

# Learning Package impact on awareness about danger signs of pregnancy

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## Abstract

**Background:** All pregnant women by virtue of their pregnant status face some level of maternal risk. Data suggest that around 40% of all pregnant women have some complications. Therefore, present study aims to assess effectiveness of learning package on awareness regarding danger signs of pregnancy. **Method:** Pre experimental research design with Quantitative approach was applied to conduct the study. A sample of 120 antenatal women selected for the study through non probability purposive sampling technique.

**Results:** The mean pretest knowledge score was  $13.52 \pm 2.62$ , whereas mean posttest knowledge score was  $24.52 \pm 3.83$ . The post-test mean value knowledge score among antenatal women was significantly higher than the pretest knowledge score. The mean difference was 11 The paired student "t" test value was 33.67 which was significant at  $p=0.05$  level. The findings revealed that there was no significant association between knowledge score with selected demographic variables of the antenatal women. **Conclusion:** Findings of our study strongly recommend the need for conducting learning program to increase the awareness regarding danger signs of pregnancy among antenatal women.

**Keywords:** Danger signs of pregnancy, antenatal women, awareness, learning package.

## Introduction

Pregnancy is stated as creative and productive stage in the life of women. This is a physiologically significant occurrence that requires special attention from the time of conception to the postnatal period. Although pregnancy is regarded as a normal physiological process at the reproductive age, improper pregnancy care might result in the mother's and child's death.[1] The health of women during their pregnancies, deliveries, and postpartum periods is referred to as maternal health. Despite significant advancements over the previous 20 years, over 295,000 women lost their lives during pregnancy and childbirth in 2017. In addition to indirect reasons including anaemia, malaria, and heart disease, the most frequent direct causes of maternal injury and death are excessive blood loss, infection, high blood pressure, botched abortion, and obstructed labour. [2]

Due to their pregnancy, all women are at some risk to their unborn child. According to data, about 40% of pregnant women experience some kind of difficulty. 15% of expectant mothers require obstetric treatment to address issues that could endanger the mother's or the child's life.[3] Because pregnancy issues might arise anytime, every woman should be aware of the warning symptoms that appear during her pregnancy. Vaginal bleeding, a strong headache, seizures, blurred vision, a high fever, swollen hands or cheeks, and decreased foetal activity are some of these warning indicators.[4] Maternal morbidity and mortality can be prevented and reduced in large part by women's capacity to recognize warning signs of risk and seek medical attention. Inadequate awareness of obstetric warning signs during pregnancy causes delays in seeking or receiving professional care.[5]

**Haleema M. et al (2019)** found that about half 54.70% pregnant women were having adequate knowledge about warning signs of pregnancy. Awareness about bleeding per vagina as warning sign was found in 67.10%, excessive vomiting in 50%, blurring vision in 23.50% and convulsion was found as warning sign of pregnancy in 20% pregnant women.[6] According to **Radhika K (2019)** 62% of participants had poor knowledge, 26% had average knowledge, 10% had good knowledge regarding the selected warning signs during pregnancy. Least knowledge level 37.60% was observed in the area related to anemia. Only 37.8% participants knew about bleeding per vagina, 38.29% knew about unusual swelling, 40% knew about severe vomiting, 37.8% about high fever, 39.83 about % decreased foetal movements and 47.8% knew about rupture of membranes [7]

**Mwilike B. (2018)** found that 17.4% participants experienced danger signs during their pregnancy and reported their healthcare seeking actions after recognizing the danger signs. Among those who recognized danger signs, 91% visited a healthcare facility. Study also revealed that the majority of participants had low knowledge of pregnancy danger signs. MMR of India has declined from 384 in 2000 to 103 in 2020 whereas Global MMR has declined from 339 in 2000 to 223 in 2020. India's MMR declined by 6.36%, which is three times higher than the rate of global decline.[8] **Radha & Nandyala Ujjawala (2020)** found enhancement of knowledge score in posttest from pretest regarding warning signs of pregnancy. In post-test 41% of antenatal mothers had moderate knowledge level and 59% had adequate knowledge level while in pre-test 62% antenatal mothers had inadequate knowledge level and 38% antenatal mothers had moderate knowledge level.[9]

**Akruti Ramoliya et al (2019)** also found effectiveness of structured teaching programme on knowledge regarding warning signs of pregnancy among primi gravid mothers.[11] The investigators decision for selecting the topic on warning signs in pregnancy among primi gravid women for the study grew out of their community experience during study period with antenatal women who had limited awareness regarding the warning signs in pregnancy.[10] In the light of above literature and personal clinical experience researchers planned to conduct present study with the intention to make aware antenatal woman regarding danger signs of pregnancy.

**Statement of Problem:** A study to assess the effectiveness of information booklet on knowledge regarding warning signs in pregnancy among

antenatal women in selected hospitals of Udaipur Rajasthan.

### Objectives

1. To assess the pretest and posttest level of knowledge regarding warning signs of pregnancy among antenatal women.
2. To develop, implement and evaluate the effectiveness of information booklet on knowledge regarding warning signs of pregnancy among antenatal women.
3. To find out the association between pretest level of knowledge regarding warning signs of pregnancy among antenatal women with selected socio-demographic variables.

### Material And Methods

**Research approach:** - Quantitative approach

**Research Design:** - Pre experimental research design (one group pre-test post-test).

**Research Setting:** Study was conducted at Geetanjali Hospital Udaipur, Rajasthan. **Population:** - Study population comprised of antenatal woman attending antenatal OPDs at Geetanjali Medical College and Hospital (GMCH) Udaipur, Rajasthan.

**Sampling technique and sample:** 120 antenatal women attending antenatal OPDs at Geetanjali Hospital selected through non probability purposive sampling technique.

**Research Tool:** The tools used for the present study had two sections.

**Section I:** - Socio-demographic variables included 8 items such as age, educational status, occupation, monthly income, type of family, religion, area of residence, gestational age.

**Section II:** - Structured knowledge questionnaire consists of 30 questions to assess the level of knowledge regarding warning signs of pregnancy. The area included were general information, bleeding per vagina, severe vomiting, unusual swelling, high fever, decreased foetal movements, pallor and rupture of membrane.

The period of data collection was 4 weeks from 03.02.2020 to 28.02.2020. Formal administrative, permission was obtained from the concerned authorities. Researchers explained the nature and purpose of the study to the antenatal women. Oral consent was obtained from the antenatal women in the study before the data collection.

### Results

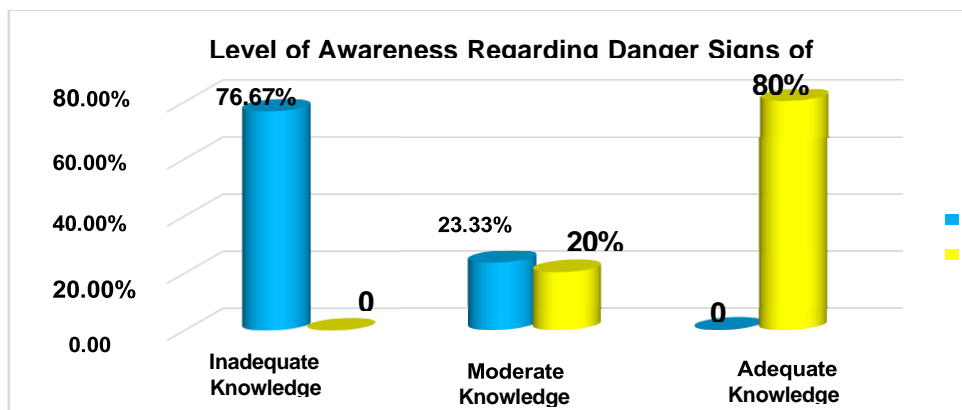
According to table 1, majority of antenatal women 58.34% were in the age group of 21-25 years, 23.33%

were in the age group of below 20 years. With regard to educational status, majority of participants 66.67% had secondary education, 23.33% had graduation and above. In connection with **occupation**, 81.67% antenatal women were homemakers while rest 18.33% were working women. Regarding **monthly family income** 43.33% were earning between 5001 to 10000 rupees monthly and 28.34% were earning between rupees 10001 to 15000 monthly. 55%

antenatal women were living with nuclear family and rest 45% were living with joint family. As per **religion** majority of antenatal women 60% were Hindus, 26.67% were Muslims and 13.33% were Christians. 60% of antenatal women were residing in urban areas while 40% were residing in rural areas. Regarding **gestational age**, 63.33% of antenatal women were in 8-12 weeks of gestation while 36.67% were in 13-24 weeks of gestation age.

**Table: 1.** Distribution of samples according to socio demographic variables (N=120)

S. No.	Demographic Variables	Samples	
		Freq.	%
1.	Age (in years)		
a)	Below 20 years	28	23.33%
b)	21-25 years	70	58.34%
c)	26-30 years	16	13.33%
d)	> 30 years	06	05.00%
2.	Educational status		
a)	Primary education	12	10%
b)	Secondary education	80	66.67%
c)	Graduation and above	28	23.33%
3.	Occupation		81.67%
a)	Home maker	98	18.33%
b)	Working women	22	
4.	Monthly income	24	20.00%
a)	Less than 5000/monthly	52	43.33%
b)	5001-10000/ monthly	34	28.34%
c)	10001-15000/ monthly	10	08.33%
d)	15001 and above		
5.	Type of family		
a)	Nuclear family	66	55%
b)	Joint family	54	45%
6.	Religion		
a)	Hindu	72	60%
b)	Muslim	32	26.67%
c)	Christian	16	13.33%
d)	Others	00	00%
7.	Area of residence		
a)	Rural	48	40%
b)	Urban	72	60%
8.	Gestational age		
a)	8-12 weeks	44	36.67%
b)	13-24 week	76	63.33%



**Fig1.** Percentage distribution of pre-test and post-test level of awareness among antenatal women

Figure 1, revealed that majority of antenatal women 76.67 % had inadequate knowledge level and 23.33% had moderately adequate knowledge level. Nobody scored adequate knowledge

level in pretest. But in posttest majority 80% of antenatal women had adequate knowledge level and 20% had moderately adequate knowledge level.

**Table-2** Comparison of mean pre-test and mean post-test score of Knowledge score in antenatal women(N=120)

Component	Observation	Mean	SD	Mean difference	Paired 't' value
knowledge score regarding danger signs of pregnancy	Pre-test	13.52	2.62	11.00	33.67
	Post-test	24.52	2.83		

Table 2 shows the comparison of pre – test and post – test scores of knowledge level among samples. The mean pre – test score is 13.52 and mean post –test score is 24.52, with mean difference is 11.00, the Paired 't' test value was 33.67 was greater than table value at .05 level of significance. This shows that there is significant difference between the pretest and post-test level of knowledge regarding warning signs of pregnancy among antenatal women.

**Table -3** Associations between pre-test scores of knowledges regarding warning signs of pregnancy among antenatal women with demographic variables

Demographic variables	Level of knowledge		Total	z <sup>2</sup>	Table Value	Level of significance P> 0.05
	Inadequate	Mod. Adequate + Adequate				
Age (in years)						
Below 20 years	20	08	28	4.059	7.82	NS
21-25 years	58	12	70			
26-30 years	10	06	16			
> 30 years	04	02	06			
Educational status				1.597	5.99	NS
Primary education	08	04	12			
Secondary education	64	16	80			
Graduation and above	20	08	28			
Occupation				2.556	3.84	NS
Home maker	78	20	98			
Working women	14	08	22			
Monthly income				0.6638	7.82	NS
Less than 5000/	19	05	24			
5001-10000/	38	14	52			
10001-15000/ 15001 and above	27	07	34			
Type of family				.0678	3.84	NS
Nuclear family	50	16	66			
Joint family	42	12	54			
Religion				2.4534	5.99	NS
Hindu	58	14	72			
Muslim	24	08	32			
Christian	10	06	16			
Others	00	00	00			
Area of residence				0.2795	3.84	NS
Rural	38	10	48			
Urban	54	18	72			
Gestational age				0.1079	3.84	NS
8-12 weeks	33	11	44			
13-24 week	59	17	76			

On the basis of table 3, there was no significant association found between the pretest knowledge

score regarding **danger signs of pregnancy** among antenatal women with demographic variables like age, educational status, occupation, monthly income, type of family, religion, area of residence and gestational age.

### Discussion

Our study findings revealed that majority of antenatal women 76.67 % had inadequate knowledge level and 23.33% had moderately adequate knowledge level. Nobody scored adequate knowledge level in the pretest. Our result supported by **Jamaat F et al (2015)**[11], their cross sectional study also revealed that 50% of women were lacking in knowledge of pregnancy danger signs. **Hymavthi K et al (2013)** [12] found 46.6% participants had average knowledge, 43.3% had poor knowledge regarding warning signs of pregnancy. **Nithya R et al (2017)** [13] found that 49.2% pregnant woman had sufficient knowledge about danger signs during pregnancy in her study. **Belal Ghada et al (2017)** [14] and **Patel BB et al (2016)** [15] also revealed approximately similar findings regarding danger signs of pregnancy.

Our study revealed in post test, majority 80% of antenatal women had adequate knowledge level and 20% had moderately adequate knowledge level. Our study findings supported by **Kamble SS (2024)** [16] in which there was 58% participants had moderate and 40% had good knowledge level regarding management of minor ailments and danger signs during pregnancy. **Akruti Ramoliya et al (2019)** [10] also revealed enhancement of the knowledge level in the post test regarding warning signs of pregnancy among primi gravid mothers. There was enhancement in knowledge level in posttest due to learning package. The mean pre – test score is 13.52 and mean post –test score is 24.52, with mean difference is 11.00, the Paired ‘t’ test value was 33.67 was greater than table value at .05

level of significance. **Randhava RK. Choudhary P. (2022)** [17] discovered that the mean post- test knowledge score of primigravida mothers regarding warning signs of pregnancy was

24.11 higher than the mean pre-test knowledge score of 9.9. This difference was judged to be significant. **Mishre P. Singh P (2023)** [18] found that there was marked difference of 6 in post-test and pre test knowledge score on danger signs of pregnancy among primigravida women. The paired ‘t’ test value at 24.8, was very highly significant indicating effectiveness of structured teaching programme. **Chaturvedi D., Kumar B. (2023)** [19] also found effectiveness of information pamphlet on knowledge

regarding pregnancy-related problems among primigravida women. **Tak HK, Chaturvedi D (2022)**<sup>20</sup> also revealed similar findings while assessing effectiveness of learning package.

Our study also revealed that there is no significant association between pre-test level of knowledge regarding danger signs of pregnancy among antenatal women with demographic variables like age, educational status, occupation, monthly income, type of family, religion, area of residence and gestational age. Our study findings supported by **Rimpi Devi (2019)**[21] & **Mahalingam G et al (2014)**<sup>22</sup>, in which demographic variables were not significantly associated with the knowledge level regarding warning signs of pregnancy. There was contradictory findings revealed by **Asferie WN et al (2022)** & **Bintabara D. et al (2017)** in which almost all demographic variables were significantly associated with the knowledge level regarding warning signs of pregnancy.

### Conclusion

Findings of our study strongly recommend the need for conducting learning program to increase the awareness regarding danger signs of pregnancy among antenatal women. Antenatal women are the future mothers and they will also feel responsible for their health during entire pregnancy period.

**LIMITATIONS:** The small size (120) of the sample made it difficult to draw generalization. A structured questionnaire was used for data collection which restricts the amount of information that can be obtained from the respondents, only knowledge was assessed; no attempt was made to evaluate their attitudes.

**Source of Funding:** Researcher had self-financed the present study.

**Conflict of Interest:** The current study was carried out without any conflicts of interest.

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