Original Article

Drug use behaviour of pregnant women in rural India

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Abstract

Objective: To evaluate the drug use habit of pregnant women in villages of central India.

Methods: An observational, cross sectional study was conducted among six hundred fifty pregnant women from different randomly selected villages of Wardha district of central India through interviews on medicine use behaviour and evaluation of prescriptions.

Results: Pregnant women of younger age group from lower socio economic status constituted the majority of the study population. Major portion (97.7) of this socioeconomically backward population followed the doctor's advice as far as dose, frequency and duration of the drug was concerned. The antenatal mothers were of the opinion that, if the instructions on the drug envelop or foil was in written in the local language, it could be more helpful for them.

Conclusion: Majority of the study population used drugs or medicines regularly but some mothers were reluctant. This indicated that even in this age of advancement of scientific knowledge, all antenatal mothers were not conversant with the advantages of drug use.

Keywords: Drug use behaviour, Pregnancy, Antenatal mother (JPMA 61:381; 2011).

Introduction

Drugs play an important role in treating human ailments since antiquity. Drugs can also create problems. In the 1930's, the marketing of elixir of sulphanilamide dissolved in diethylene glycol caused death of thousands, in 1960's, thalidomide caused birth to children with phocomelia,[1,2] etc. All these are proved deleterious effects of drugs.

Use of drugs in pregnancy can lead to teratogenicity and other harmful effects. Therefore use of many types of drug during pregnancy is discouraged. Though supplementary drug treatment, specially with iron, folic acid, calcium, vitamins and minerals plays a pivotal role in the prevention of maternal and child mortality and morbidity.[3-6]

Although pregnancy is a physiological process, it still requires special care. It is also associated with problems related to use of medicines.[7] Judicious use of drugs, adequate knowledge, positive approach and awareness towards drug use are mandatory prerequisites for good maternal and child health. Hence, this study was conducted to explore the knowledge, attitude and awareness of drug use by the antenatal mothers in villages of central India.

Methods

A prospective cross sectional study using questionnaires and face-to-face interviews, was planned. The study subjects included pregnant woman attending the antenatal clinics of selected villages (through stratified random sampling). They were interviewed using a previously prepared, pre-coded, pre-designed, pre-tested questionnaire. Six hundred fifty six (656) antenatal mothers were selected. The study population was calculated according to the guidelines of World Health Organization (WHO), on the methods of drug utilization study.[8] However slight modification was done to make it feasible. The study period extended from 04-01-2005 to 31-08-2006. The area included for the study comprised of sixty five (65) villages of three primary health centre areas of Wardha district, Maharashtra state of India. Only 65 villages could be included, as it was possible for the investigators to conveniently visit these 65 remote areas within the study period. The villages were selected randomly. Prior permission was taken from the Institutional Ethical Committee of Mahatma Gandhi Institute of Medical Sciences, Sewagram, Wardha, Maharashtra, India and written informed consent taken from all the participents.

Results

The distribution of the study participants according to the age groups is shown in the table. It was observed that the maximum number of mothers, 419 (63.9%) belonged to the age group of 20-24 years.

The caste distribution of the study population showed that 392 (59.8%) mothers were OBCs (Other Backward Class), followed by 122 (18.6%) SC (Schedule Caste), 84 (12.8%) ST (Schedule Tribe) and 58 (8.8%) GC (General Caste). In this study caste indicated socio economic status. This study was

Table: Distribution of the study population (n=656) according to age.

Age in years	No. of pregnant women (Percentage)
No Idea	8 (1.2)
< 20	64 (9.8)
20-24	419 (63.9)
25-29	131 (20)
30-34	33 (5)
? 35	1 (0.2)
Total	656 (100)

conducted in the poorer section of the antenatal mothers and it represents the true Indian pregnant women population.

The economic status of the women was calculated from the monthly income. The maximum number, 468 (71.3%) of pregnant women had a family income of Rs. 1000/- to Rs. 5000/-, whereas 69 (10.5%) mothers belonged to family with monthly income of more than Rs. 5000/- and 17 (2.6%) mothers were from a family with monthly income of less then Rs. 1000/-. A large number of mothers 102 (15.6%) didn't know their family income or did not want to disclose it to the investigator. Average family income per month was Rs. 2679/- with a range of Rs. 450/- to Rs. 20,000/-. It was observed that only 52.8% mothers consulted physicians, if they suffered from any illness during pregnancy.

Out of the 656 study population, 641 (97.7%), consumed prescribed drugs, regularly as per advised by their doctors. A total of 577 (88%) antenatal mothers were of the opinion that the instructions written on the envelop or foil of basic drugs like iron, folic acid and analgesics should be in the local languages. When enquired about the problems or side effects faced by the mothers after the drug used, 28 (4.3%) mothers informed that they suffered from different unwanted reactions (itching, swelling, rash and drowsiness) due to these drugs. But more detail information was not available from them, nor were they able to show the drugs or their foils to the investigators. This implies the poor level of consciousness about adverse drug reaction (ADR) among study population.

It was observed that 468 (71%) pregnant mothers consumed all the medicines purchased by them. But 188 (29%) stopped using the medicines immediately after the signs and symptoms subsided which indicated cure.

Discussion

The results of this population differs from those of Rubin et al.,[8] probably due to the different age distribution of that country. Other studies from India,[10,11] are in agreement with our study. Majority of the mothers in the present study were OBC (59.8%), followed by SC, ST and GC, which is similar to an international study by Splinter et al.[12] The observations of Chandra et al[13] can also be compared with our study. It indicates that schedule caste, schedule tribes and other backward classes were majority in the study area; they were poor people as Indian social status is concerned.

In all 71.3% mothers of our study were from middle income group (Rs. 1000/- to Rs. 5000/-). , which differs from study of Rubin et al,[9] which showed 40% of the pregnant mothers belonging to middle income group followed by 35.3% belonging to higher income group. This may be due to the higher economic status in USA. Rubin et al,[9] and Chandra et al,[13] had compared the economic conditions of other countries with that of India.

It was observed that only 52.8% mothers consulted any type of health service providers if they had illness during pregnancy. 97.7%. Majority used prescribed drugs. No study was available on this parameter for comparison.

Adverse drug reaction were reported by 4.3% mothers in our study. This could be attributed to the ignorance of pregnant women on ADR and poor reporting system. Thia is in agreement with the observations of Dhasmana et al,[14] where they found that voluntary reporting of ADR was very low even among the physicians of a teaching hospital which indicates the necessity of a national pharmacovigilance programme.

The present study explored the actual consumption of purchased drugs following a prescription in rural pregnant mothers to eventually dertermine the wastage of drugs through irrational use. Very few studies have noted this aspect. Kiyingi et al,[15] and Ibrahim et al,[16] studied the wastage of drugs purchased. Their results are similar to those of the presented study.

Conclusion

Research on drug use behaviour is a neglected topic, though it is of immense importance. Evaluation of knowledge about drug use in the present study showed that there is a deficiency, specially lack of awareness with respect to duration of drug use. This can be rectified by proper implementation of information, education and communication (IEC). Only by scientific practical and judicious discrimination on knowledge on drug use behaviour and a good drug use monitoring policy can materialize the dreams of "health for all."

Financial support — none. Administrative support from Department of Pharmacology, Mahatma Gandhi Institute of Medical Sciences, Sewagram, Wardha, Maharashtra, India.

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