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AN ANALYSIS OF PREVALENCE OF RTI IN A COMMUNITY OF RAJASTHAN

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ABSTRACT

This paper compares the findings of both the procedures i.e. 'interview-based household survey' (self-reported morbidity) and 'observed morbidity approach' based on Per speculum/Per vaginal examinations. The study revealed that self-reported morbidity in this study was as high as 98 per cent, the moan age of the women was 15 years and mean age of cohabitation was 17 yours It was observed that 64 per cent of the deliveries took place in homes and at least half of them (50%) was conducted by untrained persons. The study further revealed that the prevalence rate of RTIs was 57.6 per cent by interview-based approach and 61 per cent by observed morbidity method. The authors conclude that interview-based household survey is the most appropriate approach to estimate the prevalence of RTI. particularly in developing countries

Keywords: Reproductive tract infection (RTI), Household survey, Observed morbidity, Prevalence rate, Multi-purpose worker (MPW).

Reproductive tract infections (RTIs) are considered to be one of the major public health problems in developing countries. According to WHO, reproductive ill health accounts for 36.6 per cent of the total disease burden among women aged 15 to 45 years[1]. Interview-based household survey (self-reported morbidity) technique is the most feasible tool available in developing countries to estimate the prevalence of reproductive mobidity[2]. Because Indian rural women are reluctant to undergo gynaecological check-ups to study the prevalence of RTIs among them and such studies show low turn out of respondents; resulting in low

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response rates[3]. The feasibility of interview-based household survey to assess the prevalence of RTIs is unquestionable. Several community-based studies have already been conducted using the interview-based household survey to know the prevalence of RTIs but a very few such studies have tried to compare this approach with other method based on clinical and microbiological examinations which are recommended by the UNFPA for the diagnosis of common RTIs[4].

OBJECTIVE

This study was conducted to compare the findings between the two procedures i.e. 'interview-based household survey' (self-reported morbidity) and 'observed morbidity' approach based on Per speculum/Per vaginal examination.

METHODOLOGY

The present study was conducted ,in Naila, the field practice areas of the Department of Community Medicine, Swai Man Singh Medical College, Jaipur, during June - October 2002. Naila had 4,693 households with a total population of 26,857.

Assuming 40 per cent prevalence rate of RTIs among the married women in the age bracket of 15-45 years of southern Rajasthan[5], it was decided that a sample size of 600 married women would be sufficient to estimate the prevalence with + 10 per cent permissible error within 95 per cent confidence limits. Unit of the study was a household. Systematic random sampling was done with a sampling interval of 7:1. So, every 7th house was included in the study. A random number between 1 and 7 was chosen as the first house to start with. So, a total of 670 households were included in the sampling.

The interview schedule had two parts. The first part dealt with variables like age, education, family size, age of marriage and cohabitation, family income, source of water, parity, use of contraceptives, obstetric history, etc. The second part dealt with the assessment of self-reported morbidity. Married women were asked whether they were having any problem related to reproductive tract followed by different questions on presence of unusual vaginal discharge, amount of discharge, fowl smell, itching vulva, duration of discharge, whether discharge was present throughout the month or only during mid-cycle or premenstrual period, irregular periods, heaviness in lower abdomen before menstruation, pain during menstruation, amount of menstrual blood loss, presence of clots in menstrual

blood, number of pads or other material used for menstrual blood flow in a day, lower abdominal pain lower backache, pain during sexual intercourse, lower abdominal congestion after sexual intercourse, etc. Based on the responses to these questions; the women were labelled, as symptomatic or nonsymptomatic. A total of 859 women were interviewed, The response rate of self-reported morbidity was as high as 98 per cent. Only 16 women could" not be interviewed. Minimum three visits were made to cover maximum number of women. Out of 859 women interviewed, 466 reported to have problems related to reproductive tract and 393 did not report any such problem. All the women whether with complains or not were offered clinical and microbiological examinations at the Rural Health Training Center, Naila. A total of 432 women; 'including 249 symptomatic and 183 non-symptomatic women gave their consent for their gynaecological examinations.

Observed morbidity was assessed on the basis of Per speculum/Per vaginal examination and microbiological examinations. Per speculum examination was done to find out the presence^ vaginal- and cervical discharge, cervical erosion, etc. Posterior fornix of vagina was visualized and discharge was collected with the help of a sterile cotton swab socked in normal saline. Then the cotton swab was rolled on to the clean "dry glass slide and spread out into an area of 2cm X 1cm to make smear. Then smear was allowed to air-dry and was passed over the flame of spirit lamp twice or thrice for heat fixing arid sent for Gram staining. For cervical swab, exocervix was cleaned with a sterile cotton swab and another cotton swab was inserted into 2 cm of the cervical .canal and rotated for 5-10 seconds and withdrawn, smear was prepared, air-dried and heat fixed and sent for Gram staining, Endocervical swab was taken with the help of Ayur's spatula then air-dried and sent for Papanicolaou stain.

Micro-biological Tests Carried out for Observed Morbidity

(i) **Vaginal PH:** Vaginal PH was tested with PH indicator paper strip with a range of 3.8 to 6.0. The PH paper was touched to the tip of vaginal speculum after removing it from the vagina. Care was taken to see that the PH paper does not contact the cervical secretions. The prevalence of RTIs was determined on the basis of the PH value of the concerned woman as per the following calculations:

PH = 4	Normal vagina,
PH > 4.5	Bacterial Vaginosis,
PH < 4	Candida Albicans, and
PH > 5.5	Trichomonas Vaginalis.

(ii) **KOH** Mount: The specimen was placed, on clean grease-free microscope slide. Two drops of 10 per cent of KOH were added and a clean cover slip was put over the specimen. The slide was heated gently over a flame for 10 to 20 seconds but was not allowed to boil, and observed under 40 X objective of light of light microscope. Presence of round and oval yeast cell and pseudo hyphae indicated the presence of Candida Albicans,

(iii) **WET Mount:** A drop of vaginal fluid was put on a clean and dry glass slide. A drop of normal saline was mixed and a cover slip was placed over it. The slide was first observed under f 0 X magnification and then 40 X magnification of light microscope. Presence of pyriform shaped Trichomonas with anterior tuft of flagella, showing jerky motility was considered positive for Trichomonas. Presence of clue cell suggests Bacterial Vaginosis.

(iv) **AMINE Test:** A drop of, vaginal secretion was taken on a clean glass slide and then a drop of 10 per cent of KOH was put on vaginal fluid. The slide was brought close to nose immediately to smell the amine odour. An intense fishy odour indicates positive reaction for Bacterial Vaginosis.

Diagnostic Criteria for Observed Morbidity[6]

(i) Bacterial Vaginosis: If three out of four of the following sings are present:

a) Presence of homogenous vaginal discharge
b) PH>4
c) 10% KOH test-fishy odour
d) Gram staining - presence of clue cells.

(ii) Trichomonas Vaginitis:

a) PH > 5.5
b) Wet mounting-'Wobbling rotatory movement
c) Pap smear - Trichomonas seen

(iii) **Fungal Vaginitis:**

a) Vaginal PH <4
b) Wet mounting - yeast budding cells and puedohyphae
c) Gram Staining - yeast budding cells

(iv) **Cervicitis:**

a) Pap smear - II degree inflammatory changes
b) Gram staining - clue cells

Cervical Erosion:

a) Per Speculum (P/S) - glistening red cervix
b) Positive Gram staining, Presence of clue cell

(vi) **Pelvic Inflammatory Disease (PID):**

a) Per Vaginal examination (P/S) - Pain on moving cervix
b) Bilateral,fixed tender fornices

Clinically and Micro-biologically positive women were considered confirmed cases (observed morbidity). The result of self-reported, morbidity was compared with the observed morbidity by finding out sensitivity, specificity, positive predictive value, negative predictive value and false positive and negative cases[7]. The degree of association between bqth the methods was calculated with help of kappa statistics[8].

FINDINGS AND DISCUSSION

The study found that the mean age of the sample women was 31.2 years. Majority (84%) of them belonged to Hindu religion. 62 per cent of the total respondents was illiterate and, only '10 per cent' was educated up to higher secondary or above. The mean age of marriage was 15 years and the mean age of cohabitation was 17 years. Average number of children born to them was 3.2: Around 64 per cent of the deliveries took place in home itself and half (50%) of the' deliveries were conducted by untrained persons. It was further found that at the time of the study, most of the women (67%) had undergone female sterilization. Contraceptive prevalence rate was 36 per cent in the study area (Table 1).

TABLE 1
SOCIO-DEMOGRAPHIC PROFILE OF RESPONDENTS

SI.No	**Characteristics**	
1	Mean age of study women	31.2
2	% of Hindu women	84
3	% of Illiterate women	621
4	% of women with higher Secondary or more education	10
5	Mean age of marriage	15 years
6	Mean as of cohabitation	17 years
7	Average no. of children	3.2
8	Home deliveries	64%
9	Deliveries by untrained personnel	50%
10	Contraceptive prevalence age	36%
11	Commonest contraceptive method	Female sterilization

The prevalence of RTIs was per cent by the interview-based approach while it was per cent by observed morbidity method. The sensitivity of self-reported morbidity against observed'morbidity was per cent and specificity was per cent. per cent false positive andper cent false negative cases were observed in the study, put of all positive self-reported cases, per cent of the respondents were clinically and. microbiologtcally found positive RTIs. So, positive predictive value was per cent. Similarly, out of all women-who did not report any complaint were actually found negative by observed morbidity. It was further found that per cent of the self-reported cases with regard to presence or absence of RTIs were in agreement with clinically and micro-biologicalIy examined cases.

The interpretation of Kappa coefficient (K statistics) is as follows:

If K statistics=1 (complete agreement between both the approaches).
If K statistics=0 (no-agreement between both the approaches except by chance agreement)

In this study, K statistics was which-shows.a.moderate degree of agreement between both the approaches.

TABLE 2

COMPARISON OF RESULTS BETWEEN SELF-REPORTED AND OBSERVED MORBIDITY METHODS

Yes	**No**	**Total**
(a) 231	**(b)** 18	**(a+b)** 249
(c) 32	**(d)** 151	**(c+d)** 183
(a+b) 263	**(b+d)** 169	**(n)** 432

a), Sensitivity (a/a+c) = 0.87
b) Specificity (d/b+d) = 0.89
c) False Positive (b/b+d) False = 0.10
d) Negative (c/a+c) Positive = 0.12
e) predictive value (a/a+b) = 0.92
0 Negative predictive value = 0.82
9) (d/c+dj Prevalence (a+c/n) = 0.61
h) % of observed agreement (po) = (a+d/n) = 0.88 (88%)
i) % of expected agreement (Pe)=[(a+c) (a+b)+(b+d) (c+d)]/n^2=0.51 (51%)
j) Kappa statistics K= (Pa-Pe/T-Pe}= 0/74

The findings of the study are in.agreement with'the findings of a previous study conducted in a slum area of Delhi which showed a high sensitivity (70 to 91%) and specificity (60 to 80%) for different symptoms related to reproductive tract infections[9]. In another cross-sectional community-based study in Bangladesh, self-reported morbidity was 68 per cent[10] and in the.study conducted in Maharashtra, it was 55 percent[11]. A comparative review of seven Indian studies has also revealed a varying degree of participation by women in gynaecological examinations ranging from 'the lowest of'19 per cent to the highest of 86 per cent[12].

CONCLUSION

On the basis of high sensitivity, specificity, positive and negative predictive values and moderate degree, of agreement between observed and self-reported morbidity noted in this study, the authors suggest that interview-based household approach remains the most appropriate' one to. assess the magnitude of reproductive tract infections, in: developing countries. Further, the high cost of clinical examination", the non-availability of reliable diagnostic'tests for specific field conditions and high refusal rate by women to participate in gynecological examinations contribute to the problem of clinical examinations approach.

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इस लेख में दोनों प्रक्रियाओं अर्थात 'साक्षात्कार–आधृत परिवार सर्वेक्षण' (स्वयं–सूचित रूग्णता दर) प्रतिवीक्षक प्रति योनि परीक्षण पर आधारित 'प्रेक्षित रूग्णता दर एप्रोच' के निश्कर्षों की तुलना की गई है। अध्ययन से ज्ञात हुआ है कि इस अध्ययन से स्वयं सूचित रूग्णता दर अधिक से अधिक 98 प्रतिशत थी, महिलाओं की औसत आयु 15 वर्ष थी तथा सहवास की औसत आयु 17 वर्ष थी। यह भी प्रेक्षित किया गया था कि 64 प्रतिशत प्रसव घरों कराए गए थे। तथा उनमें से कम से कम आधे (50 प्रतिशत) अप्रशिक्षित व्यक्तियों द्वारा कराए गए थे। अध्ययन से यह भी ज्ञात हुआ है कि साक्षात्कार–आधृत एप्रोच के द्वारा प्रजनन मार्गीय संक्रमण की व्यापकता दर 57.6 प्रतिशत तथा प्रेक्षित किया गया था कि 64 प्रतिशत प्रशव घरों मे ही कराए गए थे तथा उनमें से कम से कम आधे (50प्रतिशत) अप्रशिक्षित व्यक्तियों द्वारा कराए गए थे। अध्ययन से यह भी ज्ञात हुआ है कि साक्षात्कार–आधृत एप्रोच के द्वारा प्रजनन मार्गीय संक्रमण की व्यापकता दर 57.6 प्रतिशत तथा प्रेक्षित रूग्णता दर विधि के द्वारा 61 प्रतिशत थी। लेखकों का निश्कर्ष है कि प्रजनन मार्गीय संक्रमण की व्यापकता का अनुमान लगाने के लिए विशेष रूप से विकसित देशों में साक्षात्कार आधृत परिवार सर्वेक्षण सर्वाधिक उपयुक्त प्रपोच है।

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INDUCED ABORTIONS IN KHAMANO BLOCK OF FATEHGARH SAHIB DISTRICT, PUNJAB

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ABSTRACT

A total number of 31 currently married women who had at least one Induced abortion during the last five years preceding the study were taken as sample respondents for the study. The study was carried out in 20 villagesof Khamano Block, Fatehgarh Sahib district of Punjab, India.

Sex-selective abortion, contraceptive failure, family size is cb'mplBte/economic problem; family dispute and unplanned/untimely pregnancy were the reasons cited by the women for induced abortions. Sex-selective abortions were, more in the-Jat Sikh community. Out of 31 women who had undergone medical termination, of pregnancy (MTP), only one woman had gone to a government health care facility and the remaining 30 had availed of the service from private sources and paid for tha'same. Though 65 per cent of women faced complications after abortion, only 42 per cent of them had availed of follow-up services. In more than three-fourth of the cases; the couple took the decision for abortion jointly.

Keywords: Induced abortion, Contraceptive failure, Medical termination of pregnancy (MTP), Registered medical practitioner (RMP), Unplanned pregnancy.

Induced abortion is a widely used age-old practice. It is a voluntary or willful decision to terminate the pregnancy, whether permitted by law or not. In spite of potential health risks and economic costs involved in the procedure, women from all backgrounds; including rural and urban areas opt for it. Although induced abortions are more prevalent in the developing countries, they do occur in every part of the world.

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Abortion is not legalized in all countries but it is practiced almost everywhere. In India, abortion was legalized in 1971 by the Medical Termination of Pregnancy (MTP) Act. So far, most'of the studies in India on abortion have been based on either 'easily available secondary data' or 'hospital-based records'. The subject of abortion is important in the Indian context as various national and international stakeholders struggle to bring about a meaning to'MTP through the important concepts of women empowerment, rights and choice as articulated in the International Conference on Population and Development (ICPD), held in Cairo in 1994[1].

Legally, a registered medical practitioner (RMP) can abort a pregnancy within the first 12 weeks of conception. If the conception is more than 12 weeks old .and less than 20 weeksJhen two'RMPs should give consent, unless it is a case of medical emergency. Though abortion by any other persd'n'than an RMP, is a punishable offence, yet such malpractices exist in our society as people do take risks. According to the MTP Act, a pregnancy has to "be terminated-either at a hospital established and maintained by "the government or a place approved by the government" at a given' point of time. The place should be safe and hygienic. It should have all the required facilities like an operation table, instruments to perform abdominal or gynaecological surgery, anaesthetic equipment, resuscitation equipment, sterilization equipment, drugs ^and parenteral fluids for emergency use. But a large number of women receive abortion services from illegal sources which mostly lack required facilities arid skilled and trained manpower to carry out such a job. However, abortions performed by an unqualified, untrained and ill-equipped medical practitioners or quacks in unhygienic environments put life of women in danger. According to a WHO estimate, 15-24 unsafe abortions take place per .1,000 women 'aged 15-49 years in the Indian subcontinent.

For so many years, women's health advocates have been trying to draw attention to, the need for improving the availability, accessibility, safety and use of abortion services. They have a point to argue that abortion shouldn't be done "to stabilize population as a family planning method or for delivering a baby of a preferred sex. They stress on the need for facilitating easily available, safe and within reach abortion facilities run by the registered and approved MTP service providers .for the poor women. They also strongly advocate for the provision of post-aborta family planning, counselling and other related services. Repeated abortions multiply, the health risk of the concerned women. In India, women have less control over their fertility and they often don't enjoy a good health. These

conditions increase the chances of facing both spontaneous and induced abortion, once or even more. So, there is an urgent need to provide upgraded safe abortion services.

Abortion can be spontaneous. A woman.has virtually no control over it. However, an induced abortion is a willful decision to terminate the pregnancy for some specific reasons, The reasons vary from one to another such as spacing or limiting the family size, contraceptive failure, unplanned pregnancy/preference for a specific sex, especially for son[2], etc.

OBJECTIVES

The main objective of the study was to find out the socio-economic and demographic characteristics of women..who had at least one induced abortion during the last five years preceding the study. The study also tried to find out the underlying reasons such as the decision-making practice, source of service, facilities availed, amount of money spent and opposition faced by the women who had undergone an induced abortion..

METHODOLOGY

20 villages were randomly .selected from Khamano block of Fatehgarh Sahib district, Punjab,-, for the purpose, of the study.. Then key resource persons were, contacted and -information on the women who had undergone induced abortion during the last five years, was collected. The Community Health Volunteer (CHV) appointed in the villages of Khamano block by the Centre of Research in Rural and industrial Development for the Local Initiative Programme (CRRID-LIP) rendered their maximum co-ordination and help in identifying the cases. This support was .crucial as the CHVs had personal knowledge about the abortion cases. Then all the listed, cases were visited and interviewed in detail. The field work for the study was carried out during September-October 2003. A total numberof 31 induced abortion cases, were studied.

FINDINGS AND DISCUSSION

It was found that in more than two-fifth (13 out of 31) of the abortion cases, the couples-had gone for sex-selective abortions. The desire for haying a son had resulted in termination of the female foetuses. In seven cases, the family size was complete and the couple was not financially well off to afford to have an

additional child. However, they were reluctant or ignorant to accept any appropriate contraceptive method and forced to go in for an .induced abortion. Pregnancy was an outcome of contraceptive failurejn six cases, failure of female sterilization was reported by. four,.and failure of condom and oral pill was reported by one each. The next child was not needed at that moment in three cases. It was interesting to note that two women had a conflict with their respective families, mainly Ihe husband.and'the mother-in-law and took this extreme step in order to pressurize the family (Table 1).

The study findings further reveal that out of 31 women, only one was Muslim and the others were Sikhs. Only one case of contraceptive failure belonged to the Muslim community. Most of the general caste couples reported to have undergone abortion due to unplanned/untimely.pregnancy or the foetus was a girl. More than three-fifth of the sex-sefective abortions were found in the Jat Sikh community. Overall, 32 per cent of the couples opting for induced abortion were Jat Sikhs. One abortion due to contraceptive failure and all the "sex-selective abortions were performed after the first trimester. According to the MTP act, an RMP can terminate a pregnancy within the first 12 weeks of conception. But in the current study, it was observed that even after 12 weeks of conception, people took risk of abortion only because the foetuses were girls'and they preferred sons. This desire for sons among the local community shows the overall male-female ratio in .that region and if these types of sex-selective abortions are not controlled stringently, it could further aggravate the male-female ratio of that region;

The medical procedure of an abortion involves expenses. Yet, it was found in the study that only one woman had undergone abortions at the Fatehgarh Sahib Civil Hospital where she did not have to pay; whereas, all others had to pay since they availed of the private services. The highest amount of money spent by a woman for MTP was Rs. 4000/- who underwent MTP as her family size was complete and she. was very weak and anaemic; and she had to stay in the hospital for there days after the MTP. Except sex-selective abortions, in most of the other cases, the samples had to spend less than Rl 1500/- for an MTP. But the women who underwent sex-selective abortions had to-spend more money since Jhey secretly, availed of such illegal services and .paid whatever' the abortionist demanded It was found that the average cost of an abortion wasRs. 2,169.23. Only those women who wanted ;only sonsayailed of the ultrasound facility before aborting the child, and aborted,only if the foetus was detected a girl. About 23 per cent of the women had gone for ante-natal check-up[1] which is dismal. One woman mentioned that she had availed of ante-natal care since she wanted to continue,

with the pregnancy until there was a family conflict leading to a change in the decision and aborted the child. Out of the total sex-selective abortion cases, about 46 percent of them had also'availed of ante-natal services till the time they came to know that the foetuses were girls and preferred abortion (Table 2).

TABLE 1

NUMBER OF CASES, CASTES OF THE WOMEN AND STAGE OF PREGNANCY AT THETIME OF ABORTION

Reason for abortion	**Number of cases**	**Caste**			**Months of pregnancy**	
		General	**OBC**	**SC**	**1-3**	**3+**
Contraceptive failure	6 (19.4)	-	1 (16.7)	5 (83.3)	5 (83.3)	1 (16.7)
Family dispute	2 -(6.4)	-	-	2 (100.0)	2 (100.0)	-
Family size is complete/ economic problem	7 (22.6)	-	1 (14.3)	6 (85.7)	7 (100.0)	-
Unplanned/untimely pregnancy	3 (9.7)	2 (66.7)		1 (33.3)	3 (100.0)	-
Sex-selective	13 (41.9)	8 (61.5)		5 (38:5)	-	13 (100.0)
Total	31 {100.0}	10 (32.3)	2(6.4)	19 (61.3)	17 " (54.8)	14 (45.2)

Note (i) SC- Scheduled Caste (ii) OBC-Other Backward Caste
(Figures in parentheses indicate percentage)

TABLE 2

AMOUNT OF MONEY SPENT ON AVAILING OF ANTE-NATAL CARE AND ULTRASOUND BY THE WOMEN

Reason for abortion	**Amount spent (in Rupees)**			**ANC received**	**Ultrasound availed**
	<1500	**>1500**	**Nil**		
Contraceptive failure	5(83.3)	1 (16.7)	-		-
Family dispute	2(100.0)	-	-	1 (50.0)	-
Family size is complete. /economic problem	4(57.1)	2(28.6)	1 (14.3)	-	-
Unplanned/untimely pregnancy	1 (33.3)	2 (66.7)	-	-	-
Sex-selective	-	13(100.0)	-	6(46.1)	13(100.0)
Total	12(38.7)	18(58.1)	1(3.2)-	7(22.6)	13 (41.9)

Figures in parentheses indicate percentage)

Under the MTP Act, termination of pregnancy by any person other than an RMP is a punishable offence. It is important to note that out of the total of 31 MTP cases, only .one was. carried out in a government facility and 30 were carried out in private facilities. About 42 per cent of the MTPs were conducted by an auxiliary nurse midwife (ANM) in private facilities. Though it is illegal and unsafe to conduct MTPs by anybody other than an RMP, people find these private facilities more accessible, affordable, reliable and less time consuming. About 65 per cent of the women had faced, post-abortion complications but only 42 per cent had availed of follow-up services (Tabled). Lack.of.knowledge, casual attitude and ignorance may be the probable reasons for not utilizing doctor's services even though they were suffering from, post-abortion complications. It has been found that, abortion complications contributed to as high as 12 percent of maternal deaths in India in 1991[3].

Though only the woman undergoes physical suffering in the abortion procedure, she is not alone in the whole process. Along with her, close family members are involved at different stages of decision-making, selecting the provider and providing the moral, support by accompanying her to the hospital and/or sharing household, responsibilities. Thus, though abortion is a very personal decision.of the couple, the family and people around them have a role in the whole process*. In' more than *77* per cent of the total cases of MTP, the xouple.had jointly taken the decision to abort.the child. Similarly, in all the cases of MTP due to contraceptive failure and.unplanned/untimely pregnancy, only the couples had taken the decision for aborting the foetus.,In one/case, it was reported that the mother-in-law of the women had opposed it.. One woman .with a complete family size had taken the decision on her own since her. husband was a drug addict and-a non-cooperative person. In both the MTP cases due to .family dispute, the woman had taken their own decision and their husbands had opposed it. In one case, the whole family was against it. In two of the sex-selective abortion cases, it was observed that the husbands were not in favour of "it and in another case; mother-in-law, father-in-law and sister-in-law were against the decision for abortion (Table 4).

TABLE 3

SOURCES OF SERVICE, POST-ABORTION COMPLICATION AND FOLLOW-UP SERVICES AVAILED

Reason for abortion	**Sources of service**				**Followup availed**	**Complica-tions faced**
	ANM (Private)	Private nurse	Private doctor/ nursing home	Govt. hospital		
Contraceptive failure	2(33.3)	2.(33.3)	2(33.3)	-	-	3(50.0)
Family dispute	1(50.0)	1(50.0)	-	-	1(50.0)	1(50.0)
Family size is complete/economic problem	3(42.9)	2(28.6)	1(14.3)	1(14.3)	2(28.6)	6(85.7)
Unplanned/untimely pregnancy	1(33.3)	1(33.3)	1(33.3)		1(33.3)	1(100.0)
Sex-selective	6(46.1)	2(15.4)	5(38.5)	-	9(69.2)	7(53.9)
Total	13(41.9)	8(25.8)	9(29.0)	1(3.2)	13(41.9)	20(64.2)

TABLE, 4

DECISION MAKING FOR MTP AND OPPOSITION, "IF ANY

Reason for abortion	**Decision.**			**Opposition**	
	Couple	**Own**	**Family**	**Husband**	**Other family members**
Contraceptive failure	6(100.0)	-	-	-	-
Family dispute	-	2(100.0)	-	1 (50.0)	1 (50,0)
Family size is complete /economic problem	6(85.7)	1 (14.3)	-	-	-
Unplanned/untimely pregnancy	3(100.0)	-	-	-	1(33.3)
Sex-selective	9(69.2)	3(23.1)	1 (7.7)	2(154)	3(23.1)
Total	24(77.4)	6(19.4)	1 (3.2)	3(9.7)	5(16.1)

(Figure's in parentheses indicate percentage)

The study found that two women who opted for MTP citing family conflicts as the reason had no child at the time of abortion. At the time .of the study, one pregnant woman with no child stated that she wanted to abort the child sometime back due to her family conflict but later oh she decided to continue with it as the problem was sorted out. Women who had undergone MTP had already sons and daughters but the reason cited by them for operation was either having complete family size or economic problem. Similarly, a couple who already had a son, wanted another son. Actually, these couples wanted to have a son within the small family norm and in the process, they aborted the female

foetuses. In this group, after the abortion; one woman had delivered a son and another was pregnant. Four women had given birth to girls after the abortion. Three of them couldn't get the sex checked due to strictness-of law. Fourth woman was aware that she was carrying a girl child but no nurse was willing to abort since she was too weak. So, she delivered the girl child. Overall,.39 per cent of the couples had only daughters and six per cent had no child at the time of the abortion (Table 5).

TABLE 5

LIVING CHILDREN AT THE TIME OF ABORTION

Reason of **abortion** **Contraceptive failure**	**Children at the time of abortion**			
	No Child	**Only son**	**Only daughter**	**Sons and daughters**
	-	3 (50.0)	-	3 (50.0)
Family dispute	2(100.0)	-	-	**-.**
Family size is complete /economic problem Unplanned/untimely pregnancy	-	-	-	7(100.0)
		-	1 (33.3)	2(66.7)
Sex-selective	-	1(7.7)	11 (84.6)	1 (7-7)
Total	**2(6.5)**	**4 (12.9)**	**12 (38.7)**	**13(41.9)**

(Figures in parentheses indicate

CONCLUSION AND RECOMMENDATIONS

Abortion is an age-old phenomenon experienced by women of all backgrounds in every part of the world. The current study conducted in 20 villages of Khamano block, .Fatehgarh Sahib District of Punjab in India showed the main reasons for induced abortions. Preference for son is one of the main reasons for induced abortions. As we know, the sex-determination is illegal; the authors recommend that stringent action may be taken against the couples who abort their foetus for the preference of a particular sex. Besides, they also recommend (i) widespread campaigns for educating the community about safe-sex, various contraceptive methods available, equality between a son and daughter, etc., and (ii) the government to provide easily available, accessible, cost-effective and legally and medically permissible abortion services for the common people which would deter them to go to unauthorized and unsafe abortion centers putting their lives at risk.

Lkkjk'k

उपरोक्त अध्ययन के लिए हाल ही में विवाहित कुल 31 महिलायें सैम्पल उत्तरदाताओं के रूप में ली गई थी जिन्होंने विगत पांच वर्षों से अध्ययन से पूर्व कम से कम मे एक प्रेरित गर्भसमापन करवाया गया था। यह अध्ययन जिला फतेहगढ़, पंजाब राज्य (भारत) के खमानों ब्लॉक के 20 गांवों में संचालित किया गया था।

महिलाओं द्वारा प्रेरित गर्भसमापन के लिए लिंग–चयनित गर्भ–समापन, गर्भनिरोध असफलता, परिवार का आकार पूर्ण होना/आर्थिक–समस्या होना, पारिवारिक कलह तथा अनियोजित/ असामयिक गर्भधारण जैसे कारण बताए गए थे। लिंग–चयनित गर्भसमापन जट–सिख समुदाय में अधिक हुए थे। चिकित्सकीय गर्भसमापन करवाने वाली 31 महिलाओं में से केवल एक महिला सरकारी स्वास्थ्य परिचर्या केन्द्र में गई थी तथा शेष 30 महिलाओं ने प्राइवेट स्रोतों से महिलाओं को जटिलता की अनुभूति हुई थी, उनमें से केवल 42 प्रतिशत महिलाओं ने अनुवर्ती जांच सेवाये ली थी। तीन चौथाई से अधिक केसों में दम्पत्तियों ने गर्भसमापन के लिए संयुक्त रूप से निर्णय लिए थे।

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ASSESSMENT OF IN-SERVICE RE-TRAINING NEEDS OF PARA-MEDICAL HEALTH WORKERS OF REVISED NATIONAL TUBERCULOSIS CONTROL PROGRAMME (RNTCP) IN DELHI

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ABSTRACT

The study assessed the in-service re-training needs of the paramedical health workers who are involved in the implementation of the Revised Tuberculosis Control Programme (RNTCP) in Delhi. 110 RNTCP para-medical health workers deputed'for retraining programmes in the Department of Community Medicine, MaulanaAzad Medical College, New Delhi,,were taken as 'sample for the study. Alt the sample respondents were from the Directly Observed treatment Shori<ourse (DOTS) centres functioning under the 22 Chest Clinics in Delhi which are administered by the Delhi State TB Cell. The study observed that a majority (62%) of the respondents were in the age group of 25-34 *years and 72 per cent of them were mate workers. Most of them had-been working under the.RNTCP programme for a duration of mora than five years.' Of the 110 respondents, 60 had a diplomain Tubercutosis Health Volunteer (TBHV), six each had-MPW Diploma and Pharmacy, and four had Diploma in Health Education. The study further shows that* 66 *per cent of the para-medical health personnel said that they would insist on the TB patients that TB is curable on a regular treatment. It was also found that* 918 *per cent of the respondents were.able to match the colour coding correctly with the corresponding category of treatment.*

Keywords: Assessment. In-service training, Para-medical health'workers, TB, DOTS.

In-service training of the para-medical health 'workers for the Revised *National* Tuberculosis Control Programme (RNTCP) is one of the essential components for the successful implementation of .the programme. Before an in service training programme is conducted, an assessment of re-training needs of

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the personnel may be done to Identify their weak areas in terms of skills and knowledge for conducting a need-based re-training programme. Training of health functionaries has been ah integral component of all health related developmental initiatives of the Government of India. Directly Observed Treatment Short-course (DOTS) has been incorporated in the Revised National Tuberculosis Control Programme (RNTCP). in India in the mid 1990s. The rcie of para-medical personnel providing DOTS services in resource poor settings in developing countries like India is very important.

India accounts .for nearly one-third of the global burden of tuberculosis (TB). Each year, almost 2.2 million persons develop JB out of which about 1 million are new smear positive and highly infectious cases and about half a million people die of TB every year[1]. The RNTCP targets to achieve at least 85 per cent cure rate and 70 per cent case detection rate. At present, the RNTCP has resulted in a treatment success rate of 83 per cent and a case detection rate of 55 to 60 per cent[2]. By August 2003/740 million people (almost 70% of the population) in 397 districts from the 25 states/Uts of India had access to DOTS services[3].

World TB Day is observed'on March 24 every.year. World TB Day in the year 2005 focused on the fundamental role being played by frontline TB workers the world over to broaden the span of DOTS. Over the past few years, training has been a key component'of the TB control programmes, A number of training programmes is organized periodically in different places across-India in order to improve the implementation of TB control-strategies. However, to some extent, training programmes are based on certain incorrect assumptions like;-(i) training is a limited-time activity and it is no longer required when DOTS *strategy* has covered cent per cent populace; and (ii) the para-medical health workers once trained would perform better[4].

Implementation of DOTS strategy has reached advanced stages in many countries. The key challenge is not.to start new programmes but to maintain high quality in its implementation. A recent review of the DOTS programme by the World Health Organization Global Tuberculosis Programme (WHO-GTP) observed that advanced re-training of the DOTS agents was one of the essential components for the successful implementation of the programme[5],

In service re-training ensures that health professionals who are already providing services have an opportunity to improve their knowledge and skills as per the latest scientific developments and standardized practices[6]. During the last

decade, the amount of money spent, in a year on training of the para-medical health workers has been multiplying. This has compelled the programme managers to debate whether the outputs of the training are proportional to the expenditure incurred[7].

OBJECTIVE

The main objective of the study was to assess the in-service re-training needs of the para-medical health workers who are involved in the implementation of the Revised National Tuberculosis Control Progrmme (RNTCP) in Delhi.

MATERIALS AND METHOD

Administration and Operational Organisation of RNTCP In Delhi

Delhi is divided into six broad divisions for RNTCP services viz; North, South, East, West, Central and Old Delhi. At trie divisional level, the District Tuberculosis Officer is the overall in-charge of the tuberculosis control activities. At the sub-divisional level, the city is divided into wards,, and each ward has a Chest Clinic. At the peripheral level, the basic unit" is the DOT cum microscopy centre which serves^ population of 0.1 million, in all,,151 DOTS-cum-microscopy centres and 156 DOTS centres without microscopy facilities were functioning with 765 RNTCP para-medical health workers at the'time of the study.

Study Subjects

110 RNTCP para-medical health workers deputed for re-training programmes, in the Department of Community Medicine, Maulana Azad Medical College (MAMC), New Delhi, were the sample respondents of the study. *They* were all from the DOTS centers functioning under the 22. Chest Clinics in Delhi which are administered by the Delhi State TB Cell. Only those workers who had been in service for at least a period of six months were selected. They were administered a pre-designed proforma that included both .open and close-ended questions related to the operational and technical aspects .of RNTCP including management, general aspects of the disease and treatment as well as specific case-based questions, Epi-info 2002 software was used for data entry and statistical analysis was done by Z-test.

FINDINGS AND DISCUSSION

Demographic Profile of the Respondents

It was observed that a majority (62%) of the respondents were in the age group of 25-34 years and 72 per cent of them were male workers. Most of them had been working under the RNTCP programme for a duration of more than five years. In terms of educational qualification, most of them (55%) had Diploma in TBHV.(Tuberculosis Health Volunteer) (Table i).

Knowledge about the Operational Aspects of RNTCP Programme

The difference in the knowledge level between para-medical health workers who had been working for a period of three years or more and who had less than three years of experience was studied to find out whether the optimum period, for re-training was every three years. The study revealed no significant difference in the levels of knowledge of both the groups. The knowledge of a paramedical worker was considered poor if his/her correct response rate was less than .80 per cent (Table 2). Almost equal percentage of para-medical health workers in both the groups cited 'address verification[1] as the most important purpose of the initial visit. 21 per cent of the workers with three or less than three years of experience in RNTCP cited 'identifying the contact person' as the second most important purpose of the initial visit while the percentage was 32 for the workers with more than three years of experience. It was observed that more percentage of workers (71.6%) with three years or less than three years of experience mentioned that the TB patient must be visited within one day of diagnosis while the percentage was comparatively less (52.6%) for the workers with more than three years of experience in RNTCP. Only 16.4 per cent of the respondents felt the necessity for visiting the TB patients' residence to impart health education. With regard to the management of the default cases, most of the para-medical workers (73%) stated that motivation of the defaulter is necessary and "he/she should be informed that TB is curable only on regular treatment. 85.4 per cent of the respondents stated that 22nd week is the exact timing for the sputum test. 73.5 per cent of the workers with three or less than three years of experience in RNTCP stated that knowledge of the patient's treatment history is necessary for his/her correct categorisation while the percentage was little more for the workers with more than three years of experience.

TABLE 1

DEMOGRAPHIC PROFILE OF THE RESPONDENTS

	Basic characteristic	**Number (n=110**	**%**
Age	Less than or equal to 24 years	18	16
	25-34 years	68	62
	35-44 years	18	16
	More than or equal to 45 years	6	5
Sex	Male	79	72
	Female	31	28
Experience of working under RNTCP	Less than or equal to **1** year	3	30
	More than **1** year or lesser than or equal to 3 years	20	18
	More than 3 years or lesser than or equal to 5 years	20	"18
	More than 5 years	37-	34
Educational qualification	Diploma TBHV	60	55
	Diploma in Health Education	4	4
	MPW diploma	7	6
	Pharmacy	7	6
	Other	32	29.09

Purpose and Timing of the Initial Visit

The Study participants were asked to mention the three most important purposes of the initial visit. Once the patient is diagnosed as a case of tuberculosis, the paramedical health worker is required to visit the residence of the patient in order to (i) confirm the address of the; patient and to ensure that he/she should be available at the given residential address for the treatment for a duration of 6-8 months, (ii) find out if there is a chest symptomatic in the household and (iii) whether any child below six years of age is living in the household of the patient having sputum smear positive tuberculosis. The initial visit is very important for the 5 successful treatment of the patient, otherwise, it cannot be substituted by any other method/way to ascertain/prove the residential address of. the patient. Address confirmation was one of the important reasons (76%). Other important reasons cited by the workers include to identify the contact person (26%) and providing health education to the affected and other.family members (16%). 62 per cent of therespondents were also aware of the factthat the initial visit should be conducted within a day following the diagnosis by the medical officer (Table 2).

Importance of the Contact Person

The contact-person could be a family member or a neighbour who would keep a record of the whereabouts of the patient. The contact person can be contacted by the health worker in case the patent has missed his scheduled does. It was observed that 43 per cent of .the health workers had the correct knowledge about the importance of the contact person (Table 2).

Management of the Defaulter

Findings in Table 2 show that about 66 percent of the para-medical health workers said that they would motivate a defaulter by stressing on the fact that TB is curable on a regular treatment only, otherwise, it would become unbeatable. The health workers~had knowledge about default retrieval which should be done within a day when the patient is in intensive phase (77%) and within a week in continuation phase (87.2%).

A majority (85%) of the para-medical health workers were aware that the cup for the first follow-up sputum collection would be given in the 22nd week. About 61 per cent of the health workers aware that all children aged less than six years old who are in contact with sputum smear positive patients, should be referred to the Medical Officer for bringing them under isoniazid (INH).prophylaxis. As many as 75 per cent of the health workers were aware of the correct reason for taking into account the past history oUreatment witfranti-tubercular drugs so that the patient might be placed in.the correctcategory of treatment (Table 2).

Knowledge about General Aspects of the Disease and Treatment

Data in Table 3 show that.a majority (91.1 %) of the para-medical health workers knew that tuberculosis spreads$_t$by means of droplet infection. Moreover, about 61 per cent of them had correct knowledge on.'chest symptomatic'that means' continuation bf.cough for more than.three, weeks. However, 21.8 per cent of the respondents stated that 'chest symptomatic* means continuous cough for more than three weeks: accompanied .by fever, chest pain and haemoptysis. On this aspect, the percentage response of para-medical health workers with less than three or three years of experience was 13.2 while it was more than double (29.2%) for workers with more than three years of experience in RNTCP. Most of the health workers (91.8 %) were able to match the colour coding correctly with ii the corresponding category of treatment.

TABLE 2

KNOWLEDGE ABOUT THE OPERATIONAL ASPECTS OF RNTCP

OPERATIONAL ASPECTS OF THE PROGRAMME	KNOWLEDGE ABOUT THE OPERATIONAL ASPECTS		NUMBER OF PARA-MEDICAL HEALTH WORKERS (N=110)				TOTAL	
			EXPERIENCE OF WORKING UNDER RNTCP					
			3 YEARS OR LESS		MORE THAN 3 YEARS			
			N=53	%	N=57	%	N=110	%
INITIAL VISIT	THREE IMPORTANT PURPOSES	ADDRESS CONFIRMATION	40	76	44	77	84	76
		TO IDENTIFY THE CONTACT PERSON	11	21	18	32	29	26
		TO IMPART HEALTH EDUCATION	10	18.8		14.0	18	16.4
	TIMING OF VISIT	WITHIN ONE DAY	38	71.6	30	52.6	68	62.0
IMPORTANCE OF CONTACT PERSON	DEFAULT RETRIEVA		21	39.6	26	45,6	47	42.7
MANAGEMENT OF DEFAULTER	MOTIVATING THE DEFAULTER STRESSING UP ON THE PATIENT THAT TB IS CURABLE ONLY THROUGH REGULAR TREATMENT		34	64.0	39	68.3	73	66.1
	PERIOD OF DEFAULT RETRIEVAL!	WITHIN ONE DAY IN INTENSIVE PHASE	38	71.6	47	82.4	85	77.2
		WITHIN ONE WEEK IN CONTINUATION PHASE	32	60.3	42	73.6	74	87.2
FIRST FOLLOW-UP SPUTUM TEST	AT THE 22ND WEEK		46	86.7	48	84.2	94	85.4
SPECIAL ADVISE FOR CHILDREN LESS THAN 6 YEARS	ADMINISTRATION OF INH PROPHYLAXIS		29	54.7	38	66.6	67	61.0
TREATMENT HISTORY	FOR CORRECT CATEGORISATION		39	73.5	43	75.4	82	74.5

An average of 40 per cent of the health workers (35.8% workers with less than three years or three years of experience in RNTCP and 43.8 % workers with more than three years of experience) said that they would, advise the patient to store the sputum in a metal container with a lid, boil it in water in the same container and then throw it into a drain. Also, 21 per cent of them said that they would advise the patient to collect the sputum in a cloth and then'burn the entire content. Only 13.6 per cent of them stated that they would advise the patient to throw the sputum into a drain..

As many as 42.7 per cent of the health workers said that the best way to prevent the family members at a bay from TB infection was to maintain a cough hygiene by covering her/his. mouth while coughing, while 14.3 per cent said that proper disposal of the sputum is essential to prevent the family members at a distance from infection, Only 5.5 per cent of them stated that a proper ventilation system of the house is necessary to keep the family members away from infection. While 59.2 per cent of the para-medical health workers felt that extra nutrients in the diet in the form of fruits, eggs and milk need to be included in order to ensure a speedy recovery; 17.3 per cent of them told that TB patients should follow a balanced diet (Table.3).

DISCUSSION

The Results of the present study.indicate that all the para-medical health workers work for DOTS require in-service re-training irrespective of their experience in the Revised National Tuberculosis Control Programme. Although majority of the health workers (55%) had Diploma in TBHV (Tuberculosis Health Volunteer), their overall knowledge about the treatment aspects of TB and the operational aspects of the RNTCP was inadequate.

In this study, only 42.7 per cent of the para-medical health workers said that respiratory precautions such as covering the mouth while coughing.should be adopted by the patient to prevent the spread of infection. This finding is in contrast to a study conducted in a developed country where 87 per cent of the health workers of a hospital in Massachusetts, United States, responded that adoption of respiratory precautions by the patient is mandatroy[8]. This level of knowledge in the present study reflects the inadequacy of awareness about the basic knowledge of the disease among the para-medical personnel involved in the RNTCP. This emphasizes the need for in-service re-training of the health workers to enhance their knowledge on TB from time to time. In the current study, it was

TABLE 3
KNOWLEDGE ABOUT THE GENERAL ASPECTS OF THE DISEASE AND ITS TREATMENT ASPECTS

General aspects of the disease and treatment aspects	**Knowledge about general aspects of the disease and treatment aspects**	**Number of paramedical health workers (N=110) j**				**Total**	
		Experience of working under RNTCP					
		3 years or less		**More than 3 years**			
		N=53	**%**	**N=57**	**%**	**N=110**	**%**
Mode of Transmission	By droplet infection	47	88.6	54	94.7	101	92.0
Definition of chest symptomatic	One having cough for more than three weeks duration	34	64.1	32	58.1	66	60.6
	One having cough for more than three weeks duration	7	13.2	17	29.2	24	21.8
Colour coding of drug boxes	Category 1 - Red CategoryII-Blue " Category III Green	49	92.4	52	91.2.	101	91.8
Health education to be imparted	Store, boil and throw away	19	35.8	25	43.8	44	40.0
a) Sputum disposal	Burning	12	22.6	11	19.2	23	21.0
	Throw away into drain	10	18.8	5	8.8	15	13.6
b) Protection of family members	Covering mouth while coughing	26	49.5	21	36.8	47	42.7
	Proper disposal of sputum	5	9.4	08	14.0	13	14.3
	Proper ventilation	4	7.54	2	3.5	6	5.5
c) Diet	Extra nutrients in the diet	31	58.4	34	59.6	65	59.2
	Balanced diet	08	15.0	I 11	19.3	19	17.3

also found that the para-medical health workers had a low level of knowledge about the most important purposes and timing of the initial'visit. Since, the initial visit is very important and can't be substituted by any other method to ascertain the residential address of the patient$_t$ this aspect needs to be given due importance in the re-training programmes.

Only 42.7 per cent of the para-medical health workers had a correct knowledge'about the importance of the contact person in default retrieval while it was 95 per cent in a study conducted among the TB health providers in Iraq[9]. The default rate of TB patients continues to be high in India and an irregular intake of anti-tubercular drugs is leading to.an increased emergence of multi-drug resistant TB. Presently, -the prevalence rate of multi-drug resistant TB patients in India varies between one and.three per cent[10]. A study conducted in an urban part of Delhi has shown that seven per cent and 10 per cent of the patients taking treatment in two respective chest clinics left treatment before completion[11]. It has been observed that the reason behind the high proportion of defaulters is that the RNTCP doesn't take into consideration the needs of the TB patients.

Though it is desirable that every para-medical worker involved in TB control programmes should know the importance of keeping the .history of the patients for correct categorization of DOTS treatment, only 74.5 per cent of the health workers knew about it. Absence of history of' patients leads to incorrect management of the individual cases. Besides, .difficulties in selecting the appropriate chemotherapeutic regimen with the right dosagerand non-adherence of the patient to the prescribed treatment are some of the important factors which are increasingly contributing to the development of acquired multi-drug resistance[12].

Though the knowledge of the para-medical health workers about the correct colour coding of the. drug boxes for each category was fairy high (91.8%), their knowledge about the content of health education to be imparted to the patients was found to be quite poor. Only 40 per cent of the health workers were aware of the correct mode of sputum disposal. Whereas, 21 per cent of.them said that they would ask the patient to collect the sputum in a piece of cloth and then burn it; which is feasible only in rural areas and not in an urban setting where there is an acute shortage of open space. Only 59 per cent of .the para-medical health workers stated that they would advise the patient to include extra nutrients such as milk, eggs and fruits in their diet. Similar results are found among the health care staff at a health care facility in rural Vietnam[13]. However, in a developing country

like India, this may add to the financial burden of the patients. So, intake of a balanced diet consisting of low-cost food items and seasonal foods should be advised to the patient.

CONCLUSION

The authors conclude that (i) organizing frequent in-service re-training programmes for RNTCP workers would help them improve their job performance; (ii) the assessment of re-training needs can help the programme managers and trainers not only to decide on the content of'education but also the topics which require due emphasis in an in-service re-training programme and (iii) this type of need-assessment can help streamline the standards of training in schools for para-medical workers across the country.

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Lkkjka'k

इस अध्ययन में दिल्ली में संशोधित क्षयरोग नियंत्रण के कार्यक्रम के क्रियान्वयन से जो पैरा–मेडिकल स्वास्थ्य कार्यकर्ता जुड़े हैं, उनकी सेवाकालीन पुनर–प्रशिक्षण आवश्यकताओं का आंकलन किया गया हैं। मौलाना आजाद मेडिकल कालेज, नई दिल्ली के सामुदायिक औषधि विभाग में पुनर–प्रशिक्षण के लिए नामित 110 संशोधित क्षयरोग नियत्रंण कार्यक्रम संबंधी पैरा मेडिकल स्वास्थ्य कार्यकर्ता इस अध्ययन के लिए सैम्पल के लिए गए थे। सभी सैम्पल उत्तरदाता दिल्ली में 22 चेस्ट क्लिनिकों जो दिल्ली राज्य क्षयरोग कक्ष द्वारा प्रशासित है, के अर्न्तगत संचालित संचालित प्रत्यक्ष रूप से प्रेक्षित उपचार अल्पावधि–कोर्श (डोट्स) केन्द्रों से थे। अध्ययन से देखा गया है कि अधिकांश उत्तरदाता (62प्रतिशत) 25–34 आयु वर्ग के थे तथा उनमें से 72 प्रतिशत पुरूष कार्यकर्ता थे। उनमें से अधिकांश संशोधित क्षयरोग नियंत्रण कार्यक्रम के अर्न्तगत पांच वर्ष से अधिक समय से कार्य कर रहे थे। 110 उत्तरदाताओं में 60 कार्यकर्ताओं के पास क्षयरोग स्वास्थ्य स्वयं सेवक (टीबीएचवी) का डिप्लोमा था, बहुउद्देशीय कार्यकर्ता तथा फार्मेशी से प्रत्येक छः के पास डिप्लोमा थे, तथा चार के पास स्वास्थ्य शिक्षा में डिप्लोमा थे। अध्ययन से यह भी मालूम हुआ है कि 66 प्रतिशत पैरा–मेडिकल स्वास्थ्य कार्मिकों का कहना था। कि वह क्षयरोगियों पर जोर देगें कि नियमित उपचार से क्षयरोग उपचारीय है। यह भी देखा गया था कि 91.1 प्रतिशत उत्तरदाता उपचार के तदनुरूपी वर्ग के साथ सही तरह से कलर कोडिंग का मिलान करने में समर्थ थे।

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A STUDY OF TRADITIONAL CONTRACEPTIVE TECHNIQUES WITH SPECIAL REFERENCE TO *DHARMUNDHI* AND ITS PRACTICE BY WOMEN IN THREE VILLAGES OF HARYANA

S. Bandyopadhyay*, A.K. Arora and A. Singh**

ABSTRACT

Using both qualitative and quantitative techniques, this study analyses the practice of Dharmundhi, a traditional contraceptive method in ialpur sub-centre in Haryana. Some traditional methods discussed in this paper include: (i) micturition, (ii) use of indigenous herbal medicines, (Hi) coitus interrupts, and (iv) Dharmundhi. The above four methods used by the community were 25.2, 5.4, 30.6 and 5.4 per cent respectively. The study further reveals that about 41 per cent of the women had ever used a traditional contraceptive method and fifty-four per cent of the respondents didn't have correct knowledge about the safe-period:

Keywords: Contraceptive, Traditional method, Safe-period, Complementary and alternate medicine (CAM)

A lot of public health work in developing countries puts cross-cultural problems with varying extents to the health personnel who are trained in modern medicine. It is more evident in the field of health education. Health workers who work in traditional societies often complain about the resistance or lack of response of the community to their attempts for providing health education[1]. Attempts to alter people's ways of life, beliefs and customary behaviour don't yield good results due to their deep-rooted traditional beliefs and customs. In this paper, use of *Dharmundhi,* a traditional contraceptive technique, besides other such methods, is discussed in brief. *Dharmundhi* involves manual manipulation of the uterus. This is performed by Traditional Birth Attendants (TBAs) immediately after delivery and is claimed to be a very effective permanent method of contraception. Scientific validation of these methods is required in view of *their* widespread use by the rural people.

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The word *Dharmundhi* is derived from the word *'dhaf* means body or uterus and *'mundh?* means to close, reverse or to-put upside down. According to the key informants (KIs), *Dharmundhi* was a common practice-in royal families in ancient times. This was often, used out of jealousy by some queens wherein the iTBAs were instructed by them to perform *Dharmundhi* immediately after delivery in rival queens whose children could be a potential threat to their dream of (succeeding the throne by their.own children. A TBA reported that *Dharmundhi was* .also used by young'widows and unmarried girls as a, contraceptive method for 'protecting their illicit affairs. According to the respondents, 'if a. woman doesn't ,want any more pregnancies, her *-dhut* (uterus) is rotated in a reverse direction to 'prevent conception.'

Women who had at least three children or who felt Jo have completed *her* ifamily size, was considered an ideal candidate for undergoing *Dharmundhi* by the TBAs. This is done just after the delivery because the.uterus is soft and could leasily be manipulated during'this.period..Moreover,-women are able to withstand little amount of pain while they undergo this procedure after having endured the jmore painful phenomenon of'labour,-Otherwise, it.can be performed,at anytime. The sample respondents stated that 15 minutes time js required for performing the procedure of *Dharmundhi.* They further added that *Dharmundhi* is conducted immediately after delivery while the lady continues to lie in supine position with legs flexed at knee and in a lithotomy position; Just after the placenta is delivered, cervix is manually rotated to the right side by the TBA. One of them remarked that the whole cervix cannot be rotated and if done so, it could be fatal. So, only a little bit of rotation to the right side is required. Then the cervix is held in that position for a little while and the-positioh of the lady is then'changed.to the prone position. As the last step in the procedure, she is made to lie in the prone position for 15 minutes. After that she is allowed to get up. A woman can't perform' it upon herself.-Previously, TBAs used to perform this after cleaning their hands properly without using gloves/instruments of any kind. But now, some of them wear gloves for self protection. One of the TBAs-'stated that she applies'.mustard oil on her finger and then dips it in a liquid medicine, available for Rs. 507- in a grocer's shop and Derforms *Dharmundhi,* If gloves are used, then mustard oil isn't required, she added.

No *post-Dharmundhi dietary* restriction is advised but abstinence from ntercourse is advised for one. month following it. It is claimed to be a very effective permanent method of contraception. Failure is reported in some instances in which reversal occurs spontaneously. Some women had faith in the performance of

Dharmundhi io such an extent that they believed in it even more than modern methods like condom, copper T, pills and even tubectomy..Interestingly, it was also informed that reversalof *Dharmundhi* could be done in ladies who decide to conceive again'. This reversal is done by the TBAs immediately after menses because the uterus and cervix are relatively softer. The-woman lies in litholoy position and then the cervix is held with the help of a cotton plug smeared with mustard oil and is rotated to the left side. Thereafter, she has to make her legs flexed at the knee joint and remain in that position for 15 minutes. Cotton plug is removed immediately and replaced by another cotton plug soaked in alcohol. The cotton is kept in that position for a period of 2 hours for two consecutive days Insertion and removal of the plug are done by the TBA.

Slight low backache, mild lower abdominal pain-and mild dysmenorrhoea were some complications reported by/one respondent. *Dharmundhi was* repprted to be a. very common 'method of contraception practiced .before .the. advent of modern methods of contraception. The usage rate of *Dharmundhi* is falling day-by-day because of intensive promotional activities for modem methods of contraception by the government. It is practiced mostly by. Muslims since they don't prefer any other contraceptive method. Previously it was done free of cost Even now, some TBAs do it without charging any money.while some charge up to Rs. 150/- per case. Replying to a question on *post-Dharmundhi* follow-up, the respondents stated that 'it doesn't require-any follow-up'.

OBJECTIVE

An analysis of our achievement in the field of .contraception in India shows that the use rate of modem contraceptives has increased from 10 per cent in the early 70s to 40'percent in 2002?. This increase in; contraceptive use, though impressive, is far from satisfactory and reasons for the same need to be analysed. Research on women's reproductive behaviour and family planning in developing countries is usually focused on modem contraceptive methods but not on indigenous methods?. Therefore, an attempt.has been made in this paper to see' the use-or indigenous contraceptive methods-in a rural.community, particularly *Dharmundhi.*[:]

MATERIALS AND METHOD

Lalpurls a small village with a population of 1200 in Haryana.North lndia,situated 20 kilometers away from Naraingarh. A Rural Health Training Centre

RHTC) is being run in Naraingarh by the Department of Community Medicine, post-Graduate Institute of Medical Eucation and Research (PGIMER), Chandigarh. The study was conducted in three villages under-the Lalpur sub-centre of Naraingarh block from January to June 2003. The study included interviews with some of the village women about "the use of indigenous contraceptive methods by them. First of all, a list of key informants (KIs) from the village was prepared using 'snow-ball technique'. After selecting a Kl, she was asked about other possible informants. The interview with the informants was conducted separately by the investigators.

Thorough interviews were conducted with those who agreed to participate the study. Special emphasis was given on gathering information on *Dharmundhi.* Some traditional birth attendants (TBAs) who claimed to have the expertise in conducting *Dharmundhi* were also asked to demonstrate the procedure by using a piece of cloth or with diagrams. Their views were also sought , regard to its mechanism of action, side-effects$_L$ effectiveness etc. for further anaysis.

Based on the information gathered during these interactions, a brief pre-sted schedule was developed in the local language. The questions were related ' the knowledge and practices of the traditional contraceptive methods and the ning of intercourse that would have the maximum risk of conception, i.e. afe/unsafe period. A total of 112 respondents were interviewed over.a period of *io* months during March and April 2003.

INDINGS

Traditional contraceptive methods as mentioned by the KIs included:[1] (i) icturition after intercourse, (ii) use of Indigenous herbal medicines, (iii) coitus terruptus and (iv) *Dharmundhi.* A total of 20 KIs were interviewed out of which 12 lew about *Dharmundhi.*

A total of 112 married women in the age group of 18-60 years were jntacted during the household visits by the field health worker (FHW). The mean ;e of the respondents was 33.5 years. About 45 per cent of them belonged to 31 -) years of age group. Around 48 per cent of sample women had undergone bectomy, 13 per cent were using temporary contraceptive methods and 37 per ;nt were not using any kind of modern contraceptive methods. One woman. .9%) had undergone hysterectomy. About safe/unsafe period, many (45.5%),

women said that intercourse in the mid-cycle had the maximum risk whereas per cent of them informed that the risk was maximum immediately after *i* menses. Another 5.3 per cent, stated that the intercourse during any phase; menstrual cycle could result in pregnancy while 4.5 per cent and 8 per cent; them respectively believed that intercourse before and during menses could resj in pregnancy, About 18 per cent of-them didn't know anything about safe or r! period.

It was found that 45 (40.9%) women had used a traditional contraceptf method. Among them, a majority (58%) belonged to the age group of 31-45 yea' The highest, use of any traditional contraceptive method was^coitus interrupt^ (30.6%) followed by micturition after intercourse (25%). Use rate of. tradition herbal medicines and *Dharmundhi were* found to be 5.4 percent each, (Table 1 j:

TABLE 1
AWARENESS AND USE RATE OF VARIOUS TRADITIONAL CONTRACEPTIVE METHODS

Method	Awreness (n=112) No (%)	Use, rate*[n=1li No (%)'
Micturition after intercourse	:45 (40.2)	28 (25.2)
Indigenous Herbal medicine	24 (21.4)	6 (5.4)
Coitus interruptus	55 (49.1)	34 (30.6)
Dharmundhi	74 (66.1)	6 (5.4)

Figures in parentheses indicate percentage; *One woman had undergone hysterectomy.

It was found that the prevalence rate of 'coitus interruptus' a *Dharmundhi* was higher among women who were not using any other type modern.contraceptive method. But, women adopting 'micturition after intercourse were found to have used other types of modern contraceptive methods as we The difference between the two groups was, however, not statistically significal (Table 2).

In the study, 25 per cent of the respondents, irrespective of whether the, were using any. modern methods of contraception or not, reported to hav, practiced 'micturition after intercourse'. This is based on the belief that if a woma goes'for micturition, immediately after intercourse,"the semen would flow out wit the urine. It was observed that 19 per cent of the respondents had a wrong notioj about 'safe-period' which is a matter-of concern and shows their ignorance aboij the safe and the risk period for intercourse during the periodic menstrual cycle.

Indian study in a rural area has revealed that men consider the period of menstruation and a few days following it as the fertile period and the rest of the month as safe-period. Some other studies also show that only one-fifth of men could identify the actual time of a woman's cycle when she is fertile[45]. Historical .text on ;lndian System of Medicine a]so mentions about the prevalence of such beliefs in ancient times[6].

TABLE 2

COMPARISON BETWEEN THE USE OF TRADITIONAL AND MODERN CONTRACEPTIVE METHODS

.	Micturition After intercourse No. (%) -	Indigenous herbal medicine No. (%)	Coitus interrupts No. '(%)	Dharmundhi No. (%)	None No. (%)
Not using any modern contraceptive (n=41)	9 "(2l!9)"	0	14 (34.1)	4 (9.7)	24 (58.5)
Using modern contraceptive	19 (27.1)	6 (8.6)"	20 (28.6)	2 (2.9)	36 (51.4)
Total (n=11.1)	28 (25.2)	6 (5.4)	,34 (30.6)	6 (5.4)	60 (54,1)

'Karha' (concoction) is another commonly used contraceptive by the rural people. 19 women (17%) reported to. have taken it. This is prepared from old jaggery, seed of carrot and jute. Water is added to this and boiled till the volume is reduced to half. This is then' consumed on/the 5th day* of the menstruation. Addition of 'Jaiphaf (Myristicafragrans Houtt) and 'chhuhara'idf\e(\ dates) to the mixture makes it an abortifacient.

Of the six ladies who reported to have undergone Dharmundhi, two of them had resorted to other modern contraceptive methods also. When asked about, the reason for using the modern contraceptive methods, they told, "Dai ne thikse nehin kP (JBA didn't perform it correctly). 12 more respondents didn't admit to have undergone Dharmundhi while their names were reported by others in the course of discussion, Therefore, the total number of women who were using this method as a contraceptive, increased to 18 (16.1%).

DISCUSSION

Complementary'and Alternative Medicine (CAM) represents a substantial and largely untapped resource base for trie'health'care delivery system[7], the World Health Organisation (WHO) estimates that most people' in developing countries receive a bulk of the health care services from traditionalor indigenous health care providers[8]. The National Centre for CAM of the National Institute of Health defines CAM as 'those health care and medical practices that are not currently an integral part of conventional medicine[9]'. Alternative medical systems are complete systems of theory and practice that have evolved wholly or *largely* independent of conventional bio-medicine. These include Indian Ayurvedic Medicine, traditional Chinese Medicine, homoeopathy and naturopathy, these therapies also include herbal therapies, dietary supplements, dietary approaches and the use of other biologically active substances. Manipulative and body-based methods include massage or similar approaches, often within the context of physical or anatomic theories of illness[7].

Several types of traditional healers are found in India who practice the healing are like the. grocer-herbalists, priests, removers 'of evil eye, charmers, snake-bite curers, bone-setters, and village Traditional Birth Attendants (TBAs) who conduct deliveries. They earn their livelihood through their professional practice as traditional healers. They are accepted by the local community and respected for their knowledge since they provide service to the villagers. It has' also been observed that some villagers are not always eager to make the use of the hospitals or clinics which are already at their disposal. The reason for such a situation seems to lie in the social and cultural traditions of the villagers. Their beliefs about the causation and treatment of diseases are millennia old and perfectly fit in their social structure and customs. For instance, TBAs continue to be the chief sources of maternity care in rural India, where they conduct 60-80 per cent of the deliveries. A TBA is usually an illiterate woman and a part of the mainstream of village community. They are well acquainted with the traditional methods related to pregnancy, child-birth and contraception as practiced in rural areas[10].

Dharmundhi and other methods as alternative contraceptive methods have been in use since ages. This indicates that people don't depend'or don't have faith solely in allopathic contraceptives. Indigenous methods that existed in villages are in' practice from generation to generation and proved useful to the people. Other studies conducted in countries like Malaysia, Philippines, China and

India also indicate that herbal contraceptives have been used by women in rural ares for their reproductive health problems[11]-[13]. In a rural area of Philippines, many women preferred 'Kamias' drink and other herbal concoctions to the pill and other contraceptive methods. The 'kilala' and 'huwag', extracts of 'rattan' tree were the most popular plants used by the minorities. A beverage is also prepared with seeds of a plant and drunk before sexual intercourse to avoid conception.

It was observed that- *Dharmundhi* was used quite systematically by the TBAs in the study area and there are specific steps involved in it. The emic concept-of uterine manipulation leading to blockage of the pathway of sperms seems to be a reasonably good explanation for biologically preventing conception. The underlying principle of this seems to be based on the layman'sconcept that the sperms have to traverse through the cervical canal before fertilization. Any blockage in the pathway, can, therefore, act as a mechanism to prevent conception and such.blockage can also be produced by mechanically rotating the mouth of the uterus (cervix). Moreover, it was told that the treatment for this condition was also practiced by.many TBAs who were known to be experts in this area. They, treated the defect.by manually correcting the defective rotation of the uterus. A guaranteed success'of this remedial'rotation was claimed by these TBAs. This strongly corroborates with the etic concept where retro-version of the uterus has been.implicated as one of the causes of.infertility'*;

A survey conducted among the medicinal plant sellers, traditional healers, priests and local people, in the rural population of Bhat, India, showed that medicinal preparations made from 28 different herbs and plants were used for regulating fertility. Its acceptability was "found to be as high as 95 per cent among the community[11]. In another study conducted jn Assam, lndia;showed temporary and permanent methods of birth control included some herbal preparations "like 'Maswin[12]'.

In the current study, 5,4 per cent of the respondents each used .indigenous herbal medicine and *Dharmundhi* 17 per cent of the women reported that they used concoction *(karha)* and stated that it produced^'heat' in the body which according to Ayurveda, helps in preventing conception[15].

Traditional methods of family planning'are not limited to' the consumption of herbs only, A method used by the minorities in Philippines is incantation. Pounded and heated leaves are placed in a bag and applied externally to prevent conceptipn.Jhey believe that when the bag is worn during intercourse, the semen

would 'drop out'of the vagina. Other methods used 'to avoid conception include abdominal massage involving the.manual manipulation of the uterus. Some other things such, as aspge (mercury), salt, tablets and use of inanimate objects like *bato-baianfa* and magnetic stones are also used to prevent "pregnancy. The Philfppinoes also practice a traditional contraceptive method which closely resembles *Dharmundhi* of India,

The popularity of traditional methods might be due to their low cost and women's trust in the traditional healers. Moreover; traditional "healers are readily available in'the villages that spare women from taking leave from their household works or travel distances for counselling or treatment. As mentioned in one of the studies, these methods continue to be rated high due to the fact that open discussion about, sex is still considered a taboo in our society. Furthermore, traditional healers, at times, don't ask for immediate payment for providing treatment; they even wait till the results are obtained and don't mind being paid in kind instead of cash or even in installments. Many a times, they don't charge the poor people .for" availing of services. They are accepted because of their philanthropy and willingness to abide by the village customs "and traditions. It is also observed that women's choice for contraceptive methods is determined by their attitude towards these methods, perceptions on their-effectiveness and undesirable side effects, and the restrictions imposed by their service providers[3],

In some cases, women considered herbal contraceptives much safer than modern methods. It has also been observed that some women had shifted fromusing modern contraceptive methodsio herbs for delaying their pregnancy, They cited that side effects of the modern contraceptive methods were the reasons for such a change. Simultaneous use of both traditional as well as modern contraceptive methods was also observed in the current study.

CONCLUSION

Traditional beliefs and customs are deep rooted in the community and represent distillation of vast historical experience date back to more than' a millennium. Although these practices had never received 'scientific validation, acceptance by the community was still very high. Advent of modern contraceptives and related promotional'activities have not uprooted the traditional practices of the people. Acceptance of any contraceptive, be it traditional or modern, indicates that people are motivated for family planning. A continued use of traditional contraceptive practices, a switch over to traditional form from modern methods or ;

simultaneous use of traditional and modern contraceptive methods requires scientific validation of such practices. Although indigenous methods may not compete with western contraception in the long-run, their present day prevalence attracts the attention of scholars and policymakers, who intend to integrate women's concerns and constraints in the design of family planning programmes. Though the use of modern and traditional contraceptive methods.contributes to the overall contraceptive prevalence, yet the family planning programmes encourage and promote the use of modern methods and virtually ignore the traditional contraceptive methods[15]. The insensitivity of public health workers and scientists towards CAM might be due to the long history of arrogance, exploitation and colonialism. CAM can be used as a supplement to the public health system of developed and developing nations.

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गुणात्मक तथा मात्रात्मक, दोनों प्रकार की तकनीकों के प्रयोग से इस अध्ययन में हरियाणा राज्य के लालपुर उप–केन्द्र में घर्मुण्ढ़ी, एक परम्परागत गर्भनिरोधक विधि के अभ्यास को विश्लेषित किया गया है। इस लेख में चर्चित कुछ परमपरागत विधियों में शामिल हैः (1) मुत्रोत्सर्जन, (2) देशी–जड़ी बूटी औषधीय उपयोग, (3) मैथुन व्यवधान, तथा (4) धर्मुण्ढ़ी। समुदाय द्वारा उपयोग मे लाई गई उपरोक्त चार विधियां क्रमशः 25.2, 5.4, 30.6 तथा 5.4 प्रतिशत थी। अध्ययन से ज्ञात हुआ है कि 41 प्रतिशत महिलाओं द्वारा कभी किसी परम्परागत गर्भ–निरोधक विधि का प्रयोग किया गया था तथा 54 प्रतिशत उत्तरदाताओं को सुरक्षित अवधि के बारे में सही जानकारी नहीं थी।

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KNOWLEDGE, ATTITUDE AND PARTICIPATION OF ELECTED GRAM PANCHAYAT MEMBERS IN HEALTH AND FAMILY WELFARE PROGRAMMES IN HOOGHLY, WEST BENGAL

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ABSTRACT

This study evaluated the knowledge, attitude and participation of the gram panchayat members in health and family welfare programmes in Hooghly district of West Bengal, it was observed that 80 per cent of the respondents had the knowledge of the educational institutions and public and private health care facilities. The study further revealed that the health committee members were involved in promoting health awareness among the people about child immunization, safe drinking water, acceptance of family planning methods,government-run health care programmes and arrangements for the treatment of the rural people. The gram panchayat members also assist the health workers in launching campaign on different health related programmes such as immunization, maternal and' child health, public health and sanitation, eradication of communicable diseases, and registration of births and deaths, the study revealed. The author advocates to regularly conduct meetings of the health sub-committee to help the workers to perform their jobs more efficiently in the community.

Keywords: Gram panchayat, Health sub-committee, Child immunization, Family planning, Pulse polio,.

The involvement and participation of grassroot level people's representatives of Gram Panchayat, Panchayat Samity and Zila Parishad in rural areas is one of the important efforts to make people aware of the facilities provided under the health and family welfare programmes by the government. In the successful implementation of these programmes, the elected representatives generally have much influence on the community because they are integral part of

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the community whom people respect a lot and the community has confidence in them, The local community is involved in different government sponsored health and family welfare programmes through self-governance and voluntary organizations are also involved in this process.

The Government of West Bengal has issued an order regarding the involvement of Panchayat members for the promotion of health and family welfare services. As per the order, the Panchayat members are expected to carry out the following duties.

(i) To create awareness among local people about the main aspects of public health and help .them understand different aspects of curative and preventive cares;[1]
(ii) To carefully look after the implementation of the programmes of maternal and child health care, safe-motherhood, reducing child death rate, etc.;
(iii) To control communicable and infections diseases such as diarrhoea, malaria, HIV/AIDS and some other diseases like leprosy, blindness, etc.;
(iv) To maintain the birth and death register;
(v) To create awareness among people about small family norm and look after whether family planning facilities are available to each and everybody in the locality; and
(vi) To look after the matter of malnutrition among local children,

OBJECTIVES

The Gram Panchayat representatives function as the. change agents, assist in disseminating correct knowledge and information on basic health issues among the people and extend their support for improving the quality of their life in (he villages. Therefore, these persons should have adequate knowledge, favourable attitude and commitment towards the health and family welfare programmes so that the task of mass participation can be entrusted with the Gram Panchayat. In order to assess the knowledge and attitude of the Panchayat members towards the health and family welfare programmes, the Population Studies Unit of the Indian Statistical Institute, Kolkata, conducted a study in Hooghly district of West Bengal, India", in the year 2000-2001 with the following objectives:

i) To assess the knowledge and attitude of the elected health sub-committee members, representative of the Gram Panchayat and Panchayat Samity towards heath and family welfare programmes;

ii) To assess their knowledge-about .the role as proposed by the Government of West Bengal for government-run health and family welfare programmes; and
iii) To suggest how the elected representatives could effectively be involved in improving the quality of health care services, creating awareness among people and bringing about behavioural changes among them about small family norm.

METHODOLOGY

The study was conducted in Hooghly district of West Bengal. Out of a total of 18 blocks, 6 blocks were selected randomly and from each block, four Gram Panchayats were randomly selected for the study; Each gram Panchayat has a health sub-committee consisting of 5 to 7 members. The Panchayat Pradhan and Upa Pradhan, by virtue of their portfolios, are members of-each.sub-committee. The Converor is selected from the general members. In the selected Gram Panchayats, the Pradhan, Convenor and three other members from the list of health sub-committee members were interviewed. A total of 119 Gram Prachayat members were included as sample respondents of the study.

Also, two health assistants (one male and one female) who provide health services in the selected Gram Panchayat area were interviewed to assess the extent of co-operation extended by the Panchayat members for health and family-welfare programmes.

FIDNINGS

Background Information of Members of Health Sub-Committee at the Gram Panchayat Level

It was found that, 55 per.cent of the Gram Panchayat'members had at least high school level of education while 6 per cent of the total members were either illiterate or had up to primary level of education. Two-thirds (64%) of the female Gram Panchayat members were housewives while 22.7 per cent were working women. Almost, one-third of the male members were in agriculture and fishing followed by one-fourth in service'and 15 percent in business (Table 1).

TABLE 1

BACKGROUND INFORMATION OF MEMBERS OF HEALTH SUB-COMMITTEE AT THE GRAM PANCHAYAT LEVEL

Characteristic!	Percentage of members		
	Male	Female	Mean
Designation			
Pradhan	21.3	17.2	19.3
Convenor	18.	22.5	20.2
Member	60.7	60.3	60,5
Total	100.0	100.0	100.0
Age			
19-24	3.3	10.4	6.7
25-34	29.5	31.0	30,2
35-44	41.0 '	44,8	42.8
45 & Above	26.2	13,8	20.3
Total	100.0	100.0	100.0
Religion			
Hindu	86.9	91.4	89.1
Muslim	13.1	8.6	10.9
Total	-100.0	100.0	100.0
Caste			
Scheduled Castes	31.1	34.4	32.8
Scheduled Castes.	3.3 -	5,2	4.2
Others Backward Classes	3.3	5.2	4,2
Others	62,3	55,2	56.8
Total	100.0	100.0	100.0
Marital Status			
Never married	23,0	10.3	16.8
Married	77.0	89.7	83.2 .
Total	100.0	100.0	100.0
Education			
Illiterate . *	-	1.7	0.8
Uerate<primary complete	3,3	6.9	5.1
Primary complete	9.8	24.1	16.8
Middle school complete	21.3	24.1	22.7
Madhyamik or Hiqher Secondary	37.7	25.9	31.9
Graduate and above	27.9	17.3	22.7
Total	100.0	100.0	100.0
Work Status			
Aqriculture and Fishing	29.5	.7	16.0
Labourer	9.6	8.9.	9.2
Self-Employed	9.8	3.4	6.7
Business	14.8	1,7	8,4-
Service	24.6	20.7	22.7
Retired/Pensioner	6.6	-	3,4
Unemployed	4.9	-	2.5
Housewife	-	63.8	31.1
Total	100,0'	100.0	100.0
Number of Members	61.	58	119

Knowledge of Sub-Committee Members about Various Issues in their Gram Panchayat Area

Though 79.8 per cent of the members had knowledge about the area covered under the specified Panchayat; only a little more than half (55.5%) of them were aware of the approximate size of the population. More than 80 per cent of the members .knew the. existing public health facilities in "the area (Table 2). Most of the respondents also knew-the existence of-private health .care facilities in the areas. It was interesting to"note that 94.1 and 80.7 per cent of the total respondents .knew about the quacks practicing allopathic and homoeopathy respectively, Out of the.total of 119.respondents, 66.4 per cent of them knew about number of integrated child development scheme workers (ICDS) but only 8.4 per cent of them knew about the number of community health guides.

TABLE 2

KNOWLEDGE OF SUB-COMMITTEE MEMBERS ABOUT EDUBTION FACILITIES, HEALTH CARE FACILITIES AND SERVICE PROVIDER IN THEIR GRAM PANCHAYAT AREA

Items	Percentage of members having correct knowledge
Number of villages under the gram panchayat area	79.8
Population of the gram panchayat area	55.5
Government-run health care facilities	
a) Rural Hospital	81.5
b) Block Primary Health Centre	80.7
cj "'Primary Health Centre	-70.6
d). Sub-Centre	99.1
Private health care facilities	
a) Nursing Home.	87.4
b) Allopathic Doctor	98.3
c) Homoeopathic Doctor	93.3
Quack Doctors	
a) Practicing Allopathic	94.1
b) Practicing Homoeopathic	80.7
Number of health workers	
a) Health Assistants (female)	63.9.
b) Heath Assistants (male)	52.1
c) Community Health Guides	8.4
d) ICDS workers	66.4
Total number of respondents (119)	

Table 3 reflects the knowledge of the health sub-committee members about the health care services provided, by male and female health workers. Most of the respondents stated that the health workers provide, ante-natal care. Postnatal care, referral services, child! immunization, Vitamin. A oil to children,, family planning services, treatments malariaand leprosy, etc, lt,was also seen that the Health sub-committee members were aware of. services provided by-the female health workers than male health wbTkers.

TABLE 3

KNOWLEDGE OF THE HEALTH SUB-COMMITTEE MEMBERS ABOUT THE SERVICES RENDERED BY MALE AND FEMALE HEALTH ASSISTANTS, COMMUNITY HEALTH GUIDES'AND ICDS WORKERS

Types of services	**Percentage of members having knowledge**			
	Health Assistants		**Community Health Guides**	**ICDS Workers**
	Female	**Male**		
Ante-natal care				
a) Distribution of Iron and Folic Acid Tablets	94.1	72.3	NA	8;4
b) Tetanus Toxoid _	92.4	NA-	NA, .	NA
c) Check-up during preqnancy*	85.7	NA	NA:	NA
Assistance during delivery	41:2	NA	.NA,	NA .
Post-natal care	80.7	NA	NA	NA
Referral services	95.8	70.6	8.4	29.4
Child immunization				
a) BCG	95.8	.75.6	NA	NA
b) DPT	95.8	75.6	NA	NA
c) Polio/Pulse Polio	94.9	76.5	11.8	52.9
d) Measles	94.9"	76.5	NA	NA
Provide Vitamin A to children	94.1	74.8	NA	NA
Advice for family planning	96.9	75.6	17.6	67.2
Distribution of Condom and Oral Pills	93.3	73.1	NA	NA
Advice for Vasectomy/Tubectomy Laproscopy/IUD insertion	95.8	75.6	16.0	35.3
Treatment of Malaria patients	47.9	32.8	NA	NA
Collect blood samples of Malaria patients	51.3	42.8	NA	NA
Treatment of Leprosy patients	55.5	42.8	5.0	10.1
Education people about HIV/AIDS	46.2	36.1	9.2	26.0
Total number of respondents	**119**			

(NA : Not applicable)

The health sub-committee members were aware of the consequences of population increase on food, education, employment,-health care facilities, transportation, etc. While 97.4. per cent of them stated that population growth'decreases the per capita food in the country, only '9.5 percent of the respondents knew that the cultivable land areas is not increasing in accordance with the population rise. At the same time, 80.2 per cent of them informed that population growth would deteriorate; the housing conditions. More than 95 per cent of the members mentioned that a swelling population .would imbalance the eco-system by polluting the environment and would put a burden on the existing health care facilities to provide adequate services to them. 38.8 per cent told that it would lead to arise in traffic congestion and road accidents.

Issues	**Per cent**
Food (multiple responses)	
Quantity or per capita food grown is decreasing/ requirement of food is more than the production	97.4
Areas of cultivable land is not increasing in comparison to population increase	9.5
Residence	
Dwelling space problem/unplanned construction	80.2
Education (multiple response)	
Education facilities have not been extended to cover a large segment of the relevant age group/No. of teachers has not kept p'ace with enrolment growth	98.3
Increase in drop out from school causes increase of child labour	6.9
Problem in eradication of illiteracy	4.3
Employment (multiple response)	
Opportunities for productive employment have not kept pace with growing labour force	69.8
Increase in anti-social activities due to growing volume of unemployment	63.8
Limited agricultural resources would result In rapid addition to labour force in the non-agricultural sector-	1.7
Environment Pollution	
Rapid population growth contributing to in-equilibrium in eco-system.	96.5
Health care facilities	
Heath care services can't be provided properly due to population increase / absence of sufficient number of health care facilities in proportion to population	95.7
Transportation (multiple response)	
Less transport in comparison to population/number of roads has not been increased	81.9
As a result of high and rapidly increasing population densities, number of automobiles increased causing traffic congestion and road accidents.	38.8:
Total number of respondents	**116**
Absent members	**3**

Table 5 illustrates the perception.of the health sub-committee members regarding, the involvement of Panchayat members in public health as per the Government directives. More than two-thirds of the respondents reported promotion of health awareness among people to improve the surrounding environment for the well being of the children the other areas perceived by them include: promotion of child immunization (42.2%), safe drinking wafer (23.3%) and: motivation of people to accept family planning methods (21.5%).

TABLE 5

PERCEPTION OF HEALTH SUB-COMMITTEE MEMBERS REGARDING GOVERNMENT FOR INVOLVING PANCHAYAT MEMBERS IN THE PUBLIC HEALTH AFFAIRS'

Perception (multiple response)	**Per cent**
To promote the health awareness among people/improve the surrounding, environment for the well being of people especially for the children	6?0
Promote child immunization.	42.2
Provide safe drinking water	23.3
Look after the health condition of people.	22.4
Motivate people to accept family planning methods	21.5
Participate in the government-run health programmes and public health camps	15.5
Enquire the activities of the health centers and health workers	14.6
Arrange for treatment of the rural people.	8.7
Total number **of respondents**	**116**
Absent members	**3**

All the respondents MENTIONED, that the generaf health problem .was discussed in all the meetings held during the jast.one year while only 48.1 percent F of them mentioned that it was discussed in the last meeting. Though 88.2 per cent of the respondents said that family planning issue was discussed in the meeting held during the last .year, only 70.4 per cent reported that it was matter of discussion' in the last meeting. It was noted, that issues such as TB control programme, leprosy control programme, supply of .medicines, infrastructure, F activities of panchayat and the health activities of the health worker were rarely discussed in the meetings. Similarly, while 28,6 per cent of them .reported that maternal health was discussed in the meetings held during the last year, only 6.2 percent of the them stated-that it was discussed in the last meeting (Table 6). All the members reported that all the health sub-committee members had attended the meetings held during the last year and only 91 members out of the total of 119 attended the last meeting.

TABLE 6

SUBJECTS DISCUSSED IN THE HEALTH SUB-COMMITTEE MEETINGS IN THE LAST ONE YEAR

Subjects discussed (multiple response)	**Per cent reported the issues discussed**	
	Last Meeting	**Meetings held in last one year**
General health problem- ,	48.1	100.0
Immunization of children	70.'4	88.2
Family Planning	6,2	17.6
Maternal health	6.2	28.6
T.B. control programme	1.2	.3.4
Leprosy control programme	1.2	5.9
Supply of medicine	1.2	3.4
Infrastructure	1.2	-
Activities of Panchayat	1.2	-
Activities of health worker	1.2	-
Others	7:4	10.1
Total No. of Respondents	**81**	**119**

Table 7 shows that 46.1 per cent and 47.1 per cent of the respondents stated that decision was taken with regard to public health issues in the last meeting and in the meetings held during the last year respectively; With regard to immunization of children, 47.4 per cent of the subjects informed that decision was taken in the last meeting whereas 52.4 per cent of them "told that decisions were taken in the meetings held during the last year. On the subject of co-operation with the health workers and ICDS workers'in campaigning and arranging camps and meetings, decisions were taken in the last meeting for general health problems (25.6%) and immunization of children (54.4%).

The study found that the health'subcommittee members reported to have been involved in the activities of primary health centers (PHCs) and sub-centres in their respective areas. Most of the members (115 out of 119) were involved in the activities of sub-centres (Table 8).'About 45.8-per cent of .the members were mainly involved in the activities of the health workers, and 44.3 per cent of them were involved in the Pulse Polio Immunization and national health Programmes. Data presented in Table 8 further reveal that 21.7 per cent of the respondents each were Involved in the activities such as looking -after the services of the doctors' and 'supply of adequate medicines' for the PHCs.

TABLE 7

DECISIONS TAKEN IN THE HEALTH SUB-COMMITTEE MEETINGS IN THE, LAST ONE YEAR

Decision Taken (multiple responses)	Percentage of respondents							
	General health problem		Immunization of children		Family planning		Maternal health	
	L.M.	L.Y.M:	L.M	L.Y.M.	L.M	L.Y.M.	L.M	L.Y.M
Extended co-operation with the health workers . and ICDS workers in campaigning" and arranqinq meeting and camps	25.6	33.6	.54.4	49.5	-	80.9;	-	5.9
Inspect/check-up of xhild immunization/ante-natal- care/ follow-up ,of refusal cases of Pulse Polio and family planning	-	3.6	47.4	52.4	-	33.3	-	. 50.0
Identification "of'cases/ action taken	*20:5*	27.8	14.0	14.3		19.0	-	52.9'
Improve ' the public he al th/sa nitation/d ri n ki ng water	.46.1	47.1	-	0.9	-	4.8	-	
Number of issues discussed	39	140	57	105	-	21	-	34

(L.M.- Last meeting; L.Y.M.- Last year's meeting)

TABLE 8

PRECENTAGE OF HEALTH SUB-COMMITTEE MEMBERS PARTICIPATION IN THE ACTIVITIES OF PHCs AND SCs IN THEIR LOCALITY

Percentage of Panchayat Members involved In **different activities of heath centres**			
PHCs		**SCs**	
Activities	**%**	**Activities**	**%**
Arrange to refer patients to the heath centre	64.0	Enquire the activities of health workers and discuss in the meeting	45.8
		Involved in the Pulse Polio and National Health Programme	44.3
Look after other problems/cooperation with the health workers	30.4	Distribution of medicine (door to door)	19.6
		Arrange to refer ill patients to the sub centre	17.4
Look after the services of doctors	21.7	Campaigning for different heath Programmes	14.8
Whether adequale medicines are provided	21.7	Involved in the family planning programmes	4.7
Total Number of respondents	**25**	**Total number of respondents**	**115**

Data in Table 9 show that almost three-fourth (72.6%) of the respondents stated that creating awareness among the people about family planning is one of their responsibilities followed by maternal health and child health (48.7%) each. While 60.2 per cent,of them told that organizing campaign for family planning is one of their duties, only 8.8 per'' cent of them each informed that launching campaign for eradication of 'diarrhoea' and leprosy[1] is one of their duties. The other duties mentioned.by them include T.B. control, arrangement and looking after different immunization and preventive cares; including diarrhoea are their duties. 60.2 per cent of the respondents told that they are supposed to participate in campaigning and extending cooperation for HIV/AIDS programme and 22.1 per cent stated that campaigning for family planning programme is one of their responsibilities. J

Some health sub-committee members registered complaints about health care service and remedial measures. The .health sub-committee members registered 12.6 to 26 per cent of complaints on different aspects of health care service. It was further noticed that 48.3 per cent of complaints were in relation to negligence of duties by the staff while it was 93.3 per cent in regard to deficiency in acquisition of medicines. 51.7 per cent of cases of negligence complaints by the staff were brought to the notice of the.concerned staff members. 86.2 per cent of the respondents informed that appropriate action was taken against their complaints. Similarly, with regard to maintenance of infrastructure, 87.1 per cent of the members reported to have complained to the higher authorities and in 90.3 per cent of the cases; action was taken (Table 10).

TABLE 9

PERCENTAGE DISTRIBUTION OF RESPONSIBLITIES OF THE HEALTH SUB-COMMITTEE MEMBERS REGARDING VARIOUS HEALTH AND FAMILY WELFARE PROGRAMMES

Responsibilities	**Programmes**								
	T.B.	**Malaria**	**Blindness**	**Diarrtioea**	**Leprosy**	**HIV / AIDS**	**Family Planning**	**Maternal Health**	**Child Health**
Creating awareness among people	5.7	0.7	21.2	37.2	15.0	17.7	72.6	48.7	48.7
Help poor patients in treatment ,	11.5	2.6	12.4	7.1	2.6	0.9	4.4	6.2	2.6
Referral services	86.7	64.6	39.8	41.6	50.4	11.5	21.2	15.6	8.0
Identification of cases	65.5	41.6	15.0	32.7	43.4	23.9	1.8	11.5	-
Campaigning/ -co-operaton	3.5	10.6	15.9	8.8	8.8	22.1	60.2	25.7	26.5
Arrange and taking care of different immunization and preventive cares	3.5	7:1	5.3	3.5	2.6	1-8	4.4	40.7	64.6
Spray Bleaching powder/distribute ORS and Halogen tablets.	-	6.2	-	57.5	-	-	-	-	-
Total number of respondents	**113**								
Absent	**6**								

TABLE 10

PERCENTAGE OF HEALTH SUB-COMMITTEE MEMBERS WHO MADE COMPLAINTS ABOUT HEALTH CARE SERVICES REMEDIAL MEASURES AND ACTION TAKEN THEREAFTER

Subject	Made any complaint	Per cent referred to higher authority	Per cent of the complaints reported to concerned workers	Per cent of members reported about action taken against complaints
Negligence of the workers towards duties	24.4	48.3	51.7	86.2
Supply of inadequate quantity of medicineto patients	21.0	64.0	36.0	8.0
Deficiency or insufficiency in the accessories of treatment	16.0	78.9	21.1	68.4
Maintenance of infrastructure	26.0	87.1	12.9	90.3
Deficiency in acquisition of medicine	12.6	93.3	6.7	86.7
Total number of respondents	**119**			

More than four-fifth (82.6%) of the respondents had the opinion that local people's representative's co-operation and co-ordination-are helpful for the health workers and 76.1 per cent of them opined that panchayat-members should take part in campaigning, motivation and discussion in the meeting on Pulse Polio programmes (Table11).

TABLE 11

HEALTH WORKERS OPINING ON THE ROLE OF PANCHAYAT MENBERS IN IMPROVING HEALTH CARE AND FAMILY WELFARE SERVICES

Opinion (multiple response)	%
Being public representatives of local people, panchayat members co-operation and co-ordination are helpful for the work of health workers	82.6
Effective campaigning/more involvement /motivation for the Pulse Polio programmes	76.1
Supply of temporary contraceptives/motivation for family planning/compulsory family planning after two children/increase the number of legation camps	32.6
Widespread campaigning in creating awareness for infectious diseases like diarrhea, Leprosy, Malaria and epidemic in the post flood situations	23.9
Solve the problem of safe drinking water	21.7
Eliminate the crisis of doctors and health workers / arranged to provide full time doctors and adequate medicines	19.6
Look after the sanitation system/eradication of environment pollution	13.0
Total number of respondents	**46**

CONCLUSION

Though Hooghly is a highly developed district in West Bengal with high iiteracy rate and per capita income. The performance of panchayat members seems to be not up to the level. Therefore, appropriate steps may be taken to orient them to various health activities

Lkkjk'k

इस अध्ययन में जिला हुगली, पश्चिम बंगाल राज्य में स्वास्थ्य परिवार कल्याण कार्यक्रमों में चयनित ग्राम पंचायत सदस्यों के ज्ञान, अवधारणा तथा प्रतिभागिता का मूल्यांकन किया गया है। यह देखा गया था कि 80 प्रतिशत उत्तरदाताओं को शैक्षिक संस्थानों तथा सार्वजनिक एवं प्राइवेट स्वास्थ्य परिचर्या सुविधा स्थलों की जानकारी थी। अध्ययन से यह भी ज्ञात हुआ है कि समिति के सदस्य शिशु प्रतिरक्षण, सुरक्षित पेयजल, परिवार नियोजन विधियों की स्वीकार्यता, सरकार द्वारा चलाए जा रहे स्वास्थ्य परिचर्या कार्यक्रमों जैसे प्रतिरक्षण, मातृ एवं शिशु स्वास्थ्य, लोक स्वास्थ्य एवं स्वच्छता, संक्रामक रोगों के उन्मूलन तथा जन्म–मृत्यु का पंजीकरण कार्यों पर अभियान चलाने में स्वास्थ्य कार्यकर्ताओं की सहायता भी करते थे। समुदाय में स्वास्थ्य कार्यकताओं को अपने कार्यों का अधिक प्रभावीढंग से निष्पादन करने में सहायता करने के लिए लेखक द्वारा स्वास्थ्य उप–समिति की नियमित रूप से बैठकें आयोजित करने की सिफारिश की गई है।