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Knowledge and Attitude of Antenatal Mothers Regarding the Effect of Passive Smoking of Fetus with View to Develop Information Booklet in Selected Hospitals of Guwahati Kamrup, (M) Assam

Ms. Sunny Alva Kharshandi[1], Mrs. K.H Memita Devi[2]

[1]M.Sc Nursing, CPMS College of Nursing
[2]Professor, Dept of Obst. & Gynae Nursing, CPMS College of Nursing

ABSTRACT

BACKROUND: Tobacco smoke has been identified as a serious health threat. Passive smoking is breathing in the smoke of smokers, cigars or pipes. Smoking in pregnancy is associated with numerous complications for both mother and baby. Continuous exposure to passive smoke by pregnant women will directly affect the normal growth and development of the fetus.

OBJECTIVES: The purpose of the study is to assess the knowledge and attitude of antenatal mothers regarding the effect of passive smoking on Fetus with view to develop information booklet in Selected Hospitals of Guwahati, Kamrup (M) Assam.

MATERIALS AND METHODS: A descriptive design was adopted for the study. In this study, 90 antenatal mothers were selected by using convenience sampling technique. The tools used for the study were self- structured knowledge questionnaire to assess the knowledge and self-structured attitude 5 point Likert scale to assess the attitude. The analysis was done by using descriptive and inferential statistics in terms of frequency distribution, percentage, mean, standard deviation, chi-square and Spearman Brown's correlation coefficient.

RESULTS: the findings of the study revealed that majority i.e. 66.7% of the antenatal mothers had moderate knowledge,21 % had inadequate knowledge and 12.2% had adequate knowledge, majority i.e. 44.4% of the antenatal mothers had neutral attitude, 41.2% had positive attitude and 14.4% had negative attitude. There was a moderate positive correlation between knowledge and attitude of antenatal mothers regarding the effect of passive smoking on fetus and was found to be statistically significant at $p<0.05$ level of significance. The area of residence and source of information were found significantly associated at $p<0.05$ level with both the knowledge and attitude of antenatal mothers regarding the effect of passive smoking on the fetus.

CONCLUSION: The present study conluded that antenatal mothers require awareness regarding the effect of passive smoking on the fetus. More studies can be undertaken not only to assess the knowledge and attitude but also to evaluate the effects of passive smoking on the fetus.

Keywords: knowledge, attitude, antenatal mothers, passive smoking, information booklet

INTRODUCTION

Passive smoking is the inhalation of smoke, called second hand smoke (SHS), or environmental tobacco smoke (ETS), by persons other than the intended "active" smoker. It occurs when tobacco smoke enters an environment, causing its inhalation by people within that environment[7].According to World Health Organization (WHO), when a non-smokers inhales smoke from the burning end of a cigarette then he/she is directly exposed to more than 4,000 chemical and toxic substances which can cause chronic diseases. In fact, non-smokers breathe in the same toxic chemicals as smokers do[8]. According to WHO, 56% of the women in the South-east Asian region are exposed to second-hand smoke (SHS). Pregnant women who are exposed to second-hand smoke are estimated to be 23% more likely to experience stillbirth and 13% more likely give birth to a child with a congenital malformation[10]. China has the largest number of tobacco consumers in the world, and second hand smoke exposure remains a serious issue. In china, 740 million people are routinely exposed to SHS and 100 deaths related every year[11]. In India (Lucknow), although women smokers are scarce, they are exposed to the ill effects of tobacco due to passive smoking at their home during their pregnancy[12]. Tobacco use in the form of smoking among males in India is around 33.3% (2012) and environmental conditions like overcrowding and poor ventilation at home make the health effects of environmental tobacco smoke[13]. Smoking during pregnancy or exposure to smoke can have many adverse effect on the fetus usually the birth weight of the babies is less than 2500 gram and preterm labour (usually before 32 week) and increased perinatal mortality and smoking reduces the volume or milk available owing to prolactin inhibition[15].The nurses' role varying from health education, assessment from risk factors, improves the knowledge of antenatal mothers about the risk of passive smoking and to prevent the birth with congenital anomalies[16]. As a result of this findings suggest that because of the decrease knowledge of antenatal mothers leading to the birth with congenital anomalies. So it is important to assess the knowledge and attitude of mothers about passive smoking and fetal effects.

Statement of the problem:

"A Study to Assess the Knowledge and Attitude of Antenatal Mothers regarding the effect of Passive Smoking on Fetus with view to develop information booklet in Selected Hospitals of Guwahati, Kamrup (M) Assam."

Objectives:

- To assess the knowledge of antenatal mothers about the ill effects of passive smoking on fetus.
- To assess the attitude of the antenatal mothers about the ill effect of passive smoking on fetus.
- To correlate the knowledge and attitude of antenatal mothers regarding ill effect of passive smoking on fetus.
- To find out the association between knowledge of antenatal mothers regarding the ill effect of passive smoking on fetus with selected demographic variables.
- To find out the association between attitude of antenatal mothers regarding the ill effect of passive smoking on fetus with selected demographic variables.
- To develop and disseminate an information booklet regarding the ill effect of passive smoking on fetus.

Hypothesis of the Study:

- **H_1 –** There will be a significant correlation between knowledge and attitude of antenatal mothers regarding the effect of passive smoking on fetus.

- **H_2** – There will be a significant association between the knowledge of antenatal mothers and selected demographic variables.
- **H_3** – There will be a significant association between the attitude of antenatal mothers and selected demographic variables.

MATERIALS AND METHODS:

A quantitative research approach was considered more suitable for the present study. A non-experimental descriptive design was adopted for the study. In this study, 90 antenatal mothers were selected by using non- probability convenience sampling technique. The tools used for the study were self- structured knowledge questionnaire to assess the knowledge and self-structured attitude 5 point Likert scale to assess the attitude. The analysis was done by using descriptive and inferential statistics in terms of frequency distribution, percentage, mean, standard deviation, chi-square and spearman Brown's correlation coefficient.

RESULTS:

Findings related to Demographic data

Table 1: frequency and percentage distribution of selected demographic variables of antenatal mothers regarding passive smoking effect on fetus

n=90

Sl.no Demographic variables **ears**	**Frequency (f)**	**Percentage (%)**
a. 18-20 years	12	13.3%
b. 21-24 years	17	18.9%
c. 24-27 years	**42**	**46.7%**
d. 27-30 years	19	21.1%

2. Educational status	**Frequency (f)**	**Percentage (%)**
a. Profession or honours	7	7.8%
b. Graduate or post graduate	1	1.1%
c. Intermediate or high school diploma	9	10%
d. High school certificate	18	20%
e. Middle school certificate	**44**	**48.9%**
f. Primary school certificate	8	8.9%
g. Illiterate	3	3.3%

3. Monthly family income	**Frequency (f)**	**Percentage (%)**
a. ≤ Rs.6,174	-	-
b. Rs.6,175 - Rs.15,496	**49**	**54.4%**
c. Rs.15,497 – Rs.25,830	31	34.4%
d. Rs.25,831 – Rs.46,128	10	11.1%

e. Rs.46,129 – Rs.61,662	-	-
f. Rs.61,663 – Rs.1,23,321	-	-
g. ≥ Rs.1,23, 322	-	-

4. Occupation of mother	**Frequency (f)**	**Percentage (%)**
a. Professionals	19	21.1%
b. Clerks	-	-
c. Skilled workers, shop/market sales workers	9	10%
d. Craft, related trade workers	17	18.9%
e. Unemployed	**45**	**50%**

5. Area of residence	**Frequency (f)**	**Percentage (%)**
a. Urban	**45**	**50%**
b. Rural	**45**	**50%**

6. Source of information	**Frequency (f)**	**Percentage (%)**
a. Mass media	**46**	**51.1%**
b. Health personnel	44	48.9%
c. Family members	-	-
d. Others	-	-

7. Parity	**Frequency (f)**	**Percentage (%)**
a. Primipara	42	46.7%
b. Multipara	**48**	**53.3%**

The data in table 1 shows that the frequency and percentage distribution of selected demographic variables of the antenatal mothers regarding passive smoking effect on fetus showed that 42(46.7%) of antenatal mothers were in the age group between 24-27 years, 44(48.9%) of antenatal mothers were middle school certificate, 49(54.4%) had monthly income of less than Rs.6,175 -Rs. 15,496/-. Majority 45(50%) of antenatal mothers were unemployed, 45(50%) of antenatal mothers were from urban and 50% from rural area, 46(51%) of antenatal mothers got information from mass media and majority 48(53%) of the antenatal mothers were multipara.

Findings related to frequency distribution of knowledge of antenatal mothers regarding the effect of passive smoking on fetus.

The knowledge of antenatal mothers regarding the effect of passive smoking on fetus was assessed using self-structured knowledge questionnaire .based on the score obtained, antenatal mothers were arbitrarily categorized as adequate, moderate and inadequate knowledge. The frequency and percentage distribution of knowledge is presented on Fig 1.

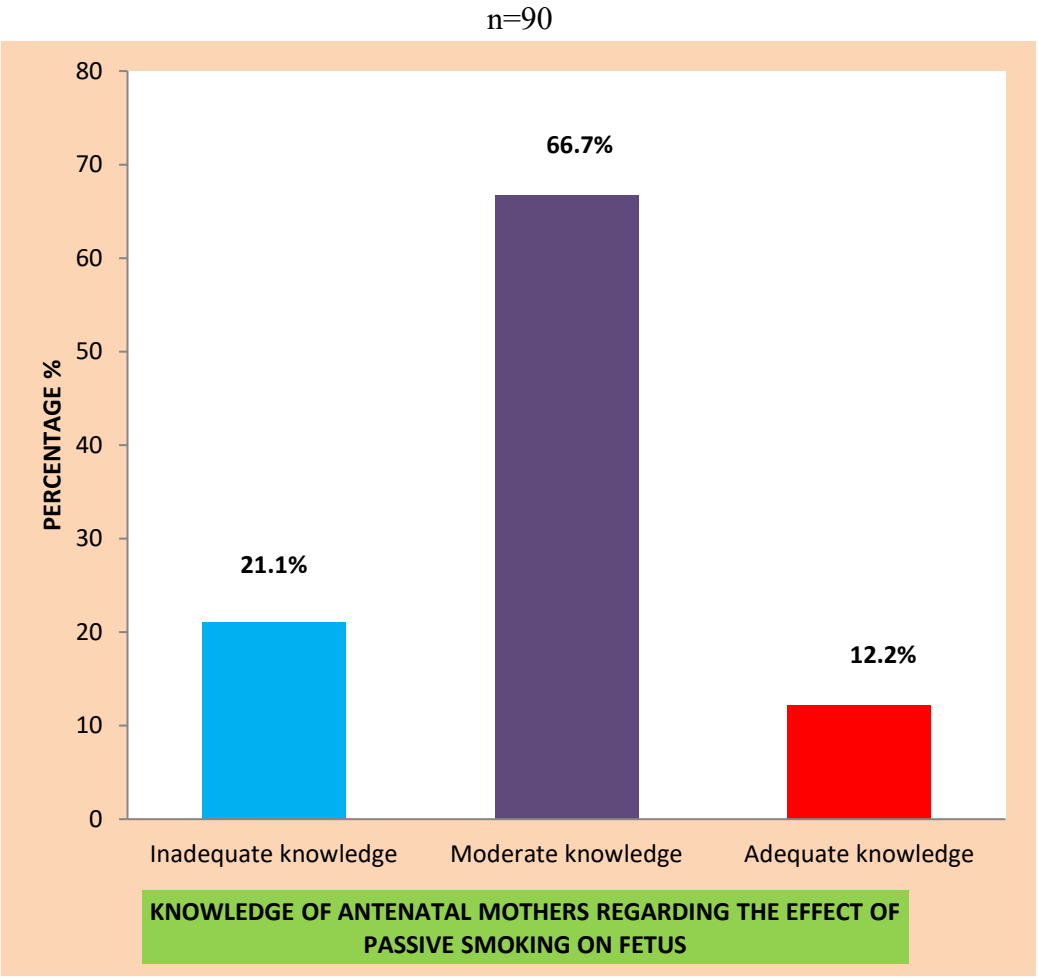

Figure 1: Cylindrical bar diagram showing distribution of knowledge of antenatal mothers regarding the effect of passive smoking on fetus

The data presented in Fig 1 showed that majority 60(66.7%) of subjects had moderate knowledge, 19(21.1%) had inadequate knowledge and 11(12.2%) had adequate knowledge.

Findings related to frequency distribution of Attitude of antenatal mothers regarding the effect of passive smoking on fetus.

The attitude of antenatal mothers regarding the effect of passive smoking on fetus was assessed using self-structured attitude Likert scale .Based on the score obtained, antenatal mothers were arbitrarily categorized as positive, neutral and negative attitude. The frequency and percentage distribution of attitude is presented on Fig 2.

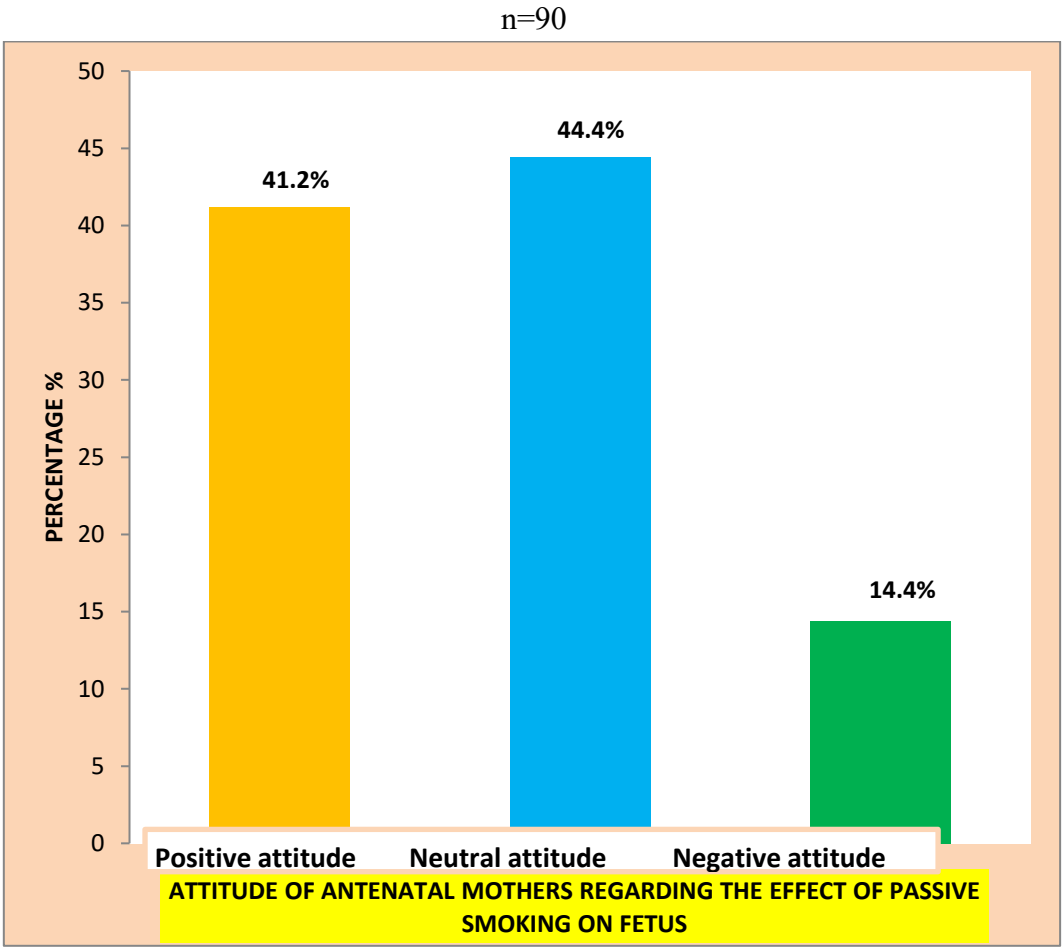

Figure 2: Pyramidal diagram showing distribution of attitude of antenatal mothers regarding the effect of passive smoking on fetus

The data presented in Fig 2. showed that majority 40(44.4%) of subjects had neutral attitude, 37(41.2%) had positive attitude and 13(14.4%) had negative attitude respectively.

Findings related to correlation between knowledge and attitude of antenatal mothers regarding the effect of passive smoking on fetus

Table 2: Correlation between knowledge and attitude of antenatal mothers regarding the effect of passive smoking on fetus

n=90

Correlation	Mean	SD	r value	P-Value	Remarks
Knowledge	10.27	2.043	0.376	0.008	S
Attitude	53.48	7.594			

p<0.05 level of significance S- Significant

The data presented the correlation between knowledge and attitude of antenatal mothers regarding the effect of passive smoking on fetus, which was tested by using Spearman Brown's correlation. The obtained (r=0.376) indicates moderate positive correlation between knowledge and attitude of antenatal mothers regarding the effect of passive smoking on fetus and the corresponding p-value is 0.008 at 0.05

level of significance. As r = 0.376 which is more than 0 and less than 1 (0> r <1). Hence H_1 was accepted.

Table 3: Association between knowledge of antenatal mothers regarding the effect of passive smoking on fetus with their age

1. Age	Knowledge			χ^2 value	df	Tab value	Remarks
	Inadequate	Moderate	Adequate				
a. 18-20 yrs	2	9	1	3.029	6	12.59	NS
b. 21-24 yrs	3	10	4				
c. 24-27 yrs	9	29	4				
d. 27-30 yrs	5	12	2				
2. Educational status							
a. Profession or honours	2	4	1	4.972	12	21.03	NS
b. Graduate/post graduate	-	1	-				
c. Intermediate/diploma	2	6	1				
d. High school certificate	4	13	1				
e. Middle school certificate	9	28	7				
f. Primary school certificate	2	6	-				
g. Illiterate	-	2	1				
3. Monthly family income							
a. ≤ Rs.6.174	--	--	--	1.797	4	9.49	NS
b. Rs.6,175-18,496	--	--	--				
c. Rs.18,497-15,815	--	--	--				
d. Rs.15,831-46,128	2	7	1				
e. Rs.46,129-61,662	7	22	2				
f. Rs.61,663-1,23,321	10	31	8				
g. ≥Rs. 1,23,322	--	--	--				

4. Occupation	Knowledge			χ^2 value	df	Tab value	Remarks
	Inadequate	Moderate	Adequate				
a. Professionals	5	14	--	4.187	6	12.59	NS
b. Clerks	--	--	--				
c. Skilled workers	2	6	1				
d. Craft/trade workers	4	11	2				
e. unemployed	8	29	8				

5. Area of residence	Knowledge			χ^2 value	df	Tab value	Remarks
	Inadequate	Moderate	Adequate				
a. Urban	12	32	1	8.946	2	5.99	S
b. Rural	7	28	10				

6. Source of information	Knowledge			χ^2 value	df	Tab value	Remarks
	Inadequate	Moderate	Adequate				
a. Mass media	9	35	2	6.132	2	5.99	S
b. Health personnel	10	25	9				
c. Family members	--	--	--				
d. Others	--	--	--				

7. Parity	Knowledge			χ^2 value	df	Tab value	Remarks
	Inadequate	Moderate	Adequate				
a. Primipara	9	28	5	0.010	2	5.99	NS
b. Multipara	10	32	6				

S*= Significant at $p < 0.05$ NS= Not Significant

The analysis presented in table no 3 showed that there is significant association found between the demographic variables i.e. area of residence and source of information and knowledge of antenatal mothers because the obtained chi-square (χ^2) value is greater than the table value at $p<0.05$ level of significance of antenatal mothers regarding the effect of passive smoking on fetus. Therefore, (H_2) could be accepted. But there is no significant association found between demographic variables such as age, educational status, monthly family income, occupation of antenatal mothers and parity.

CONCLUSION

The present study was conducted to assess the knowledge and attitude of antenatal mothers regarding passive smoking effect on fetus with view to develop information booklet in Selected Hospitals of Guwahati, Kamrup (M) Assam. The findings of the study revealed that majority i.e. 66.7% of the antenatal mothers had moderate knowledge,21 % had inadequate knowledge and 12.2% had adequate knowledge, majority i.e. 44.4% of the antenatal mothers had neutral attitude, 41.2% had positive attitude and 14.4% had negative attitude. There was a moderate positive correlation between knowledge and attitude of antenatal mothers regarding the effect of passive smoking on fetus and was found to be statistically significant at $p<0.05$ level of significance. The area of residence and source of information were found significantly associated at $p<0.05$ level with both the knowledge and attitude of antenatal mothers regarding the effect of passive smoking on the fetus.

Thus the study found that antenatal mothers require awareness regarding the effect of passive smoking on the fetus. More studies can be undertaken not only to assess the knowledge and attitude but also to evaluate the effects of passive smoking on the fetus.

RECOMMENDATIONS

On the basis of findings of the study, some recommendations were made for further detailed study.

1. A comparative study can be conducted regarding active and passive smoking effect on fetus in hospitals settings to assess the knowledge and attitude of antenatal mothers.
2. The same study can be conducted on a large sample.
3. A similar study can be undertaken by using different teaching methods.

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