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Study of Medical Termination of Pregnancy Profile Between 20-24 Weeks Period of Gestation in Tertiary Care Center

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ABSTRACT

Medical Termination of Pregnancy (MTP) is a vital aspect of reproductive healthcare, especially in the second trimester, where the risks and complexities increase. This study analyzes the demographic, clinical and procedural aspects of MTPs performed between 20-24 weeks at a tertiary care center. This was a prospective observational study conducted over one year, from October 2021 to October 2022, including 68 women seeking MTP between 20-24 weeks. Data on age, marital status, parity, consanguinity, method of MTP and complications were collected. Descriptive statistics were used for analysis. The majority of participants were aged 18-30 (50%), with 36.8% married and 30.9% single. A significant proportion had a high parity (42.6%) and previous pregnancies (48.5% with four or more). Misoprostol alone was the most common method (41.2%), while 29.4% experienced complications, primarily retained products of conception. Post-abortion contraception was adopted by only 47.1%, indicating gaps in counseling. The findings highlight the need for enhanced reproductive education, accessible contraceptive services and comprehensive care, including genetic counseling and trauma-informed support for vulnerable groups. Addressing these gaps can improve outcomes, reduce repeat MTPs and support women's reproductive autonomy. Effective management of second-trimester MTP requires personalized care, robust follow-up and proactive contraceptive counseling. This study emphasizes the importance of empathetic, non-judgmental healthcare that caters to diverse patient needs.

INTRODUCTION

Medical Termination of Pregnancy (MTP): An Overview Medical Termination of Pregnancy (MTP) is a significant aspect of reproductive healthcare. Allowing women to safely terminate an unwanted pregnancy under specific legal, medical and ethical guidelines. Since the implementation of the MTP Act in India in 1971, women have been provided a legal pathway to access abortion services, greatly reducing the incidences of unsafe abortions and associated maternal morbidity and mortality. The act marked a progressive step toward ensuring women's reproductive rights, establishing India as one of the pioneering countries to legalize abortion under regulated conditions^[1,2].

Rationale for the Study: Globally, unsafe abortions contribute to approximately 13% of maternal deaths, with a substantial number of these occurring in the second trimester. In India, despite legal provisions, unsafe abortions persist due to various factors, including limited access to safe abortion services. Socio-cultural stigmas and inadequate awareness of legal entitlements. While most abortions are performed within the first trimester, about 10-15% are conducted during the second trimester due to factors like late detection of fetal anomalies, delayed recognition of pregnancy, or socio-economic and personal reasons that lead women to seek abortion services beyond 12 weeks of gestation. The MTP Act was amended in 2021, extending the gestational limit for terminating pregnancies from 20-24 weeks for specific categories of women. This extension aims to accommodate a broader range of women, including those in vulnerable situations, ensuring they have access to safe and legal abortion services. The amended act addresses the needs of various groups, such as survivors of sexual assault, minors and women dealing with fetal anomalies, thus safeguarding women's reproductive choices. Despite these legal advancements, continuous monitoring and evaluation of MTP practices, especially in the second trimester. Remain crucial for understanding trends, methods and outcomes associated with late-term abortions^[3].

Second Trimester Abortions: Challenges and Significance Second trimester abortions (MTPs performed between 13-24 weeks of gestation) present more complexity than first trimester procedures. These involve higher medical risks, psychological implications and ethical concerns. Factors contributing to the need for second trimester MTPs include delayed identification of pregnancy, detection of fetal abnormalities and changes in socio-economic or personal circumstances. The increased uterine size, greater vascularity and advanced fetal development during the second trimester make these procedures

more challenging, emphasizing the need for safe procedural techniques and thorough follow-up care. Providing appropriate medical care, counseling and contraceptive advice is vital to ensure that women who seek MTPs in the second trimester can do so safely and with dignity^[4].

Need for the Study: Given the legal amendments to the MTP Act in 2021, it is essential to understand how these provisions have influenced clinical practices. The extension of the gestational limit to 24 weeks enables a more detailed examination of MTP profiles in the second trimester, offering insights into the demographics, medical Indications and outcomes associated with these procedures. This study retrospectively analyzed the profiles of women who sought MTPs between 20-24 weeks of gestation at a tertiary care center from October 2021 to October 2022. It aimed to explore the primary reasons for seeking abortions, assess the methods employed and identify complications that occurred during or after the procedure.

Objectives of the Study:

- To evaluate the number of medical terminations of pregnancy performed between 20-24 weeks over a one-year period.
- To observe the primary indications for MTPs between 20-24 weeks.
- To assess the various methods of MTP utilized during this gestational period.
- To identify and analyze complications arising from MTP procedures conducted between 20-24 weeks.

Research Setting: The study was conducted at a tertiary care center, providing comprehensive insights into MTP practices within a healthcare setting equipped to handle late-term abortion procedures. The findings serve as an important reference for healthcare providers, policymakers and reproductive health advocates, highlighting trends, challenges, and outcomes associated with second trimester MTPs. This retrospective analysis contributes valuable information to enhance service delivery and inform policy adjustments, ensuring better reproductive healthcare. Medical termination of pregnancy, particularly in the second trimester, is a critical area within reproductive health. By understanding the demographic, clinical, and procedural aspects of MTP between 20-24 weeks, this study addresses gaps in healthcare provision, enhances women's access to safe abortion services, and evaluates the real-world impact of legal frameworks on women's health rights. Through this research, we offer insights into the complexities of second trimester MTP, aiming to support continuous improvements in reproductive health services and policy implementation.

MATERIALS AND METHODS

This prospective observational study was conducted to analyze the profiles of women who underwent medical termination of pregnancy (MTP) between 20-24 weeks of gestation. The study was carried out at Vani Vilas Hospital, Bangalore Medical College and Research Institute (BMCRI), a tertiary care center equipped to handle complex obstetric cases. The data collection spanned one year, from October 2021 to October 2022. Ethical approval was obtained from the Institutional Ethics Committee of BMCRI prior to the commencement of the study. The study included a sample size of 68 women who sought MTP between 20-24 weeks and fulfilled the legal requirements as stipulated under the MTP Act, amended in 2021. The inclusion criteria were based on the legal Indications for MTP, which allowed termination for specific categories such as survivors of sexual assault, minors, women with changes in marital status (such as widowhood or divorce), women with physical or mental disabilities, cases of fetal malformation incompatible with life and those facing pregnancies in humanitarian settings or emergencies. Women who had undergone MTP at other centers and were referred for post-abortion care, as well as those with conditions like vesicular mole or septic abortion, were excluded from the study. Data collection was performed using a structured questionnaire that gathered information on socio-demographic characteristics, obstetric history and medical indications for seeking MTP. The patient's age, marital status, years of marriage, consanguinity and obstetric index were recorded. Details of the gestational age, previous pregnancies and any history of abortion were noted. Clinical parameters, including pulse, blood pressure, respiratory rate, temperature and BMI, were assessed to ensure the fitness of the patient for the procedure. Routine investigations such as complete blood count, blood grouping and RH-typing, liver and renal function tests and obstetric ultrasound were conducted to confirm gestational age and rule out any contraindications for MTP. The methods used for MTP during the study period were recorded and categorized into three primary approaches: Mifepristone and Misoprostol combination, Misoprostol alone and the combination of Foley's Catheter and Misoprostol. The choice of method was determined by clinical assessment, gestational age and individual patient factors. Each procedure was closely monitored to identify any intraoperative or postoperative complications. Such as excessive bleeding, infection, or retained products of conception. Data on the acceptance of post-abortal contraception were also collected to evaluate the adoption of family planning methods after MTP. The collected data was analyzed using descriptive statistical methods continuous variables were summarized as mean and standard

deviation, while categorical data was presented as frequencies and percentages. The analysis aimed to identify trends in the indications for MTP, the preferred methods of termination and any complications associated with these procedures. The results were used to draw conclusions regarding the safety, efficacy and adherence to legal and medical guidelines in conducting MTPs at 20-24 weeks of gestation. This study provides a comprehensive understanding of second-trimester abortion practices, helping to identify areas for improvement in reproductive health services and policy implementation.

RESULTS AND DISCUSSIONS

Table 1: Age Group

Age Range	Frequency	Percent
18-25	17	25.0
26-30	17	25.0
31-35	10	14.7
36-40	13	19.1
41-45	11	16.2
Total	68	100.0

The age distribution reveals that half of the patients (50%) seeking MTP services between 20-24 weeks were aged between 18 and 30, suggesting that younger women are the primary demographic. This could be attributed to factors like unintended pregnancies, socio-economic challenges, or delayed access to contraceptive services. Women in the 36-40 and 41-45 age ranges collectively comprised 35.3% of the cases, indicating that older women may also seek MTP due to late detection of fetal anomalies, health complications, or other personal reasons. The distribution highlights the need for reproductive health services that are accessible to women across all age groups, with particular emphasis on education and contraception for younger demographics.

Table 2: Marital Status

Marital Status	Frequency	Percent
Divorced	14	20.6
Married	25	36.8
Single	21	30.9
Widowed	8	11.8
Total	68	100.0

The data indicates that 36.8% of the women were married, making them the largest group among the MTP seekers. Single women comprised 30.9%, reflecting cases of unintended pregnancies that may have been influenced by lack of access to contraceptives or other sociocultural factors. Divorced and widowed women collectively accounted for 32.4%, which suggests that changes in marital status, personal circumstances, or lack of partner support could be driving factors behind seeking MTP. This distribution underlines the importance of accessible and non-judgmental reproductive health services for women of all marital statuses.

Table 3: Married Life

Years Married	Frequency	Percent
0 (Unmarried)	24	35.3
1-5	22	32.4
6-10	11	16.2
11-15	3	4.4
16+	8	11.8
Total	68	100.0

The majority of women (35.3%) were unmarried, indicating that a significant number of MTP seekers are young, single women facing unintended pregnancies. Women married for 1-5 years made up 32.4% of the group, suggesting that early marital years, often a period of family planning. Can lead to decisions for MTP due to personal. Health, or economic reasons. Those with over 10 years of marriage were fewer, reflecting the trend of family size completion as a possible factor for seeking MTP. This pattern highlights the need for early and effective contraceptive counseling.

Table 4: Consanguinity

Consanguinity	Frequency	Percent
No	40	58.8
Yes	28	41.2
Total	68	100.0

Consanguineous relationships were noted in 41.2% of the cases, suggesting a potential link to genetic concerns that might prompt the decision for MTP. Conditions like congenital anomalies, which are more common in consanguineous unions, could necessitate terminations, particularly in the second trimester. This indicates the importance of genetic counseling in communities where consanguinity is prevalent.

Table 5: Gravida

Gravida	Frequency	Percent
1	12	17.6
2-3	23	33.8
4+	33	48.5
Total	68	100.0

Nearly half of the patients (48.5%) had been pregnant four or more times, suggesting that these women may be seeking MTP to manage family size or due to complications in later pregnancies. Those with fewer pregnancies (1-3) also represented a significant portion, indicating diverse reasons such as unplanned pregnancies, economic pressures. or health risks driving the decision to seek MTP.

Table 6: Parity

Parity	Frequency	Percent
0	14	20.6
1-2	25	36.8
3+	29	42.6
Total	68	100.0

Women with one or two children (36.8%) formed the largest group, likely reflecting family planning decisions, while those with no children (20.6%) may

have been dealing with unintended pregnancies. Higher parity (three or more children) accounted for 42.6%. suggesting that MTP is sometimes sought to limit further family expansion.

Table 7: Living Children

Living Children	Frequency	Percent
0-1	28	41.2
2-3	26	38.2
4+	14	20.6
Total	68	100.0

The data indicates that 41.2% of the participants had one or no living children, highlighting that MTP might be related to early reproductive stages or unintended pregnancies. Women with two to three children (38.2%) might be considering family completion, while those with four or more children could be seeking to limit further pregnancies.

Table 8: Previous Abortions

Previous Abortions	Frequency	Percent
No	30	44.1
Yes	38	55.9
Total	68	100.0

With 55.9% having had previous abortions, this suggests a need for stronger family planning services. Repeat abortions highlight issues such as lack of effective contraception, socio-economic challenges, or recurring health risks that need to be addressed to improve reproductive health outcomes.

Table 9: Indication for MTP

Indication	Frequency	Percent
Change of marital status	10	19.1
Fetal malformation	8	14.7
Humanitarian Conditions	13	11.8
Mental illness	11	16.2
Minor	10	14.7
Physical disability	6	8.8
Survivor of sexual assault	10	14.7
Total	68	100.0

The diverse reasons for seeking MTP underscore complex social, health and legal challenges. High cases related to marital changes (19.1%) and mental illness (16.2%) emphasize the importance of supportive services, while fetal malformations (14.7%) point to medical necessities for late-term abortions. The significant representation of minors and survivors of assault highlights the need for empathetic, accessible reproductive care.

Table 10: Method of MTP

Method of MTP	Frequency	Percent
Foley's Catheter+Misoprostol	22	32.4
Mifepristone+Misoprostol	18	26.5
Misoprostol alone	28	41.2
Total	68	100.0

Misoprostol alone was the most common method (41.2%), valued for its simplicity and effectiveness. The

use of Foley's Catheter (32.4%) suggests cases needing more controlled or gradual dilation, whereas the combination of Mifepristone and Misoprostol was chosen in specific scenarios for enhanced efficacy.

Table 11: Complications

Complications Observed	Frequency	Percent
Bleeding	12	17.6
Infection	8	11.8
None	13	19.1
Others	15	22.1
Retained Products of Conception	20	29.4
Total	68	100.0

The most common complication was retained products of conception (29.4%), underscoring the need for diligent follow-up. Other complications like bleeding (17.6%) and infection (11.8%) further highlight the need for comprehensive patient care and monitoring to manage and minimize risks.

Table 12: Post-Abortal Contraception

Post-Abortal Contraception	Frequency	Percent
No	36	52.9
Yes	32	47.1
Total	68	100.0

>Half of the patients (52.9%) did not opt for contraception, pointing to a gap in counseling and access. Ensuring informed, accessible contraceptive options can prevent future unintended pregnancies, reducing the need for repeat MTPs.

The present study provides a comprehensive analysis of medical termination of pregnancy (MTP) services among women seeking termination between **20-24 weeks of gestation** at a tertiary care center. The findings shed light on the demographics, clinical profiles, methods used and outcomes associated with second-trimester MTP, revealing critical insights into the healthcare needs and challenges faced by this population.

Demographic and Socio-Economic Factors: The study found that a significant proportion of MTP seekers were **younger women**, with **50%** of the participants falling within the **18-30 years age range**. This indicates that unintended pregnancies remain a pressing issue among younger demographics, possibly due to socio-economic pressure, lack of access to effective contraceptive methods, or limited reproductive health education. Younger women may also face more stigma and barriers in accessing early-term abortion services, resulting in delayed presentations to healthcare facilities. The distribution across marital statuses revealed that **36.8%** of the women were married. And **30.9%** were single, suggesting that MTP services cater to a diverse group. The presence of **20.6% divorced** and **11.8% widowed** women underscores that changes

in marital status can lead to increased vulnerability, making it essential to ensure access to supportive reproductive healthcare services. These findings highlight the importance of **accessible, non-judgmental reproductive care** that addresses the unique circumstances of each demographic group^[5].

Clinical and Obstetric Profiles: One of the key findings of the study was the distribution of parity and gravida among the participants. **42.6%** of the women had a parity of three or more, while **48.5%** had been pregnant four or more times. Suggesting that many were seeking MTP as a measure to limit further family expansion. This trend is consistent with the idea that, beyond the first two children, families may face financial, health, or personal pressures leading to decisions to terminate pregnancies. Conversely, **20.6%** of the women had no previous live births, indicating the presence of unplanned or unintended pregnancies, particularly among younger or unmarried women. The study also noted that **41.2%** of the participants came from consanguineous marriages, potentially indicating a higher risk of genetic anomalies, which may contribute to the decision to seek MTP. This suggests the need for genetic counseling and better access to **prenatal screening** in populations where consanguinity is prevalent^[6].

Indications for MTP: The range of Indications for MTP identified in this study was broad, reflecting both medical and social factors. A significant proportion of MTPs were performed due to **changes in marital status (19.1%)**, such as widowhood or divorce, which can lead to challenging circumstances where continuing a pregnancy might not be feasible. Furthermore, **14.7%** of the cases were due to **fetal malformations**, emphasizing the role of MTP in managing pregnancies where the fetus has conditions incompatible with life or associated with severe health complications. The study also found that **16.2%** of terminations were linked to **mental illness**, highlighting the need for **holistic healthcare approaches** that consider the psychological well-being of patients. Additionally, a notable portion (**14.7%**) of the MTP seekers were **minors**, pointing to the necessity of confidential, supportive services that can provide safe care to adolescents without fear of stigma. **14.7%** were also survivors of **sexual assault**, further emphasizing the importance of **empathetic and trauma-informed care** for this vulnerable group.

Methods of MTP and Complications: The study identified that the most commonly used method for MTP was **Misoprostol alone (41.2%)**, followed by **Foley's Catheter combined with Misoprostol (32.4%)**, and **Mifepristone with Misoprostol (26.5%)**. The

preference for Misoprostol alone may be due to its ease of administration, availability and effectiveness in inducing uterine contractions, especially in the second trimester. The use of **Foley's Catheter and Misoprostol** indicates cases where enhanced cervical ripening was necessary, reflecting more advanced gestational age or patient-specific medical considerations. Despite the effectiveness of these methods, complications were not uncommon. The study found that 29.4% of the cases experienced **retained products of conception**, necessitating further management to ensure complete evacuation of the uterine contents. This complication is a known risk with second-trimester terminations, highlighting the need for **adequate follow-up care and monitoring**. Other complications included **bleeding (17.6%) and infections (11.8%)**, which underscore the importance of comprehensive **pre-procedural assessment and post-procedural management** to mitigate these risks. Ensuring patient stability and prompt treatment for complications can improve overall safety and outcomes^[7].

Post-Abortal Contraception: One of the critical observations of the study was the relatively low uptake of post-abortal contraception. with **52.9%** of the patients not opting for any form of contraception after the procedure. This is a significant finding, as it points to potential gaps in **contraceptive counseling** and accessibility. Effective post-abortal contraception is essential to prevent future unintended pregnancies, reduce the likelihood of repeat abortions and empower women to make informed choices about their reproductive health. The lower uptake may be due to a lack of awareness, availability, or cultural barriers, highlighting the need for **enhanced education and access to contraceptive options** as part of post-abortal care^[8].

Implications and Recommendations: The findings from this study provide several important implications for improving MTP services:

- **Accessible and Comprehensive Counseling:** There is a need to improve access to **reproductive health education and counseling services** that cater to a wide range of women, including adolescents, single women and those experiencing changes in marital status. Counseling should include information on **contraceptive options, family planning and psychological support**, especially for those with mental health conditions or those who have experienced trauma.
- **Holistic Healthcare Approaches:** Addressing the **mental health needs** of MTP seekers is crucial, particularly for those identified as having mental illnesses or who are survivors of sexual assault.

Trauma-informed care and empathetic services can help ensure that these patients receive the support they need. Both medically and emotionally.

- **Enhanced Follow-Up and Monitoring:** Given the complications observed, including **retained products of conception and bleeding**, healthcare providers must implement robust **follow-up protocols** to ensure patient safety. This can include post-procedural check-ups, education on recognizing signs of complications and easy access to emergency care if needed.
- **Promoting Post-Abortal Contraception:** The low uptake of post-abortal contraception highlights the need for **improved contraceptive counseling**. Integrating contraceptive education into MTP services can help reduce future unintended pregnancies, minimize the need for repeat abortions and enhance women's reproductive autonomy.
- **Genetic Counseling and Prenatal Screening:** The study underscores the need for **genetic counseling** and more widespread access to **prenatal screening**, particularly in communities where consanguinity is common. Early detection of fetal anomalies can help families make informed decisions and plan accordingly.

CONCLUSION

This study provides valuable insights into the demographics, clinical profiles and outcomes of women seeking MTP between 20-24 weeks. It highlights critical areas for improvement, including better contraceptive counseling. Holistic care approaches and enhanced management of complications. By addressing these factors, healthcare providers can ensure that MTP services are safe, accessible and supportive of women's reproductive health needs. The findings also underscore the importance of **non-judgmental, patient-centered care** that respects the diverse backgrounds and circumstances of women, ensuring that all patients receive the dignity and respect they deserve when making reproductive choices.

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