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KNOWLEDGE, ATTITUDE AND PRACTICES OF BREAST FEEDING IN A RURAL AREA OF EAST DELHI

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ABSTRACT

The study revealed that majority of the respondents had good knowledge and a positive attitude towards breast feeding. Colostrum was thought to be harmful for the baby according to 52 per cent of the mothers. All of them had breast fed their children but the breast feed was given within 1 hour by only 9.1 percent of the mothers. Pre-lacteal feeds were given by 82 per cent of mothers, jaggery 'ghutti' being the most, popular form. Majority (83.5%) of the children were breastfed till one year of age. Literate mothers were more likely to initiate breast feeding early and gave pre-lacteal feeds less often. Illiterate mothers breast fed for longer duration and on demand. Thus, early feeding and colostrum feeding have to be promoted amongst the mothers.

The often cited advantages of breast feeding for women in the developing world include breast milk's ahti infective properties, nutritional superiority to cow's milk, low cost, freedom from contamination, contraceptive effects and psychological benefits'. During the last three decades there have been reports indicating that breast feeding practices have declined in both the developing and developed countries[2,3]. This has attributed to a variety" of social, economic and cultural factors like urbanisation, adoption of new life styles, introduction of numerous brands of artificial baby food, etc. Hence, the present study was undertaken to determine the maternal knowledge, attitude and practices regarding breast feeding in rural areas of East Delhi.

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MATERIALS AND METHOD

The study was carried out in two villages of the field practice area of the Department of Preventive and Social Medicine, University College of Medical Sciences, Delhi. These villages are situated in East Delhi with a total population of approximately lO.OOO. A house to house survey was conducted and all the mothers with children lesser than two years of age were included in the study. The mothers were requested to express their opinion about breast feeding. Information was, collected, on a pretested, pre-structured and semi open ended schedule. Also, data pertaining to education of mother, socio-economic status and family type were collected.

RESULTS

In all, 450 women with children lesser than two years of age were included in the study. All of them had breast fed their children. Regarding their knowledge and attitude towards breast feeding, majority (71.7%) agreed that breast feeding protects the" children from infection "and is the healthiest food for children. The mothers also expressed that breast feeding is not embarrassing (78:2%) or not old fashioned (82%) and does not lead to loss of figure (97.3%) (Table 1).

Table 2 shows the interval between birth and first feed. Only 41 (9.1%) of the children were put to breast immediately while 39.3 per cent (177) were given their first feed between 1 and 8 hours of birth. Interval between first feed and birth was significantly related to. the educational status of the mother. Literate mothers were more likely to feed their infants early as compared to illiterate mothers ($p<0.001$).

It was observed that 82 per cent of the mothers believed in giving pre-lacteal feeds. -Ghutti' which is prepared from 'Gur' (Jaggery) was the most prevalent form while honey was the second most popular form of pre-lacteal feed amongst the interviewed subjects. The relation between educational status of mothers and pre-lacteal feeds is shown in Table 3. Illiterate mothers gave pre-lacteal feeds more often as compared to literate mothers ($p<0.005$).

TABLE 1

ATTITUDES AND BELIEFS REGARDING BREAST FEEDING

General Beliefs	Agree		Disagree		Not sure	
	No.	%	No.	%	No.	%
1. Breast feeding protects child from infection	323	71.7	54	12.1	73	16.2
2. Breast feeding is old fashioned	27	6.0	369	82.0	54	12.0
3. Breastfeeding is healthiest for infant	352	78.2	49	10.8	49	10.8
4. Breast feeding is embarrassing	78	17.3	352	78.2	20	4.4
5. Breast feeding fosters close bond between	338	75.1	49	10.8	63	14.0
6. Breast milk is best milk	347	77.1	28	6.2	75	16.6
7. Breast feeding prevents going to work	55	12.2	333	74.0	62	13.7
8. Breast feeding because of mother's advice	225	50.0	174	38.6	51	11.3
9. Breast feeding leads to loss of figure	7	1.5	438	97.3	5	1.1
10.Breast feeding should be avoided during						
a. Sickness of mother	51	11.3	291	64.6	108	24.0
b. Sickness of baby	68	15.1	359	79.7	23	5.1

mother and child

TABLE 2

INTERVAL BETWEEN BIRTH AND FIRST BREAST FEED IN RELATION TO EDUCATIONAL STATUS OF MOTHER

Educational Status	Interval between birth and first feed				
	< 1 hour	1-24 hours	24-48 hours	>48 hours	Total
Illiterate	29	99	57	37	222
Primary	4	58	26	5	93
Secondary	6	65	8	8	87
Higher Secondary and above	2	41	5	0	48
Total	41	263	96	50	450
$X^2 = 52.47$, df = 9 $p < 0.0001$					

TABLE 3

PRE-LACTEAL FEEDS IN RELATION TO EDUCATIONAL STATUS OF MOTHER

Educational status	Pre-lacteal feeds given	Pre-lacteal feeds not given
Illiterate	186	36
Primary	74	19
Secondary	66	21
Higher Secondary and above	32	16
Total	358	92
X2=8.07, df =3' p <0.05		

TABLE 4

BREAST FEEDING TYPE IN RELATION TO EDUCATIONAL STATUS OF MOTHER

Educational status	On demand	Schedule	Both
Illiterate	183	12	27
Primary	62	10	21
Secondary	73	1	13
Higher Secondary and above	42	4	2
Total	360	27	63
$X^2 = 19.01, df = 6$ $p<0.01$			

Majority of the mothers (83.5%) breast fed their children on demand while only9.3 per cent on schedule. A statistically significant relation between type of breast feeding and educational status of mother was observed. Illiterate mothers practised demand feeding more as compared to women with high school or college education ($p<0.01$) (Table 4). Regarding the duration of breast feeding, 66.8 per cent of the children were breast fed till one year of age while 21.5 per cent of them were stili being breast fed for more than 15 months. Mother's educational status was not significantly associated with the duration of breast feeding. It was more in women who were lesser educated as compared to those with higher education* ($p>0.05$)'(Table 5).

TABLE 5

DURATION OF BREAST FEEDING IN RELATION TO MOTHER'S EDUCATION

Educational Status	0-3 months;	4-6 months	7-12 months	12 months
Illiterate	27	27	92	86
Primary	9	19	38	27
Secondary	9	18	34	26
Higher Secondary and above	10	11	16	11
Total	55	75	180	150
$X^2 = 14.02$, df = 9, p>0.05				

DISCUSSION

The results from the present study suggest that the practice of universal breast feeding is being maintained by women of rural areas of East Delhi Similar high rates of breast feeding have been shown from other places especially for the rural and the semi-urban areas[4,5]. Data from the recent national family health survey also indicate that breast feeding is near universal with 98 per cent of infants being breast fed[8]. However, a declining trend has been reported in some urban areas.

Majority of the women had a correct knowledge and a positive attitude towards breast feeding which they put into practice. Kar and De also noted similar ' advantages, of breast milk being complete, clean and pure food and convenient to mothers. Pant and Chothia also reported a high level of awareness amongst mothers. However, women in this study had several misconceptions, about colostrums, consequently it was not given to the neonate. This has been corroborated by other authors.

Only 9.1 per cent of infants were breast fed within one hour of birth while majority breast fed on the 2nd day of birth. This practice has been observed all over the country. The time interval between first feed and birth is shorter in educated mothers as compared to illiterate mothers. Gupta and Walia, et al have also observed similarly. So, instead of breast milk, pre-lacteal feeds are given. As many as 80 per cent of mothers gave pre-lacteal feeds which was usually in the form of a preparation of jaggery or honey.

Majority of the mothers reported breast feeding their children for more than

12 months, similar to reports from elsewhere. Lesser educated mothers breast fed their children for longer duration as compared to those who were highly educated.

CONCLUSION

Breast feeding was observed to be a universal practice in rural East Delhi and accepted to be the healthiest food for infants. It does not interfere with daily activities. Literate mothers do believe in giving colostrum and are less likely to give pre-lacteal feeds. However, illiterate mothers breast feed for longer duration and follow demand feeding. Thus we need to reinforce the advantage of breast feeding with emphasis on starting breast feeding within one hour of birth and giving colostrum.

Lkkjk'k

इस अध्ययन से प्राप्त निष्कर्षों से पता चलता है कि अधिकांश उत्तरदाताओं को स्तनपान के बारे में अच्छा ज्ञान था और इस बारे में उनकी अवधारणा भी सकारात्मक थी। लगभग 52% माताओं के अनुसार शिशु को कोलोस्ट्रम (नवदुग्ध) पिलाना नुकसानदायक समझा गया था। यद्यपि इन सभी माताओं द्वारा बच्चों को स्तनपान कराया गया था, किन्तु केवल 9.1% माताये ही ऐसी थीं जिन्होंने जन्म के एक घण्टे के भीतर–भीतर ही शिशु को स्तनपान कराना प्रारम्भ करने से पहले शिशु को ''घुट्टी'' पिलायी गई थी, जो सर्वाधिक प्रचलित रिवाज है। अधिकांश शिशुओं (83.5%) को एक वर्श की आयु तक स्तनपान कराया गया था। शिक्षित माताओं द्वारा बच्चे को स्तनपान कराना जल्दी ही प्रारम्भ कर दिया गया था और स्तनपान पूर्व आहार बहुत ही कम दिया गया था। अशिक्षित माताओं द्वारा शिशु को काफी लम्बे समय तक और शिशु के मांगने पर स्तनपान कराया गया था। इसलिए माताओं मे शिशु को जन्म के पश्चात शीघ्रता से स्तनपान कराने और आहार देना जल्दी प्रारम्भ करने की आदत को लोकप्रिय बनाना होगा।

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A STUDY OF. MANAGEMENT OF IEC MATERIALS IN GWALIOR DISTRICT OF MADHYA PRADESH

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ABSTRACT

The study indicates no clearcut policy regarding the receipt of IEC materials from different, sources; IEC materials procurement/' production, the mode of distribution of these materials from district to village level and the management of IEC materials at different levels while analysing the management of IEC materials in Gwalior district for communication activities. The study further reveals that the district has enough sources to have IEC materials but they are' not put, to proper use due to lack of IEC personnel, transport, A.V equipment, etc. The mode of distribution of IEC materials in Gwalior district is yet to be channelised.

The gamut of dissemination of message is accounted in just three words namely; Information, Education and Communication (IEC), and has been used in the field of health and family welfare for more than two decades. Health communication experts have defined this concept in several ways and interpreted it differently in various situations. In general, it refers to 'awareness creation' and 'motivational activities and aims at enhancing the acceptance of health and population measures,- propagated by the national, international and voluntary agencies. This task can have no uniform strategy in any situation though the' communication process goes through a common phenomena of source, message, channel and receiver[1,2,3]. Also, there could be no situation where either the source[1] or the receiver is universal for a particular message[3]. Therefore, IEC strategy would predominantly differ based on the audiences first followed by the messages and channels. The channel could be in any form$_L$ may be radio, television, printed maleriais (newspapers, posters, charts, magazines, books, pamphlets, leaflets,[1] folders, hoardings, stickers, etc.) and traditional media (puppet shows, bhajan mandalis, nautanki shows, folk songs, Ramleela, etc.)[4]. Each of the media has its own reach and impact, in varying degrees, irrespective of the audience whether urban or rural.

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The decentralised media materials production for training and communication activities assumed importance in the Eighth Five Year plan Hence various State Governments, in addition to Central Government, intensified their media materials production activities. The materials include audio, video', print, etc. in different areas of national health and family welfare programmes. Keeping the importance and application of these materials in view, an attempt is made in this paper to understand the kinds of lEC materials produced/procured, their management system and distribution pattern in Gwalior district of Madhya Pradesh, which is one of backward States in the country.

SPECIFIC OBJECTIVES

1. To identify the major sources available for supply of lEC materials in the district.

2. To study the management of lEC materials at different levels in the district as well as their mode of distribution;

3. To find out the availability of A.V. equipment for communication activities in the district;' and

4. To understand the major problems faced by the personnel in producing/procuring lEC materials and maintaining and distributing them at different levels in the district.

METHODOLOGY

An indepth interview was held with Chief Medical and Health Officer, Gwalior, and District Mass Education and Media Officer, Gwalior, regarding lEC activities in general and IEC materials management in particular with the help of a per-designed checklist, Secondary information in relation to lEC materials management system was also collected from the records available at the district headquarter.

FINDINGS

lEC Materials and Related Activities According to Chief Medical and Health Officer (CMHO),,Gwalior

The CMHO is the overall incharge of all the on-going activities of health and family welfare programmes in the district. He had full command: over lEC activities in the district. The CMHO.of Gwalior district had special interest in lEC activities, particularly for lEC materials production/procurement, their management

and distribution, etc. A special mention may be made here that the CMHO was much concerned about the positions of IEC which were lying vacant. unfortunately, he can do nothing about it but he was making sincere efforts to get them filled.

Though IEC was. one of the important activities of health functionaries in the district, there was no provision of a separate budget for production of IEC materials, opined by CMHO. This issue calls for an immediate attention of the concerned authorities at the State level.

While discussing with CMHO, it was observed that rural people in Gwalior district prefer traditional media as compared to modern media. He specially appreciated the movement of *rath* from block headquarter to other villages. The local artists available in the district is an additional asset who may have to be used intensively for propagation of health-and family welfare messages.

The existing infrastructural facilities of health and family welfare in the district, according to CMHO is adequate and it could be even possible to achieve more success if the health functionaries of the district are looked after appropriately in terms of their promotions, training opportunities to upgrade themselves with the latest innovations, incentives and transport facility for their movement to remote areas. Also another area of his concern was the accommodation for the health functionaries at different levels particularly in difficult areas which will facilitate timely delivery of health services to the people at right time. Also, the fast deteriorating knowledge and skill and negative attitude of health functionaries at different levels in the district as well as in the State, according to CMHO, may be considered by the senior administrators to introduce more promotional avenues and incentives in the system so as to protect their interest.

IEC Materials and Related Activities According to District Mass Education and Media Officer (DME&MO), Gwalior

The DME&MO is the nodal officer who coordinates and controls all the IEC activities in the district. He did not like to be involved in miscellaneous activities rather he preferred to be a trainer.

Sources of IEC Materials: The primary sources of IEC materials, according to DME&MO, were of course many but the district entirely relied up on the materials provided by the Central Government, New Delhi, State Government, Bhopal international .agencies, Health and Family Welfare Training Centre, Gwalior, and District Training Centre, Bhander. Also, occasionally the IEC materials were prepared at the district level itself whenever there was demand.

The IEC materials were meant lor[1] various categories of health functionaries; community members, trainers, etc. Even the publications of National Institute of Health and Family Welfare, New Delhi, have been found to be very useful training materials, mention may be made for the management training modules for various categories of health functionaries. The. supportive role provided by radio, television and printed materials in the district adds additional dimension to the IEC activities in the district, the production/procurement of IEC materials in Gwalior district appears to be simple and was usually handled by the CMHO.Gwalior, Principal, HFWTC, Gwalior and DME&MO, Gwalior.

Management of IEC Materials:. As far as management of IEC materials is concerned, the district Gwalior is yet to evolve a system though IEC activities have been well conceived in the district The records available at the district headquarter did not indicate any policy regarding (i) how are IEC materials procured or produced? (ii) on what basis these materials are received from different sources? (iii) what is the pattern/mode of distribution of these materials from district, to village level? and (iv)'how best these materials are being maintained ? This is not only in Madhya Pradesh but similar situation could be observed in several States. The findings of this study are in conformity with the findings of previous studies. As the district had the financial assistance from Danish International Development Agency (DANIDA) during 1980s to strengthen the health and family welfare infrastructure and create demands within the community" for health and family welfare services, it was expected to have a better management system for IEC activities, including the management of IEC materials. As part of project activities the procurement of audio-visual equipment and educational and training materials for IEC activities was stepped up in the districts

Management of IEC materials may not have received the attention of higher authorities, probably, due to the fact that the crucial positions like Deputy Mass Education and Information Officers and Projectionists are lying vacant for long time and also, the district headquarter, Gwalior, does not have sufficient space to store the IEC materials received from several sources.

Mode of Distribution of IEC Materials in Gwalior. There has been no proper system of management of IEC materials in the district, therefore, the question of regular distribution of these materials does not arise; But at the same time it can't be taken for granted that IEC materials are not being distributed at all. The fact is that the distribution of IEC materials takes place at least once in a month depending upon the availability and requirements through the health functionaries who come to attend the monthly meeting at the district headquarter. According to DME&MO', he had alot of complaints from BEEs, health supervisors and workers regarding distribution and adequacy'of IEC materials. Further, it was observed from the record-that subjects like ORS, immunization, iodisedsalt and

family planning had adequate materials while in case of malaria, AIDS, drinks/alcohol the materials were found to be inadequate in the district. It was also reported to have a plenty of teaching and learning materials meant exclusively for ANM's, link workers, TBAs, etc. at the concerned PHCs and sub-centres. The materials were mainly leaflets, posters, charts, models, etc. in different subjects which have demands from the workers. In the district headquarter and PHC, the IEC materials, were kept ready based on the seasonal variations and views of health workers and village health committees. Materials were also procured whenever sudden outbreak takes place in the district.

Availability of AM Equipments: Use of audio-visual aids has an important role in every sphere of training and communication. They range from simple chalk board to videos or 16 mm films. Today, communication technology has much advanced and it is possible to show, demonstrate and explain any subject which would have been impossible a few years ago. The use of audio-visual aids depends upon the principle of communication, *i.e. seeing is believing* and if seeing is explained with clear verbal or written explanation, then the process of communication is successful[7].

Table 1 gives information regarding the list of audio-visual equipment available, in Gwalior district of Madhya Pradesh for IEC activities.

Though communication technology has advanced much in terms of its hardware as well as software in the country, the district has limitation to procure them (Table1). The district is so vast spread over an area of 5214 sq kms with a population of over 14 lakh, the availability of audio-visual equipment in Gwalior district projects a bad image and one can even imagine what will be the fate of IEC activities in the district. The equipments listed are not even so costly as compared to, video or multi-media. It is time that the district authorities may have to review the position of the facility of A.V. equipment for IEC activities.

Major Problems in Management of IEC Materials: IEC activities are the primary responsibility of District Mass Education and Media Officer, Deputy Mass Education and Information Officer and Block Extension Educators in the district while they are engaged in various other miscellaneous activities in which neither they have interest nor courage to refuse. This is not a healthy atmosphere when the duties and responsibilities are well defined to every person from district to sub-centre level. It may also be made clear that IEC activities are not only the babies of IEC personnel but both health supervisors (male and female) and health workers (male and female) have equal responsibility in this venture as a team in the PHC area with the support of Medical Officer in charge.

TABLE 1

AVAILABILITY OF AUDIO-VISUAL EQUIPMENT FOR lEC ACTIVITIES IN GWALIOR

S.No.	Equipments	Availability		Total
		Headquarter	PHC	
1	Cinema Projector	2 (1-8 mm 1-16 mm)	-	2
2	Tape Recorder	2+1 (out of order)	-	3
3	Cassette Player - cum-Recorder	1	-	1
4	Amplifier	1	-	1
5	Over Head Projectors	2	-	2
6	Slide Projector	1	4	5
7	Amplifier and Cassette Player	-	7	7
8	Three in One	1	7	7
9	Megaphone	-	-	-
10	Photophone Slide Synchroniser	1	-	1

Inspite of the best efforts made by the health personnel in the district, the community participation in the programme is poor. Even certain lEC materials like stickers, banners, posters, etc. could play only a limited role in this venture. Proper lEC materials management system could not be established in the district due to lack of adequate lEC personnel, transport, A.V. equipment and space for storage of IEC materials.

RECOMMENDATIONS

According to the discussions the authors had with concerned authorities at the district headquarter and information available on records in the district

headquarter regarding lEC materials management in Gwalior district of Madhya Pradesh, a few recommendations to improve the IEC materials management in Gwalior district are as follows:

i. *Manpower Positions:* This is a very crucial issue which determines the quantum of activities to be carried out by the IEC functionaries in the district. The positions like Deputy Mass Education and Information Officer, and Projectionist are the real pillars of the IEC activities in the district, but unfortunately, they are lying vacant for quite some time and may be filled immediately to intensify the IEC activities in the district.

ii. *Production of lEC Materials :* The production of IEC materials seems to be inadequate due to non-availability of budget as well as the manpower in Gwalior district. The Government may consider on priority basis to either recruit more number of artists or train those artists who are already available in the district.

iii. *Utilisation of Local Artists:* The Gwalior district has the privilege of having a good number of local artists who have more influence in communicating health and family welfare messages with the rural audience than mass media like radio, television and newspapers. Hence, it is suggested that efforts may be made to identify more number of local artists in the district and they may be trained to involve them very vigorously in health and family welfare activities.

iv. *A.V. Equipment* This is a very big support to health workers for communicating with the rural audiences. Television sets, VCRs/VCPs and cassettes (audio and video) may be provided in sufficient numbers to PHCs, sectors and sub-centres which will help reinforcing lEC activities in the district.

v. *Transport:* Transport is the mode which keeps the people to go from place to place. The transport has been hampering the IEC activities to some extent in the district of Gwalior. It is recommended that a separate transport with adequate **POL** budget may be provided to the lEC functionaries for enabling their mobility irrespective of the distance from headquarter.

vi. *Space:* The State Government may consider to set up its own lEC materials resource centre at the district headquarter for storing different kinds of lEC materials.

CONCLUSION

Gwalior district is yet to evolve a system of management of IEC materials. Budget has been a very big constraint tor production of IEC materials as well as for procurement of A.V. equipment in the district In spite of communication revolution in the country, the rural people in Gwalior tend to believe in traditional media like, puppet shows, bhajan mandalis, nautanki shows, folk songs, etc., hence, the local artists available in the district may have to be involved to intensity the IEC activities. Adequate buget, personnel and transport are the three vital elements which decide the functioning of IEC, including IEC materials production and management in the district. These are in fact crucial issues and may be given due recognition on priority basis by the district authorities.

सारांश

ग्वालियर जिले में संचार गतिविधियों के संदर्भ में सूचना, शिक्षा तथा संचार सामग्री के प्रबन्धन की स्थिति का विश्लेषण करते समय इस अध्ययन से यह संकेत मिलता है कि विभिन्न स्रोतों से सूचना, शिक्षा तथा संचार सामग्री की आपूर्ति/उत्पादन तथा जिला स्तर से ग्रामीण स्तर तक इस सामग्री के वितरण के बारे में कोई सुस्पष्ट नीति उपलब्ध नहीं थी। अध्ययन में आगे यह भी पता चलता हैं कि सूचना, शिक्षा संचार संसाधन उपलब्ध है किन्तु संबधित कार्मिकों, परिवहन सुविधा तथा श्रव्य–दृश्य उपकरणों क अभाव में इनका उचित उपयोग नहीं हो पा रहा था। ग्वालियर जिले में सामग्री के वितरण की प्रणाली को सुप्रवाही बनाया जाना अभी शेश है।

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THE PUBLIC HEALTH IMPACT OF INBREEDING ON MORTALITY: A COMMUNITY-BASED STUDY

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ABSTRACT

A cross sectional sample of 576 marriages of the Viswakarmas of Alappuzha district of Kerala was analysed for estimating the genetic load and the public health impact of consanguinity. The genetic burden manifested in total pre reproductive mortality was estimated between 1.8365 and 1.8789 lethal equivalents per gamete. The attributable risk (AR) calculated for each consanguinity class indicates that among the first cousin progeny 71.67 per cent of pre reproductive death were associated with the expression of the detrimental recessive genes and 34.7 per cent among second cousin progeny. These findings indicate that closer the couples are related, higher the risks of foetal loss among them.

The health of a group or community may be viewed as the state of physical and social well-being of its members in relation to their environment[1]. As a field of activity, public health deals with the diagnosis of problems concerning population, mortality and morbidity, and policies and programmes to raise the level of health of a population. The mortality profile for a specific community or population within the context of their unique demographic and environmental circumstances can help in understanding the relative influence of various bio social and epidemiological factors on human death. The level of pre reproductive mortality in a population is closely related to the potential operation of natural selection[2]. Inbreeding influences the intensity of natural selection as its effect is found to be greater on mortality than fertility[3]. Deleterious recessive genes in heterozygoses are frequently concealed and thus escape selection, but may be revealed by inbreeding. Since most deleterious traits in man are recessive inbreeding increases the risk of genetic defects in inbred progeny. Many investigators have used data on inbreeding on mortality to estimate the genetic load in man and the evaluation of public health impact of consanguinity.

Despite India being a vast conglomerate of various endogamies castes, communities and tribes and wide prevalence of inbreeding, only a few reports on

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genetic load and public health impact of inbreeding are available. The data on the effects of inbreeding on mortality among the Viswakarma community of Alappuzha district of Kerala is used here for estimating the genetic load and public health impact of consanguinity in the group.

MATERIALS AND METHOD

The Viswakarmas are a complex Hindu backward (socio-economic ally) artisan group. They claim themselves to be descendants of the Viswakarma, the universal divine architect. The representative sample of Viswakarmas, in the present study is from the major and numerically larger sub-class of Viswakarmas, the saris (Carpenters), among whom the practice of related marriages has been favoured and encouraged. Data were collected exclusively from door to door survey. The effects of inbreeding on mortality was computed from the data on the total number of pregnancies/couple (during survey period 1993-1996) with a sample of 576 marriages drawn randomly from the urban (128), sub-urban (105) and rural (343) regions of the district through intensive interviewing of the spouses by using an elaborate schedule. Non-consanguineous families from the same socio-economic status of the community was taken as control. For assessing the reproductive outcome, various parameters were used. Abortion and still birth were recorded as prenatal death while infant, child and juvenile deaths were recorded as pre reproductive mortality. Estimation of genetic load was made through an analysis of regression of mortality on the co-efficient of inbreeding using the weighted regression:

$-\log_e S = A + BF$ (Morton et al. 1956).

Where, A=the amount of expressed damage in a random mating population (random load)

B=the amount of hidden genetic damage that would be expressed by inbreeding (inbred load).

F=inbreeding co-efficient

$-\log_e S$=number of lethal equivalents per gamete.

The public health impact of inbreeding on mortality was evaluated in terms of two measures of association, the relative risk (RR) and attributable risk (AR), using the Levin and Bartell's (1978) formula.

$AR = p(RR-1)(1+p(RR-1))$.

RESULTS

A random sample of 576 marriages was analysed, out of which 19.62 per cent were consanguineous with F=0.01154. The effect of consanguinity at various stages of mortality presented in Table 1 was used for estimating the genetic load. The random load (A) and inbred load (B) were computed separately for prenatal and pre reproductive mortality and collectively for total mortality. In all cases, B values were found higher than A values. Estimates of A and B obtained for the total mortality was 0.04248 and 1.8365 respectively with a B/A ratio of 43.23. The relative risk (RR) and proportional attributable risk (AR) estimated for prenatal, pre reproductive, and total mortality by degree of inbreeding are shown in Table 3. The RR value calculated for total mortality by degree of inbreeding showed that consanguinity-associated mortality was found to be 3.53 times higher in first cousin (1C) progeny and 1.53 times higher in second cousin (2C) progeny than control. Corresponding differences were observed in their AR values also, which was 71.67 per cent among 1C, and 34.71 per cent among 2C progeny. The AR value for total mortality was estimated to be 68.56 per cent.

DISCUSSION

In estimating the genetic load of the sample, the concept of lethal equivalents (in terms of A and B statistics) advanced by Morton, et al. (1956) was employed. Their estimates of the number of lethal equivalents are derived by assuming that the differences in the rates of abortion, still birth, infant, child and juvenile mortality between the consanguineous and control population are an expression of lethal or abnormal genes of varying degrees of penetrance. By plotting a regression of the log proportion of survivors (-loge S) at different values of inbreeding (F), A can be determined from the intercept on the Y-axis at zero inbreeding, and B is given by the slope of the regression. According to the genetic load theory, the A value measures the mortality of non-inbred fraction (F=0), which is considered to be an index of public health condition, while B reflects the hidden or concealed genetic damage revealed by inbreeding (F=1). The measure of total genetic damage per gamete lies between B and B+A. The B/A ratio provides critical information on relative importance of mutational and segregational loci in maintaining genetic load[2].

In the present group of Viswakarmas, the A and B parameters, B/A ratios and their standard errors have been calculated from the data given in Table 1 following Morton, *et al.* (1956).

TABLE 1

EFFECT OF CONSANGUINITY ON MORTALITY AMONGST THE VISWAKARMAS OF ALAPPUZHA

Parameters	No. of cases	NC		1C		1.5C		2C		Total	
	N	n	%	n	%	n	%	n	%	n	%
Abortion	45	26	1.71	19	5.71	-	-	-	-	19	4.74
Stilll birth	15	6	0.40	9	2.70	-	-	-	-	9	2.24
mortality	60	32	211	28	8.41	-	-	-	-	28	6.98
Infant	27	16	1.05	11	3.3v					11	2.74
Child	18	10	0.66	4	1.20	-	-	4	6.25	8	2.00
Juvenile	9	4	0.26	5	1.50	-	-			5	1.25
Prerepro-	54	30	1.97	20	600			4	6.25	24	5.99
ductive Mortality											
Total	114	62	4.08	48	14.40	-	-	4	6.25	52	12.97
Mortality											
Total preg.	1921	1520	100	333	100	4	-	64	100	401	100

Note: NC = Non-consanguineous. 1C = First cousin. 1.5C = One and a half cousin, 2C = Second cousin.

The genetic burden manifested in total mortality in the group is estimated between 1.8365 and 1.87898 lethal equivalents per gamete (Table 2). The results of inbreeding effects suggest that an average person carries 4 lethal equivalent genes, finding expression between birth and maturity. The high B/A ratio (43.23) obtained suggests that the genetic load disclosed by inbreeding in the group is predominantly mutational. The consistently lower values of A in all three parameters of mortality may be a reflection of relatively better public health condition of the out bred population.

Epidemiology provides the scientific basis for the diagnosis and treatment of population by identifying and measuring their health problems and formulating appropriate genetic counselling measures and public health policies. Since inbreeding is not a random phenomenon in many population groups world over, it is important to identify 'risk factors' that affect its levels. These risk factors not only help to identify subgroups that have higher inbreeding levels than do other segments of the population but, even more importantly helps in understanding the effect of inbreeding on mortaltiy and morbidity'[6]. For assessing the public health impact of inbreeding on mortality in human population, the Authors have proposed the use of epidemiological approach in terms of two measures of association, the relative risk (RR) and attributable risk (AR). Relative risk, defined as ratio of deaths

in the consanguineous group versus the control group. The proportional attributable risk,which measures the extent of excess risk within a specific consanguineous marriage pattern.

TABLE 2

ESTIMATE OF GENETIC LOAD IN TERMS OF A AND B STATISTICS FOR PRENATAL PREREPRODUCTIVE AND TOTAL MORTALITY AMONG THE VISWAKARMAS OF ALAPPUZHA

Mortality	A	B	**A+B**	B/A
Prenatal Pre	0.02149+004	1.0705+.27	1.09199	49.81
reproductive	0.02147+004	0.7886+.24	**0.81006**	36.73
Total	0.04248+.005	1.9365+.36	1.87898	43.23

Note: **A=random load, B=inbred load, A+B=total genetic damage per gamete, B/A=ratio of inbred to random load.**

The measures of RR and AR are calculated for prenatal, pre reproductive and total mortality by each consanguinity class. The RR value shows that consanguinity-associated total mortality was found to be 1.53 (2C) to 3.53 (1C) times higher than control (Table 3). It shows that closer the couples are related, higher the risk of foetal loss among them. AR values calculated for each consanguinity class indicate that among 1C progeny, 71.67 per cent of deaths were associated with expression of detrimental recessive genes and 34.71 per cent among 2C progeny. These findings show that the frequencies of mortalities would decrease in the population if the risk factor (consanguineous marriages) could be eliminated.

The bio social phenomenon of consanguinity illustrates something that can be frequently discerned in the history of mankind. Man easily overcomes many natural obstacles which he has faced, but it is much more difficult for him to overcome the social rule of behaviour he has imposed on himself. Therefore, marriage between relatives continues to be frequent among rural population and also in urban isolates where social customs, religion, language, illiteracy, low population mobility and other factors serve to retard the inevitable assimilation of consanguineous marriages into large palmitic population. Thus, the epidemiological and genetic approach to studying the effects of inbreeding is highly useful for planning meaningful programmes of genetic counselling in a State or county, aimed at making the people aware of the nature and magnitude of the risks involved in consanguineous marriages. It will also be highly useful to educate and rather persuade them to exercise effective caution against such marriages.

TABLE 3

CONSANGUINITY-ASSOCIATED MORTALITY IN THE VISWAKARMAS OF ALAPPUZHA: RELATIVE RISKS AND PROPORTIONABLE ATTRIBUTABLE RISKS BY PRENATAL, PRE REPRODUCTIVE AND TOTAL MORTALITY

Mortality	First cousin	Second cousin
Relative risk		
Prenatal	3.99	3.17
Pre reproductive	3.05	1.53
Total	3.53	
Attributable risk		
Prenatal	74.91	
Pre reproductive	67.16	68.58
Total	71.67	34.71

सारांश

अनुवंशकीय भार और सजातीय प्रजनन के जन स्वास्थ्य प्रभावों का आंकलन करने के लिए केरल के अलपुझा जिले की विश्वकर्मा, जाति में 576 दम्पत्तियों के एक क्रास– सैक्सनल सैम्पल का विश्लेषण किया गया था। प्रजनन–पूर्व होने वाली कुल मौतों में से आनुवंशिकीय कारणों से होने वाली मृत्युदर को 1.8365 और 1.8789 प्रति युग्मक के बीच पाया गया था। प्रत्येक सजातीय वैवाहिक गठबन्धन वाले वर्ग के बारे में परिगणित आरोपीय जोखिम से पता चलता है कि प्रथम सम्बन्ध के वैवाहिक गठबंधनों में 71.67 प्रतिशत प्रजनन पूर्व मौतों का सम्बन्ध बाधक– अप्रभावी–जीन की अभिव्यंजकता से था तथा द्वितीय संम्बन्ध के वैवाहिक गठबंधनों के बारे में यह प्रतिशतता 43.7 थी। इन निष्कर्षो से पता चलता है कि दम्पति मे पैतृक'–रिश्ता जितना अधिक निकट होता है, उनमें भूण नष्ट हो जाने का जोखिम उतना ही अधिक होता है।

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DENGUE FEVER: AWARENESS AND PRACTICES

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ABSTRACT

This paper presents awareness and knowledge of people about dengue fever and practices adopted by them to avoid mosquito breeding. This study includes 260 people and were interviewed from Mehrauli area of New Delhi where intensive door to door campaign was done last year by health personnel about dengue as well as in adjoining area where the campaign was not done. The study revealed that people in the non-intensive campaign area had better awareness and knowledge about dengue than people in intensive campaign area. Television and neighbours were found to be the potential sources of information about dengue than other media.

Dengue is a disease of public health importance. Last year, New Delhi had an epidemic of this disease in which 10,252 people were hospitalised and 423 deaths were reported. Dengue epidemic was earlier reported in 1967,1970 and 1982 in New Delhi. This epidemic has been reported elsewhere also in the past. In 1979-80 dengue epidemic struck Cairo, Jakarta and Philippines[5].

The dengue fever may be either mild which goes unnoticed or moderate with moderate temperature and symptoms similar to other upper respiratory tract infection or of severe form like dengue hemorrhagic fever and dengue shock syndrome. Shock syndrome may lead to death if not treated in time.

Last year it was an unexpected epidemic and neither the general public nor the health department was geared up to effectively tackle this problem.

After the out break of this epidemic in Delhi, publicity campaign was launched by the government to create awareness among masses about this disease. In this campaign, stress was laid on signs and symptoms of dengue fever, breeding habits of mosquitoes and its prevention.

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The extrinsic conditions being favourable for breeding of mosquito, there is every likelihood that cases could be reported this year also. To control the breeding of Aides aegyptii, sustained efforts are needed by the community. To avoid the expected forthcoming epidemic, a lot of publicity campaign is required this year also.

With this background, this study was conducted to know the awareness and knowledge of general public about dengue fever and practices adopted by them to avoid breeding of Aides mosquitoes in and around their houses.

OBJECTIVES

1. To determine the awareness of people about dengue fever and the factors affecting the same;

2. To assess the knowledge of people regarding symptoms and mode of transmission; and

3. To study the practices adopted by the people to control mosquito breeding in their houses.

AREA OF STUDY

The areas selected for the study were:

i. Mehrauli, where intensive door to door publicity campaign was carried out by the paramedical staff last year (Intensive Campaign Area - ICA); and

ii. Area within 2-3 kms of Mehrauli where not much of door to door campaign was done (Non-Intensive Campaign Area - NICA).

The idea was to compare how much information imparted by the paramedical staff last year has been retained by the people.

METHODOLOGY

The population of Mehrauli is around 1.2 lakh. The Non-Intensive Campaign Area (NICA) has around same population. Respondents were selected by a stratified random sampling technique from the area during February-March 1997. Out of a total sample size of 260, 157 were from Intensive Campaign Area (ICA) while the rest 103 were from Non-Intensive Campaign Area (NICA).

FINDINGS AND DISCUSSION

Among people from Intensive Campaign Area (ICA) only 68.1 per cent reported to have heard about dengue while among people from Non-Intensive Campaign Area (NICA), 85.9 per cent have heard about it (Table 1). More literate man illiterate have heard about dengue, 93.5 per cent and 52.8 per cent respectively. More of the males (89.1%) than females (68.4%) were aware of it. These are statistically significant at 5 per cent level of significance ($p < 0.05$) when subjected to t-test.

More than one-third (36.0%) people came to know about dengue fever from television. Another about one third got this information from neighbours (35%). Amongst the neighbours, school students were mainly responsible for dispersing this information in their neighbourhood.

Although a good number of people (75.1%) have heard about dengue but only about an average of 41.1 per cent know about its symptoms - dengue patients have fever with or without rash or bleeding. In spite of intensive door to door campaign in ICA, only 33.3 per cent had knowledge regarding symptoms while this was 48.7 per cent in NICA. Better knowledge in NICA may be attributed to better socio-economic status of people who live there.

Whether dengue spreads directly from person to person or not, only 27.8 per cent of respondents in ICA had right knowledge. This is statistically not significant (at 5 per cent level of significance $p > 0.05$ when subjected to t-test) when compared with the figure of 32 per cent of people in NICA who knew that it does not spread from person to person. Low percentage of knowledge in ICA suggests that in spite of large number of deaths and a good deal of publicity campaign of this disease last year, people have forgotten quite a bit about the details of this disease (Table 1).

About 54.3 per cent have knowledge that dengue is transmitted by mosquito. This knowledge is also better among people from NICA (65.4 per cent) than people from ICA (47.1%), This difference is statistically significant (at 5 per cent level of significance, $p > 0.05$ when subjected to t-test). As expected, more literate (73.2 per cent) and males (67.2%) than illiterate (31.5%) and females (48.1 per cent) had knowledge regarding mode of dengue spread.

Although more than one-third (40.6%) of people know that it grows in cooler and about one-fifth (21.3%) know that it grows in indoor plants and broken bottles, tyres etc. but very few (average 11.2%) know that it can grow in stagnant water even if it is clean. This may be because a good deal of publicity regarding breeding of mosquito in room coolers and indoor plants was given and not much

TABLE 1
AWARENESS OF DENGUE FEVER

	Total	ICA	NICA	Lit	Illiterate	Male	Female
n	= 260	157	103	142	118	105	155
- Heard about dengue	75.1	68.1	85.9	93.5	52.8	89.1	68.4
- Source of information							
TV	36	28.6	37.0	41.7	29.3	43.8	32.3
Newspaper	14.7	12.6	14.0	21.3	6.8	10.9	16.5
Health personnel	16.8	19.3	10.0	18.5	14.6	9.4	20.3
Neighbours	35	37.0	25.0	38.9	30.3	37.5	33.8
• Symptoms							
Fever with/without rash/bleeding	41.1	33.3	48.7	42.7	38.9	43.6	35.9
- No direct spread	26.1	27.8	32	30.6	20.2	39.1	19.5
- Spread by mosquito	54.3	47.1	65.4	73.2	31.5	67.2	48.1
- Place of mosquito breeding							
Clean stagnant water	11.2	8.4	15.4	14.0	7.9	12.5	10.5
Cooler	40.6	36.1	51.3	53.7	23.6	50.0	36.1
Indoor plants	21.3	16.8	28.2	29.6	11.2	25.0	19.5
Broken bottles, tyres etc.	21.3	19.3	25.6	29.6	11.2	34.4	15.0
Sewage	56.9	24.4	47.4	72.2	28.1	62.5	54.0
- How to keep house free from mosquito							
Anti mosquito spray	49.2	45.4	55.1	55.6	41.6	64.1	42.1
Cleaning of water storage tank	6.6	10.3	12.6	14.8	7.9	12.5	11.3
Cleaning of coolers	13.6	12.8	13.4	16.7	10.1	17.2	12.0
Hawans	8.6	7.6	15.4	13.0	3.3	17.2	4.5
All of the above	16.8	13.4	23.8	25.0	6.7	17.2	16.5
Only keeping house clean	23.4	22.7	23.1	22.2	24.7	21.9	24.1
- Knowledge to avoid breeding in cooler							
Putting oil	9.6	9.2	10.2	13.0	5.6	14.1	7.5
Refilling after drying	18.3	14.3	24.4	22.2	36.0	25.6	20.0
- Knowledge to stop breeding in indoor plants by keeping in sun weekly	14.2	13.4	15.4	7.9	19.2	6.3	18.0
- Stop breeding in stagnant water in locality							
Spray Oil	26.4	29.4	23.1	20.2	31.5	32.0	23.3
Don't let water collect	29.4	21.0	42.3	19.1	38.0	43.8	22.6
Inform local bodies	6.1	2.5	11.5	3.4	8.3	10.9	3.8
- How to disperse information about dengue prevention							
TV	49.7	37.8	56.4	62.1	30.2	54.7	47:4
Newspaper	4.6	5.9	6.4	5.6	3.4	9.4	2.3
Visit of health personnel	24.4	21.8	17.9	25.0	24.7	7.8	3.8
Other sources	5.0	3.4	8.0	6.5	.6	6.3	5.3

Note: All figures given above are in per cent

stress was laid on other aspects of it. More than fifty per cent (56.9%) of people think that this mosquito grows in sewage also.

About fifty per cent (49.2 per cent) of people think that by anti-mosquito sprays, they can keep home free from mosquito while only about 6.6 per cent and 13.6 per cent think that they have to stop breeding places in their houses by regularly cleaning water storage containers and coolers.

Survey of knowledge regarding avoiding breeding places inside and around houses shows that around 60 per cent of people have right knowledge about how to keep coolers free from mosquito breeding (Table 2).

The people in intensive campaign area had secured slightly higher percentage in regard to practices adopted for keeping coolers free from mosquito breeding as compared to the people in non-intensive campaign area. This is probably due to the publicity activities in relation to dengue undertaken by the health personnel. This finding clearly indicates that in spite of education, economical status, media exposure, etc. of the people, certain extra communication activities in relation to spread of dengue fever is essential (Table 2). It is also interesting to note that the females and literates had better knowledge in regard to avoiding mosquito breeding as compared to males and illiterates. This shows that females feel more responsible as they are much more concerned about their children and other family members, indicating their interest in preventing the dengue incidence as compared to males.

TABLE 2

PRACTICES USED FOR PREVENTION OF MOSQUITO BREEDING

	Total	ICANICA	Lit.	Illiter.	M	F
	n = 260	157	103	142 118	**105**	**155**
Practices adopted for keeping coolers free from mosquito breeding						
- Refill it after drying at least once a week	32	32.8	30.8	41.7 20.2	22.0	41.0
- Dry completely at the end of summer after removing pads	25.9	28.6	22	21.3 29.0	20.3	28.6
- Apply kerosene oil after drying at the end of summer	3	0.8	6.4	1.1 4.6	6.3	1.5

Note. All figures given above are in per cent. (M=Male, F=Female)

SUGGESTIONS

1. In addition to coolers, stress should be laid on other breeding places of dengue mosquito i.e. uncovered pitchers, uncovered or partially covered water storage tanks, waste materials like broken cups, tyres, plastic bags etc. which can also retain water. Wherever possible, stress should be laid on cleaning after drying at least once a week. If this is not possible then, at least once a week, small amount of anti larval or kerosene oil should be poured in them.

2. As suggested by 49.7 per cent of the people television should be used for IEC activity but the messages given should be very brief and specific.

3 In addition to door to door campaigning by para-medical staff, active participation of school and college teachers for disseminating information through their students should be encouraged. This way of giving information will have multiplier effect.

4 The prevention campaign for epidemics should be repeated throughout the year with more emphasis during the likely epidemic season as otherwise the information/knowledge over a period of time gets diluted.

Lkkjka'k

प्रस्तुत लेख में डेंगू बुखार के बारे में लोगों के ज्ञान तथा जागरूकता और डेंगू फैलाने वाले मच्छरों के प्रजनन को रोकने तथा उससे बचने के लिए उनके द्वारा अपनाए गए तौर तरीकों के बारे में चर्चा की गई है। इस अध्ययन के अर्न्तगत गत वर्ष स्वास्थ्य कार्मिकों द्वारा घर–घर जाकर चलाए गए गहन अभियान वाले नई दिल्ली के महरौली क्षेत्र में और इसके आस–पास जहां कि यह अभियान नहीं चलाया गया था, वहां से 260 व्यक्तियों से साक्षात्कार किया गया था। अध्ययन से पता चलता है कि जिस क्षेत्र में इस बारे में गहन अभियान चलाया गया था वहां के लोगों की अपेक्षा जहां अभियान नहीं चलाया गया था उस क्षेत्र के लोगों को डेंगू के बारे में अधिक जानकारी थी तथा वह अधिक जागरूक थे। अन्य जन –माध्यमों की अपेक्षा टेलीवीजन और पड़ोसियां को डेंगू के बारे में सूचना–स्रोत के रूप में अधिक सक्षम पाया गया था।

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REPRODUCTIVE HEALTH CARE SEEKERS REASONS FOR ADMISSION TO TERTIARY LEVEL HEALTH CARE FACILITY IN RURAL CENTRAL INDIA

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ABSTRACT

This study attempts to have a close look at reproductive health seeker's (women) perception of reasons to go in for tertiary level health care facility for treatment. The illiterates and poor people preferred to go to tertiary level health care facility for treatment mainly because of economical reasons. Further, the study revealed that the rich people got admitted to tertiary level health care facility as they were referred by other doctors. The other reasons offered by the respondents to prefer tertiary level health care facility were reputation of the hospital, availability of the desired expertise, appropriate health care, insurance benefit, referred by other doctors, etc.

Analysis of hospital records reveals an amazing paucity of information concerning reasons for seeking specialised health care. From the sketchy history, a meaningful analysis of the reasons for coming to tertiary care become difficult. The vision or aim of a system involves an integration of the knowledge of the underlying community or social needs and the knowledge of the needs of patients. Teaching hospitals feel pride of themselves as they being centres of excellence, receiving special and difficult cases from wide catchment areas. A look at the health situation around them reveals that a lot needs to be done in health matters. Very rightly many thinkers believe that the determinants of health may be largely outside the medical care system. But health personnel become so engrossed with the very scientific and technical matters and little time is left with them for thinking about the patients' dilemmas.

The primary responsibility of a treating physician is to offer relief to the

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patients and the other responsibility is scientific commitment. Where human problems are concerned, the expert fails to see that every judgement which he or she makes, not factual in nature but brings with it a scheme of values which have no special validity about them. Health care organisations are liking for new ways to optimize the way that they provide health care services. At the same time the notion that high quality health care means high costs which is no longer accepted without questions. The need for assessment and development to improve health care quality has emerged recently as a primary goal of health services research, the role of "patient's expectations" as the most important aspect of quality assessment.

The present study is an attempt to have a look into reproductive health seekers' (women) perception of reasons for having got admission to tertiary health care facility. The aim was to know their reasons for seeking health care at tertiary care centre so as to be wiser for providing appropriate health care at the centre; appropriate training to the nursing students, medical undergraduates, postgraduates and planning appropriate community health care.

MATERIALS AND METHOD

This study was conducted in the department of obstetrics and gynaecology of Mahatma Gandhi Institute of Medical Sciences, Sevagram, a NGO managed rural medical institute in Central India. Women hospitalized for reproductive health disorders, excluding very sick patients, were interviewed. Rich and poor, young and old, literate and illiterate were included. These women came from distance ranging from 3 km to 500 km, (Table 1). These women were from obstetric as well as from gynaecology sections, including women admitted for disorders related to contraception and birth control. A total of 1120 women were interviewed over a period of six months.

FINDINGS

The most obvious reasons for seeking admission to tertiary level health care facility (Table 2A, 2B) were mainly economical, referral, famous health facility and expert doctors irrespective of the nature of the case, locality, age, etc.

Data presented in Table 3A and 3B also reveal that poor people and illiterates preferred to go to the tertiary health care institution simply because of economical reasons.

TABLE 1

DEMOGRAPHY OF INTERVIEWED PERSONS

Age	<20	20-34	35-40	50-64	=>65	Total
	93 (8.30)	768 (68.57)	208 (18.58)	43 (3.84)	8 (071)	1120
Locality	Rural	Urban	Slum			Total
	697 (62.23)	404 (36.07)	19 (1.70)			1120
Socio-economic group	Low	Middle	High			Total
	575 (51.34)	498 (44.47)	47 (4.19)			1120
Distance in km.	<25	25-49	50-74	75-99	>100	Total
	580 (51.78)	223 (19.22)	175 (15.63)	79 (7.05)	63 (5.62)	1120
Education	Illiterate	1-4	5-10	11-graduate	P.G.*/ professional	Total
	177 (15.81)	309 (27.59)	387 (34.55)	152 (13.57)	95 (8.48)	1120
Husband's Profession	Business	Service	Labourer			Total
	339 (30.27)	304 (27.14)	477 (42.59)			1120
Wife's Profession	Business	Service	Labourer	Others		Total
	381 (34.02)	209 (18.66)	326 (29.11)	204 (18.21)		1120

*Postgraduates/professional education

Figures in parentheses represent percentages.

TABLE 2-A

REASONS FOR SEEKING TERTIARY CARE IN RELATION TO TYPE OF ADMISSION, LOCALITY OF RESIDENCE, AGE AND PARITY

Admission	Referred Case	Economical Health Service	Famous Health Facility	Expert Doctors	Others	Total
Routine	90 (23.81)	106 (28.05)	56 (14.81)	59 (15.61)	67 (17.72)	378 (37.80)
Emergency	135 (21.70)	161 (25.89)	103 (1656)	134 (21.54)	89 (14.31)	622 (62.20)
Total	225 (22.50)	267 (26.7)	159 (15.90)	193 (19.30)	156 (15.60)	1000
Locality						
Rural	140 (22.70)	149 (24.15)	104 (16.85)	116 (18.80)	106 (17.50)	617 (61.70)
Urban	84 (22.95)	91 (24.87)	50 (13.67)	74 (20.21)	67 (18.30)	366 (36.60)
Slum	05 (29.41)	3 (17.65)	2 (11 76)	3 (17.65)	4 (2353)	17 (01.70)
Total	229 (22.90)	243 (24.30)	156 (15.60)	193 (19.30)	179 (17.90)	1000
Age						
<20	18 (23.68)	19 (25.00)	10 (13.16)	14 (18.42)	15 (19.74)	76 (760)
20-34	149 (21.20)	167 (23.75)	111 (15.79)	153 (21.77)	123 (17.49)	703 (70.30)
35-49	40 (22.22)	48 (26.67)	24 (13.33)	37 (20.55)	31 (17.23)	180 (18.00)
50-64	11 (31.42)	8 (22.85)	3 (08.58)	7 (20.00)	6 (17.15)	35 (03.50)
=>65	2 (33.33)	3 (50.00)	-	1 (16.67)	-	6 (00.60)
Total	220 (22.00)	245 (24.50)	148 (14.80)	212 (21.2)	175 (17.50)	1000
Parity						
PO	78 (18.26)	113 (26.17)	81 (18.97)	88 (20.60)	67 (15.70)	427 (42.70)
P1 -P4	112 (20.74)	148 (27.41)	103 (19.07)	92 (17.04)	85 (15.74)	540 (54.00)
> 5	9 (27.28)	7 (21.21)	8 (24.24)	4 (12.12)	5 (15.15)	33 (03.30)
Total	199 (10.90)	268 (26.80)	192 (19.20)	184 (18.40)	157 (15.70)	1000

*Figures in parentheses represent percentages.

TABLE 2-A

REASONS FOR SEEKING TERTIARY CARE IN RELATION TO TYPE OF ADMISSION, LOCALITY OF RESIDENCE, AGE AND PARITY IN STAFF AND INSURED

Admission	Referred Case	Economical Health Service	Famous Health Facility	Expert Doctors	Others	Total
Routine	7 (14.28)	13 (26.53)	8 (16.33)	12 (24.59)	9 (18.37)	49 (40.83)
Emergency	15 (21.12)	19 (26.77)	11 (15.49)	14 (19.72)	12 (16.90)	71 (59.17)
Total	22 (18.33)	32 (26.67)	19 (15.83)	26 (21.67)	21 (17.5)	120
Locality						
Rural	14 (17.72)	23 (29.11)	10 (12.66)	17 (21.52)	15 (18.99)	79 (65.83)
Urban	9 (28.13)	10 (31.25)	5 (15.62)	3 (09.38)	5 (15.62)	32 (26.67)
Slum	2 (22.22)	3 (33.34)	1 (11.11)	2 (22.22)	1 (11.11)	9 (07.50)
Total	25 (20.84)	36 (30.00)	16 (13.33)	22 (18.33)	21 (17.50)	120
Age						
<20	2 (11.76)	6 (35.30)	3 (17.65)	4 (23.53)	2 (11.76)	17 (14.17)
20-34	8 (12.30)	19 (29.23)	15 (23.08)	14 (21.54)	9 (13.85)	65 (54.17)
35-49	3 (11.11)	7 (25.93)	5 (18.52)	8 (29.63)	4 (14.81)	27 (22.50)
50-64	2 (22.22)	3 (33.34)	1 (11.11)	2 (22.22)	1 (11.11)	9 (07.50)
=>65	-	1 (50.00)	-	1 (50.00)	-	2 (1.66)
Total	15 (12.50)	36 (30.00)	24 (20.00)	29 (24.17)	16 (13.33)	120
Parity						
PO	12 (23.53)	13 (25.49)	10 (19.61)	7 (13.73)	9 (17.64)	51 (42.50)
P1 -P4	14 (22.59)	17 (27.42)	12 (19.35)	9 (14.52)	10 (16.12)	62 (51.67)
> 5	1 (14.28)	2 (28.58)	2 (28.58)	1 (14.28)	1 (14.28)	7 (05.83)
Total	27 (22.50)	32 (26.66)	24 (20.00)	17 (14.17)	20 (16.67)	120

*Figures in parentheses represent percentages.

TABLE 3-A

REASONS FOR SEEKING TERTIARY CARE IN RELATION TO INCOME, EDUCATION AND CATEGORY

Income	Referred Case	Economical Health Service	Famous Health Facility	Expert Doctors	Others	Total
<500	28 (17.83)	51 (32.49)	31 (19.74)	25 (1 5.92)	22 (14.02)	157 (15.70)
500-1499	61 (20.68)	89 (30.17)	42 (14.23)	66 (22.38)	37 (12.54)	295 (29.50)
1500-2499	41 (15.01)	72 (26.38)	68 (24.91)	57 (20.88)	35 (12.82)	273 (27.30)
2500-3499	28 (21.05)	33 (24.81)	19 (14.29)	21 (15.79)	32 (24.06)	133 (13.30)
3500-4499	23 (25.00)	20 (21.73)	14 (15.21)	22 (23.92)	13 (14.14)	92 (09.20)
>5000	14 (28.00)	12 (24.00)	6 (12.00)	11 (22.00)	7 (14.00)	50 (05.00)
Total	195 (19.50)	277 (27.70)	180 (18.00)	202 (2020)	146 (14.60)	1000
Education						
Illiterate	33 (22.15)	40 (26.84)	25 (16 78)	24 (16.11)	27 (18.12)	149 (14.90)
1-4	53 (19.13)	75 (27.07)	57 (20.58)	46 (17.33)	44 (15.89)	277 (27.70)
5-10	89 (25.28)	106 (30.11)	53 (15.06)	61 (17.33)	43 (12.22)	352 (35.20)
11 -graduate	26 (19.40)	36 (26.86)	23 (17.16)	32 (23.89)	17 (12.69)	134 (13.40)
Postgraduate/ Professional	22 (25.00)	24 (27.28)	13 (14.78)	14 (15.90)	15 (17.04)	88 (08.80)
Total	223 (22.30)	281 (28.10)	171 (17.10)	179 (17.90)	146 (14.60)	1000
Category						
Obstetric	159 (21.69)	165 (22.51)	128 (17.46)	156 (21.29)	125 (17.05)	733 (73.30)
Gynaecological	54	50	24	25	22	175
Family Planning/Birth Control	P0.85) 17 (18.47)	(28.58) 32 (34.79)	(13.71) 15 (16.30)	(1429) 11 (11.96)	(12.57) 17 (18.48)	(1750) 92 (09.20)
Total	230 (23.00)	247 (24.70)	167 (16.70)	192 (1920)	164 (16.40)	1000

Figures in parentheses represent percentages.

TABLE 3-B

REASONS FOR SEEKING TERTIARY CARE IN RELATION TO INCOME, EDUCATION AND CATEGORY IN STAFF AND INSURED

Income	Referred Case	Economical Health Service	Famous Health Facility	Expert Doctors	Others	Total
<500	5 (25.00)	7 (35.00)	3 (15.00)	2 (10.00)	3 (15.00)	20 (16.67)
500-1499	3 (10.34)	10 (34.49)	4 (13.79)	7 (24.14)	5 (1724)	29 (24.16)
1500-2499	6 (22.22)	9 (33.33)	3 (11-11)	5 (18.52)	4 (14.82)	27 (22.50)
2500-3499	3 (15.00)	5 (25.00)	4 (20.00)	6 (30.00)	2 (10.00)	20 (16.67)
3500-4499	4 (26.67)	3 (20.00)	2 (13.33)	3 (20.00)	3 (20.00)	15 (12.50)
>5000	2 (22.22)	3 (33.34)	1 (11.11)	2 (22.22)	1 (11-11)	9 (7.50)
Total	23 (19.17)	37 (30.83)	17 (14.17)	25 (20.83)	18 (15.00)	120
Education						
Illiterate	5 (17.86)	7 (25.00)	3 (10.71)	9 (32.14)	4 (1429)	28 (23.33)
1-4	7 (21.21)	6 (18.18)	8 (24.25)	7 (2121)	5 (15.15)	33 (2750)
5-10	6 (17.64)	9 (26.48)	4 (11.76)	8 (23.53)	7 (20.59)	34 (28.33)
11 -graduate	2 (12.50)	4 (25.00)	2 (12.50)	5 (31.25)	3 (18.75)	16 (13.34)
Postgraduate/ Professional	2 (22.22)	2 (22.22)	2 (2222)	2 (22.22)	1 (1112)	9 (7 50)
Total	22 (18.34)	28 (23.33)	19 (15.83)	31 (25.83)	20 (16.67)	120
Category						
Obstetric	11 (19.30)	13 (22.80)	10 (17.54)	14 (24.57)	9 (15.79)	57 (47.50)
Gynaecology	6 (18.75)	8 (25.00)	9 (28.12)	5 (15.63)	4 (12.50)	32 (26.67)
Family Planning/Birth Control	4 (12.90)	10 (32.26)	6 (19.35)	**a** (25.81)	3 (09.68)	31 (25.83)
Total	21 (17.50)	31 (25.83)	25 (20.83)	27 (22.50)	16 (13.33)	120

Figures in parentheses represent percentages.

DISCUSSION

While for those who are clinging to the rock face of survival medical care is almost a luxury, no medical service however efficient or well resourced can hope to tackle all the problems of the health seekers. Yet they are all important obstacles to the creation of a healthy population. There is need for research into what women really think about their own health and about health services to find out why they seek or do not seek health care at different levels of health care facilities. This sociological research of women's feelings and attitude should be linked to clinical research, and the results should be used to encourage policies and practices that more closely match women's needs. If an organization is able to understand why the customers/patients judge quality the way they do, the department will be able to develop more insight into the ways in which improvements can be made. Meeting customer expectations and needs is one of the most accurate definitions of quality.

Human body is a dynamic organism and the laws of linear Euclidean mathematics do not always hold good in human affairs. Health care providers at whatever level they may be, must never forget this. One must assess the responsiveness of an educational institution (which must be integrated with health services) as a whole to society's needs. It should be possible to develop system for quality assessment that includes the social accountability of educational institutions as a measure of quality of health services rendered. To encourage discussion on the ways in which educational institutions can be socially accountable for their work, health providers must remember that patients seek health care at different levels according to either their perception and needs or because they are guided/referred. They may or may not always be at tertiary referral because they need technically specialized care (Table 2A and 2B).

It is the person of the doctor and the presence of the doctor just as much as and more frequently than what she/he does, that create an environment of healing. The physician as therapist and knowledge seeker must understand the technique of the scientist and have the vision of the humanist. Unbalanced development in either direction continued too long imperils the enterprise of healing. If we are to be truly successful in providing the health care needs, limited resources must be carefully distributed and monitored to maintain their applicability within the goals. Manpower must be made aware of the needs, goals and become committed to those needs, goals and expectations. Professionals and policy makers must ensure that the true goals run parallel with the ethics and human values. Excellence in teaching and responsiveness to the community are the two faces with which quality assessment and quality assurance present themselves. Though currently health care has become a commodity that can be bought and sold in the market, it is imperative that we keep on trying to ensure that health personnel are responsive to the health needs of the people for improving health care.

For managing disorders the treating specialist has to know what has to be done, who has to do it, during what time frame, with what resources and with what expectations? Most problems of the third world cannot be solved by technology transfer from the first world. They require solutions developed on the spot. Capacity building in research is essential. In reproductive health care there may be disdain for the concept of health for all, but is probably deeper, arising from conflicts of purpose between pursuing advances in medical science and responding to social needs. A new philosophy for health care and services is needed, a philosophy which emphasises unity across mind, body and spirit and unity across person, community and environment. Compassionate attitude is the key to success in this era of modern sciences. In this speciality, suitably evolved health system is needed with strong pillars of medical and ethical values, based on humanity not sacrificing standards anywhere, obstetrician and gynaecologists doing very best for welfare of women. Standard and validated methods for measuring the processes and outcome of health care must be developed and integrated into everyday clinical and operational practices. This is the challenge, not only for the speciality of obstetrics and gynaecology, but for the future of all health care.

The need is of re-humanising medicine. We should never forget that patient care means really caring for the patients and their expectations. However, patients also must understand that modern physician who is capable of transplanting hearts is not an infallible individual. Medicine is not a perfect science of an abstract art. It is based on knowledge, experience and skills achieved by a doctor which she or he uses to ameliorate the misery of the ailing community with full sympathy and holistic approach.

Lkkjk'k

प्रस्तुत अध्ययन में प्रजनन स्वास्थ्य परिचर्या प्रयोक्ताओं (महिलाओं) द्वारा उपचार तृतीयक स्तरीय सुविधाओं का उपयोग करने संबंधी प्रस्तुत कारणो तथा उनकी इस बारे में आवधारणाओं की गहन समीक्षा करने का प्रयास किया गया है। निरक्षर तथा निर्धन लोग मुख्यतया आर्थिक कारणों से तृतीयक स्तरीय स्वास्थ्य परिचर्या, सुविधाओं के उपयोग को अधिक कारणों से तृतीयक स्तरीय स्वास्थ्य सुविधाओं में तब प्रवेश लेते थे, जब उन्हें दूसरे डाक्टरों द्वारा रैफर किया जाता था। तृतीयक स्तरीय स्वास्थ्य परिचर्या सुविधाओं को वरीयता देने के बारे उत्तरदाताओं द्वारा बताये गए कारणों में अस्पताल की छवि, अपेक्षित विशेषता की उपलब्धता, उपयुक्त स्वास्थ्य परिचर्या,बीमा लाभ तथा अन्य डाक्टरों द्वारा रैफर किया जाना आदि कारण शामिल थे।