A Study to Assess the Knowledge Regarding Teratogens Among the Husbands of Antenatal Mother Visiting Obstetrics and Gynecology OPD of Sharda Hospital, Greater Noida, Up

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Abstract:- Pregnancy is a stage of life, which gives new lives to individuals mother and her baby. This stage is very crucial for mother and her newborn just because of there and many factor to affect the life of the baby and causing the congenital abnormalities to the babies and among of all the factors there are factor called teratogens so, prevention of the teratogen is to be done and they are classified into to many types such as food, chemical, medicines etc. That's why the spouses should've awareness about teratogens.

➢ *Aim:*

To assess the knowledge regarding the teratogen among husband of the antenatal mother, and to find association between knowledge regarding teratogens among the husband of antenatal mother.

➢ *Methodology*

To evaluate the knowledge of the husbands a quantitative research technique using a descriptive survey research design was used where 100 samples were taken which was utilized in study.

➢ *Result:*

The results shows the significant association between knowledge score of husband of the antenatal mother with demographic variables.

At p<0.03 level of significance. Variables such as education, religion, types of family. number of children, family income, profession and previous knowledge about the teratogen are having the higher value than the p value which is non- significant.

➢ *Conclusion:*

The data was collected from the 100 sample through convenient questioner technique which shows there is no significant association found between knowledge score with selected background accept age.

I. INTRODUCTION

Pregnancy is a period of transition with important physical and emotional changes. It lasts for about 280 days or 40 weeks and during this period of time a pregnant woman exposed to many agents which act as teratogen. Teratogens are usually discovered after an increased prevalence of particular birth defects. Teratogens are environmental factors that, when encountered by expectant mothers, have the potential to disrupt normal fetal development, leading to prenatal malformation or even fetal death [1]. It is understood that the majority of congenital anomalies arise from a combination of genetic and environmental factors [2]. According to estimates, approximately 15% of all congenital malformations can be attributed to environmental teratogens [3]. These teratogens encompass various metabolic conditions, physical, chemical, and infectious agents [4]. The encouraging aspect is that many of these exposures are modifiable. Hence, raising awareness among women about the risks posed by teratogens becomes crucial as it can significantly reduce the occurrence of congenital defects [5]. Certain comorbidities present a teratogenic risk, such as gestational diabetes mellitus, which has been associated with a higher likelihood of congenital malformations [6-8]. It further emphasizes the need for vigilance during pregnancy and underscores the importance of managing potential teratogenic factors for better fetal outcomes. Consumption of cigarettes, alcohol during pregnancy and exposure of radiation can cause fetal death and congenital abnormalities. Perinatal maternal smoking exposure (PMSE) stands as a significant environmental risk factor affecting the developing fetus. Among these effects, fetal growth restriction emerges as the most prevalent outcome resulting from smoking during pregnancy. The exposure to PMSE triggers changes in multiple organ systems within the mother, which, in turn, can impact placentation - the process of placenta formation and function - and ultimately influence fetal growth. Adulterated food intake during pregnancy can reduce the fetal development. Toxicity can also result in miscarriage or an undesired pregnancy termination. Skin care medication

containing Vitamin A can cause serious problems like miscarriage. Preformed vitamin A has been identified as a teratogen, leading to birth defects, and should be limited both during pregnancy and at any other time [9]. Chicken pox during pregnancy has teratogenic effect on baby like skin and eye problems. Exposure to lead and mercury during pregnancy leads to abortion, paints can affect fetus growth. Pregnant ladies should avoid cleaning litter boxes especially cat feces because it can cause teratogens effect (rubella). Rubella vaccine during pregnancy within 3 months before pregnancy effect the fetus. According to studies, husbands of pregnant women exhibit insufficient awareness regarding the teratogenicity (potential to cause birth defects) of gestational diabetes mellitus, thyroid diseases, and certain medications, including epileptic medications. Generally, the use and safety of medications during pregnancy are topics of extensive debate [10-11].

➢ *Objectives of the Study*

- To assess the knowledge regarding teratogens among husbands of antenatal mother visiting Obstetrics and Gynecology OPD of Sharda hospital, Greater Noida, UP
- To find out the association between knowledge regarding teratogens among the husbands of antenatal mother visiting Obstetrics and Gynecology OPD of Sharda hospital, Greater Noida with selected demographic variables.
- To disseminate information booklet in a view to provide knowledge regarding teratogens.

➢ *Research Hypothesis*

- H1: There will be a significant association between knowledge regarding teratogens among husbands of antenatal mothers with the demographic variables.

➢ *Assumptions*

- Knowledge regarding antenatal care and birth preparedness would be higher in multipara as compared to primipara.
- Antenatal mothers and the husbands living in joint/ extended families would have more knowledge about antenatal care and complications rather than the ones living in nuclear families.
- Illiterate husbands would know lesser about the teratogenic factors in comparison to the educated ones.

➢ *Variables Study Variable-*

- *Study Variable-*
  Knowledge regarding teratogens among husbands of antenatal mother visiting Obstetrics and Gynecology OPD of Sharda hospital, Greater Noida, UP.

- *Demographic Variable-*
  Age, gender, education qualification, sources, access to information, family type and Area of residence.

➢ *Population-*
  The population under the study comprise of husbands of antenatal mothers visiting the Obstetrics and Gynecology OPD of Sharda Hospital, Greater Noida, UP

➢ *Setting-*
  Data will be collected from the husbands of antenatal mothers visiting Obstetrics and Gynecology OPD of Sharda Hospital, Greater Noida, U.P.

II. METHODOLOGY

A research methodology is an outline of how a given research is being done. It defines the techniques or procedures that are used to identify and analyze information regarding a specific research topic. This chapter deals with the methodology adopted for the present study which includes research approach, research design, research setting, population, sample and sample size, sample criteria, sample technique, ethical consideration, data collection techniques, description of tools, content validity, plan of analysis, summary.

The present study aimed to assess the knowledge regarding teratogens among husbands of antenatal mothers who has visited OPD of Sharda hospital.

➢ *Research Approach*
  The research approach indicates the basic research approach for conducting research. The choice of research approach depends on the purpose of the study.

In this study, quantitative approach was found most suitable for this study.

➢ *Research Design*
  The research design is the plan and strategy for investigation used to address the research question, serving as a blueprint for the study's approach and methodology. It influences the validity and reliability of the study's findings and varies based on the nature of the research question and objectives. The research design selected for this study was Non experimental descriptive design as this study aims to only assess the knowledge regarding teratogens among husbands of antenatal mothers who has visited OPD of Sharda hospital.

➢ *Research Setting*
  The setting for this study included the OPD of Sharda Hospital, Greater Noida, Uttar Pradesh.

➢ *Population*
  Population refers to the entire set of individuals or objects having some common characteristics selected for a research study. In this present study the population comprises of spouses of antenatal mothers.

➢ *Sample and Sample Size*
  Sample is subject of the population that is selected for a study. A sample size is the number of subjects, events, behaviors or situations that are examined in the study. In

this study, the sample consists of husbands of antenatal mothers who has visited OPD of Sharda hospital. The sample size is 100 in this study.

➢ *Sampling Criteria*

Sampling refers to the process of selecting sample from the target population to represent the entire population.

➢ *List of the Characteristics Essential for Inclusion or Exclusion in the Target Population:*

• *Inclusion Criteria:*

✓ Husbands of antenatal mothers.
✓ Husbands who are available at the time of data collection.

• *Exclusion Criteria:*

✓ Husbands who are not willing to participate in the study.

➢ *Ethical Consideration*

The ethical clearance was obtained prior to the commencement of data collection and areas listed below:

✓ Dean cum Principal, School of Nursing Science and Research, Sharda University.
✓ Institutional ethical committee, Sharda University.
✓ Medical Superintendent, Sharda Hospital
✓ Informed consent from the participants of the study.

➢ *Data Collection Techniques*

The most important and appropriate aspect of any research is the collection of the appropriate data which is necessary for the study. Data is the units of information or any statistics, facts, figures, general material, evidence or knowledge collected during course of the study.

➢ *The instruments used for data collection in this study were:*

• **Tool 1:** Demographic Performa
• **Tool 2:** Self structured Questionnaires to assess the knowledge regarding teratogens among husbands of antenatal mothers.
• After obtaining ethical permission from the School of Nursing Science and Research, Sharda University.
• The samples were selected based on inclusion and exclusion criteria using a convenient sampling method.
• The participants were informed about the study's purpose, and their consent was obtained.
• The procedure of the study was explained to the participants.
• Knowledge will be assessed by structured knowledge questionnaire.

III. RESULT

Analysis and interpretation of data are based on the data collected by using knowledge questionnaire regarding teratogens. The data was analyzed and presented under the following sections.

➢ *Section 1:*

Assess the knowledge regarding teratogens among the husbands of antenatal mother.

➢ *Section2:*

Findings related to association between knowledge regarding teratogens among the husbands of antenatal mother.

➢ *Section 1*

• *Description of the Demographic Variables of the Selected Husbands.*

The socio demographic variables are describe in term of age, education, occupation, religion, type of family, number of child, gross family income and previous knowledge about teratogens.

Table 1 Frequency and Percentage Distribution of Demographic Variables of the Selected Husbands Participated in the Study

S.NO	Demographic Variables	Frequency(F)	Percentage
1	**Age**		
	20-25	21	21
	26-30	44	44
	31-35	32	32
	>35	3	3
2	**Husbands Education**		
	illiterates	34	34
	Undergraduates	37	37
	Undergraduate	22	22
	Postgraduate	7	7
3	**Husbands Occupation**		
	Farmer	14	14
	Businessman	34	34
	Private job	49	49
	Government job	3	3

S.NO	Demographic Variables	Frequency(F)	Percentage
4	Religion		
	Hindu	86	86
	Muslim	14	14
	Others	0	0
5	No. of Children In Family		
	0	31	31
	1	45	45
	2	17	17
	>2	7	7
6	Family Income		
	<20000	22	22
	20001-40000	46	46
	40001-60000	25	25
	>60000	7	7
7	Previous Knowledge About Teratogen		
	YES	31	31
	NO	69	69

➢ *Section 2*

Table 2 Findings Related to Association between Knowledge Regarding Teratogens among the
Husbands of Antenatal Mother with Selected Demographic Variables

Socio Demographicdata	Good	Average	Poor	Chi square value	df	P value
Age						
a. 20-25	4	17	0			
b. 26-30	4	38	2			
c. 31-35	1	30	1			
d. <35	2	1	0	13.96	6	0.03(S)
Husband's Education						
a. illiterates	7	27	0			
b. Under graduates	2	33	2			
c. Graduates	22	19	1			
d. Postgraduates	0	7	0	7.23	6	0.3(NS)
Husband's Occupation						
a. Farmer	2	11	1			
b. Businessman	6	27	1			
c. Private Job	3	45	1			
d. Government Job	0	3	0	4.45	6	0.61(NS)
Religion						
a. Hindu	10	73	3			
b. Muslims	1	13	0			
c. Others	0	0	0	0.79	2	0.67(NS)
Type of family						
a. Nuclear	1	39	4			
b. Joint	2	44	7			
c. Extended	0	3	0	1.14	4	0.88(NS)
No .of children						
a. 0	4	27	0			
b. 1	4	38	3			
c. 2	1	16	0			
d. >2	2	5	0	6.6	6	0.35(NS)
Family income						
a. <20000	1	21	0			
b. 20000-40000	7	37	2			
c. 40000-60000	3	21	1			
d. >60000	0	7	0	4.16	6	0.65(NS)
Previous knowledge about teratogen						

a. Yes	4	27	0			
No	11	59	3	1.502	2	**0.47(NS)**

(p<0.05 Significant Level) S – Significant and NS - No Significant

At p<0.03 level of significance. However the P value of the demographic variables education, religion, type of family, number of child, family income, profession and previous knowledge about teratogens are having the higher value than the p value which is non-significant means these value show no significance between the demographic variable and the knowledge regarding teratogens.

IV.   DISCUSSION

The result of this study involve significant association between knowledge score of husbands of antenatal mother with demographic variables such as age of the husband.

The present study supported by a study conducted by Dakshayini .M .B in November 2019 revealed that Knowledge scores of the eligible couples revealed that 96% of eligible couples had inadequate knowledge, 4% had moderately adequate knowledge.

The present study supported by a study conducted by Alhamdani, Wejdan1 (2020) revealed that 75% of the participants were between 28 and 37 years.

The findings of the current study show that the Chi Square test was computed to find the significant association between knowledge regarding teratogens among the husbands of Antenatal mother. It revealed that, there was no statistically significant association (p>0.05) found between knowledge scores with selected background characteristics except age of husband which shows that p<0.05. Hence the researcher failed to accept research hypothesis (H_1). The current study is supported by a study conducted by Antara Roy et al. in 2019, which found a significant association between knowledge of antenatal care and the education level of the respondents [$\chi2 = 6.92042$, df(1), p < 0.01]. This suggests that the knowledge score was dependent on the educational status of the respondents.

V.   CONCLUSION

The data was collected from 100 samples through convenient questionnaire technique. It revealed that, there was no statistically significant association (p>0.05) found between knowledge scores with selected background characteristics except age of husband which shows that p<0.05.

Bio statistical methods (chi-square and correlation) were used for analyses. The following conclusions were drawn from the result of the study: Regarding age of the respondent ,maximum number of husband belongs to the 26-30 years of old which is 44%have knowledge about teratogen from which most of 12th pass and doing private jobs.

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