



Assessment of the Knowledge and Attitude Regarding the Effects of Passive Smoking on Foetal Development Among Antenatal Mothers

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Abstract

A descriptive study was conducted to assess the knowledge and attitude regarding the effects of passive smoking on foetal development in antenatal outpatient department. The objectives of the study were: 1) Assess the knowledge and attitude regarding the effects of passive smoking on foetal development among antenatal mothers. 2) Correlate the knowledge and attitude regarding the effects of passive smoking on foetal development among antenatal mothers 3) Find out association between the knowledge and attitude regarding the effects of passive smoking on foetal development with selected demographic variables. The sample size were 100 selected by using non-probability convenient sampling technique. The results revealed 58% have moderate knowledge and 42% have inadequate knowledge and none of them have adequate knowledge regarding effects of passive smoking on foetal development. Most of the antenatal mothers 85% have unfavourable attitude and 15% are neutral and none of them have favourable attitude regarding the effects of passive smoking on foetal development. The study shows positive correlation (r value was +0.41) between knowledge and attitude regarding the effects of passive smoking among antenatal mothers.

Key words: Antenatal mothers; Passive smoking; Foetal development.

Introduction

The history of smoking can be dated to as early as 5000 BC, and has been recorded in many different cultures across the world. Smoking primarily of tobacco is an activity that practiced by some 1.1 billion people and up to one-third of adult population. Smoking is a practice in which a substance, most commonly tobacco or cannabis is burned and the smoke is inhaled or tasted. The most common method of smoking today is through cigarettes. A 2007 report states that about 4.9 million people worldwide each year die as a result of smoking¹.

Second hand smoke (SHS) sometimes also known as environmental tobacco smoke is tobacco smoke inhaled by persons other than the intended active smoking hence the colloquial term passive smoking. Passive smoking is most common in public venues, but may also occur in private residences. Environmental tobacco smoke exposure in pregnant women adversely affect pregnancy by increasing foetal mortality and preterm delivery at higher

exposure levels and showing foetal growth retardation across all levels of environmental tobacco smoke exposure². Passive smoking is a cause of lung cancer in non-smokers with long-term exposure to tobacco smoke were estimated to have 20-30% higher risk of developing lung cancer. When an expecting mother inhales tobacco smoke from a cigarette, some of the chemicals are exhaled immediately and leave the body, but others stay in the body and make their way into the placenta. The unborn child, as well as inhaling the mainstream smoke that the mother breathes in from the cigarette, which stays in her body, it may also inhale any second hand smoke that is in the air. This would mean that the growing foetus would be negatively affected by two different types of smoke. Once the baby is born, it would no longer be affected by the mainstream smoke that the mother inhales, however if the mother continues to smoke, the child will suffer the effects of second hand smoke and become a passive smoker itself.³

The unborn child in the womb relies on the mother for its food, nutrients and oxygen in order to develop and grow healthily before the birth. On smoking several things happen. Firstly, there is a reduced supply of oxygen, due to the increase of nicotine and carbon monoxide in the mother's bloodstream. This means that there is less oxygen available to the baby, as the harmful substances replace it⁴. The baby will begin to move slower after the mother has smoked a

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cigarette and the baby's heart will have to work faster, as it tries to breathe in more oxygen. Consequently, its breathing and movement will be altered.⁵ In other words, it will suffer unnecessary stress. Pregnancy complications that have been associated with women who are exposed to environmental smoke includes ectopic pregnancy, foetal death, stillbirth and death of the baby in the first week, miscarriage, placenta previa, early detachment of the placenta from the walls of the uterus before delivery, increase in the heart rate and blood pressure in the mother due to the effects of the nicotine, blood clots, vomiting, vaginal bleeding, thrush, urinary tract infection, premature rupture of the membranes which leads to premature birth, as well as infection, lack of necessary vitamins and folic acid, decreased lung function of the developing baby, caused by the nicotine that crosses the placenta to the foetus and alters the cells of the unborn child's developing lungs.⁶

Statement of the Problem

A study to assess the knowledge and attitude regarding the effects of passive smoking on foetal development among antenatal mothers attending outpatient department in selected hospital, Bangalore.

Objectives of the study

1. Assess the knowledge and attitude regarding the effects of passive smoking on foetal development among antenatal mothers.
2. Correlate the knowledge and attitude regarding the effects of passive smoking on foetal development among antenatal mothers.
3. Find out association between the knowledge and attitude regarding the effects of passive smoking on foetal development with selected demographic variables.

Research approach

The research design adapted in this study is quantitative descriptive survey approach

Setting of study

The setting of the study is Antenatal OPD at K.C.G Hospital, Bangalore

Population

The target population for the present study is antenatal mothers attending outpatient department of K.C General Hospital, Malleswaram, Bangalore.

Sample size

The sample for the present study comprises of 100 antenatal mothers attending outpatient department of K.C General Hospital, Malleswaram, and Bangalore.

Sampling technique

The sampling technique in this study is convenience sampling technique

Sampling Criteria

Inclusion Criteria

The study includes

- Age group between 18-40 years
- Who are willing to participate in the study
- Samples consists of only antenatal mothers
- Who can read, speak & write Kannada and English

Exclusion Criteria

The study excludes

- Age group more than 40 years
- Those who are not willing to participate
- Mothers, who cannot read, speak and write Kannada and English

Description of the tool

The tools of the study comprise of structured knowledge questionnaire to assess knowledge and Likert scale to assess attitude of antenatal mothers on effects of passive smoking on fetal development.

Procedure for data collection

The investigator obtained formal permission from the concerned authority to conduct study in K.C.General Hospital, Bangalore. The investigator

introduced self to the antenatal mothers and maintained good communication. Before collecting data, the investigator has informed about the importance of this study and ascertained the willingness of the participants. The period of data collection was one month.

Table 1: Description of Socio Demographic variable of antenatal mothers

S.No	Demographic variables	Frequency	Percentage
	Age in years		
	a. 18—23	34	34
	b. 24—29	36	36
	c. 30—35	21	21
	d. 36-40	9	9
2	Religion		
	a. Hindu	46	46
	b. Muslim	37	37
	c. Christian	17	17
3	Education of mother		
	a. No formal education	21	21
	b. Primary education	42	42
	c. Secondary Education	28	28
	d. Graduate and above	9	9
4	Education of Husband		
	a. No formal education	26	26
	b. Primary education	26	26
	c. Secondary Education	30	30
	d. Graduate and above	18	18
5	Occupation of the mother		
	a. House wife	48	48
	b. Private employee	28	28
	c. Government	24	24
6	Parity		
	a. Primiparous	47	47
	b. Multiparous	53	53
7	Family Income (in Rs)		
	a. Less than 3000	35	35
	b. 3001—6000	36	36
	c. 6001 and above	29	29
8	Area of residence		
	a. Rural	16	16
	b. Urban	48	48
	c. Semi urban	36	36

Table 2: Assessment the knowledge regarding the effects of passive smoking on foetal development among antenatal mothers

Level of knowledge	Score	No of Respondents	
		Frequency	Percentage
Inadequate	< 50%	42	42
Moderate	50--75%	58	58
Adequate	> 75%	0	0

Table 3: Mean, SD and Mean % of knowledge regarding the effects of passive smoking on foetal development among antenatal mothers

Domain	Max Statements	Max Score	Range	Mean	SD	Mean%
Knowledge	25	25	8-18	13.14	2.41	52.56

Table 4: Assessment the attitude regarding effects of passive smoking on foetal development among antenatal mother

Level of knowledge	Score	No of Respondents	Frequency	Percentage
Unfavourable	< 50%	85	85	
Neutral	50--75%	15	15	
Favourable	> 75%	0	0	

Table 5: Mean, SD and Mean % of attitude regarding the effects of passive smoking on foetal development among antenatal mothers

Domain	Max Statements	Max Score	Range	Mean	SD	Mean%
Attitude	20	20	8--21	13.45	3.57	33.62

Table 6: Correlate the knowledge and attitude regarding the effect of passive smoking on fetal development

Domain	Max Statements	Max Score	Range	Mean	SD	Mean%
Knowledge	25	25	8--18	13.14	2.41	52.56
attitude	20	20	8--21	13.45	3.57	33.62

Correlation r value=0.41 Significance at P >0.01 level

Table 7: Association between the knowledge and the selected demographic variables

S.No	Variables	Level of significance
1	Education of mother	24.78*df 3S
2	Education of Husband	16.15df 3S
3	Family Income	7.74*df 2S
4	Area of residence	11.9*df 2S

Table 8: Association between the attitude and the selected demographic variables

S. No	Variables	Level of significance
1	Age	9.5*df 3S
2	Education of mother	30.4*df 3S
3	Education of Husband	20.6*df 3S
4	Area of residence	7.67*df 2S

Discussion

The study shows that most of the antenatal mothers 58(58%) have moderate knowledge and 42(42%) have inadequate knowledge and none of them have adequate knowledge regarding effects of passive smoking on foetal development (Table 2). The subjects had the mean score of 13.14(52.56%) with the standard deviation of 2.41 for overall knowledge regarding the effects of passive smoking on foetal development (Table 3). The study shows positive correlation (r value was +0.41) between knowledge and attitude regarding the effects of passive smoking among antenatal mothers (Table 6). This indicates statistically moderate correlation between knowledge and attitude regarding the effects of passive smoking among antenatal mothers. Thus, research hypothesis was accepted. It is evident from the present study that the Chi-Square value computed that there is association between the knowledge score and the demographic variables such as education of mother, education of husband, family income and area of residence (Table 7).

It is evident from the present study that the Chi-Square value computed that there is association between the attitude score and the demographic variables such as age, education of mother, education of husband and area of residence only (Table 8).

Nursing Implications

- The findings of present study will improve the knowledge of antenatal mothers regarding the effects of passive smoking

- The study improves the pregnancy outcome of mother who is at risk of passive smoke.

Conclusion

Passive smoking became a major health hazard nowadays. The study suggested that the antenatal mothers should be aware about the health hazards around them.

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