

A Pre-Experimental Study to Assess the Effectiveness of Informational Booklet On Knowledge Regarding Self-Care During Pregnancy Among Antenatal Mothers in Selected Community Area of Bhopal, (M.P.)

Ambika Raj¹, Harshita Vishwakarma¹, Jeffin George¹, Nitesh Kumar¹, Priyanka¹, Renu Kewat¹, Sahil Mansoori¹, Santosh Kumari Dangi¹, Trapti Barpete¹, K. Punithalakshmi¹, Riya Singh²

¹B.Sc. Nursing VII Semester Students, Principal & Dean, Department of Obstetrics and Gynaecology (OBG)

²Asst. Professor, Department of Obstetrics and Gynaecological Nursing (OBG) People's College of Nursing and Research Centre, Bhopal M.P.

Corresponding Author:

Riya Singh, Asst. Professor, Department of Obstetrics and Gynaecological Nursing (OBG) People's College of Nursing and Research Centre, Bhopal, MP

E-mail:

thakurriyasingh261997@gmail.com

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Abstract

Background: Pregnancy is a crucial period requiring adequate knowledge and self-care practices to ensure maternal and fetal well-being. Lack of awareness regarding nutrition, hygiene, antenatal care, and danger signs may lead to pregnancy-related complications. Informational booklets can serve as effective educational tools to improve knowledge among antenatal mothers.

Materials and Methods: A quantitative pre-experimental one-group pre-test post-test design was adopted. A total of 60 antenatal mothers were selected using a non-probability convenience sampling technique. Data were collected using a structured questionnaire. An informational booklet on self-care during pregnancy was administered, and data were analyzed using descriptive and inferential statistics.

Results: The mean pre-test knowledge score was 13.15 ± 2.95 , indicating inadequate to moderate knowledge. Following the intervention, the mean post-test score increased to 25.47 ± 1.49 , with all participants (100%) achieving adequate knowledge. The paired t-test demonstrated a highly significant improvement in knowledge ($t = 27.216$, $p < 0.001$). No significant association was found between pre-test knowledge scores and socio-demographic variables ($p > 0.05$).

Conclusion: The informational booklet was found to be an effective educational intervention for improving knowledge regarding self-care during pregnancy among antenatal mothers. It can be utilized as a simple and practical strategy to promote safe motherhood and healthy pregnancy outcomes.

Keywords: Antenatal Mothers, Self-Care During Pregnancy, Informational Booklet, Knowledge.

Introduction

Pregnancy is a crucial and beautiful phase in a woman's life that brings both joy and responsibility. It is a period of remarkable

physiological and emotional changes that require proper knowledge and self-care to ensure the health and well-being of both the mother and the developing foetus. Self-care during pregnancy

includes maintaining good nutrition, adequate rest, personal hygiene, regular antenatal check-ups, and early recognition of danger signs.

In many developing countries, including India, a large number of antenatal mothers lack adequate knowledge about these essential self-care measures. This lack of awareness often results in preventable complications such as anaemia, pre-eclampsia, infections, and poor pregnancy outcomes. Health education during antenatal visits is often limited due to time constraints and overcrowding in community.

Objective of The Study:

1. To assess the pre-test knowledge score regarding self-care during pregnancy among antenatal mothers.
2. To assess the post-test knowledge score regarding self-care during pregnancy among antenatal mothers.
3. To evaluate the effectiveness of informational booklet on knowledge by comparing pre-test and post- test score regarding self-care during pregnancy among antenatal mothers.
4. To find the association between the pre -test level of knowledge regarding self-care during pregnancy and their selected demographic variables.

Hypothesis:

- H_1 : There will be significant difference between mean pre-test knowledge score and post-test knowledge scores regarding self-care during pregnancy among antenatal mothers at the level of $p < 0.05$.
- H_2 : There will be significant association between the pre-test level of knowledge regarding self-care during pregnancy among antenatal mothers with their socio demographic variables at $p < 0.05$.

Materials and Methods:

Research Design: According to polit & Hungler (1989) research design are the researchers over plan for answering the research questions and spell out the strategies that the research adopts to develop information that accurate and interpretable if

stipulated to fundamental from that the research will take test.

Setting: The study was conducted in a Ratua rural the community area of Bhopal, Madhya Pradesh. The area will be selected based on feasibility, accessibility of antenatal mothers, and availability of antenatal services.

Sampling Technique: A Non-probability purposive sampling technique was used to select antenatal mothers who met the inclusion criteria and were available at the time of data collection.

Sample Size: The sample size consists of 60 antenatal mothers.

Data collection: Data was collected in December 2026

Inclusion Criteria:

- Antenatal mothers who were willing to participate in the study.
- Antenatal mothers who could read and understand Hindi or English.

Exclusion Criteria :

- Antenatal mothers who were not willing to participate.
- Antenatal mothers who had previously participated in any similar health awareness programs.
- Mothers who are healthcare professionals.

Tools used in this study:

Section A: Demographic Proforma

This section consisted of items related to demographic variables such as Age, Education, Occupation, Income, Gravida, Trimester, and previous knowledge.

Section B: Structured Knowledge Questionnaire

- 30 items
- Multiple choice question

Section C: Informational Booklet

An informational booklet was developed by the researcher covering various aspects of self-care during pregnancy in simple and understandable language.

Results

Descriptive and inferential statistics were used to evaluate and interpret the data in accordance with the study's goals. The results are broken down into a number of sections, such as the demographics of

expectant mothers, the evaluation of pre-test and post-test knowledge scores, the usefulness of the informational booklet, and the relationship between pre-test knowledge scores and specific sociodemographic factors.

Section I

Table No. 1: Frequency and Percentage Distribution of Demographic Variable of Antenatal Mothers

S. No.	Socio-Demographic Variables	Frequency	Percentage	
1.	Age in years	18-22 years	10	16.7
		23-27 years	35	58.3
		28-32 years	11	18.3
		33 years	4	6.7
2.	Religion	Hindu	41	68.6
		Muslim	18	30.0
		Christian	1	1.7
		Others	0	0
3.	Occupation	Housewife	39	65.0
		Private Job	16	26.7
		Government Job	4	6.7
		Self Employed	1	1.7
4.	Marital Status	Married	49	81.7
		Widowed	9	15.0
		Separated	2	3.3
5.	Education	1-6 th Class	18	30.0
		6-10 th Class	36	60.0
		10-12 th Class	2	3.3
		Graduate and above	4	6.7
6.	Family	Nuclear Family	36	60.0
		Joint Family	24	40.0
7.	Family Income Per Month	<5000	16	26.7
		>5000	32	53.3
		10,001-20,000	9	15.0
		20,001-40,000	3	5.0
8.	Parity	Primigravida	27	45.0
		Multigravida	33	55.0

S. No.	Socio-Demographic Variables	Frequency	Percentage	
8.	Parity	Primigravida	27	45.0
		Multigravida	33	55.0
9.	Have you ever had complications in previous pregnancy	Yes	19	31.7
		No	41	68.3
10.	Previous obstetric history	Previous abortion	5	8.3
		Previous Child Birth	19	31.7
		Previous LSCS	2	3.3
		Previous Still Birth	34	56.7
11.	Source of information about Pregnancy Care	Family, Relatives	17	28.3
		Media	28	46.7
		Health Professional	10	16.7
		Nil	5	8.3
12.	Trimester of pregnancy	First Trimester (0 to 12 Weeks)	24	40.0
		Second Trimester (13-28 Weeks)	24	40.0
		Third Trimester (29-40 Weeks)	11	18.3
		Above (40 Weeks)	1	1.7
13.	Place of Residence	Urban	0	0
		Rural	60	100.0

Table No 2: Assessment of pre-test knowledge score regarding self- care during pregnancy among antenatal mothers.

5	Frequency	Percent
Adequate Knowledge	0	0
Moderate Knowledge	47	78.3
Inadequate Knowledge	13	21.7
Total	60	100.0

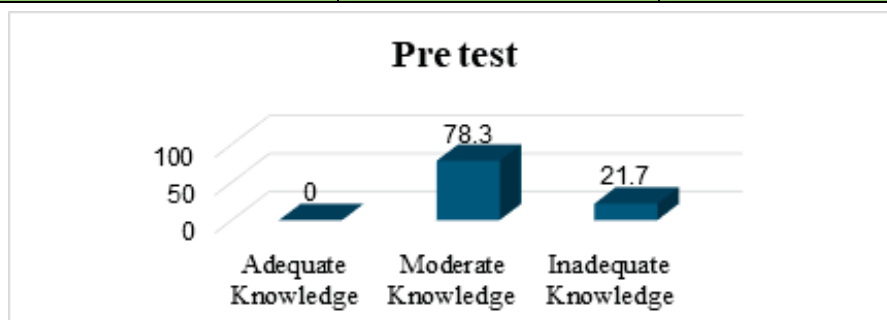


Figure no.1 This table display the pre-test knowledge level of antenatal mothers

Table :3 Assessment of post - test knowledge score regarding self- care during pregnancy among antenatal mothers

Post test	Frequency	Percent
Adequate Knowledge	60	100.0
Moderate Knowledge	0	0
Inadequate Knowledge	0	0
Total	60	100.0

Table :4 Comparing pre-test and post-test score regarding self- care during pregnancy among antenatal mothers.

	Mean	Std. Deviation	t	df	P Value	Significance
Pre test	13.15	2.945	27.216	59	.000	S
Post test	25.47	1.490				

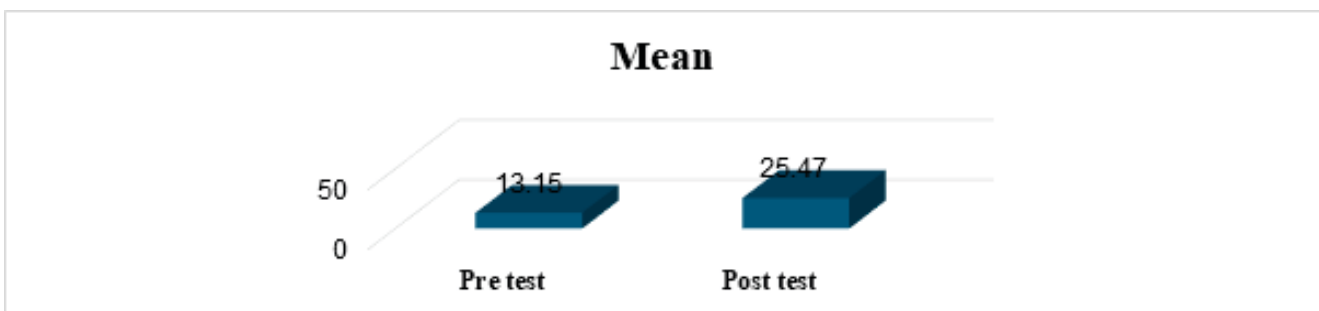


Figure no. 4 this shows the comparison of pre-test and post test mean

Table no.4 /figure no.3. display comparison of the mean knowledge scores of antenatal mothers before and after administering an informational booklet on self-care during pregnancy. The mean post-test score increased to (25.47 ± 1.49), was considerably higher than the mean pre-test score (13.15 ± 2.95), including a marked improvement in knowledge

after intervention. The paired t-test values (t= 27.216, df= 59) with a highly significant p-value (p=.000) confirms that the difference between pre-test and post test is statistically significant. This suggests that the informational booklet was effective in enhancing the participant's knowledge on selected topic.

Table no: 5 Association between pre-test knowledge score and selected demographic variables

	Adequate Knowledge	Moderate Knowledge	Inadequate Knowledge	Total	Chi square value	df	P value	Significance
Age								
18-22 years		8	2	10	1.356	3	0.716	NS
23-27 years		27	8	35				
28-32 years		8	3	11				
33 years		4	0	4				
Religion								

	Adequate Knowledge	Moderate Knowledge	Inadequate Knowledge	Total	Chi square value	df	P value	Significance
Hindu		34	7	41	2.230	2	0.328	NS
Muslim		12	6	18				
Christian		1	0	1				
Other								
Occupation								
Housewife		28	11	39	3.526	3	0.317	NS
Private job		15	1	16				
Government job		3	1	4				
Self-employed		1	0	1				
Marital status								
Married		36	13	49	3.726	2	0.155	NS
Widowed		9	0	9				
Separated		2	0	2				
Education								
(1-6 th class)		15	3	18	1.080	3	0.782	NS
(6-10 th class)		27	9	36				
(10-12 th class)		2	0	2				
Graduate and above		3	1	4				
Type of family								
Nuclear family		28	8	36	.016	1	0.898	NS
Joint family		19	5	24				
Family income per month								
<5,000		12	4	16	4.681	3	0.197	NS
>5,000		28	4	32				
10,001-20,000		5	4	9				
20,001-40,000		2	1	3				
Parit								
Primigravida (1st pregnancy)		23	4	27	1.358	1	0.244	NS
Multigravida (2 or more)		24	9	33				
Have you ever had complications in previous pregnancy								
Yes		13	6	19	1.610	1	0.205	NS
No		34	7	41				
Do you have any previous obstetric history of								
Previous abortion		2	3	5	5.210	3	0.157	NS
Previous childbirth		15	4	19				
Previous LSCS		2	0	2				
Previous Still birth		28	6	34				

	Adequate	Moderate Knowledge	Inadequate Knowledge	Total	Chi square value	df	P value	Significance
Previous childbirth		15	4	19				
Previous LSCS		2	0	2				
Previous Still birth		28	6	34				
Source of information about pregnancy care								
Family. Relatives		12	5	17	1.917	3	0.590	NS
Media		24	4	28				
Health Professional		7	3	10				
Nil		4	1	5				
Trimester of pregnancy								
First trimester (0-12 weeks)		18	6	24	3.022	3	0.388	NS
Second trimester (13-28 weeks)		21	3	24				
Third trimester (29-40weeks)		7	4	11				
Above (40 week)		1	0	1				
Place of residence								
Urban								

P>0.05 P value is not statistically significant at 95% confidence interval

The finding revealed that none of the socio-demographic variables showed a statistically significant association with the pre-test knowledge level of antenatal mothers ($p > 0.05$ for all variables). This indicates that inadequate knowledge regarding self-care during pregnancy was uniformly present across mothers of all ages, education levels, income groups, occupations, and obstetric backgrounds. Therefore, the informational booklet was needed equally for all groups.

Discussion

The present study highlights the important insight into the level of knowledge of antenatal mothers on self-care during pregnancy and the effectiveness of an informational booklet.

The pre-test findings showed that most mothers had inadequate knowledge regarding self-care during pregnancy. This may be due to lack of proper health education and limited access to reliable information. After administration of the booklet, post-test knowledge scores improved significantly.

The study further revealed that there was no significant association between pre-test knowledge scores and selected socio-demographic variables ($p > 0.05$). This indicates that inadequate knowledge regarding self-care during pregnancy was common among antenatal mothers irrespective of their demographic characteristics. Therefore, informational booklets can be considered an effective educational tool for improving maternal knowledge and promoting healthy pregnancy practices.

Conclusion

The study concluded that antenatal mothers had insufficient knowledge regarding self-care during pregnancy before exposure to the informational booklet. The educational intervention significantly improved their knowledge level, indicating that informational booklets are an effective, economical and easy-to-use method of health education.

The findings emphasised that providing appropriate and timely health education can empower antenatal mothers to adopt healthy self-care practices, reduce pregnancy-related complications and improve maternal and foetal

outcomes. Therefore, informational booklets should be considered an essential component of antenatal care services in hospitals and community settings.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. Future studies can be conducted with larger samples and advanced research designs such as experimental or quasi-experimental studies.
2. Further research may evaluate the long-term effectiveness of informational booklets on knowledge, practice and pregnancy outcomes.

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Conflicts of interests: There is no conflict of interest

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