



International Journal of Science, Architecture, Technology and Environment

Assess the Awareness on Adherence to Self-Care Practices During Pregnancy Among Antenatal Mothers

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DOI: <https://doi.org/10.63680/lytbjtrvtruub7546vy>

Abstract

Pregnancy is a critical period involving significant physical and emotional changes. Despite the proven benefits of antenatal care (ANC), many women—particularly in rural or underserved areas—do not adhere to recommended practices due to factors like poor awareness, limited access to healthcare, and socioeconomic constraints. This study explores awareness and adherence to these practices among antenatal mothers aiming to identify influencing factors and areas for improvement to support better maternal health. **Statement of the problem:** A study to assess the awareness on adherence to self-care practices during pregnancy among antenatal mothers at selected setting, Chennai. **Objectives:** 1. To assess the awareness on adherence to self-care practices during pregnancy among antenatal mothers. 2. To associate the awareness on adherence to self-care practices during pregnancy with demographic variables of antenatal mothers. **Materials and Methods:** A quantitative, non-experimental, descriptive design, a total of 200 antenatal mothers from UCHC, Palavakkam, Chennai, were selected using a non-probability convenience sampling method. Data was collected using a structured questionnaire and analyzed using SPSS version 2.0. The results revealed that 28% of the mothers had low awareness, 30% had moderate awareness, and 42% had high awareness regarding self-care practices during pregnancy. Chi-square analysis showed a significant association between awareness levels and all demographic variables ($p = 0.05$). **Conclusion:** The findings highlight the importance of targeted health education programs to enhance awareness and improve adherence to recommended self-care practices among pregnant women, particularly in rural areas.

Keywords: Awareness; Adherence; Self-care practices; Pregnancy; Antenatal mothers

INTRODUCTION

Pregnancy is a critical period in a woman's life that necessitates consistent antenatal care (ANC) to safeguard the health and well-being of both the mother and the fetus. ANC encompasses routine checkups,

screenings, vaccinations, and education on hygiene, nutrition, and general wellness. Tamil Nadu has made significant progress in reducing its maternal mortality ratio from 90 per 100,000 live births in 2021–22 to 45.5 in 2023–24. However, challenges remain, especially in rural areas where access to care is limited. Conditions such as hypertension and postpartum hemorrhage continue to account for a substantial number of maternal deaths. Despite the well-established benefits of ANC, many women, particularly in underserved regions, lack awareness or do not fully adhere to recommended self-care practices. This study aims to assess the level of awareness and adherence to ANC practices among antenatal mothers in Tamil Nadu, explore influencing factors, and identify areas for targeted intervention to further improve maternal health outcomes.

PROBLEM STATEMENT

A study to assess the awareness on adherence to self-care practices during pregnancy among antenatal mothers at selected setting, Chennai.

OBJECTIVES

1. To assess the awareness on adherence to self-care practices during pregnancy among antenatal mothers.
2. To associate the awareness on adherence to self-care practices during pregnancy with demographic variables of antenatal mothers.

Hypothesis

H₀: There is no significant association between awareness of adherence to self-care practices during pregnancy and the demographic variables of antenatal mothers.

H₀₁: There is a significant association between awareness of adherence to self-care practices during pregnancy and the demographic variables of antenatal mothers.

III. METHODS AND METHODOLOGY

A. Study design: An evaluative approach, quantitative non-experimental descriptive research design was employed to assess awareness levels on adherence to self-care practices during pregnancy and explore their association with demographic variables.

B. Study population: This cross-sectional study involved 200 antenatal mothers from UCHC, Palavakkam Chennai were selected as participants using a non-probability convenience sampling method to ensure representativeness.

C Data collection tool: Data was obtained using a structured questionnaire to evaluate awareness and adherence to self-care practices during pregnancy. The tool were divided into two main sections section I: socio-demographic information gathered background details of the participants, including age, educational qualification, occupation, type of family, obstetrical status, and other relevant demographic variables. The section II **includes** a validated checklist to assess the level of awareness regarding essential self-care practices during pregnancy. It consisted of 24 multiple-choice and 'Yes/No' questions addressing six key areas like antenatal registration, immunization, dietary practices, medication compliance, antenatal hygiene, and general antenatal advice. Each correct response was awarded one point. The total score was converted into a percentage and categorized as follows, poor adherence: 0–49%, moderate adherence: 50–74%, fair adherence: 75–100%.

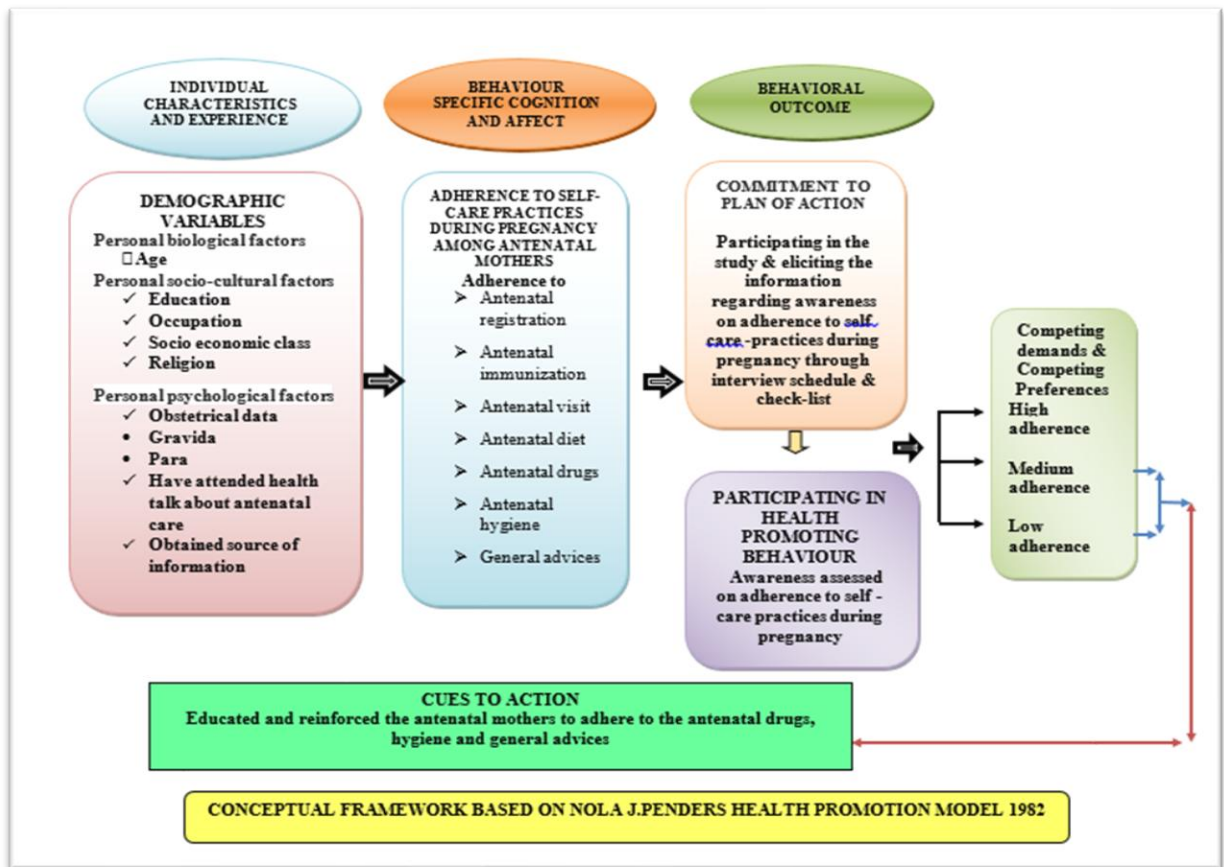


Figure 1: Conceptual Framework

D. Data Analysis: The data were analyzed using SPSS software. Descriptive Statistics: Frequencies and percentages were used to describe the socio-demographic characteristics of the participants and to determine the distribution of awareness levels, while **inferential statistics - chi-square test** was employed to identify the association between awareness levels and selected demographic variables such as age, educational status, and gravida. A p-value of less than 0.05 was considered statistically significant.

IV. RESULTS & DISCUSSION

A. Demographic variables showed that the majority of the participants in the study were in the 21 years age group (30%), had secondary education (30%), were unemployed (52.5%), belonged to a nuclear family (62.5%), were multi gravida (65%), were nulliparous (35%), had attended a health talk about antenatal care (90%), and obtained their information primarily from a health center (65%).

B Section II showed the highest and the lowest adherence in terms of frequency distribution

Highest Adherence	Percentage	Lowest Adherence	Percentage
Maintain good dental and oral hygiene	92.5%	Clean your breast and wear well-fitting brassiere	22.5%
Take regular bathing	90%	Able to perceive & count 10 fetal movements every day	35%
Taking regular iron and folic acid supplementation	89%	Have regular sexual activity	37.5%

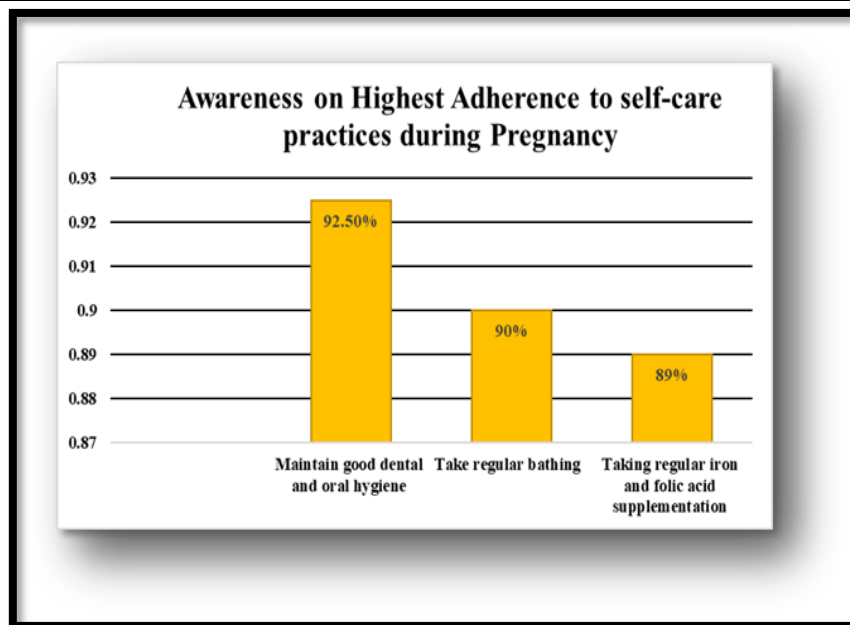


Figure 2: Adherence level during pregnancy

C Section III Overall Awareness to self-care practices during pregnancy

Level of Adherence	Frequency (n)	Percentage (%)
High	84	42%
Medium	60	30%
Low	56	28%

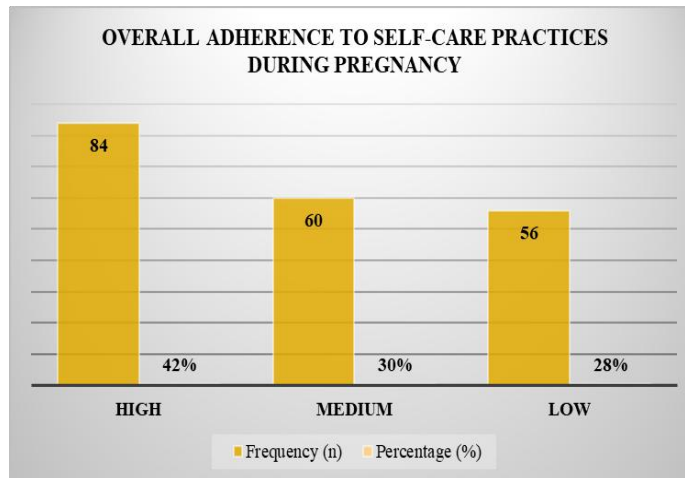


Figure 3: The majority (42%) demonstrated a high level of adherence to self-care practices during pregnancy. About 30% had a moderate level of adherence, while 28% showed a low level of adherence.

This indicates that although a significant proportion of mothers are following recommended practices, nearly one-third still have low adherence, necessitating improved education and support interventions. These findings underline the importance of strengthening antenatal education programs and ensuring consistent, culturally appropriate health promotion, particularly targeting those with lower adherence scores. This study was supported by P Lavanya¹, et al a mixed-methods study assessed adherence to iron and folic acid supplementation among 340 pregnant women. The results indicated that approximately 63.8% of participants adhered to the supplementation regimen. Factors influencing adherence included primigravida status, non-anemia in the first trimester, and the absence of side effects. These findings underscore the importance of addressing specific barriers to improve adherence rates.

SECTION-III

TABLE 3: Association of the overall awareness regarding adherence to self-care practices during pregnancy with the demographic variables
n=200

S N O	DEMOGRAPHIC VARIABLES	LEVEL OF AWARENESS			TOTAL	CHI-SQUARE VALUE
		LOW	MEDIUM	HIGH		
1)	Age in years					χ^2 52.53
	a) 21 years	23	15	22	60	P=0.05
	b) 22-24years	21	18	16	55	(<0.05)
	c) 25-30years	23	16	11	50	(S)

	d) 31-35 years	14	10	11	35	
2)	Education					$\chi^2 = 310.7$ $P=0.05$ (<0.05) (S)
	a) Non literate	13	9	3	25	
	b) Primary education	16	7	22	45	
	c) Secondary education	24	19	17	60	
	d) Higher secondary	16	22	12	50	
	e) Graduate	2	6	12	20	
3)	Occupation	77	15	13		$\chi^2 = 57.12$ $P=0.05$ (<0.05) (S)
	a) Unemployed				105	
	b) Employed i) Self-employed	6	10	4	20	
	ii) Government	3	5	2	10	
	iii) Private	16	15	4	35	
	iv) Daily wages	17	8	5	30	
4)	Type of family					$\chi^2 =$ $P=0.05$ (<0.05) (S)
	a) Nuclear family	85	30	10	125	
	b) Joint family	22	12	6	40	
	c) Extended family	14	5	16	35	
5)	Obstetrical data:					$\chi^2 = 10.89$ $P=0.05$ (<0.05) (S)
	Gravida					
	a) Primi gravida	33	13	24	70	
	b) Multi gravida	18	10	102	130	
6)	Para					$X^2 \chi^2$ $P=0.05$
	a) 0	17	22	31	70	

	b)1	16	19	18	53	(<0.05)
	c)2	16	12	14	42	(S)
	d)3	12	7	16	35	
7)	Have you attended health talk about antenatal care?					$\chi^2 = 4.5$
	Yes	20	15	145	180	P=0.05
	No	5	7	8	20	(<0.05)
8)	If yes, specify the source of information?					(S)
	a)Health center	28	37	65	130	$\chi^2 = 1.64$
	b)Family	10	5	15	30	P=0.05
	c)Television	16	9	5	30	(<0.05)
	d)Information booklet	3	3	4	10	(S)

Table 3.2 shows that there is a significant association between awareness on self-care practices and factors such as age, education, and occupation, type of family, gravida, para, and health talk attendance ($p < 0.05$). Antenatal mothers, who were more educated, employed, or had prior childbirth experience showed better adherence. However, the source of information alone did not significantly influence awareness levels.

CONCLUSION

This study revealed that although many antenatal mothers had a high level of awareness and adherence to recommended self-care practices during pregnancy, a notable proportion exhibited only moderate or low adherence. These findings point to ongoing gaps in knowledge and behavior that may negatively affect maternal and fetal well-being. Significant associations were observed between awareness levels and demographic variables such as age, educational background, and gravida status.

The results emphasize the importance of enhancing antenatal health education, particularly for women with lower educational attainment or higher parity. Healthcare providers, especially nurses and community health workers, have a critical role in delivering consistent, culturally sensitive education and support to improve self-care behaviors.

Promoting comprehensive awareness and encouraging adherence to self-care guidelines can play a key role in improving maternal health and ensuring safer pregnancy outcomes.

CONFLICTS OF INTEREST The author(s) declare(s) that there is no conflict of interest regarding the publication of this paper.

HUMAN RIGHTS AND ETHICAL CONSIDERATION The study was approved by the ethical committee constituted by the hospital. Permission was obtained from concerned authority, Chennai. Informed consent was obtained from the samples for their willingness to participate in the study.

References

- [1] Sharma, S. K., & Gupta, R. (2019). Self-care practices in pregnancy: A guide for healthcare professionals. Cambridge University Press.
- [2] Karim, W. A., Rabea, I. S., & Abdulwahid, H. H. (2024). Evaluation of pregnant knowledge and adherence regarding supplemental iron, folic acid, calcium, and vitamins during pregnancy. *Journal of Contemporary Medical Sciences*, 10(1). <https://doi.org/10.22317/jcms.v10i1.1492>
- [3] Kumar, A., & Verma, R. (2020). Awareness and adherence to self-care practices among antenatal mothers: A cross-sectional study. *International Journal of Maternal Health*, 45(3), 123-129. <https://doi.org/10.1016/j.ijmh.2020.01.004>
- [4] Gupta, L., & Mehta, P. (2022). Knowledge, attitude, and practice towards antenatal self-care among pregnant women in rural areas of Tamil Nadu, India. *Journal of Pregnancy and Child Health*, 7(2), 134-142. <https://doi.org/10.1177/jpch.2022.0023>
- [5] Thomas, N., & Mathur, R. (2021). Factors influencing adherence to antenatal self-care practices: A study among pregnant women in urban slums of India. *Journal of Maternal and Child Health*, 10(4), 201-210. <https://doi.org/10.2176/jmch.2021.0047>
- [6] World Health Organization (WHO). (2020). Antenatal care for a positive pregnancy experience: Guidelines for self-care during pregnancy. Geneva: World Health Organization. Retrieved from <https://www.who.int/publications/i/item/9789240066788>
- [7] Ministry of Health and Family Welfare, Government of India. (2019). National guidelines for antenatal care and skilled attendance at birth. New Delhi: Government of India.