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ASSESSMENT OF PREGNANT WOMEN KNOWLEDGE ON MEDICATION

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ABSTRACT

Aim: The aim of the study is to assess of pregnant women's knowledge on medications. **Methods:** It is an observational cross sectional study done for six months. Data was gathered on the basis of questionnaire and interview. Descriptive statistical analysis was performed to analyze the results. **Results and discussion:** Generally, most women believed that physicians prescribes too many medicines (Q7; 66%) and some of pregnant women have only believed that medication using during pregnancy can save the many of unborn lives of children's (Q3; 31%). All of the pregnant women having poor knowledge (21.6%) regarding the risk of awareness. Most of the pregnant women (70%) have known the use of their prescribed drugs and only (1%) of the people can identify the drugs that should be avoided in pregnancy. Vitamins (63.25%) are the most commonly prescribed drugs during pregnancy. In our study majority of drugs were prescribed from FDA category A (77.3%). **Conclusion:** Employees have shown the positive beliefs towards the medication when compared to the illiterates. The number of pregnancy can be influential in increase the positive beliefs and risk awareness

during pregnancy period. It is the responsibility of all the health care professionals to improve the positive beliefs towards the medications during the pregnancy. Vitamins are the most commonly prescribed drugs & Majority of the drugs is prescribed from the FDA category A.

KEYWORDS: knowledge, medications, beliefs, risk awareness, vitamins, pregnancy.

INTRODUCTION

Avoidance of unnecessary use of drugs during pregnancy as well as knowledge and awareness of care providers and pregnant women concerning the harmful effect of drugs is of great significance.[1] Medication knowledge (e.g. Knowing the name of medication, dosage, how to take it, etc.) is also highly correlated with medication adherence.[2] A 2011 study using U.S. data from 1976-2008 reported that most women (about 90%) take at least one medication during pregnancy and 70% take at least one prescription medication. Over the last 30 years, First trimester use of prescription medications has increased more than 60%.[3] We know little about the effects of taking most medications during pregnancy. This is because pregnant women are often not included in studies to determine safety of new medications before they come on the market. Less than 10% of medications approved by the U.S. Food and Drug Administration (FDA) since 1980 have enough information to determine their risk for birth defects.[4] Most medications are placed onto the market without a directly established safety profile in human pregnancy. So far, few medications have been shown to be major teratogens, yet the risk of minor teratogenicity or of more subtle effects on fetal development still has to be determined for most of them.[5] Pregnant women's beliefs and risk perceptions influence their decisions on whether or not to use a medication during pregnancy.[6] Beliefs about medication have been shown to strongly associate with patient adherence to medication. It has been documented that congenital abnormalities caused by human teratogenic drugs account for less than 1% of total congenital abnormalities.[7] All decisions about the use of medications in pregnancy should be made individually, in conjunction with the patient, on the basis of a careful consideration of both the potential risks and potential benefits of the medication.[8]

AIM

The aim of the study is to assess the pregnant women's knowledge, risk of awareness, beliefs on medications and medication used during pregnancy.

METHODS

Study design

It is a prospective observational study.

Study period

The present study was carried out for a period of 6 months from October 2014 to march 2015.

Study site

The present study was conducted at the Rajiv Gandhi institute of medical sciences (RIMS) at the outpatient department, Kadapa.

Source of data

All the data collected in the previously designed data collection form. The data Required for the cross sectional study was collected on a daily basis for six months. Questionnaires were used to assess the level of knowledge about medication by pregnant women.

Sample size

The total sample size was 200.

Inclusion criteria

The study included pregnant women & who is planning to be pregnant.

Exclusion criteria

Pregnant women are who are not willing to participate in our study.

Pregnant women who could not communicate in spoken English and Telugu (either directly or through family members).

Method of data collection

Data collection was done by using the following documents.

Annexure-1 (pregnant women data collection form). All the required details of the participants were recorded.

Annexure-2 (questionnaires on knowledge, risk awareness & beliefs about medications). The questionnaire was a structured self prepared document to assess three different domains

among the pregnant women's knowledge, risk awareness and beliefs respectively. It comprises of 15 questions with three different options.

Statistical analysis

All the responses were entered into Microsoft excel spreadsheet and descriptive statistics were used to analyze the demographic characteristics of the pregnant women and for knowledge assessing scores. Demographic characteristics were compared with knowledge, assessing questions by using the mean and average.

RESULTS

In the present study, we had assessed 200 pregnant women's knowledge, beliefs & risk of awareness regarding medications. We had collected various demographic characteristics like level of education, place of living and their employment status and their number of pregnancy.

Table: 1. Demographic characteristics of the pregnant women.

Characteristics	Number of pregnant women n=200
Level of education	
Illiterate	80(40%)
Primary	50(25%)
Secondary	34(17%)
University	36(18%)
2. Place of living	
Rural	116(58%)
Urban	84(42%)
3. Occupation	
House wife	172(86%)
Health related employees	10(5%)
Other employees	18(9%)
4.**Number of pregnancy**	
1st time gravida	68(34%)
1-3 gravida with previous children	116(58%)
>3gravida with previous children	16(8%)

Table: 2. Questionnaire to assess pregnant women knowledge, risk awareness & beliefs about medications.

Statement	Agree (n %)	Disagree (n %)	Neutral (n %)
1. Did you discuss the safety of medications in pregnancy with any health care provider (physician, nurse-midwife, physician assistant, or pharmacist)?	138(69%)	26(13%)	36(18%)
2. Medicines are always used on the prescription of a doctor during pregnancy.	184(92%)	8(4%)	8(4%)
3. Treatment with medicines during pregnancy lives of many unborn children are saved each year.	62(31%)	70(35%)	68(34%)
4. It's better for the fetus that I use medicines and get well than to have untreated illness during pregnancy.	166(83%)	24(12%)	10(5%)
5. Do you known the use of these prescribed drugs?	140(70%)	60(30%)	
6. All medicines can be harmful to the fetus	42(21%)	90(45%)	68(34%)
7. Doctors prescribe too many medications to pregnant women.	132(66%)	38(19%)	30(15%)
8. All medicines cannot be used in case of pregnancy.	108(54%)	66(33%)	26(13%)
9. It is better for the fetus, I using the vitamins &nutrition supplements.	70(35%)	68(34%)	62(31%)
10. If doctor had more time with patients, he would prescribe the fewer medicines.	60(30%)	70(35%)	70(35%)
11. Do you think the cause abnormality children were drug usage?	12(6%)	68(34%)	120(60%)
12. What is the critical time for the drug usage during pregnancy?	28(14%)	150(75%)	22(11%)
13. Enumerate the mains drug that should be avoided during pregnancy.	2(1%)	50(25%)	148(74%)
14. Medications are responsible for the congenital abnormalities of their newborn.	34(17%)	66(33%)	100(50%)
15. Natural remedies can be general used by the pregnant women.	60(30%)	80(40%)	60(30%)

We have prepared the 15 self structured questionnaires for the assessing medication knowledge, beliefs and risk awareness about the medication of the pregnant women. Generally, most women believed that physicians prescribes too many medicines (Q7; 66%) and some of pregnant women have only believed that medication using during pregnancy can save the many of unborn lives of children's (Q3; 31%). Majority of the pregnant women believed that medication treatment is better for the child than the untreated illness during pregnancy (Q4; 83%).

All of the pregnant women having poor knowledge (21.6%) regarding the risk of awareness. Most of the pregnant women (Q5; 70%) have known the use of their prescribed drugs and only (Q13; 1%) of the people can identified the drugs that should be avoided in pregnancy.

Some of the pregnant women (Q14; 17%) have believed that medications are responsible for the congenital abnormality.

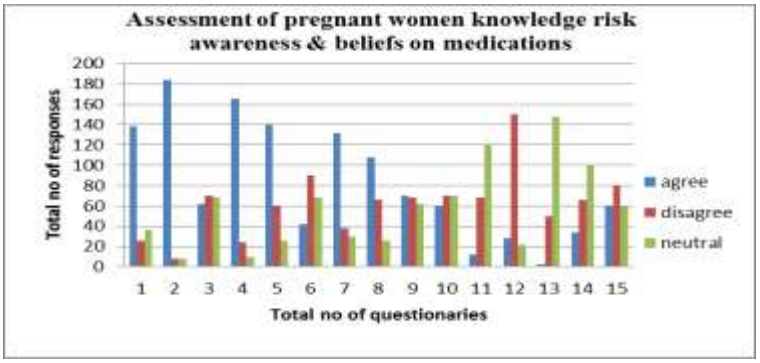

Figure: 1: Assessment of pregnant women knowledge risk awareness & beliefs on medications.

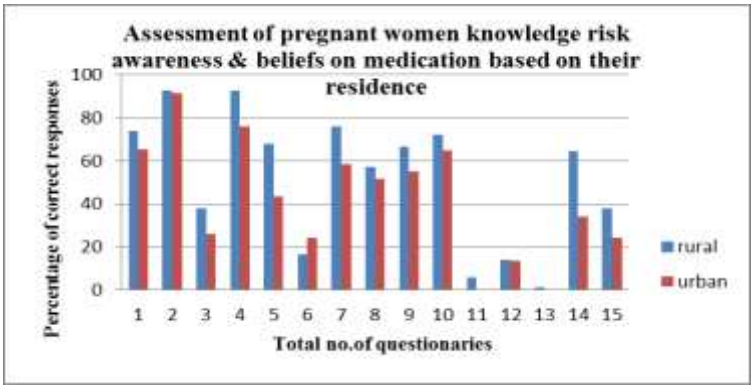

Figure: 2: Assessment of pregnant women knowledge risk awareness & beliefs on Medications based on their residence.

Place of residence is one more contributing factor for lack of knowledge. In the present study more than (42%) of the respondents were from urban region and (58%) were from rural region. Urban having more risk of awareness when compared to the rural.

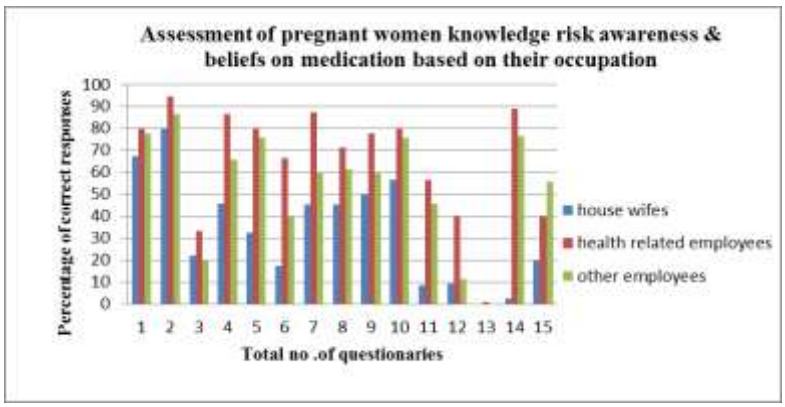

Figure 3: Assessment of pregnant women knowledge risk awareness & beliefs on medications based on their occupation.

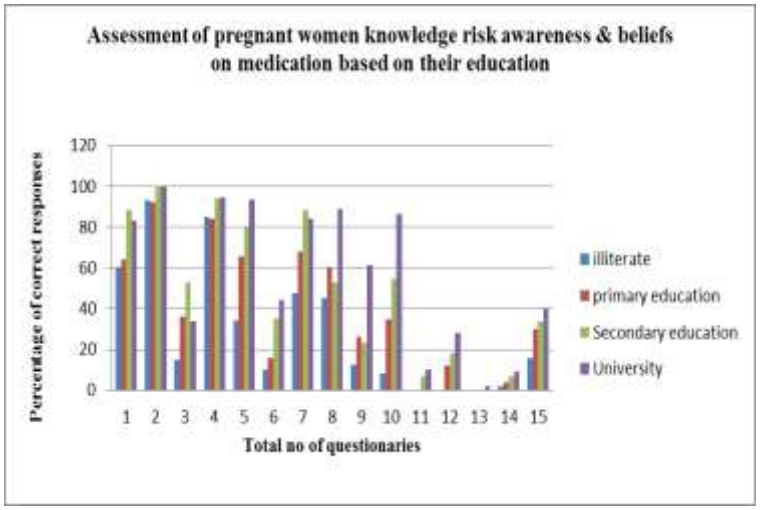

Figure 4: Assessment of pregnant women knowledge risk awareness & beliefs of Medications based on their education.

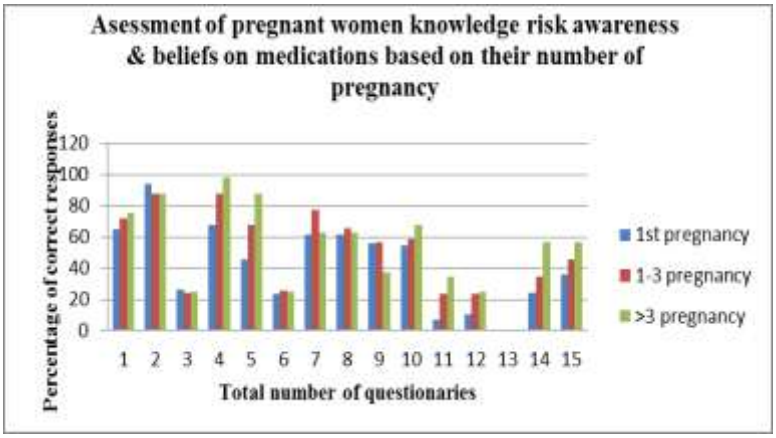

Figure: 5: Assessment of pregnant women knowledge risk awareness & beliefs On medication based upon their number of pregnancies.

Medication used during pregnancy

We also categorized various classes of commonly prescribed drugs for pregnant women in the present study. Further the prescribed drugs were again classified into five categories as per the FDA pregnancy risk category into A, B, C, D & X respectively.

Vitamins (77.3%) are the most commonly prescribed drugs during pregnancy followed by paracetomol (40%), cetrizine (27%) and ranitidine (22%), antimicrobial agents (9.6%) and anti hypertensive agents (3.7%).

Table 3 Medication used during pregnancy.

Drug	Number of prescriptions (%)
B. Complex	172(86%)
Calcium	156(78%)
Vitamin c	102(51%)
Iron &folic acid	190(95%)
Ranitidine	44(22%)
Paracetamol	80(40%)
Mefenemic acid	38(19%)
Amoxicillin	34(17%)
Cetrizine	54(27%)
Doxycycline	4(2%)
Metronidazole	20(10%)
Methyldopa	22(11%)
Nifedipine	30(15%)
Prazosin	6(3%)
Ondansetron	26(13%)
Insulin	6(3%)
Traxanamic acid	36(18%)

Table: 4. FDA drug risk category for prescribed drugs.

Category	Percentage
Category A	77.3%
Category B	17.88%
Category C	12.33%
Category D	2%
Category X	0.00%

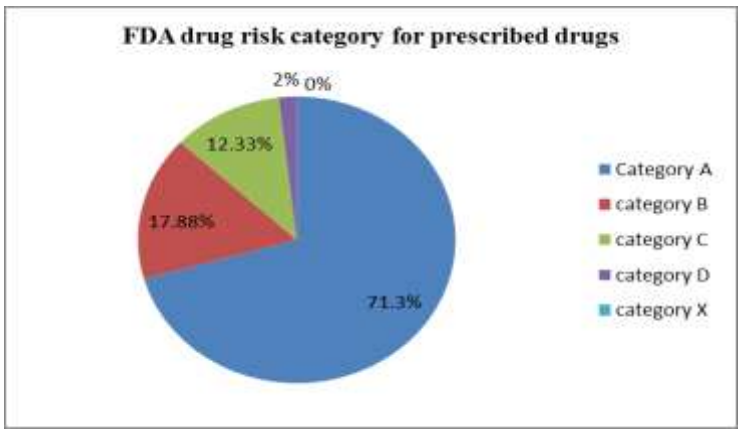

Fig. 6 FDA drug risk category for prescribed drugs.

In our study majority of the drugs were from category A (77.3%) followed by category B (17.88%), category C (12.33%) and category D (2%). No drugs were prescribed from category X. So from the above data, we can say that the prescription habit in our hospital was safe for the pregnant women.

DISCUSSION OF RESULTS

The attitude and beliefs regarding medication use have been extensively reported using beliefs about medication questionnaire. In our study describes the pregnant woman's beliefs and risk awareness towards the medication use during pregnancy. The beliefs about medication decide patient's compliance or adherence to certain medication (de las cuevas et al., 2011).[9]

In our study the sociodemographic characters like education, occupation, number of pregnancy can be showing the more positive beliefs towards the medication. (Noha M. Zaki et, al 2013)[7] according to Noha, his studies have shown the higher level of education and health-related job were the only socio demographic factors associated with more positive beliefs about medications. As previously shown in other communities, socio demographic Factors, such as education and occupation, may have a significant impact on patients' attitudes and beliefs toward Medications. The socio demographic character can be influenced the knowledge of the medications.

When compared with women occupation women in health related occupation and other non health related employees having a more knowledge about the risks of untreated during pregnancy and positive beliefs towards medication. This possibility reflects a high degree of medication knowledge among women who work in health related fields. In our study the majority of the peoples has known the reason for the use of the medication. Illiterates and rural area of the pregnant women's have believed that the doctor prescribes too many medications and all of the drugs should not be used during pregnancy. In our some the participants have shown the interest towards the taking of natural remedies during pregnancy.

In his study, the need to avoid unnecessary medication exposure during pregnancy is common knowledge in the healthcare community and among most pregnant women. Interestingly, this has led to a decrease in prescription drug use, but an increase in the use of over-the-counter medications, herbals, and dietary supplements (Katie L. Kline, et al 2011).[10]

The current study demonstrates that most women generally believed that medication does harm to the fetus but then can be given causational. Many of the previous studies are reported pregnant women are caution and unsure about the medication use. In our study most of the pregnant women have do not agree with the drugs that should be save the many of unborn

child lives and medication treatment are better for fetus growth. Most of the women's have positive towards to take prescription drugs during pregnancy.

In our study revealed that the majority of the participants having very poor knowledge regarding risk awareness during pregnancy. In that participant irrespective of the socio-demographic characters should not be identified the drugs that should be avoided during pregnancy and congenital abnormality can be caused by the drugs.

According to this study majority of drugs was from category A (77.49%) followed by category B (12.64%), category C (9.15%) and category D (0.72%). No drugs were prescribed from category X (Harsh Joshi et, al).[11] In our study majority of the drugs were from category A (77.3%) followed by category B (17.88%), category C (12.33%) and category D (2%). No drugs were prescribed from category X.

In our study majority of the pregnant women are prescribed with the iron & folic acid, calcium, B.complex, vitamin c. So from the above data, we can say that the prescription habit in our hospital was safe for the pregnant women.

CONCLUSION

Pregnant women having good knowledge about medications can be helpful in the reduction of birth defects. Employees have shown the positive beliefs towards the medication when compared to the illiterates. Rural area living peoples are more skeptics towards the medication use during pregnancy and having lack of knowledge compared to the urban people. Previous history of pregnancy can influence the positive beliefs and risk awareness during pregnancy period. All the pregnant women had shown very poor knowledge regarding risk of awareness irrespective of socio demographics characters. It is the responsibility of all the health care professionals to improve the positive beliefs towards the medications during the pregnancy.

Vitamins are the most commonly prescribed drugs to the pregnant women. The majority of the drugs was prescribed from the FDA category A, is the safest category for medication use during the pregnancy. So we conclude that the prescribing habits in our hospital were safe for the pregnant women.

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