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An Assesment of Socio-Demographic Correlates Associated with Cases of Maternal Malaria

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INTRODUCTION

Health problem and health practices of any community are mainly influenced by interplay of socio-economic conditions like living standard, housing condition, level of education, economic status, etc. The socio-demographic profile of any population is the product of its cultural and ecological factors. It helps in the study of several aspects of the population. Basu (1994) mentioned that socio-demographic profile of any population is directly related to the health of population.

Malaria is one of the major health problem in India, especially among under-privileged groups. It has been observed that endemic malaria is no longer occuring in many temperate zones and developed countries from where it has been eradicated as a result of socio-economic development (WHO, 1986).

As far as epidemiology of malaria, the housing conditions play an important role. Ill-ventilated and ill-lighted houses provide ideal indoor resting place for mosquitoes. Stagnant waterbodies inside or surrounding the houses provide the farmhouse for the mosquitoes to reproduce. There is an inverse relationship between malaria and socio-economic conditions (NMEP, 1988).

In this paper an attempt has been made to assess the influence of socio-demographic and environmental factors on the incidences of cases of maternal malaria.

MATERIAL AND METHODS

The present investigation has been conducted in Sagar city of Madhya Pradesh state. Situated at 23°50' North latitude and 75°45' East longitude, the city is located almost at the centre of India. A total of 200 cases of maternal malaria were randomly studied, diagnosed at selected hospitals of the city.

The assessment of socio-demographic, environmental and other health information has been done through pre-tested structured interview schedules.

RESULTS AND DISCUSSION

A brief socio-economic and demographic profile based on religion, educational status, family income, housing condition etc., of malaria affected mothers is presented in table 1. It also shows the locality-wise distribution of maternal malaria cases. It was observed that 15 percent cases belonged to rural areas, 20 percent to slum areas and as many as 65 percent to urban areas. Although it is generally accepted that malaria is predominantly a rural disease, the present data show that malaria was dominantly spread also in urban and slum areas, besides the rural areas.

The population under study is multi-religious and it was observed that the percentage of the Hindus was maximum (88), followed in minority by Muslims, Jains, Sikhs and Christians.

24.00 percent malaria affected mothers were illiterate and 76.00 percent mothers are literate. Occupation-wise distribution of maternal malaria cases indicated that most of them were either house-wives (78%), or mothers who were labourers (19%).

Family income-wise distribution of maternal malaria cases exhibited that the percentage of affected mothers in Rs. 500-1500 income group was highest (26) than in the Rs. 1501-2500 (21), Rs. 2501-3500 (20), 3051-4500 (16) or above income group (17). In fact, the result indicate that maternal malaris cases are very low in Rs. 3501-4500 and Rs. 4501 and above income group. Thus mothers belonging to higher family income groups showed lower incidences of malaria cases. So it may be concluded that there exists an inverse relationship between maternal malaria and family income.

Tabel 1: Distribution of socio-demographic correlates among cases of maternal malaria

Correlate	*No. Observed*
Locality	
Urban	130 (65)
Rural	30 (15)
Slum	40 (20)
Religion	
Hinduism	176 (88)
Islam	12 (6)
Jainism	10 (5)
Sikhism	2 (1)
Christian	2 (1)
Others	2 (1)
Education	
Illiterate	48 (24)
Primary school	20 (10)
Middle school	22 (11)
High school	20 (10)
Higher secondary school	48 (24)
Graduate	36 (18)
Post-graduate	6 (3)
Occupation	
Labour (Bidi worker, Agricultural worker etc.)	38 (19)
Business	2 (1)
Service	4 (2)
House-wife	156 (78)
Monthly family income	
Rs. 500-1500	52 (26)
Rs. 1501-2500	42 (21)
Rs. 2501-3500	40 (20)
Rs. 3501-4500	32 (16)
Rs. 4501 and above	34 (17)
Source of drinking water	
Running tap	108 (54)
Well	28 (14)
Hand pump	64 (32)
Type of house	
Pucca (cemented)	126 (63)
Kuccha (uncemented)	36 (18)
Mixed	38 (19)
Type of bathroom	
Open	54 (27)
Close	146 (73)
Other	— —
Type of Lavatory	
Open field	2 (1)
Flush	198 (99)

The main source of drinking water in malaria affected mothers was the running tap water (54%); handpump (32%) was also used by a good number of affected mothers, while the least used water source was the well water (14%). The type of houses of malaria affected mothers indicated that a higher percentage (63) inhabitated in pucca (cemented) houses as compared to those who were residing in mixed type of houses (19) and kuccha (uncemented) houses (18). However, ill-ventilation and ill-lighted houses were also observed commonly.

Table 1 also exhibits information regarding type of bathrooms owned by malaria affected mothers. It could be seen from the table that a higher percentage of affected mothers used closed type of bathroom (73) than those who used open type (27). It can be concluded that 73% of malaria affected mothers owned substantial bathrooms. Almost all (99%) of malaria affected mothers used closed flush type of lavatories in their daily life.

It may be concluded from the foregoing discussion that the incidence of maternal malaria cases is directly associated with a low level of literacy, poor housing condition, low income and also with poor sanitation upto a certain extent. The awareness and the preventive measures of malaria like use of mosquito nets, mosquito repellent etc. are the only important precautions to minimize the incidences of maternal malaria.

In our study socio-economic factors namely literacy of mothers, family income and poor housing conditions were found to be significantly associated with the incidences of maternal malaria. Thus a dent on all round socio-economic development of the under privileged groups and poorer sections of society is required to be made urgently to control the incidences of maternal malaria in the form of public welfare scheme and health education.

KEY WORDS Maternal Malaria Cases. Social Correlates. Demographic Correlates.

ABSTRACT The present paper deals with the effect of socio-economic and environmental factors on the mothers who are affected with malaria during pregnancy. The study was conducted in Sagar city of Madhya Pradesh. It was observed that the occurrence of malaria in mothers is directly related to a low level of literacy, poor housing condition and low income with poor sanitation upto a certain extent.

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