Original Research Article

A prospective study of study to assess awareness amongst pregnant women about the effects of drugs on the fetus and self-medication

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Abstract

Introduction: Self-medication as defined by World Health Organization is the "use of medicinal products by the consumer to treat self-recognized disorders or symptoms, or the intermittent or continued use of a medication prescribed by a physician for chronic or recurring diseases or symptoms." **Materials and Methods:** This was a prospective study conducted on randomly selected 100 pregnant women attending tertiary care hospital. The study was conducted in department of Obstetrics and Gynecology, Sri Venkateswaraa Medical College and Research Center, Ariyur, Puducherry. Data was collected by means of a pre-designed semi structured questionnaire composed of 26 questions. The questionnaire used was a modified form of a previously validated survey carried out by Nordeng et al, the modifications made in the questionnaire were discussed in the Obstetrics and Gynecology and Pharmacology department of Sri Venkateswaraa Medical College and Research Center, Ariyur, Puducherry before administering the same to the participants. **Results:** There were total 100 participants selected in the study. The average age of the participants was 23.7±3.68 years. Not a single participant was below 18 years of age. It was evident from the Table 1 that more than 90% of the participants were in the age group of 18-29 yrs. Only one participant was of the age group 40 and above. Educational status of the participants was as shown in Table 2. It was found that 74% of participants were taking iron and folic acid supplements but only 38.5% participants were aware about the purpose of taking iron and folic acid supplement and only 16% were aware about the duration to which this supplement is to be taken (Table 6). There were only 51% of the participants who were taking these supplements on regular basis. **Conclusion:** There is a lack of awareness amongst the pregnant women regarding the effect of the drugs on the health of foetus. More than half of the women take medication on regular basis. However, low proportion of self-medication during pregnancy suggests that during pregnancy women preferred to take advice of physician for medication rather than taking self-medication.

Keywords: Self-medication, World Health Organization, lack of awareness, foetus.

Introduction

Self-medication as defined by World Health Organisation is the "use of medicinal products by the consumer to treat self-recognized disorders or symptoms, or the intermittent or continued use of a medication prescribed by a physician for chronic or recurring diseases or symptoms[1]."

It is a very popular practice in both urban and rural parts of developing countries like India. Key factors responsible for such widespread self-medication practices, mainly to treat common ailments, include high consultation fees, uncontrolled pharmaceutical flow of prescription drugs, illiteracy and time constraint. Another factor is the unfaltering trust on the drug recommendation by the store employee at local pharmacies, who is more often than not, under-qualified[2].

Many studies on drug utilization pattern during pregnancy are available worldwide including India. Almost all categories of drugs are prescribed during pregnancy depending on the illness. Mashayekhi et al have evaluated the awareness among pregnant women with regard to effect of drugs on fetus[3]. Drug use behavior in pregnant women in rural India has been investigated. Self-medication during pregnancy is common. Earlier also, in a study from USA, OTC medication (e.g. ibuprofen) that are contraindicated in pregnancy were used at unexpectedly high rate during pregnancy[4]. The other studies available have also shown high consumption of OTC drugs in pregnant mothers which may produce deleterious effect on fetus. During pregnancy utilization of OTC and herbal drugs was common. One study has shown that during pregnancy OTC and herbal drugs were used, however, folic acid was not supplemented in all the women, moreover, even iron was not prescribed in anemic pregnant women by the health care providers[5]. This is due to lack of awareness and knowledge of effect of drugs on fetus among pregnant women.

The present study was conducted with an objective to assess the awareness of drug use in pregnancy, to assess the knowledge of pregnant women on effect of drugs on fetus and to assess the self-medication among pregnant women.

Material and methods

Study design

A prospective study.

Study Location

Department of Obstetrics and Gynecology, Sri Venkateswaraa Medical College and Research Center, Ariyur, Puducherry.

This was a prospective study conducted on randomly selected 100 pregnant women attending tertiary care hospital. The study was conducted in department of Obstetrics and Gynecology, Sri

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Inclusion criteria

The inclusion criteria were all pregnant women attending antenatal clinic of a tertiary care hospital.

Data was collected by means of a pre-designed semistructured questionnaire composed of 26 questions. The questionnaire used was a modified form of a previously validated survey carried out by Nordeng et al, the modifications made in the questionnaire were discussed in the Obstetrics and Gynecology and Pharmacology department of Sri Venkateswaraa Medical College and Research Center, Ariyur, Puducherry before administering the same to the participants. The questionnaire included the information regarding demographic profile of the participants, the type of the drugs they are taking, the symptoms in which they would like to consult a doctor, the symptom for which they will take self-medicated drug, awareness about the possible side-effects of the drugs and their beliefs and attitudes regarding medication use in general. The data was collected by interview technique in which each participant were asked questions in the language of her understanding in a separate room. Before conducting the study, the informed voluntary written consent of the patients was taken. They were informed that the confidentiality of information shall be maintained. The participation was voluntary.

The responses were noted as either agree and disagree. The frequency of various variables was calculated with the use of MS Excel software.

Results

There were total 100 participants selected in the study. The average age of the participants was 23.7±3.68 years. Not a single participant was below 18 years of age. It was evident from the Table 1 that more than 90% of the participants were in the age group of 18-29 yrs. Only one participant was of the age group 40 and above. Educational status of the participants was as shown in Table 2.

Table 1: Age distribution

S.No	Age in years	Frequency (%)
1	18-19 years	10 (10)
2	20-29 years	81 (81)
3	30-39 years	8 (8)
4	40 and above	1 (10029

Table 2: Education

S.No	Education	Frequency (%)
1	Non-Matriculate	**84 (84)**
2	Metriculate	**12 (12)**
3	Graduate	**4 (4)**

Table 3: Socioeconomic status

S.No	Economic status (annual income in rupees)	Frequency (%)
1	<1 lakh	83 (83)
2	1-3 lac	17 (17)

Table 4: Occupational status

S.No	Occupation	Frequency (%)
1	Employed	6 (6)
2	House wives	95 (95)

Table 5: Medical system followed by pregnant women

S.No	Medical system	Frequency (%)
1	Allopathy	99(99)
2	Ayurvedic	1(1)
3	homeopathy	0

The economic status of the patients was low income group (83%, family earning less than INR 1 Lac) and lower middle income group (17%, less than INR 3 Lacs, Table 3). This is as per expected lines as mostly lower or lower middle class are visiting state run hospitals. A very small percentage (6%) total 6 out of 100 women were employed. On the question of their belief in indigenous system of medicine, all except one informed that they believe in Allopathic system.

It was seen that total 8.5% participants were taking self-medication, 5.5% themselves and 3% participants were taking medication on the advice of chemists. Out of 100 patients, only 9% participants were aware about the effect of drug on the foetus during pregnancy.

It was found that 74% of participants were taking iron and folic acid supplements but only 38.5% participants were aware about the purpose of taking iron and folic acid supplement and only 16% were aware about the duration to which this supplement is to be taken (Table 6). There were only 51% of the participants who were taking these supplements on regular basis.

Table 6: Awareness about medication and vaccination in pregnant women

Current medication	Yes (%)	No (%)
Taking any form of medication	74(74)	26(26)
Awareness about purpose of medication	38(38)	62(62)
Awareness about duration of medication	16(16)	84(84)
Current medication with advice of chemist for minor problem	3(3)	97(97)
Patient taking self medication off and on	6(6)	(94)
Patient taking medication regularly	51(51)	49(49)
Knowledge about effect of drugs on the foetus during pregnancy	9(9)	91(91)
Awareness about purpose of vaccination	51(51)	49(49)
Awareness about safety of vaccination	32(32)	68(68)

Discussion

In the present study, 10% of the participants were in the age group below 20 years which is quite comparable to the study conducted by Abasiubong et al in which 8.7% were in the age group below 20 years[6]. However, in the study conducted by Abasiubong et al there were 44.6% and 41.3% were in the age group of 20-29 years and 30-39 years respectively which amounts to 85.9% in the age group of 20-39 years compared to present study where total 89.5% in the age group of 20- 39 years. However, in the present study there are 81.5% in the age group of 20-29 and only 8% in the age group of 30-39[7]. The high percentage in the age group 20-29 years may be due to the fact that in Indian environment the marriages happen at an early age and there is a social pressure to have children at relatively early in the marriage. In the present study 84% cases had studied below 10th standard (non-matriculate). The educational level of the participants in present study were lower than that of Abasiubong et al study in which total 73.2% had studies up to secondary education (9.9% no education, 19.5% participants were studied up to primary education and 43.8% had taken secondary education)[8]. As previously shown in other communities, sociodemographic factors, such as education, occupation and local beliefs may have a significant impact on patients' attitudes and beliefs toward medications.

In our study only 8.5% participants were using self-medication. In Abasiubong et al study, about 25% and 35% of the pregnant women with higher level of education used analgesics and antibiotics respectively. This, when compared with 6.9% and 12.0% of them with low level of education involved in the use of the same substances, is very significant[9]. These findings seem to suggest that the level of self-medication is less in less educated class. This finding is also supported by the study carried out by Adhikari et al on pregnant women in rural India where a high level compliance (97.7%) was observed in socioeconomically backward group which tend to follow the doctor's advice rather than going for self-medication. In another study carried out by Gharoro and Igbafe et al the use of self-medication in the form of native herbal drug was found to be 12.08% which is quite close to finding of present study[10].

Conclusion

There is a lack of awareness amongst the pregnant women regarding the effect of the drugs on the health of foetus. More than half of the women take medication on regular basis. However, low proportion of self-medication during pregnancy suggests that during pregnancy women preferred to take advice of physician for medication rather than taking self-medication.

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