



Effect of Health Education on Mother Absolute Affection Programme (MAAP) among Primigravida Mothers residing at urban region of Maharashtra State

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Abstract

A One-Group Pretest-Posttest Design was used to find out the effect of Health Education on MAAP among 126 primigravida mothers selected conveniently residing at urban region of Maharashtra state.

To collect data on demographic variables & knowledge regarding MAAP, a self-administered questionnaire was used among primigravida mothers before and after Health Education. After a pre-test, Health Education on MAAP was administered among primigravida mothers. However, after one week, a post-test was conducted among primigravida mothers to assess the effect of Health education on MAAP.

From the findings, it was observed that whereas no mother had good and very good level of knowledge prior to the intervention, the percentage of mothers with very good knowledge increased to 31.4% after the MAAP. Similarly, after intervention, the number of mothers with Good level of knowledge rose up to 43 (42.1%) from 0 (0%). However, the mothers with average knowledge rose to 23.8% from 12.7%. Further, it is seen that after intervention none of the mothers had poor and very poor knowledge. There was about 40.2% improvement in knowledge among mothers after MAAP. There was a significant difference ($p < 0.0001$) between pre-test and post-test knowledge scores.

Chi-square test was used to find out the association between post-test knowledge scores on prevention of behavioral problems in children and selected demographic variables of Primigravida mothers. The finding of Chi-square test value shows that there is no significant association ($p > 0.05$) between post-test knowledge scores and selected demographic variables like Age in years, Education, Occupation, monthly income, religion, and source of information.

Findings of study revealed that the Health Education on MAAP was effective among primigravida mothers residing in selected area of the city.

Keywords: Mothers, absolute affection program, effectiveness, health education, primigravida mothers

Introduction

Children are essential to the future and present of the country. Typically, parents, grandparents, aunts, and uncles are dedicated to giving their children every benefit, as well as to making sure they are healthy and have the opportunity they require to reach their full potential. However, communities differ greatly in their dedication to children's overall health and the resources they provide to address children's needs. Communities' approaches to their shared responsibility to children, particularly to their health, reflect this.^[1]

Similarly, the health of women throughout pregnancy, delivery, and the postpartum period is referred to as maternal health. In order to guarantee that mothers and their unborn children achieve their maximum potential for health and wellbeing, every stage should be a pleasant one. Despite significant advancements over the past 20 years, around 287 000 women lost their lives in 2020 as a result of pregnancy and delivery. In addition to indirect reasons including anaemia, malaria, and heart disease, the most frequent direct causes of maternal harm and mortality include excessive blood loss, infection, high blood pressure, botched abortion, and obstructed labour. The majority of maternal fatalities

can be avoided with prompt care from a qualified medical practitioner in a nurturing setting.^[2]

Background

The process of giving a child human breast milk is known as breastfeeding. Breast milk can be pumped and given to the baby, or it can come directly from the breast. Breastfeeding should start during the first hour of a newborn's life and continue for as long as the baby desires, according to recommendations from the World Health Organization (WHO). The WHO and other health organizations advise breastfeeding exclusively for six months. This indicates that vitamin D is usually the only food or drink provided.^[9]

The greatest way to protect newborns and infants from malnutrition is to exclusively breastfeed them. It meets all of the baby's nutritional needs. For the first six months of life, oral water is also not necessary because breast milk comprises 70% water. Mother's milk has additional proteins and minerals specifically tailored to meet the needs of the newborn. "COLOSTRUM" is very beneficial since it has an immunological component that guards against infection. Growth factors comprise elements essential for a baby's development and aid in the gut's maturation. In addition to having a high economic worth, breast milk has positive nutritional, immunological, and psychological effects.^[10]

Need of the Study

Children who are breastfed tend to be more intelligent, have lower rates of obesity and overweight, and are less likely to develop diabetes. Worldwide attempts to increase the number and duration of breastfeeding are still being hampered by the inappropriate marketing of alternatives to breast milk.^[15]

Improper positioning, attachment, and suckling causes ineffective breastfeeding technique. And it results in inadequate intake of breast milk, which leads to poor weight gain, stunting, and deficient immunity. Besides, ineffective breastfeeding technique increases the risk of postpartum breast problems. In spite of its impact on maternal and child health, breastfeeding technique is not well studied.^[16]

Many women who begin breastfeeding the infants cease before the recommended six months, despite the fact that specialist advice against it. People frequently give up because everyday issues make it difficult for them to nurse. Luckily, these challenges can typically be surmounted and breastfeeding can continue for a longer period of time with the right support and guidance along with necessary medical care as needed.^[17]

99 percent of newborn fatalities occur in low- and middle-income countries, meaning that the poorest populations are disproportionately affected. A 2020 UNICEF report states that infections including sepsis, meningitis, and pneumonia, as well as problems during labour and delivery, account for almost 80% of infant mortality. Therefore, addressing newborn mortality necessitates a system-wide strategy and cannot be resolved by a single solution. Nonetheless, many of these deaths may be avoided with the help of skilled midwives and easy treatments like increasing access to clean water and disinfectants, encouraging breastfeeding within the first hour of delivery, skin-to-skin contact, and proper maternal nutrition.^[18]

Problem Statement

Effect of Health Education on Mother Absolute Affection Programme (MAAP) among primigravida mothers residing at urban region of Maharashtra state

Objectives

1. To assess the knowledge on Mother Absolute Affection Programme (MAAP) among Primigravida mothers before intervention.
2. To evaluate the effect of Health Education on Mother Absolute Affect Programme (MAAP) among Primigravida mothers.
3. To find out the association between post-test knowledge scores on Mother Absolute Affection Programme (MAAP) and selected demographic variables of Primigravida mothers.

Hypothesis

1. **H₁**: There is a significant difference between the pre-test and post-test knowledge scores on Mother Absolute Affection Programme (MAAP) among Primigravida mothers.
2. **H₁**: There is a significant association between post-test knowledge scores on Mother Absolute Affection Programme (MAAP) and selected demographic variables of Primigravida mothers.

1. Title

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2. Objectives

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1. Operational Definition

▪ Knowledge

It is operationalized as responses of primigravida mothers to the knowledge items in Structured Interview Schedule on MAAP. For the purpose of analysis, the knowledge divided as poor, average, good, very good, excellent”.

▪ Effect

It is operationalized as a statistical difference (as a result of Health Education) in pre-test and post-test knowledge scores of primigravida mothers measured using Structured Interview schedule”.

▪ Health Education on MAAP

It is operationalized systematically organized intervention used by the investigator to educate the primigravida mothers MAAP.”.

▪ Primigravida Mothers

It is operationalized as a a woman who is pregnant for the first time living in a selected urban area of Maharashtra state”.

▪ Urban Area

It refers to a geographic area that is located inside the towns and cities of Maharashtra State where the present research study shall be carried out”.

4. Hypothesis

1. **H₁**: There is a significant difference between the pre-test and post-test knowledge scores on Mother Absolute Affection Programme (MAAP) among Primigravida mothers.
2. **H₂**: There is a significant association between post-test knowledge scores on Mother Absolute Affection Programme (MAAP) and selected demographic variables of Primigravida mothers

5. Dilimitations

The study will be limited to urban area 126 samples primigravida mothers.

6. Ethical Aspect

The study was approved by the Institutional Ethical Committee and the study will be conducted in accordance with the ethical guidelines prescribed by the Committee of Board of Research studies (BORS)

7. Review of Literature

The review of literature is done under following areas

1. Literature related to Incidence and prevalence of infant and child mortality.
2. Literature related to general information on breast feeding and its importance.
3. Literature related to general information on Mother Absolute Affection Programme.
4. Literature related to knowledge of primigravida mothers regarding Mother Absolute Affection Programme
5. Literature related to health education on Mother Absolute Affection Programme

8. Conceptual Framework

Ludwig Von Bertalanffy general systems theory shall be used to assemble the key concepts in a rational scheme. The system of this framework consists set of interacting components; input, throughput, output and feedback. In this study, the investigator will make an attempt to apply general systems theory where the effect of Health Education on Mother Absolute Affection Programme (MAAP) among Primigravida mothers can be processed through input, output and feedback components.

Methodology

- **Research approach:** Quantitative research approach
- **Research design:** One group pre-test and post test research design
- **Setting of the study:** The study was conducted in one selected urban region under two different blocks of Maharashtra State.
- **Research variable:** Dependent variable: In the present study, the knowledge on Mother Absolute Affection Programme (MAAP) was the dependent variable. Independent variable: In the present study, the Health Education on Mother Absolute Affection Programme (MAAP) was the independent variable. Extraneous variables: Refers to demographic variables of primigravida mothers such as Age, educational qualification, occupation, monthly income, religion and source of information.
- **Demographic variables:** Age, educational qualification, occupation, monthly income, religion and source of information.
- **Population:** Primigravida mothers
- **Target population:** It includes all the schoolers
- **Accessible population:** All primigravida mothers residing in selected urban area of Maharashtra state available for research study were considered as the accessible population
- **Sampling**
- **Sample size:** 126 primigravida mothers
- **Sampling technique:** convenient sampling technique
- **Sampling criteria**
- **Inclusion criteria**

The criteria that specify characteristics that a population does have.

1. Primigravida mothers those who were consented to participate in the study.
2. Primigravida mothers those who were available at the time of data collection.

3. Primigravida mothers who could read and write Marathi.

Exclusive criteria

1. Primigravida mothers who had attended similar type of Health Education.

Description of Tools

1. **Section I:** Structured Interview Schedule
2. **Section II:** Health Education

Validity

Content validity of SIS and Health Education were established in consultation with 12 experts from the field of Obstetrics and Gynecology Nursing (n=9), Surgeon (n=1), Statistician (n=1), and a language expert (n=1).

Reliability

In this study, by using the Split-half technique was used where Karl Pearson's correlation coefficient was calculated. The tool was found to be reliable ($r=0.8418$)

Pilot study

Pilot study was conducted among conveniently selected 15 primigravida mothers to find out the effect of Health Education on Mother Absolute Affection Programme (MAAP) in a setting other than main study after obtaining a prior permission from the authorities concerned. Informed consent was obtained from the study participants and data was collected during the month of march 2025.

Prior to intervention, the SIS was used to assess the knowledge of primigravida mothers regarding Mother Absolute Affection Programme (MAAP). Immediately after pre-test, the health education on Mother Absolute Affection Programme (MAAP) was used to teach the primigravida mothers. A Post-test was conducted among primigravida mothers after one week of intervention using same tool used for the pretest.

Collected data was coded, tabulated and analyzed using descriptive and inferential statistics. Findings of pilot study have shown the feasibility of sampling and data collection procedure of major study. Nonetheless, this small study has improved the investigator's understanding of the main study and helped the investigator picture some of the practical issues.

Data collection

Legal permission-The investigator has obtained formal permission from authorities concerned of selected school of the study setting to conduct research study.

Informed consent-The informed consent was obtained from each primigravida mother for their willingness to participate in the study. Purposes of research study were explained by the investigator and ensured the anonymity of participation.

Data collection procedure-After obtaining a formal permission, the investigator has fixed the date & time for data collection. According to tentative schedule, the investigator has visited the study setting and collected data from 11/03/2025 to 26/03/2025.

Results

Section A

Distribution of Primigravida Mothers According to Their Demographic Variables

Table 1. Frequency and percentage distribution of demographic variables of the primigravida mothers n=126

Sr. No.	Demographic Variables	Number of mothers	%
1	AGE in years		
	a. 19 - 25 years	48	38.1%
	b. 26 – 32years	52	41.3%
	c. 33 – 39 years	20	15.9%
	d. 40 – 45 years	6	4.7%
2	Education		
	a. No formal education	18	14.3%
	b. Primary school education	52	41.3%
	c. Secondary school education	34	27%
	d. Higher Secondary education & above	22	17.5%
3	Occupation		
	a. Occupation		
	b. Govt.job	17	13.5%
	c. Private job	5	3.97%
	d. House Wife	51	40.5%
4	Monthly Income		
	a. Rs. 10000/- & below	29	23%
	b. Rs. 10001/- Rs 20000/-	56	44.4%
	c. Rs. 20001/- Rs. 30000/-	30	23.8%
	d. Rs. 30001/- & above	11	8.73%
5	Religion		
	a. Hindu	72	57.1%
	b. Buddhist	30	23.8%
	c. Muslim	13	10.3%
	d. Other	11	8.73%
6	Source of Information		
	a. Facebook	28	22.2%
	b. Instagram	66	52.4%
	c. Twitter	14	11.1%
	d. Google	18	14.35%

Fig - 4.1.1: Percentage distribution of primigravida mothers according to their age in years

Section B

Description of Knowledge on Mother Absolute Affection Programme (Maap) Among Primigravida Mothers Before Intervention

Table 2. Percentage distribution of knowledge scores on MAAP among primigravida mothers before intervention

Level of knowledge	Frequency (f)	Percentage (%)
Very Poor	13	10.32%
Poor	97	76.98%
Average	16	12.7%
Good	0	0%
Very good	0	0%
Overall	126	100%

Distribution of knowledge scores before intervention revealed that around 10.32% (13) & 76.98% (97) primigravida mothers had Poor and Very poor knowledge

respectively. Further, it is seen that 12.7% (16) of mothers had average knowledge. However, none of them had good and very good level of knowledge.

Table 3. Mean & SD of knowledge scores on MAAP among primigravida mothers after intervention n=126

Level of knowledge	Frequency (f)	Mean ± SD
Very Poor	0	0±0
Poor	0	0±0
Average	30	15.96±1.25
Good	53	20.84±1.45
Very good	43	26.13±1.21
Overall	126	21.49±4.07

After intervention, the mean knowledge score on MAAP among primigravida mothers was 322 with a standard deviation of 2.89.

Section C

Comparison of Knowledge Scores on Mother Absolute Affection Programme (Maap) Among Primigravida Mothers Before and After Intervention

Table 4. Comparison of Percentage distribution of knowledge scores on MAAP among primigravida mothers before and after intervention.

Sr. No	Level of knowledge	Pre-test		Post-test	
		Frequency(f)	%	Frequency(f)	%
1	Very Poor	13	10.32%	0	0%
2	Poor	97	76.98%	0	0%
3	Average	16	12.7%	30	23.8%
4	Good	0	0%	53	42.1%
5	Very good	0	0%	43	34.1%
Overall		126	100%	126	100%

Comparison of percentage wise distribution of knowledge on MAAP among primigravida mothers before and after intervention revealed that, whereas no mother had good and very good level of knowledge prior to the intervention, the percentage of mothers with very good knowledge increased to 31.4% after the MAAP. Similarly, after intervention, the number of mothers with Good level of knowledge rose up to

43 (42.1%) from 0 (0%). However, the mothers with average knowledge rose to 23.8% from 12.7%. Further, it is seen that after intervention none of the mothers had poor and very poor knowledge.

Hence it can be interpreted that, MAAP might have influenced the knowledge of primigravida mothers.

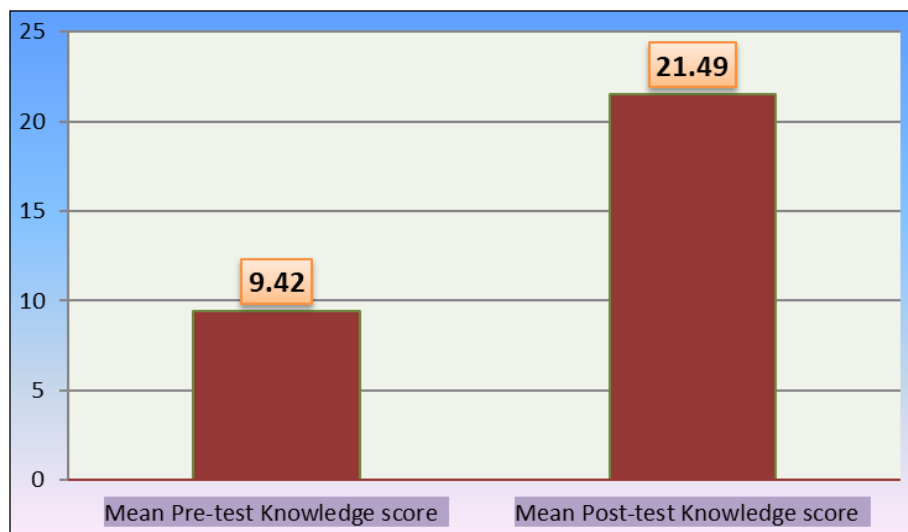


Fig 1. Comparison of mean knowledge scores among primigravida mothers before and after intervention

Section D

Effectiveness of Health Education on Mother Absolute Affection Programme (Maap) Among Primigravida Mothers

Testing of Hypothesis

H₁: There is a significant difference between the pre-test and post-test knowledge scores on Mother Absolute

Affection Programme (MAAP) among Primigravida mothers

a. Area Wise Effectiveness on Mother Absolute Affection Programme (Maap) Among Primigravida Mothers

Table 5. Area wise effectiveness on Mother Absolute Affection Programme (MAAP) among primigravida mothers *n*=126

Sr. No.	Area of knowledge	Pretest	Post-test	t value	p value
		Mean ±SD	Mean ±SD		
1	General information on MAAP	1.75±0.88	5.07±0.69	32.4247 (df-125)	0.0001 S.p<0.05
2	General information on goals and objectives of MAAP	1.79±0.61	2.63±1.12	7.5640 (df-125)	0.0001 S.p<0.05
3	Key components of MAAP	5.89±1.96	13.79±2.78	28.4855 (df-125)	0.0001 S.p<0.05
Overall		9.42±2.20	21.49±4.09	31.2887 (df-125)	0.0001 S.p<0.05

b. Effectiveness of Health Education on MAAP among primigravida mothers

Table 6. Overall Effectiveness of Health Education on MAAP among primigravida mothers *n*=126

Assessment	Mean knowledge	SD	Mean Difference	t-value	p-value
Pre-Test	9.42	2.20	12.07±1.89	31.2887 (df-125)	0.0001 S.p<0.05
Post Test	21.49	4.09			

S=Significant

Paired 't' test was used to test the significance of difference between the pre- test and post-test knowledge scores of primigravida mothers. The data presented in Table shows the significant 't' value. These findings highlight the effectiveness of Health Education in increasing the knowledge of the primigravida mothers regarding Mother Absolute Affect Programme (MAAP). Hence, the research hypothesis, H₁: There is a significant difference between the pre-test and post-test knowledge scores on Mother Absolute Affection Programme (MAAP) among Primigravida mothers, is accepted.

Section E

Association of Post-Test Knowledge Scores on Maap Among Primigravida Mothers with Their Demographic Variables

Testing of Hypothesis

H₂: There is a significant association between post-test knowledge scores on Mother Absolute Affection Programme (MAAP) and selected demographic variables of Primigravida mothers

Table 7. Association of post-test knowledge scores on Mother Absolute Affection Programme (MAAP) with selected demographic variables of Primigravida mothers *n*=126

Sr. No	Demographic Variable	Level of Knowledge					χ ² value	P Value	
		Very Poor	Poor	Avg.	Good	Very good			
1	Age in years	19 - 25 years	0	0	15	19	14	6.32	0.8990 NS; p >.05 (df=12)
		26 – 32years	0	0	8	24	20		
		33 – 39 years	0	0	6	6	8		
		40 - 45 years	0	0	1	4	1		
2	Education	No formal education	0	0	4	10	4	7.905	0.7925 NS; p >.05 (df=12)
		Primary school education	0	0	10	22	20		
		Secondary school education	0	0	13	10	11		
		Higher Secondary education & above	0	0	3	11	8		
3	Occupation	Govt.job	0	0	3	8	6	4.773	0.9651 NS; p >.05 (df=12)
		Private job	0	0	0	3	2		
		House Wife	0	0	16	17	18		
		Other	0	0	11	25	17		
4	Monthly income	Rs. 10000/- & below	0	0	10	12	7	6.161	0.9077 NS; p >.05 (df=12)
		Rs. 10001/- Rs 20000/-	0	0	11	24	21		
		Rs. 20001/- Rs. 30000/-	0	0	8	10	12		
		Rs. 30001/- & above	0	0	1	7	3		
5	RELIGION	Hindu	0	0	19	31	22	3.826	0.9863 NS; p >.05 (df=12)
		Buddhist	0	0	6	13	11		
		Muslim	0	0	4	4	5		
		Other	0	0	1	4	6		
6	Source of information	Facebook	0	0	5	13	10	2.225	0.9989 NS; p >.05 (df=12)
		Instagram	0	0	16	25	24		
		Twitter	0	0	3	7	4		
		Google	0	0	6	7	5		

NS=Not Significant

Chi- square test was used to find out the association between post-test knowledge scores on Mother Absolute Affection Programme (MAAP) and selected demographic variables of Primigravida mothers. The finding of Chi-square test value shows that there is no significant association (p>0.05) between post-test knowledge scores and selected demographic variables like Age in years, Education, Occupation, monthly income, religion, and source of information.

Therefore, the research hypothesis; H₂: There is a significant association between post-test knowledge scores on Mother Absolute Affection Programme (MAAP) and selected demographic variables of Primigravida mothers, is rejected.

Discussion

Highest percentage of primigravida mothers was belonged to the age group of 26-32 years. Around 40% (41.3%) of the primigravida mothers were educated up to primary school education. 40.5% primigravida mothers were home makers.

Majority of primigravida mothers (44.4%) had a monthly income of Rs. 10001- to Rs. 20000. More than half of the primigravida mothers (57.1%) were Hindus. Most of the primigravida mothers (52.4%) utilized instagram as a source of information regarding health programs. Before intervention, 76.98% of primigravida mothers had poor knowledge. Further, 12.7% of them had average level of knowledge. None of the mothers had good and very good knowledge before intervention. Distribution of Mean & SD of knowledge scores on Mothers absolute affection Programme (MAAP) before intervention was 9.42±2.18. The overall knowledge scores among primigravida mothers have significantly increased by 40.2 % making a huge increase in the percentages of knowledge. After intervention, the overall Mean knowledge score was significantly increased from 9.42 ± 2.18 to 21.49±4.07 in post-test.

Highly significant difference (p<0.0001) was found with a 't' value of 31.28 between a pre-test & post-test knowledge score.

The study found no significant association ($p>0.05$) between post-test knowledge score and demographic variables such as Age in years, Education, Occupation, monthly income, religion, and source of information.

Conclusion

After the detailed analysis, this study leads to the following conclusion. From the findings of present study, it was concluded that, before intervention, the knowledge regarding Mothers absolute affection Programme (MAAP) among primigravida mothers were found to be inadequate. However, after Health education, the percentage of knowledge and the mean scores of primigravida mothers were significantly increased and there was a significant difference between pretest and post-test knowledge scores. However, no significant association was found between the knowledge of primigravida mothers and their demographic variables.

Thus, it was concluded that the Health education on Mothers absolute affection Programme (MAAP) was effective among Primigravida mothers at urban region of Maharashtra state.

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