

# Understanding the Level of Knowledge and Attitudes of Pregnant Women on the Use of Complementary and Alternative Medicine (CAM)

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## Abstract

**Background:** The utilization of complementary and alternative medicine (CAM) among pregnant women in India is on the rise. Though pregnant women are using these therapies, they lack adequate knowledge. It is the responsibility of the health care provider to identify the knowledge to promote healthy practices and avoid harmful practices. **Method:** For this investigation, a quantitative method was used. The level of knowledge and attitude of pregnant women regarding the use of CAMs was investigated using a non-experimental, exploratory research methodology. In the antenatal OPD of the Institute of Medical Sciences and SUM Hospital in Bhubaneswar, Odisha, the study was carried out. The tools used for the study were (1) Demographic questionnaire, (2) Knowledge questionnaire to assess the knowledge of CAM, (3) Attitude scale to assess the attitude of women towards CAM. Data was gathered through interviews. Each expectant lady gave informed written consent prior to the data collection. SPSS 20 was used to enter and analyze the data. **Results:** Highest percentage of the women had very good knowledge (64%) and scored between 16 and 20. More than half of the women (58%) had neutral attitudes and scored between 16 and 30. A significantly favorable link between pregnant women's attitudes and knowledge of CAM was discovered ( $r=0.72$ ,  $p=0.04$ ). **Conclusion:** Pregnant women are increasingly turning to complementary and alternative treatments. Therefore, healthcare professionals must often inquire about CAM use during pregnancy and offer pertinent guidance on CAM use.

**Keywords:** Knowledge, attitude, pregnant women, complementary and alternative medicine

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## INTRODUCTION

Public acceptance of complementary and alternative medicine (CAM) is growing. A wide range of prescription drugs, theories, methods, and exercises known as CAMs have the potential to enhance general health [1].

Complementary and alternative medicine includes more than a hundred therapeutic methods that fall outside the scope of traditional medicine. CAM is a broad category of healthcare practices that are not a tradition or a component of the established healthcare system, according to the World Health Organization [2].

Pregnant women in several nations are increasingly using CAM. Nutritional supplements, herbal medicine, relaxation techniques, and

aromatherapy are the most used modalities [3]. Traditional medical systems, modern medical systems, and mind-body practices are three major categories of CAM practices. Acupuncture, acupressure, guided imagery, hypnosis, massage, meditation, reflexology, structural integration, spinal manipulation, tai chi, therapeutic touch, and yoga are mind-body practices.

Ayurveda, Curanderismo, Native American Medicine, Siddha, Tibetan Medicine, Traditional Chinese Medicine, and Unani were the traditional medical system. Anthrozoic medicine, Chiropractic, Homeopathy, Naturopathy, and Osteopathy are the models the medical system includes. Combining alternative and traditional care is known as integrative medicine (or integrative health) [4].

According to Rao A et al. reasonable cost, fewer side effects, easy accessibility, a self-help approach, less invasive techniques, quick results, spirituality, and emotional well-being were the important reasons for the participants to use CAM [5].

Worldwide, there has been a significant rise in the use of CAM. Herbal medicine is the most popular one used by different populations including pregnant women. The usage of CAM during pregnancy varies widely from woman to woman and region to region and is estimated as low as 1% and as high as 87%. Studies conducted in various countries have shown that Ginger, Berries, Chamomile, and turmeric were the most commonly used herbs during pregnancy [6].

Though pregnant women have a positive attitude towards CAM practices, most of the women do not inform their healthcare providers. Since the majority of pregnant women rely heavily on their family and friends for information on CAM [7].

Many pregnant women seek CAM for their pregnancy-related minor disorders such as nausea, vomiting, urinary tract infections, fatigue, leg cramps, and backache. Though many women use complementary and alternative (CAM), they lack adequate knowledge related to it [8].

Acupuncture, aromatherapy, herbal and homeopathy, meditation, prenatal yoga, movement therapies, chiropractic, and osteopathic manipulation are emerging Complementary and Alternative medicine during pregnancy in India. Though pregnant women are using these therapies, they lack adequate knowledge. Thus, the investigator has done this study to assess the knowledge and attitude toward the use of complementary and alternative therapies during pregnancy.

## Methods

For this investigation, a quantitative method was used. The level of knowledge and attitude of pregnant women regarding the use of CAMs was investigated using a non-experimental, exploratory research methodology. In the antenatal OPD of the IMS and SUM Hospital in Bhubaneswar, Odisha, the study was carried out. The study's major goals were to evaluate pregnant women's knowledge about CAM, attitudes towards it, and the relationship between knowledge and attitudes. The study comprised pregnant patients at antenatal OPD who could participate in data collection and knew and could communicate in Odia.

Women who were pregnant at high risk and refused to participate in the trial were eliminated. The tools used for the study were (1) demographic questionnaire, (2) knowledge questionnaire to assess the knowledge of CAM, (3) attitude scale to assess the attitude of women towards CAM. Five points Likert Scale was used. The interview method was used to collect the data. Informed written consent was taken from each participant before collecting the data. SPSS 20 was used to enter and analyze the data.

## RESULT

The demographic characteristics of pregnant women according to level of knowledge, attitude and other different characteristics are discussed below.

**Table 1.** Distribution of pregnant women according to their demographic characteristics (n = 50).

S.N.	Variables	F	%
1	<i>Age in years</i>		
	<20	04	08
	21–25	24	48
	26–30	22	44
2	<i>Gravida</i>		
	Primi	37	74
	Multi	12	24
	Grand multi	01	02
3	<i>Education</i>		
	Primary	08	16
	Secondary and higher secondary	30	60
	Graduate and above	12	24
4	<i>Occupation</i>		
	Housewife	08	16
	Working	42	84
5	<i>Religion</i>		
	Hindu	47	94
	Muslim	2	4
	Christian	1	2
6	<i>Residence</i>		
	Urban	21	42
	Rural	29	58
7	<i>Gestational Period</i>		
	1st trimester	02	04
	3rd trimester	48	96
8	<i>Information about CAM</i>		
	Yes	50	100
	No	0	0
9	<i>Source of information</i>		
	Relatives	22	44
	Friends	14	28
	Medical professional	08	16
	Others	06	12

Table 1 shows the demographic characteristics of pregnant women, i.e., highest percentage (48%) of women belonging to the age group of 21–25 years. The highest percentage of the women had secondary and higher secondary education (60%) and working (84%). Most (90%) of the women were Hindu and the highest percentage of the women (58%) residing in rural areas. Most of the women (96%) were in the third trimester. All women (100%) had information about CAM and their source of information were relatives (44%), friends (28%), medical professionals (16%), and others (12%).

Table 2 displays the degree to which pregnant women are knowledgeable of CAM throughout pregnancy. The highest percentage (64%) of the women had very good knowledge and scored between 16 and 20, followed by 28% of women who had good knowledge and scored between 11 and 15. And only 08% of the women had average knowledge and scored between 6 and 10 whereas no one had poor knowledge. It can be interpreted that the majority of the women had very good knowledge and they know very well about complementary and alternative therapies.

**Table 2.** Level of knowledge of pregnant women on CAM during pregnancy (n = 50).

S.N.	Knowledge score	Frequency	Percentage (%)
1	Poor (0–5)	0	0
2	Average (6–10)	4	8
3	Good (11–15)	14	28
4	Very good (16–20)	32	64

**Table 3.** The attitude of pregnant women on CAM during pregnancy (n = 50).

S.N.	Attitude score	Frequency	Percentage (%)
1	Positive (31–45)	20	40
2	Neutral (16–30)	29	58
3	Negative (1–15)	01	02

**Table 4.** Correlation between knowledge and attitude of pregnant women on CAM during pregnancy.

Variable	R-value	P-value
Knowledge attitude	0.72	0.046

Table 3 shows the attitude of pregnant women on CAM during pregnancy. The attitude of the women was measured by a self-structured attitude scale and the score interpretation was higher the score more positive attitude. The highest percentage (58%) of the women had neutral attitudes and scored between 16 and 30, followed by 40% of women who had positive attitudes and scored between 31 and 45. Whereas only one woman had a negative attitude and scored between 1 and 15. It can be interpreted that the pregnant women had a neutral attitude toward CAM and proper education about the importance necessary to make the women get benefit from CAM.

The association between pregnant women's knowledge and attitude scores is shown in Table 4. The correlation r-value is 0.72 and indicates a positive correlation. The p-value is 0.046 which is <0.05. So, it can be interpreted that increased knowledge of CAM leads to a more positive attitude toward the use of CAM.

#### Association Between the Level of Knowledge and Selected Demographic Variables

To determine the relationship between the amount of knowledge and particular demographic factors, the chi-square test was computed. There was no significant association found between the level of perceived stress and age ( $\chi = 1.36$ ,  $p = 0.505$ ), gravida ( $\chi = 1.53$ ,  $p = 0.216$ ), education ( $\chi = 1.43$ ,  $p = 0.490$ ), occupation ( $\chi = 0.262$ ,  $p = 0.609$ ) and residence ( $\chi = 1.94$ ,  $p = 0.163$ ).

#### Association Between the Attitude Score and Selected Demographic Variables

To determine the relationship between the attitude score and particular demographic variables, the chi-square test was performed. There was no significant association found between attitude and age ( $\chi = 6.02$ ,  $p = 0.490$ ), gravida ( $\chi = 1.95$ ,  $p = 0.162$ ), and education ( $\chi = 1.76$ ,  $p = 0.415$ ). Occupation ( $\chi = 0.262$ ,  $p = 0.609$ ) and residence ( $\chi = 6.52$ ,  $p = 0.010$ ) were found to be associated with attitude. Hence, it can be interpreted that working women and women residing in urban areas have positive attitudes toward the use of CAM as compared to their counterparts.

## DISCUSSION

In the present study, the highest percentage of women belongs to the age group of 21–25 years and most of them working. Hwang JH et al. stated in their study that the mean age of the participants was  $26.1 \pm 6.9$ , 74.6% were aged  $\leq 30$  years, and most of them (89.3%) were housewives [9].

The majority of the women in the survey had excellent knowledge of and an unfavorable attitude toward using complementary and alternative therapies while pregnant. Al-Eidi S et al. stated in their study that though pregnant women have a positive attitude towards CAM practices, most of the women do not inform their healthcare providers. Since the majority of pregnant women rely heavily on their family and friends for information on CAM [7].

Rebekah L et al. conducted a survey in Australia that found that the majority (73%) of women having a positive attitude towards CAM while 37% consulted a CAM practitioner throughout their pregnancy [10]. Quzmar Y et al. stated that the majority (65.3%) of pregnant women were using CAM and they believed that CAM was not harmful to them or their babies. Most of the information that pregnant women had about CAM came from their family and friends. Approximately two-thirds of participants thought that healthcare providers should advise about commonly used CAM [11].

## CONCLUSION

This study found that still women are lacking proper knowledge and attitude about CAM. Many CAM therapies have benefits for pregnant women. Therefore, it is crucial that healthcare professionals routinely inquire about CAM use during pregnancy and offer pregnant women pertinent advice on the subject. Healthcare providers need to possess adequate knowledge regarding the prevalent CAMs utilized by women, along with a comprehensive understanding of their associated risks and benefits.

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