech or hearing impairments)
- Husbands who are not available for follow-up or post-test data collection.
- Husbands who are healthcare professionals.

Tool for data collection
An instrument used to collect relevant data from the selected participants in a systematic and organized manner.
Section A: Demographic proforma
Section B: Structured knowledge questionnaire

F. DESCRIPTION OF THE TOOL

Section A
Demographic proforma:
The **demographic profile proforma**is a structured tool developed to collect baseline information about the study participants. It includes key variables such as age, religion, education, occupation, marital status and previous knowledge
Section B
Structured knowledge questionnaire:
A validated, structured questionnaire designed to assess the knowledge of husbands of Antenatal mothers regarding maternal postpartum depression (PPD). The tool consists of two sections. Section A gathers personal and demographic details such as age, education, occupation, marital status, type of family, religion, type of marriage, residence, awareness about PPD, and number of children.

Section B The questionnaire includes MCQ covering the definition, signs & symptoms ,causes, preventive strategies related to PPD .Each correct response in Section B is awarded one mark, while incorrect responses score zero. The maximum score is 20.

Based on the total score, the level of knowledge is categorized as follows

0–6 indicates poor knowledge

7–13 indicates moderate knowledge

14–20 indicates good knowledge.

G. CONTENT VALIDITY

Validity refers to the extent to which a research tool measures what it is intended to measure. In this study, the validity of the structured knowledge questionnaire was primarily ensured through content validity. The tool was reviewed by a panel of subject experts in nursing, obstetrics, psychology, and research methodology to evaluate the relevance, clarity, and comprehensiveness of each item. Based on their feedback, appropriate modifications were made to enhance the quality and appropriateness of the questionnaire. The tool was judged to have adequate content validity, as it accurately reflected the constructs being measured and was suitable for the target population. Expert suggestions were incorporated to improve the language, structure, and alignment of the questions with the study objectives.

H. RELIABILITY

According to Polit and Beck (2012), "Reliability is the consistency with which an instrument measures the attribute it is designed to measure. The tool was self-structured questionnaire

I. PILOT STUDY

A pilot study was conducted to evaluate the practicability and effectiveness of the research tool, and to ensure the smooth implementation of the main study. It was carried out on a sample of **5** participants who fulfilled the inclusion criteria and shared similar characteristics with the main study population. The pilot study aimed to assess the clarity, relevance, andappropriatenessof the structured knowledge questionnaire on maternal postpartum depression. It also helped in estimating the average time required for data collection and identifying any ambiguities or difficulties in understanding the questions. Based on the feedback received, minor modifications were made to improve the language and format of the tool. Additionally, the data obtained from the pilot study was used to calculate **t**hereliability coefficient**,** confirming the tool's consistency and suitability for the actual study.

J. DATA COLLECTION PROCEDURE

Data collection refers to the systematic process of gathering relevant information from selected respondents to address the research objectives and answer the research questions. It involves the use of appropriate tools and techniques to obtain accurate and reliable data from the study participants. The data collection was carried out after obtaining formal permission from the concerned authorities and securing informed consent from each participant. The purpose of the study was clearly explained, and confidentiality was assured. Data were collected using a structured knowledge questionnaire designed to assess the knowledge of antenatal husbands regarding maternal postpartum depression. The investigator approached the participants individually, provided clear instructions, and administered the tool in a quiet and private setting to ensure comfort and accuracy. Each participant took approximately 10 minutes to complete the questionnaire. After the administration of pretest, a copy of SIM was given to each participant. They were instructed to read the material well and to do the posttest after 7 days. The completed responses were reviewed for completeness and accuracy at the end of each session. The data collection process was conducted over a period of 1 Week and was carried out strictly in accordance with ethical standards and the inclusion criteria set for the study.

K. PLAN FOR DATA ANALYSIS

Data analysis is the systematic organization and synthesis of research data and testing of research hypotheses using the data. Based on the objectives and hypotheses of the study, the following steps were planned for analysis of the data:

1) Frequency and percentage to show the distribution of husbands of antenatal mothers according to demographic variables.

2) Level of knowledge regarding maternal postpartum depression in the husbands of antenatal mothers of control and case group using descriptive statistics.

3) Effectiveness of SIM on maternal postpartum depression among husbands of antenatal mothers using Wilcoxon Signed Rank test

4) Association between the level of knowledge among husbands of antenatal mothers with selected demographic variables using chi-square test.

IV. DATA ANALYSIS AND INTERPRETATION

Analysis is the process of organizing and synthesizing the data so as to answer research questions and test hypothesis. It is defined as the process of systemically applying statistical and logical techniques to describe summarize and compare data.

Interpretation of data refers to critical examination of analyzed study results to draw inferences and conclusion. Interpretation of research findings of a study involves a search for their meanings in relation to research problem, objectives, conceptual framework and hypothesis.

This chapter deals with the analysis and interpretation of the collected data from 60 husbands of antenatal mothers in the antenatal OPD's of selected hospital. The data were gathered, organized, analyzed and interpreted using descriptive and inferential statistics based on the objectives and hypothesis of the study.

A. PRESENTATION OF DATA

The findings of the study are organized in terms of the objectives and hypothesis tested and is presented in 3 sections:

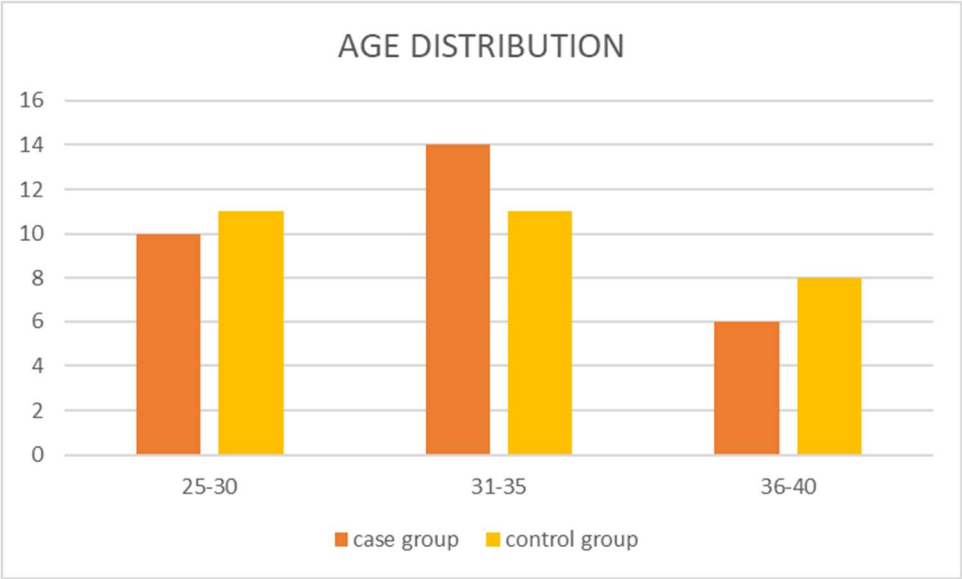
- Section 1: Description of selected demographic variables of the husbands of antenatal mothers in the antenatal OPD's of selected hospital.
- Section 2: Level of knowledge regarding maternal postpartum depression in the husbands of antenatal mothers of control and case group.
- Section 3: Effectiveness of SIM on maternal postpartum depression among husbands of antenatal mothers.
- Section 4:Association between the level of knowledge among husbands of antenatal mothers with selected demographic variables.

1) SECTION 1

Description of demographic variables of husbands of antenatal mothers.

The study sample consisted of 60 husbands of antenatal mothers [30 husbands in case group and 30 husbands in control group]. The selected demographic variables of nursing students are described under subheadings of age in years, educational status, type of marriage, religion and type of family. The data are presented in figures 1 and 2 and table 1.

Figure 1: Frequency distribution of husbands of antenatal mothers according to their age



Data presented in Figure 1 shows that, majority of the husbands in the case group, 14 (46.6%) were in the age group of 31-35 years, 10(33.4%) in the age group of 25-30 years and remaining 6 (20%) in the age group of 36-40 years respectively. The majority of the husbands in the control group were in the age group 25-30 years i.e., 11 (36.6%) and 31-35 years i.e., 11(36.6%) and the remaining were in the age group 36-40 years i.e., 8(26.8%) respectively.

Table 1: Frequency distribution of husbands of antenatal mothers according to educational status, type of marriage and religion

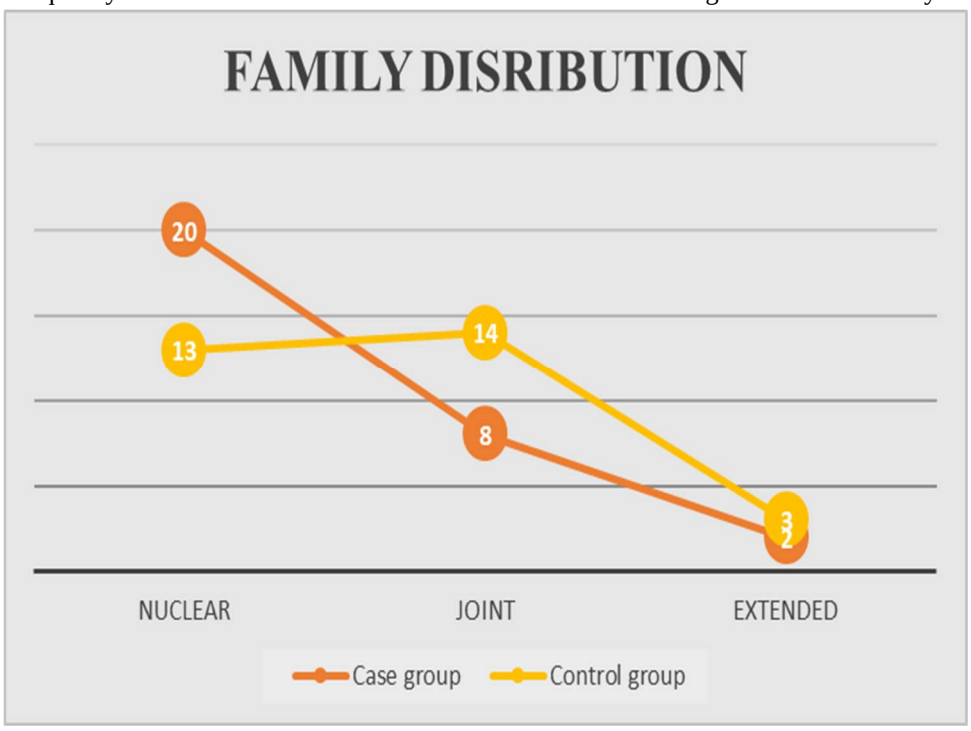
VARIABLES	CATEGORIES	CASE GROUP		CONTROL GROUP	
		f	%	f	%
Education	Primary	2	6.66%	0	0%
	Highschool	12	30%	10	33.33%
	Graduate	16	53.33%	20	66.66%
Marriage	Arranged	16	53.33%	20	66.66%
	Love	11	36.66%	8	26.66%
	Inter cast	3	10%	2	6.66%
Religion	Christian	7	23.33%	13	43.33%
	Hindu	21	70%	16	53.33%
	Muslim	2	6.66%	1	3.33%

Table 1 shows that 16(53.33%) of the husbands of antenatal mothers in the case group and 20(66.66%) in the control group belonged to the educational status of graduates.

With regard to marriage majority of the husbands of antenatal mothers i.e., 16(53.33%) in the case group and 20(66.66%) in the control group belongs to arranged marriage respectively.

With regard to religion majority of the husbands of antenatal mothers i.e., 21(70%) in the case group and 16(53.33%) in the control group belongs to Hindu religion respectively.

Figure 2: Frequency distribution of husbands of antenatal mothers according to their family distribution



Data presented in Figure 2 shows that, majority of the husbands in the case group, 20 (66.66%) were in the nuclear family, 8(26.66%) in the joint family and remaining 2(6.66%) in the extended family respectively. Majority of the husbands in the control group, 14 (46.66%) were in the joint family, 13(43.33%) in the nuclear family and remaining 3(10%) in the extended family respectively

2) SECTION 2

Level of knowledge regarding maternal postpartum depression in the husbands of antenatal mothers of control and case group.

Knowledge of husbands of antenatal mothers regarding maternal postpartum depression was assessed using structured knowledge questionnaire. Mean median, standard deviation of pretest level of knowledge scores of husbands of antenatal mothers were calculated and presented in Table 2.

Table -2

Mean, median, standard deviation, forpretest level of knowledge scores of husbands of antenatal mothers in the antenatal OPD's of selected hospital in the case group.

N =30

	Mean	Median	Range	Standard deviation
Knowledge score	15.90	17.0	14	3.25

It is evident from Table 2 that, the knowledge scores of husbands of antenatal mothers in the case group are with a mean of 15.90 and standard deviation ±3.25.

This indicates that the majority of husbands had a moderate level of knowledge about the maternal postpartum depression before receiving SIM.

Table -3

Mean, median, standard deviation, forpretest level of knowledge scores of husbands of antenatal mothers in the antenatal OPD's of selected hospital in the Control group.

N =30

	Mean	Median	Range	Standard deviation
Knowledge score	16.4	17.0	13	2.60

It is evident from Table 3 that, the knowledge scores of husbands of antenatal mothers in the control group are with a mean of 16.4 and standard deviation ±2.60.

This indicates that the majority of the husbands in the control group had a moderate level of knowledge about the maternal postpartum depression.

3) SECTION 3:

Effectiveness of SIM on maternal postpartum depression among husbands of antenatal mothers.

The Wilcoxon Signed Rank test was used to evaluate the effectiveness of the Self-Instructional Module (SIM) by comparing pretest and posttest knowledge scores among husbands of antenatal mothers.

Table -4N=30

Comparison	N (number of cases)	Mean Rank	Sum of Ranks
Negative ranks	1	4.00	4.00
Positive ranks	25	13.88	347.00
Ties	4	-	-
Total	30	-	-

Out of 30 participants:

- 25 participants showed a positive rank (i.e. posttest > pretest) indicating an increase in knowledge after SIM.
- 1 participant showed a negative rank (i.e. posttest< pretest) indicating a decrease in knowledge.
- 4 participants had no change (ties) with posttest = pretest.

The results clearly indicate that the SIM was effective in improving the knowledge of husbands of antenatal mothers regarding the maternal postpartum depression as the majority (83%) showed improvement in post test score.

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4) SECTION 4:

Association between the level of knowledge among husbands of antenatal mothers with selected demographic variables in the case group.

Table -5

Sl.no.	Selected personal variables	Level of knowledge			Chi-square value	P value
		Good	Moderate	Poor		
1	Age group				1.269	0.2600
	25-30	8	2	0		
	31-35	11	2	1		
	36-40	5	1	0		
2	Education				0.6	0.4386
	Primary	0	0	0		
	High school	8	2	0		
	Graduate	16	3	1		

N=30

level of significance – 0.01level

Table 5 shows that the chi-square value calculated for the baseline variables like age group and educational status the p value is greater than the level of significance at 0.01 level. So, the research hypothesis is rejected and null hypothesis is accepted. Hence there is no significant association between knowledge score of husbands of antenatal mothers with their selected demographic variables such as the age group and the educational status.

Association between the level of knowledge among husbands of antenatal mothers with selected demographic variables in the control group.

Table -6

Sl.no.	Selected personal variables	Level of knowledge			Chi-square value	P value
		Good	Moderate	Poor		
1	Religion				4.3387	0.0373
	Christian	6	1	0		
	Hindu	20	1	0		
	Muslim	1	1	0		
2	Typeof marriage				1.4015	0.2365
	Arrange marriage	15	1	0		
	Love marriage	9	2	0		
	Inter caste marriage	3	0	0		

N=30

level of significance – 0.01level

Table 6 shows that the chi-square value calculated for the baseline variables like religion and type of marriage the p value is greater than the level of significance at 0.01 level. So, the research hypothesis is rejected and null hypothesis is accepted. Hence there is no significant association between knowledge score of husbands of antenatal mothers with their selected demographic variables such as the religion and the type of marriage.

V. RESULTS

This chapter deals with the results obtained from the research study to determine effectiveness of SIM on the level of knowledge among the husbands of antenatal mothers regarding maternal postpartum depression.

A. *OBJECTIVES OF THE STUDY*

1) To assess the level of knowledge of maternal postpartum depression among the husbands of antenatal mothers before the administration of SIM.
2) To determine the effectiveness of SIM on maternal postpartum depression among husbands of antennal mothers.
3) To determine the association between the pretest level of knowledge among husbands of antenatal mothers with selected demographic variables.

B. *HYPOTHESES*

- H_1:mThere is a significant difference between the pre-test and post-test knowledge scores of husbands of antenatal mothers regarding maternal postpartum depression after the implementation of the structured teaching programme.
- H_2: There is a significant association between pretest knowledge scores and selected demographic variables among husbands of antenatal mothers regarding maternal postpartum depression.
- H_0: There is no significant difference between the pre-test and post-test knowledge scores of husbands of antenatal mother regarding maternal postpartum depression after the implementation of the structured teaching programme.

C. *RESULTS:*

The major findings of the study as follows:

1) *Findings related to description of selected demographic variables of the husbands of antenatal mothers in the antenatal OPD's of selected hospital.*

- Majority of the husbands in the case group, 14 (46.6%) were in the age group of 31-35 years, 10(33.4%) in the age group of 25-30 years and remaining 6 (20%) in the age group of 36-40 years respectively. The majority of the husbands in the control group were in the age group 25-30 years i.e., 11 (36.6%) and 31-35 years i.e., 11(36.6%) and the remaining were in the age group 36-40 years i.e., 8(26.8%) respectively.
- Majority of the husbands in the case group, 20 (66.66%) were in the nuclear family, 8(26.66%) in the joint family and remaining 2(6.66%) in the extended family respectively. Majority of the husbands in the control group, 14 (46.66%) were in the joint family, 13(43.33%) in the nuclear family and remaining 3(10%) in the extended family respectively
- 16(53.33%) of the husbands of antenatal mothers in the case group and 20(66.66%) in the control group belonged to the educational status of graduates.
- With regard to marriage majority of the husbands of antenatal mothers i.e., 16(53.33%) in the case group and 20(66.66%) in the control group belongs to arranged marriage respectively.
- With regard to religion majority of the husbands of antenatal mothers i.e., 21(70%) in the case group and 16(53.33%) in the control group belongs to Hindu religion respectively.

2) *Findings related to level of knowledge regarding maternal postpartum depression in the husbands of antenatal mothers of control and case group before the administration of SIM.*

- The knowledge scores of husbands of antenatal mothers in the case group are with a mean of 15.90 and standard deviation ±3.25. This indicates that the majority of husbands had a moderate level of knowledge about the maternal postpartum depression before receiving SIM.

- The knowledge scores of husbands of antenatal mothers in the control group are with a mean of 16.4 and standard deviation ±2.60. This indicates that the majority of the husbands in the control group had a moderate level of knowledge about the maternal postpartum depression.

3) Findings related to Effectiveness of SIM on maternal postpartum depression among husbands of antenatal mothers.

Out of 30 participants:

- 25 participants showed a positive rank (i.e. posttest > pretest) indicating an increase in knowledge after SIM.
- 1 participant showed a negative rank (i.e. posttest< pretest) indicating a decrease in knowledge.
- 4 participants had no change (ties) with posttest = pretest.

The results clearly indicate that the SIM was effective in improving the knowledge of husbands of antenatal mothers regarding the maternal postpartum depression as the majority (83%) showed improvement in post test score.

4) Findings related to association between the level of knowledge among husbands of antenatal mothers with selected demographic variables.

- The chi-square value calculated for the baseline variables like age group and educational status the p value is greater than the level of significance at 0.01 level. So, the research hypothesis is rejected and null hypothesis is accepted. Hence there is no significant association between knowledge score of husbands of antenatal mothers with their selected demographic variables such as the age group and the educational status.
- The chi-square value calculated for the baseline variables like religion and type of marriage the p value is greater than the level of significance at 0.01 level. So, the research hypothesis is rejected and null hypothesis is accepted. Hence there is no significant association between knowledge score of husbands of antenatal mothers with their selected demographic variables such as the religion and the type of marriage.

VI. DISCUSSION, SUMMARY AND CONCLUSION

The present study was undertaken to determine effectiveness of SIM on level of knowledge among the husbands of antenatal mothers regarding maternal postpartum depression. The findings of the study were discussed with reference to the related literature and have been organized under the following headings.

- Findings related to description of selected demographic variables of the husbands of antenatal mothers in the antenatal OPD's of selected hospital.
- Findings related to level of knowledge regarding maternal postpartum depression in the husbands of antenatal mothers of control and case group before the administration of SIM.
- Findings related to Effectiveness of SIM on maternal postpartum depression among husbands of antenatal mothers.
- Findings related to association between the level of knowledge among husbands of antenatal mothers with selected demographic variables.

1) SECTION 1:

Findings related to description of selected demographic variables of the husbands of antenatal mothers in the antenatal OPD's of selected hospital.

The present study aimed to describe the selected demographic characteristics of the husbands of antenatal mothers attending antenatal OPDs in selected hospitals. The demographic findings reveal key insights into the population under study, which may have implications for designing targeted interventions such as self-instructional modules (SIM) on maternal postpartum depression.

The majority of husbands in the case group were in the 31–35 years age group (46.6%), whereas in the control group, a relatively equal distribution was seen between the 25–30 years (36.6%) and 31–35 years (36.6%) age categories. This suggests that most husbands were in their early to mid-thirties, an age commonly associated with growing familial and occupational responsibilities, which may influence their awareness and involvement in maternal mental health.

In the case group, most participants belonged to nuclear families (66.66%), while in the control group, a higher percentage were from joint families (46.66%). The type of family structure could affect the level of emotional and practical support available to the antenatal mothers and, consequently, the awareness level of husbands regarding maternal mental health challenges such as postpartum depression.

More than half of the participants in both groups were graduates—53.33% in the case group and 66.66% in the control group. This indicates a relatively educated sample population, suggesting that educational background could play a role in understanding health-related information, including maternal psychological wellbeing.

A majority of the participants in both the case (53.33%) and control (66.66%) groups had arranged marriages. This demographic aspect may reflect cultural norms and could influence interpersonal dynamics, communication, and support systems between the spouses during the perinatal period.

Hinduism was the predominant religion among the study participants—70% in the case group and 53.33% in the control group. Religious beliefs and practices may impact attitudes toward mental health, help-seeking behaviors, and the perceived role of husbands in supporting maternal wellbeing

The findings indicate that most husbands of antenatal mothers in both case and control groups were middle-aged, educated, and part of arranged marriages, with varying family types and religious affiliations. These demographic factors provide essential context for understanding the knowledge levels and potential receptiveness of husbands to educational interventions like SIMs. The results suggest the need for tailored educational strategies that consider the social, cultural, and family backgrounds of the participants to enhance awareness and support for maternal mental health, particularly postpartum depression.

2) SECTION 2:

Findings related to level of knowledge regarding maternal postpartum depression in the husbands of antenatal mothers of control and case group before the administration of SIM.

The findings of the study reveal that both the case and control groups of husbands of antenatal mothers exhibited a moderate level of knowledge regarding maternal postpartum depression prior to the intervention.

In the case group, the mean knowledge score was 15.90 with a standard deviation of ±3.25, while in the control group, the mean score was slightly higher at 16.4 with a standard deviation of ±2.60. This suggests a comparable baseline level of awareness in both groups, indicating that the participants possessed some understanding of maternal postpartum depression, but not to a level that could be considered high or adequate for proactive support during the postpartum period.

The moderate level of knowledge in both groups prior to SIM administration highlights the need for educational interventions aimed at enhancing awareness and understanding among husbands. Such interventions are essential to equip them with the necessary knowledge to identify symptoms early and support their partners effectively during the postpartum period.

The similar baseline knowledge levels in both groups validate the design of the study, allowing a fair assessment of the effectiveness of the SIM in the subsequent phase. The results underscore the importance of including husbands in maternal mental health education programs, as their knowledge and support play a vital role in the timely identification and management of postpartum depression.

3) SECTION 3:

Findings related to Effectiveness of SIM on maternal postpartum depression among husbands of antenatal mothers.

The study aimed to evaluate the effectiveness of a Structured Information Module (SIM) in enhancing the knowledge of husbands of antenatal mothers regarding maternal postpartum depression (PPD). Maternal PPD is a significant mental health condition that affects women after childbirth and can have profound implications not only on the mother but also on the newborn and the overall family dynamic. Awareness and understanding of this condition among spouses, particularly husbands, are essential for early identification, emotional support, and timely intervention.

In this study, a total of 30 participants (husbands of antenatal mothers) were assessed before and after the administration of the SIM. The findings revealed that:

- 25 participants (83%) demonstrated a positive rank, showing improvement in posttest scores compared to their pretest scores.
- 1 participant (3%) showed a negative rank, indicating a decrease in knowledge following the SIM.
- 4 participants (13%) showed no change (ties), maintaining the same level of knowledge before and after the intervention.

These results clearly indicate a notable improvement in the knowledge of most participants, strongly supporting the effectiveness of the SIM as an educational intervention. The high proportion of participants with increased knowledge after the SIM suggests that the module was well-designed, relevant, and capable of addressing the informational gaps related to maternal PPD among husbands.

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The study underscores the importance of involving spouses in maternal health education, especially concerning mental health issues such as postpartum depression. Increased awareness among husbands can foster a more supportive and understanding environment for mothers, thereby enhancing maternal mental health outcomes and family well-being.

The Structured Information Module proved to be an effective tool in improving the knowledge of husbands regarding maternal postpartum depression. The results advocate for the incorporation of such educational interventions in antenatal care programs to promote shared responsibility, improve partner support, and contribute to better mental health outcomes for mothers during the postpartum period.

4) SECTION 4:

Findings related to association between the level of knowledge among husbands of antenatal mothers with selected demographic variables.

The study also aimed to determine whether there is any significant association between the level of knowledge regarding maternal postpartum depression among husbands of antenatal mothers and selected demographic variables, including age group, educational status, religion, and type of marriage.

Statistical analysis using the chi-square test revealed the following:

- For the demographic variables age group and educational status, the calculated p-values were found to be greater than the 0.01 level of significance. This indicates that there is no statistically significant association between these variables and the knowledge scores of the participants. As a result, the research hypothesis was rejected, and the null hypothesis was accepted.
- Similarly, for the variables religion and type of marriage, the chi-square test results also showed p-values greater than the 0.01 level of significance, leading to the rejection of the research hypothesis and acceptance of the null hypothesis.

These findings suggest that none of the selected demographic variables—including age group, educational status, religion, and type of marriage—had a significant influence on the participants' level of knowledge regarding maternal postpartum depression before the intervention.

This implies that the lack of knowledge on maternal postpartum depression among husbands is widespread and not limited to any specific demographic group. Therefore, educational interventions such as Structured Information Modules (SIMs) should be universally provided to all husbands of antenatal mothers, irrespective of their background, to raise awareness and understanding about this critical mental health issue.

In conclusion, the study found no significant association between the level of knowledge and the selected demographic variables. This highlights the importance of universal educational strategies that can reach across diverse populations and equip all expectant fathers with the necessary information to support their partners effectively during the postpartum period.

A. CONCLUSION

The present study concluded that the Self-Instructional Module (SIM) was effective in enhancing the knowledge of husbands of antenatal mothers regarding maternal postpartum depression. Prior to the intervention, both the case and control groups showed moderate levels of knowledge, but after the SIM, there was a statistically significant improvement among the case group. The study also found no significant association between knowledge scores and demographic variables such as age, education, religion, or type of marriage. These findings highlight the importance of involving husbands in maternal health education to ensure early recognition and management of postpartum depression, ultimately promoting better maternal mental health outcomes.

B. NURSING IMPLICATIONS

- A continuing nursing education programme can be organized for the staff nurses to develop up-to-date knowledge and skills in the care of antenatal mothers at various levels and to create awareness regarding the importance of communicating information during and after delivery.
- Since lack of awareness is a core factor influencing many postpartum issues, early educational interventions can be implemented during the antenatal period.
- The study highlights the need for routine screening of antenatal husbands regarding knowledge on maternal postpartum depression to identify knowledge gaps early.
- Health education programmme should be planned and delivered in local languages, ensuring clarity and better understanding among spouses from diverse educational backgrounds.

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- Nurse educators can develop, implement, and evaluate structured teaching modules (like SIM) to improve awareness levels among husbands of antenatal mothers.
- Nurses can use the study results to provide counseling and support to husbands to strengthen their role in maternal mental health during the postpartum period.
- Midwives and nursing personnel can integrate this SIM approach into antenatal classes to improve partner involvement and awareness.

C. LIMITATIONS

- The study was conducted in a limited sample size of 60 participants, which restricts generalization of the findings.
- The study was confined to selected hospitals in a specific geographical area, limiting external validity.
- The study focused only on the knowledge aspect; attitudes and practices were not assessed.
- The post-test was conducted shortly after the intervention; long-term retention of knowledge was not evaluated.
- Social desirability bias may have influenced the participants' responses in the self-reported questionnaire.

D. RECOMMENDATIONS

- A similar study can be conducted on a larger population across different settings to validate the findings.
- Future studies can include follow-up tests to assess long-term retention of knowledge after the intervention.
- Comparative studies can be done to assess the effectiveness of different teaching strategies like videos or interactive sessions.
- Include attitude and practice assessments along with knowledge for a more comprehensive evaluation.
- Encourage inclusion of husband-focused sessions in routine antenatal education programs in hospitals.

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ANNEXURES

LETTER REQUESTING THE CONSENT OF THE PARTICIPANTS

We seventh semester BSc nursing students of St. James' college of Nursing, Chalakudy, planning to conduct a study titled **"A Study to Assess the Effectiveness of Self-instructional module on Knowledge of Maternal Postpartum Depression Among husbands of antenatal mothers in selected hospitals, Thrissur District."**. The information that are providing will be strictly confidential and will be used only for the study purpose. We request your co- operation for the same, if you are willing to participate in the study, follow the instructions and please sign below.

Date: Sign of participant:

Place:

ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 13 Issue X Oct 2025- Available at www.ijraset.com

സമ്മതപത്രം

ഞങ്ങൾ ചാലക്കുടിയിലെ സെൻറ്.ജെയിംസ് കോളേജ് ഓഫ് നേഴ്സിംഗിലെ ബി.എസ്.സി നഴ്സിംഗ് 7-ാം സെമസ്റ്റർ വിദ്യാർഥികളാണ്

"ഗർഭിണികളായ ഉണ്ടാകുന്ന പ്രസവാനന്തര വിഷാദത്തെ സംബന്ധിച്ച്ഭർത്താക്കന്മാരുടെ അറിവ് വിലയിരുത്തുന്നതിനായി സ്വയാവബോധ മോഡ്യൂളിൻറെ ഫലപ്രാപ്തി വിലയിരുത്താനുള്ള പഠനം" എന്ന ശീർഷകത്തിൽ തൃശൂർ ജില്ലയിലെ തിരഞ്ഞെടുത്ത ആശുപത്രികളിൽ പഠനം നടത്താനാണ് പദ്ധതിയിടുന്നത്. താങ്കൾ പങ്കുവെക്കുന്ന എല്ലാ വിവരങ്ങളും രഹസ്യമായി കൈകാര്യം ചെയ്തുകൊണ്ട് ഈ പഠനത്തിനായി മാത്രം ഉപയോഗിക്കുകയുള്ളൂ എന്ന് ഞങ്ങൾ ഉറപ്പു തരുന്നു. നിങ്ങൾക്ക് ഈ പഠനത്തിൽ പങ്കെടുക്കാൻ താത്പര്യമുള്ളപക്ഷം, ദയവായി താഴെ ഒപ്പു വെച്ച് ആവശ്യമായ നിർദ്ദേശങ്ങൾ പാലിക്കാൻ അഭ്യർത്ഥിക്കുന്നു.

തിയതി: _____

സ്ഥലം: _____ ഒപ്പ്: _____

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Knowledge Assessment Tool on Maternal Postpartum Depression (PPD) for Men

Section A: Personal Information

1. **Age:**
   - A. 25–30
   - B. 31–35
   - C. 36–40
2. **Education Level:**
   - A. Primary School
   - B. Secondary School
   - C. Graduate
3. **Occupation:**
   - A. Unemployed
   - B. Private Employee
   - C. Government Employee
4. **Marital Status:**
   - A. Married
   - B. Unmarried
   - C. Divorced

5. **Type of Family:**
   - A. Nuclear
   - B. Joint
   - C. Extended
6. **Religion:**
   - A. Hindu
   - B. Christian
   - C. Muslim

7. Type of Marriage

A. Arranged marriage
B. Love marriage
C. Intercaste marriage

8. Place of Residence:

- A. Urban
- B. Rural
- C. Semi-Urban

9. Have you heard about postpartum depression (PPD)?

- A. Yes
- B. No

If yes, how did you learn about it? _____

10. Do you have children?

- A. Expecting a baby
- B. One child
- C . Two or more children

Section B: Understanding Postpartum Depression

Please select the most appropriate answer for each question.

1.What is postpartum depression (PPD)?

A. A serious mental illness after childbirth
B. Mood swings that go away in a day
C. Depression that happens during or after childbirth
D. An anxiety disorder

2. What body change can cause PPD?

A. Too much calcium
B. Hormone drop after childbirth
C. Too much sleep
D. Lack of exercise

3.Which of the following is a risk factor for postpartum depression?

A. History of mental health issues
B. Supportive partner
C. Adequate sleep and rest
D. No history of pregnancy loss

4.Which social factor can lead to PPD?

A. Going to counseling
B. Watching movies
C. Lack of support from partner and family
D. Living near relatives

5.Which feeling is common in PPD?

A. Laughing all the time
B. Feeling sad for days
C. Wanting to meet more people
D. Feeling overly excited

6.A woman with PPD may:

A. Eat too much or too little
B. Sleep well every night
C. Want to go out all the time
D. Enjoy family outings more

7.Which behavior change might indicate PPD?

A. Attending all family events
B. Avoiding people
C. Watching more TV
D. Getting into cooking

8.Which professional is most appropriate for diagnosing postpartum depression?

A. Dermatologist
B. Psychiatrist or psychologist
C. Pediatrician
D. Dentist

9.How can a partner help prevent PPD?

A. Criticize the mother
B. Avoid helping with the baby

C. Provide love and emotional support
D. Avoid emotional talks

10.How can someone support a mother with PPD?
A. Avoid discussing feelings
B. Help with the baby and home tasks
C. Let her be alone
D. Tell her to "just be happy"

11.When should a partner seek medical help for the mother?
A. If she wants a new phone
B. If she talks about sleep
C. If she feels guilty, anxious, or disconnected from the baby
D. If she asks for a break

12.What is a main treatment for severe PPD?
A. Only exercise
B. Counseling or therapy
C. Ignoring it
D. Using social media

13.Do mothers take medicine for PPD?
A. No
B. Only if not breastfeeding
C. Yes, if prescribed by a doctor
D. Only home remedies

14.Why is regular doctor visits important?
A. To avoid chores
B. To check progress and adjust treatment
C. To stop medicine
D. To avoid fights

15.How can PPD affect the newborn baby?
A. Improves baby's sleep schedule
B. Delays in emotional and cognitive development
C. No effect if feeding is maintained
D. Enhances bonding with others

16.Does PPD be completely cured?
A. Yes, always
B. No, never
C. Not always
D. Only with medicine

17.Does husband's support help reduce PPD?
A. No
B. Yes, emotional support is important
C. Only doctors can help
D. It depends on baby's gender

18.Which can help prevent PPD?
A. Emotional and family support
B. Having more children
C. Watching TV
D. Ignoring the mother

19.What should a husband do if he notices signs of PPD in his wife?

A. Blame her
B. Ignore it
C. Encourage her to seek help
D. Help and support her

20.How can husbands help reduce the risk of PPD in their wives?

A. Take an active role in child and household duties
B. Expect her to manage everything alone
C. Avoid discussing her mental health
D. Focus only on financial support

Scoring (For Researchers):

- **Each correct answer:** 1 point
- **Total Score:** 20 points

Results:

- **0–6 points:** Poor knowledge
- **7–13 points:** Moderate knowledge
- **14–20 points:** Good knowledge

പ്രസവാനന്തരവിഷാദംഎന്നരോഗാവസ്ഥയെകുറിച്ച്ഭർത്താക്കന്മാരുടെവിജ്ഞാനഅവലോകനഫോം

വിഭാഗംA: വ്യക്തിഗതവിവരങ്ങൾ

☑ ഉചിതമായതിൽഇടുക

1. പ്രായം

□ 25–30
□ 31–35
□ 36–40

2. വിദ്യാഭ്യാസയോഗ്യത

□ പ്രാഥമികവിദ്യാഭ്യാസം
□ ഹൈസ്കൂൾ
□ ബിരുദം

3. തൊഴിൽ

□ തൊഴിൽഇല്ല
□ സ്വകാര്യജോലി
□ സർക്കാർജോലി

4. വിവാഹാവസ്ഥ

□ വിവാഹംകഴിഞ്ഞു
□ വിവാഹംകഴിഞ്ഞിട്ടില്ല
□ വേർപിരിഞ്ഞു

5. കുടുംബതരം

□ അണുകുടുംബം
□ കൂട്ടുകുടുംബം
□ സംയുക്തകുടുംബം

6. മതം
   - □ ഹിന്ദു
   - □ ക്രിസ്ത്യൻ
   - □ മുസ്ലീം
7. വിവാഹതരം
   - □ ക്രമീകരിച്ചവിവാഹം
   - □ പ്രണയവിവാഹം
   - □ ഇന്റർകാസ്റ്റുവിവാഹം
8. താമസിക്കുന്നസ്ഥലം
   - □ കോർപ്പറേഷൻ
   - □ മുനിസിപ്പാലിറ്റി
   - □ ഗ്രാമപഞ്ചായത്ത്
9. പ്രസവാനന്തരവിഷാദംഎന്നരോഗാവസ്ഥയെകുറിച്ച്നിങ്ങൾകേട്ടിട്ടുണ്ടോ?
   - □ ഉണ്ട്
   - □ ഇല്ല
   - □ കേട്ടിട്ടുണ്ടെങ്കിൽ, എവിടെനിന്നാണ്കേട്ടത്?

_____

10. നിങ്ങൾക്ക്കുട്ടികളുണ്ടോ?
    - □ കുട്ടിയെപ്രതീക്ഷിക്കുന്നു
    - □ ഒരുകുട്ടി
    - □ രണ്ട്, അല്ലെങ്കിൽകൂടുതൽകുട്ടികൾ

വിഭാഗം **B:**

1. പ്രസവാനന്തരവിഷാദരോഗാവസ്ഥഎന്നാൽഎന്താണ് ?
   - □ പ്രസവശേഷംഉണ്ടാകുന്നമാനസികസമ്മർദ്ദം
   - □ .ഒരുദിവസംകൊണ്ട്മാറുന്നമാനസികാവസ്ഥ
   - □ .പ്രസവസമയത്തോഅതിന്ശേഷമോവരുന്നവിഷാദഅവസ്ഥ
2. ശരീരത്തിൽഉണ്ടാകുന്നഎന്ത്മാറ്റംകാരണമാണ്ഈരോഗാവസ്ഥഉണ്ടാകുന്നത് ?
   - □ കാൽസ്യംകൂടുന്നത്
   - □ പ്രസവശേഷംഹോർമോണുകൾകുറയുന്നത്
   - □ കൂടുതലായിഉറങ്ങുന്നത്
   - □ .വ്യായാമംകുറയുന്നത്
3. താഴെ പറയുന്നവരിൽആരിലെല്ലാമാണ്പ്രസവാനന്തരവിഷാദംകാണപ്പെടുന്നത്?
   - □ .മുൻകാലമാനസികആരോഗ്യപ്രശ്നങ്ങൾഉള്ളവർ
   - □ പങ്കാളിയുടെപിന്തുണലഭിക്കുന്നവർ
   - □ മതിയായവിശ്രമംലഭിക്കുന്നവർ
   - □ ആരോഗ്യകരമായഭക്ഷണശൈലിഉള്ളവർ
4. പ്രസവാനന്തരവിഷാദത്തിലേക്ക്നയിക്കുന്നസാമൂഹികഘടകംഎന്ത്?
   - □ കൗൺസിലിങ്ങിന്പോകുന്നത്
   - □ സിനിമകാണുന്നത്

- □ കുടുംബത്തിൽനിന്നുംഭർത്താവിൽനിന്നുംപിന്തുണലഭിക്കാത്തത്
- □ ബന്ധുക്കളുംസുഹൃത്തുക്കളുമായിനല്ലബന്ധംപുലർത്തുന്നത്

5. പ്രസവാനന്തരവിഷാദംഎന്നരോഗാവസ്ഥയുടെലക്ഷണങ്ങൾഎന്താണ്?
- □ എപ്പോഴുംസന്തോഷവതിയായിരിക്കുന്നത്
- □ അമിതമായസങ്കടം
- □ കുഞ്ഞിനെപരിപാലിക്കാൻതാല്പര്യംകാണിക്കുന്നത്
- □ നല്ലഉറക്കം
- □ 6. പ്രസവാനന്തരവിഷാദംഎന്നരോഗാവസ്ഥയുള്ളസ്ത്രീയുടെശാരീരികലക്ഷണംഎന്താണ്?
- □ അമിതമായോവളരെമിതമായോആഹാരംകഴിക്കുന്നത്
- □ എല്ലാദിവസവുംരാത്രിയിൽനന്നായിഉറങ്ങുന്നത്
- □ എപ്പോഴുംപുറത്തേക്ക്പോകാൻആഗ്രഹിക്കുന്നത്
- □ കുടുംബസമേധമുള്ളവിനോദയാത്രകൾനന്നായിആസ്വദിക്കുന്നത്

7. പ്രസവാനന്തരവിഷാദംഎന്നരോഗാവസ്ഥഉണ്ടെന്ന്സൂചിപ്പിക്കുന്നപെരുമാറ്റവൈകല്യംഎന്ത്?
- □ എല്ലാചടങ്ങിലുംപങ്കെടുക്കുന്നത്
- □ ആളുകളെഒഴിവാക്കുന്നത്
- □ കൂടുതൽടിവികാണുന്നത്
- □ പാചകത്തിൽകൂടുതൽസമയംചെലവഴിക്കുന്നത്

8. ആരാണ്പ്രസവാനന്തരവിഷാദംനിർണയിക്കേണ്ടത്?
- □ ചർമരോഗവിദഗ്ധൻ
- □ മാനസികാരോഗ്യവിദഗ്ധൻ
- □ ഗൈനക്കോളജിസ്റ്റ്
- □ ദന്തവിദഗ്ധൻ

9. ഈരോഗാവസ്ഥയെമറികടക്കാൻഭർത്താവിനെഎങ്ങനെസഹായിക്കാൻകഴിയും?
- □ ഭാര്യയെവിമർശിക്കുക
- □ കുഞ്ഞിൻ്റെകാര്യങ്ങളിലുംവീട്ടുജോലികളും സഹായിക്കാതിരിക്കുക
- □ സ്നേഹവുംമാനസികപിന്തുണയുംനൽകുക
- □ മാനസികപ്രശ്നങ്ങളെഅവഗണിക്കുക

10. പ്രസവനന്തരവിഷാദമുള്ളസ്ത്രീയെഎങ്ങനെസഹായിക്കാം?
- □ ഭാര്യയെആശ്വസിപ്പിച്ച്തുറന്ന്സംസാരിക്കാൻസഹായിക്കുക
- □ ഭാര്യയുടെവികാരങ്ങളെമാനിക്കാതിരിക്കുക
- □ ഭാര്യയെതനിച്ചാക്കുക
- □ ഭാര്യയെകുറ്റപ്പെടുത്തുക

11. ഭാര്യയിൽഎന്തുലക്ഷണങ്ങൾകാണുമ്പോഴാണ്ഭർത്താവ് ചികിത്സതേടേണ്ടത്?
- □ ഒറ്റപ്പെട്ടു ഇരിക്കുമ്പോൾ
- □ ഉറക്കത്തെക്കുറിച്ച് പറയുമ്പോൾ
- □ കുറ്റബോധം, ഉത്കണ്ഠ, കുഞ്ഞുമായുള്ളഅകലം പ്രകടിപ്പിക്കുമ്പോൾ.
- □ വിശ്രമംവേണംഎന്ന്പറയുമ്പോൾ.

12. ഗൗരവമായ പ്രസവാനന്തര വിഷാദത്തിന് പ്രധാനമായ ചികിത്സ:
- □ വ്യായാമം
- □ കൗൺസിലിംഗ്

- □ അവഗണിക്കുക
- □ സോഷ്യൽമീഡിയഉപയോഗം

13. പ്രസവാനന്തരവിഷാദത്തിന്മരുന്ന് നൽകുമോ?
- □ ഇല്ല
- □ മുലയൂട്ടുന്നില്ലെങ്കിൽമാത്രം
- □ ഡോക്ടർനിർദേശിച്ചാൽമാത്രം
- □ വീട്ടുചികിത്സകൾ

14. ഡോക്ടറെ സ്ഥിരമായി കാണേണ്ടത് എന്തുകൊണ്ട്?
- □ വീട്ടുജോലികൾഒഴിവാക്കാൻ
- □ ചികിത്സയുടെപുരോഗതിക്രമീകരിക്കാൻ
- □ മരുന്നുനിർത്താൻ
- □ വീട്ടിലെവഴക്കുകൾഒഴിവാക്കാൻ

15. ശിശുവിൽ പ്രസവാനന്തര വിഷാദം ഉണ്ടാക്കുന്ന മാറ്റങ്ങൾ:
- □ ഉറക്കക്രമംമെച്ചപ്പെടുന്നു
- □ മാനസികവുംഭൗദ്ധികവുമായവളർച്ചവൈകുന്നു
- □ മുലയൂട്ടൽതുടരുന്നുഎങ്കിൽ,സ്വാധീനിക്കുന്നില്ല
- □ ബന്ധംകൂടുതൽമെച്ചപ്പെടുന്നു

16. പ്രസവാനന്തര വിഷാദം പൂർണ്ണമായി സുഖപ്പെടുമോ?
- □ പൂർണമായുംമാറും
- □ ഒരിക്കലുംമാറില്ല
- □ പൂർണമായുംഇല്ല
- □ വിഷാദംമരുന്ന്കൊണ്ടുമാത്രമേമാറു.

17. ഭർത്താവിന്റെ പിന്തുണ കൊണ്ട് പ്രസവാനന്തര വിഷാദം കുറയുമോ?
- □ ഇല്ല
- □ അതെ, വൈകാരിക പിന്തുണ സഹായകരമാണ്
- □ ഇല്ല, ഡോക്ടർമാർക്കു മാത്രമെ സഹായിക്കാൻകഴിയു.
- □ കുഞ്ഞിന്റെലിംഗഭേദത്തെആശ്രയിച്ചിരിക്കുന്നു

18. പ്രസവാനന്തര വിഷാദം ഒഴിവാക്കാൻ സഹായിക്കുന്നത്:
- □ മാനസികപിന്തുണയുംകുടുംബപിന്തുണയും
- □ കൂടുതൽകുട്ടികൾ
- □ ടിവികാണുക
- □ ഭാര്യയേഅവഗണിക്കുക

19. ഭാര്യയിൽ പ്രസവാനന്തര വിഷാദം ലക്ഷണങ്ങൾ കണ്ടാൽ ഭർത്താവ് ചെയ്യേണ്ടത്?
- □ കുറ്റപ്പെടുത്തുക
- □ അവഗണിക്കുക
- □ ഉപദ്രവിക്കുക
- □ സഹായിക്കുകയുംപിന്തുണനൽകുകയുംചെയ്യുക

20. പ്രസവാനന്തര വിഷാദത്തിന്റെ സാധ്യത കുറയ്ക്കാൻ ഭർത്താവ് ചെയ്യേണ്ടത്:
- □ കുഞ്ഞിന്റെ കാര്യങ്ങളിലും വീട്ടുജോലികളും സഹായിക്കുക

- □ എല്ലാം ഭാര്യ തന്നെ കൈകാര്യം ചെയ്യണം എന്ന് കരുതുക
- □ അവളുടെ മാനസികനിലയെക്കുറിച്ച് സംസാരിക്കുന്നത് ഒഴിവാക്കുക
- □ സാമ്പത്തികസഹായത്തിൽമാത്രംശ്രദ്ധകേന്ദ്രികരിക്കുക

ANSWER KEY

1	A	11	C
2	B	12	B
3	A	13	C
4	C	14	B
5	A	15	B
6	B	16	A
7	B	17	B
8	C	18	A
9	C	19	D
10	A	20	A

TIME	OBJECTIVES	CONTENT	TEACHING LEARNING ACTIVITY	AV AIDS	EVALUATION
		DEFINITION OF POSTPARTUM DEPRESSION The World Health Organization (WHO) defines postpartum depression (PPD) as: “A non-psychotic depressive episode that begins in or extends into the postpartum period. It usually occurs within the first six weeks after childbirth, but it can also begin later. It is characterized by sadness, fatigue, changes in sleeping and eating patterns, reduced libido, crying episodes, anxiety, and irritability." Postpartum depression differs from ‘baby blues’ because it lasts longer and interferes with daily life.percentage of new mothers is estimated to experience postpartum depression is 10–20%.. Fathers can also experience PPD, especially if their partner is affected. ETIOLOGY (CAUSES) OF POSTPARTUM DEPRESSION(PPD) Postpartum depression has a multifactorial etiology, meaning it results from a combination of biological, psychological, and social factors. Here's a breakdown: 1. Hormonal Changes Reason: After childbirth, there is a sudden drop in estrogen and progesterone levels, which can affect brain chemistry and mood regulation.			

		Impact: This hormonal shift can trigger depressive symptoms in sensitive individuals. 2. Psychological Factors History of depression or anxiety: Reason: Women with a past history of mood disorders are more vulnerable to PPD. Low self-esteem or negative body image: Reason: Struggles with identity or body changes can lead to feelings of worthlessness 3. Social and Environmental Factors Lack of social support: Reason: Isolation or lack of help from family and friends can increase stress and emotional burden. Marital or relationship problems: Reason: Conflict or lack of partner support can heighten feelings of helplessness. 4. Stressful Life Events Financial problems, job loss, or housing instability: Reason: External stressors can overwhelm coping abilities, increasing depression risk. Unplanned or high-risk pregnancy: Reason: Emotional distress about pregnancy or childbirth complications can contribute to PPD. 5. Sleep Deprivation Reason: Newborn care often leads to interrupted or inadequate sleep, which can worsen mood and cognitive function. 6. Complicated or Traumatic Delivery Reason: Pain, emergency C-section, or birth complications can lead to emotional trauma and subsequent depression. 7. Infant-Related Issues Difficult baby temperament or health issues: Reason: Constant crying, feeding issues, or illness in the baby can lead to maternal stress and exhaustion.			

		RISK FACTORS OF POSTPARTUM DEPRESSION • .Personal or family history of depression • Lack of social support • . Complications during pregnancy or delivery • Low self-esteem • Anxiety during pregnancy • SIGNS AND SYMPTOMS OF POSTPARTUM DERPRESSION (PPD) 1.Emotional and Psychological Symptoms: • Persistent Sadness or hopelessness: Feeling overwhelmed, hopeless, or deeply sad for extended periods (lasting more than two weeks). • Crying Spells: Frequent crying without a clear reason, often linked to feeling inadequate or helpless. • Feelings of Worthlessness or Guilt: A sense of guilt for not being able to care for the baby or meet expectations, as well as general low self-esteem. • Irritability or Anger: Feeling easily frustrated, angry, or upset over small things, which may interfere with daily activities. • Loss of Interest in Activities: A lack of interest or pleasure in activities that were previously enjoyable (including bonding with the baby). • Mood Swings: Severe mood changes, often without clear triggers, such as feeling very sad one moment and very anxious or irritable the next. 2.Cognitive Symptoms: • Difficulty Concentrating: Struggling to focus, think clearly, or make decisions. This could be due to			

		emotional overload. • Memory Problems: Forgetting daily tasks or feeling mentally "foggy" and distracted. 3. Physical Symptoms: • Fatigue or Lack of Energy: Feeling extremely tired, despite adequate rest, which can be more severe than the usual tiredness after childbirth. • Changes in Sleep Patterns: Difficulty falling asleep or staying asleep, even when the baby is sleeping, or sleeping too much as a way of avoiding feelings. • Changes in Appetite: Either overeating or loss of appetite. Women may feel disconnected from the need for nourishment. • Physical Aches and Pains: Unexplained headaches, muscle aches, or other discomforts that don't have an obvious physical cause. 4. Behavioral Symptoms: • Withdrawal from Others: Avoiding social interactions, including withdrawing from family, friends, or even the baby. • Difficulty Bonding with the Baby: Feeling disconnected or emotionally distant from the baby, such as not feeling the expected joy of motherhood. 5. Severe Symptoms (Require Immediate Attention): • Thoughts of Hurting Oneself or the Baby: Warning Sign: If the woman has thoughts of harming herself or the baby, this is a medical emergency, and immediate intervention is required. • Severe Anxiety or Panic Attacks: Feeling constantly anxious or having panic attacks, such as racing heart, shortness of breath, dizziness, or			

		overwhelming fear of something bad happening to the baby. WARNING SIGNS OF MATERNAL POSTPARTUM DEPRESSION: • Persistent sadness or low mood – Feeling down most of the time and unable to enjoy things. • Loss of interest – Not feeling interested in the baby, activities, or people you used to enjoy. • Fatigue or low energy – Feeling exhausted even after resting. • Crying often – Crying for no clear reason or more than usual. • Feeling overwhelmed – Struggling to cope with daily tasks or taking care of the baby. • Anxiety or panic – Feeling very nervous, restless, or having panic attacks. • Changes in appetite – Eating too much or too little. • Sleep problems – Trouble falling or staying asleep, even when the baby is sleeping. • Guilt or worthlessness – Feeling like a bad mother or like you're failing. • Difficulty bonding with the baby – Feeling distant or disconnected from your baby. • Thoughts of self-harm or harming the baby – Having scary or unwanted thoughts (this is a serious sign and needs urgent help). Feeling constantly anxious or having panic attacks, such as racing heart, shortness of breath, dizziness, or overwhelming fear of something bad happening to the baby.			

		DIAGNOSTIC MEASURES 1. Clinical Interview • Conducted by a healthcare provider (psychiatrist, psychologist, or primary care provider). • Involves evaluating mood, behavior, sleep, appetite, and thoughts. • Assesses presence, duration, and severity of depressive symptoms. 2. Diagnostic and Statistical Manual of Mental Disorders (DSM-5) Criteria PPD is classified under Major Depressive Disorder, with peripartum onset, and includes: • Depressed mood or loss of interest/pleasure for at least 2 weeks. • Symptoms begin during pregnancy or within 4 weeks postpartum. • Must include at least five of the following symptoms: o Depressed mood. o Markedly diminished interest or pleasure o Significant weight change or appetite disturbance o Insomnia or hypersomnia o Fatigue or loss of energy o Feelings of worthlessness or guilt o Difficulty concentrating o Recurrent thoughts of death or suicide 3. Screening Tools These are standardized questionnaires used to identify women at risk: a. Edinburgh Postnatal Depression			

		Scale (EPDS) • 10-item questionnaire • Most widely used • Score ≥13 suggests PPD b. Patient Health Questionnaire (PHQ-9) • Assesses the severity of depression • Useful for ongoing monitoring c. Postpartum Depression Screening Scale (PDSS) • 35 items, covers emotional and functional aspects 4. Physical Examination & Lab Tests • Rule out medical causes of depressive symptoms: o Thyroid function tests (e.g., hypothyroidism) o Anemia screen o Vitamin B12 or D deficiency 5. Observation and Family Input • Input from family members or caregivers about mood, behavior, and functional changes is crucial. IMPORTANCE OF EARLY DETECTION OF POSTPARTUM DEPRESSION (PPD) Early detection of postpartum depression is critical for the health and well-being of both the mother and the baby. In cases of severe postpartum depression with suicidal ideation or psychosis. The most appropriate course of action is Immediate psychiatric evaluation and possible hospitalization .. Women with a history of depression shouldreceive close monitoring and possibly preventive treatment 1. Prevents Progression to Severe Depression • Untreated PPD can become chronic or lead to postpartum psychosis, which may include			

		hallucinations or suicidal thoughts. • Early detection allows for timely treatment, reducing severity and duration of illness. 2. Promotes Maternal Mental Health • Helps the mother regain emotional stability, confidence, and joy in motherhood. • Reduces risk of self-harm, substance abuse, or social withdrawal. 3. Enhances Bonding with the Baby • Depression can interfere with mother-infant bonding, affecting emotional attachment and responsiveness. • Early treatment supports healthy emotional connection, which is vital for the baby's development. 4. Supports Infant Growth and Development • Infants of depressed mothers may show delayed cognitive, emotional, and language development. • Early detection ensures the mother can provide proper care, stimulation, and nurturing. 5. Reduces Family Stress • PPD affects the entire family, including the partner and other children. • Early intervention helps restore family harmony, communication, and functioning. 6. Lowers Healthcare Burden • Early identification and treatment reduce the need for emergency or long-term psychiatric care. • It also prevents complications that may			

		require hospitalization or more intensive interventions. 7. Encourages Health-Seeking Behavior • Educating mothers during antenatal and postnatal visits encourages open conversations about mental health. • Reduces stigma and empowers women to seek help without fear or shame. 8. Improves Treatment Outcomes • The earlier the treatment begins, the faster and more effective the recovery. • Increases the success of therapy, medication, or lifestyle adjustments. 9. Supports Return to Normal Functioning • Helps mothers resume daily activities, caregiving responsibilities, and social roles. • Promotes productive and satisfying motherhood experience. PREVENTION 1. Provide Emotional Support • Be patient, understanding, and listen without judgment. • Encourage your wife to express her feelings openly. • Reassure her that she's doing a great job, even on tough days. 2. Be Actively Involved • Share responsibilities for baby care, such as feeding, diaper changes, and putting the baby to sleep. • Help with household chores to reduce her physical and mental load. • Attend doctor visits, childbirth classes, or counseling sessions			

		together. 3. Encourage Rest and Self-Care • Make sure she gets enough sleep—take turns with night duties if possible. • Support her in taking short breaks for relaxation, showers, naps, or hobbies. • Ensure she eats well and stays hydrated. 4. Watch for Warning Signs • Notice any changes in her mood, behavior, or sleep patterns. • Gently express concern if you notice signs of sadness, anxiety, or withdrawal. • Encourage her to seek help early if needed—don't dismiss her feelings. 5. Create a Supportive Environment • Foster a calm, loving, and safe home environment Avoid criticism and offer help instead of advice unless asked. • Respect her need for space or support as she adjusts to motherhood. 6. Stay Connected • Make time for meaningful conversations, even if brief. • Maintain intimacy (emotional and physical) at a pace comfortable for her. • Show affection through small acts—kind words, a hug, or small gestures. 7. Seek Help Together if Needed • Suggest professional help (counseling or therapy) if depression symptoms arise. • Participate in couples counseling if strain is affecting the relationship. • Remind her she's not alone—you're in it together. HOME REMEDIES 1. Rest and Sleep			

		• Prioritize sleep whenever possible—nap when the baby naps. • Create a calm bedtime routine to improve sleep quality. • Ask for help with nighttime baby care to avoid exhaustion. 2. Nutritious Diet • Eat a balanced diet rich in fruits, vegetables, whole grains, and lean proteins. • Include omega-3 fatty acids (found in fish, flaxseed, walnuts) for brain health. • Stay hydrated—drink plenty of water throughout the day. 3. Light Exercise • Start with gentle exercises like walking or stretching. • Try postnatal yoga to ease tension and improve mood. • Regular movement releases endorphins, which can help reduce depression. 4. Sunlight and Fresh Air • Spend time outdoors daily, even for 10–15 minutes. • Natural sunlight boosts vitamin D levels and improves mood. 5. Relaxation Techniques • Practice deep breathing, meditation, or progressive muscle relaxation. • Try mindfulness or guided imagery to reduce stress and anxiety. 6. Talk and Share • Talk to a trusted friend, partner, or family member about your feelings. • Join a support group (in person or online) with other new mothers. • Express emotions through journaling if verbal communication feels hard.			

		7. Herbal Support (With Doctor's Approval) • Chamomile tea – may help with relaxation and sleep. • Lavender essential oil– can be used in diffusers or baths to calm the mind. • Ashwagandha or St. John's Wort – sometimes used for mood support but must be approved by a doctor, especially if breastfeeding. 8. Limit Isolation • Invite close friends or family over for company and help. • Stay connected via calls or messages, even briefly. 9. Reduce Pressure and Expectations • Don't strive for perfection—focus on doing your best each day. • Set small, manageable goals and celebrate small wins. MEDICAL TREATMENT 1. Counseling or Therapy • Talk therapy (like Cognitive Behavioral Therapy - CBT) helps manage negative thoughts and emotions. • Interpersonal therapy (IPT) focuses on improving relationships and emotional well-being. • Can be done individually or in a group setting. • Antidepressant medications may be prescribed for postpartum depression. The key consideration before starting them is whether the mother is breastfeeding 2. Follow-Up and Monitoring • Regular check-ins with a healthcare provider to track progress. • Adjustments to therapy or medication based on how the mother responds.			

Case test- pretest

pretest	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	scor
1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	18/
2	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18/
3	1	1	1	0	1	1	0	1	1	0	0	1	1	1	1	0	1	1	1	1	15/
4	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19/
5	1	1	0	1	0	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	16/
6	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	19/
7	1	1	0	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	17/
8	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18/
9	1	1	1	1	1	0	1	1	0	1	1	1	0	1	1	1	1	1	1	1	17/
10	1	0	1	1	1	1	1	0	1	1	1	0	1	0	1	1	1	1	1	1	16/
11	1	0	1	1	0	1	0	1	1	0	0	1	0	1	0	1	0	0	1	1	11/
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/
13	1	0	1	0	1	1	1	0	1	0	0	1	0	1	0	1	1	1	0	1	12/
14	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18/
15	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18/
16	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19/
17	0	1	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	16/
18	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	19/
19	1	0	1	0	1	0	1	1	1	0	0	1	1	1	1	0	0	1	0	1	12/
20	1	1	0	1	0	1	1	1	0	1	0	1	1	1	0	1	0	1	1	1	14/
21	1	0	1	1	1	0	1	1	1	0	1	0	1	0	1	1	1	0	1	1	14/
22	1	1	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	17/
23	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	1	1	6/2
24	0	1	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0	1	1	1	12/
25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/
26	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	18/
27	1	0	1	0	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	16/
28	1	1	1	1	0	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	17/
29	1	1	0	1	1	0	1	0	1	0	1	0	0	1	0	1	1	0	0	1	11/
30	1	1	1	0	1	0	0	0	1	1	1	0	1	1	0	1	1	1	1	1	14/

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Case post test

posttest	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	score
1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	18/20
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
10	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	20/20
11	1	1	0	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	17/20
12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
13	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	18/20
14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
17	1	1	1	1	0	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	17/20
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	19/20
19	1	1	1	1	1	1	0	1	1	0	1	1	0	1	0	1	1	1	1	1	16/20
20	1	1	1	0	1	1	1	0	1	1	1	1	0	1	1	0	0	1	1	1	15/20
21	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	18/20
22	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18/20
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	18/20
25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
26	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
27	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
28	1	1	0	1	1	1	1	1	0	1	1	1	0	0	1	1	1	1	1	1	16/20
29	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	18/20
30	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	18/20

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Control group – Pretest

Posttest	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	score
1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	18/20
2	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	0	1	1	1	17/20
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
4	0	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	17/20
5	1	0	1	0	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	16/20
6	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	18/20
7	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	16/20
8	1	1	1	1	0	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	17/20
9	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	18/20
10	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	18/20
11	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	18/20
12	1	1	1	1	0	1	1	1	0	1	1	1	0	1	1	0	1	1	1	1	16/20
13	1	1	0	1	0	1	1	1	0	1	1	1	0	1	1	0	1	1	0	1	14/20
14	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	0	1	1	1	1	17/20
15	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	0	1	1	1	17/20
16	1	1	0	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	0	1	16/20
17	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	0	1	1	1	17/20
18	1	1	1	1	0	1	1	1	1	0	1	0	1	1	1	1	1	0	1	1	16/20
19	1	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	0	0	1	1	15/20
20	1	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	0	1	1	1	16/20
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
22	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	17/20
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
24	0	0	1	0	0	0	0	0	0	1	0	0	1	0	1	0	1	0	1	1	7/20
25	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	17/20
26	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	18/20
27	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	1	1	1	18/20
28	1	1	1	1	1	1	0	1	1	0	1	0	1	0	1	1	1	1	1	1	16/20
29	1	0	1	0	1	1	1	0	1	0	1	1	1	0	1	0	1	0	1	1	13/20
30	1	1	0	0	1	0	0	0	1	1	1	0	1	0	1	0	1	1	0	1	11/20

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Control group – Post test

Posttest	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	score
1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	19/20
2	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	18/20
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
4	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18/20
5	1	0	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	17/20
6	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19/20
7	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17/20
8	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	18/20
9	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19/20
10	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19/20
11	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19/20
12	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	18/20
13	1	1	0	1	0	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	16/20
14	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	18/20
15	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1	1	18/20
16	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	17/20
17	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	18/20
18	1	1	1	1	0	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	17/20
19	1	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	1	0	1	1	16/20
20	1	1	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	17/20
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
22	1	1	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18/20
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20/20
24	0	0	1	0	0	1	0	0	1	1	0	0	1	0	1	0	1	0	1	1	9/20
25	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	18/20
26	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19/20
27	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19/20
28	1	1	1	1	1	1	0	1	1	0	1	0	1	1	1	1	1	1	1	1	17/20
29	1	0	1	0	1	1	1	0	1	0	1	1	1	0	1	1	1	1	1	1	15/20
30	1	1	1	0	1	0	1	0	1	1	1	0	1	1	1	0	1	1	0	1	13/20

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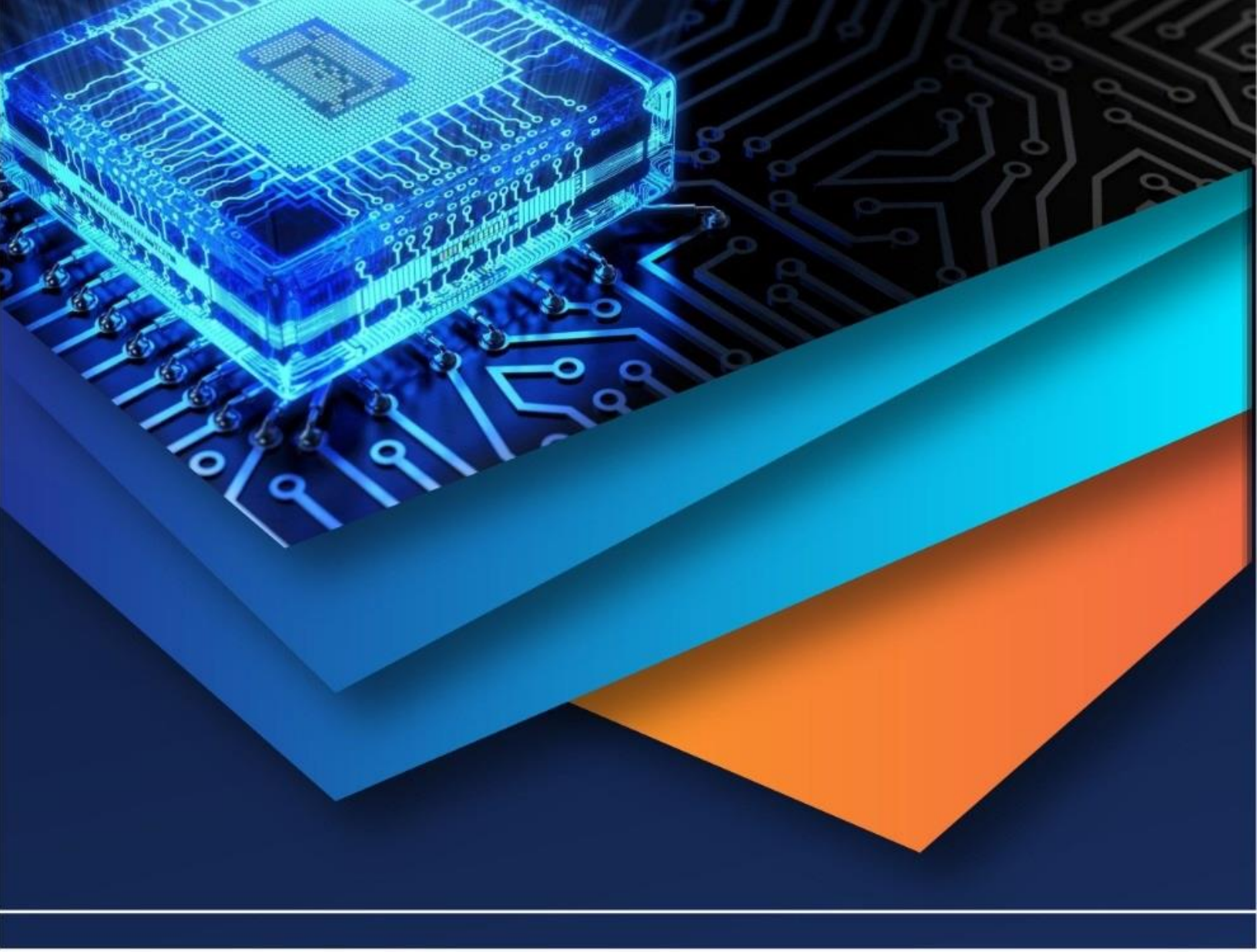

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