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ANIMAL BITE MANAGEMENT: AWARENESS AND PRACTICES IN THE RURAL AREA

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ABSTRACT

The animal bite management in terms of its awareness and practices followed by (the *people in the rural area of Bhadson, District Patiala, Punjab is analysed in this paper. The pre and post-exposure vaccinations and laboratory diagnosis of rabies are also discussed in this paper. The reasons* for *not having the rabies vaccinations are also suggested. The study has revealed that the sample respondents of the study area grossly lack in health education regarding the management of animal bite.*

Rabies is a zoonatic, 100 per cent fatal disease. Rabid animal bite is the most common mode of transmission of rabies. Dog is most commonly (99%) responsible animal in India[1]. WHO estimates that 700,000 to 1,000,000 people receive antirabic treatment annually. In India about 300,000 people receive antirabic treatment for rabid or suspected rabid animal (usually dog) bites annually[3]. Human deaths due to rabies in India are estimated to be 25,000 per year[4]. Post-exposure treatment consists of local treatment of wound and prophylactic post-exposure antirabic vaccination[2]. Wound toilet with soap and water is carried out in 15.9 per cent cases of dog bite[5]. According to Brij Kishore and others 92 per cent applied chillies locally on wounds[8]. People do take treatment from witch doctors (Syanas). It may be in the form of a bread-piece marked with black lines called Arabic Kalma[7].

MATERIALS AND METHOD

The study was carried out in the rural area of Primary Health Centre, Bhadson, District Patiala, and Punjab. The sample villages for this study were selected by random sample technique employing the lottery method. Six villages thus selected were surveyed taking one village at a time. Thus, one thousand families from these six villages were surveyed by interview technique using a pretested proforma. The heads of the families were interviewed personally by home visits taking history of past 10 years (1981-1990).

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OBJECTIVES

The study attempts to (1) know the different management practices followed in case of animal (dog) bite; and (ii) analyse the awareness of sample respondents regarding antirabic vaccination.

RESULTS

The study was carried out in the rural area of PHC Bhadson, District Patiala, and Punjab. The total population studied was 6780 in 1000 families surveyed. In att, there were 310 human exposures to animal bites during the decade (1981-90).

None of the families surveyed knew about pre-exposure vaccination. (Table 1). On the contrary majority (99.9%) of families were aware of post exposure vaccination. However, none had the knowledge of laboratory diagnosis of rabies.

TABLE 1

AWARENESS ABOUT ANTIRABIC VACCINATION

Antirabic Vaccination	Families aware	Families not aware
Pre-exposure	-	1000 (100%)
Post-exposure	999 (99.9%)	1 (0.1%)

Table 2 shows that wound toilet with soap and water was undertaken in only 13(4.19%) cases of animal bite. In majority (83.55%) the wound toilet was not carried out while in (12.26%) it was not required because these were the cases who consumed milk of suspected rabid animals.

Out of 54.2 per cent cases of bites (Table 3) who took local domestic treatment, 45.48 per cent applied both red chillies and surma, 4.84 per cent applied red chillies only and 2.58 per cent applied surma only on the wound. Other local applications included haldi and surma, haldi and sarson oil. However, in 33.54 per cent cases, it was not undertaken while it was not reuired in case of

12.26 per cent In one case, a piece of burning coal was placed on the wound before applying chillies and surma with the belief that hair would get burnt and hence the poison will not spread further. All received local domestic treatment within 24 hours.

TABLE 2

WOUND TOILET AFTER ANIMAL BITE

Wound Toilet Human Exposures	Number of	Percentage
Soap and water	13	4.19
Water only	Nil	0.00
Not done	259	83.55
Not required	38	12.26
Total	310	100.00

Though 59.36 per cent persons bitten by animals took antirabic vaccination (Table 4) a good number (40.64%) did not have it. Out of those who undertook antirabic vaccination 27.74 per cent started within 24 hours whereas 31.62 per cent began after 24 hours. Only BPL inactivated nervous tissue antirabic vaccine was used. Nobody had taken purified chick embryo vaccine or human diploid cell vaccine. One person who did not take antirabic vaccination after being bitten by rabid dog died of hydrophobia. The various reasons quoted for not having antirabic vaccination were: dog not rabid, dog observed for 10 days, got hair removed from the bite wound from some witch doctor (Syana), had medicine from some practitioner, poverty, distance, etc.

A total of 27 cases of animal bite had treatment other than antirabic vaccination. Out of these 19 (70.37%) got hair removed from the bite wound from some witch doctors (Syanas), 6(22.22%) took some kind of medicine from a practitioner at Patiala and 2(7.41 %) had these both kinds of treatments. In the first kind of treatment the healer applies a wet-soil tablet on wound and claims that he has removed the hair of the rabid dog from the wound and hence the patient will not develop rabies. In the second treatment medicine is given to be taken orally

With a large amount of diluted milk (kachchi lassi). Another practice in the area is that people take sanctified water from a person at Bhunorehri village of Patiala District

TABLE 3

LOCAL DOMESTIC TREATMENTS FOR ANIMAL BITES

S.No.	Type of Treatment	Number of Exposures	Percentage
1.	Red chillies and surma	141	45.4
2.	Red chillies	15	4.84
3.	Surma	8	2.58
4.	Haldi and surma	2	0.64
5.	Haldi and sarson oil	1	0.33
6.	Haldi, ghee, surma and red chillies	1	0.33, 54.20
7.	No	104	33.54
8.	Not required	38	12.26, 45.80
Total		310	100.00

TABLE 4

POST EXPOSURE ANTIRABIC VACCINATION

Antirabic Vaccination	Number of Exposures	Percentage
Taken	184	59.36
Not taken	126	40.64
Total	310	100.00

TABLE 5

TYPES OF TREATMENT OTHER THAN ANTIRABIC VACCINATION

S. No.	Type of Treatment	Number of Exposures	Percentage
1.	Got hair removed from the bite wound from Witch doctor (Syana)	19	70.37
2.	Medicine from some practitioner at Patiala	6	22.22
3.	Both 1 & 2	2	7.41
Total		27	100.00

DISCUSSION

People of the rural area of Primary Health Centre Bhadson, District Patiala, Punjab, are grossly unaware of pre-expo sure vaccination and laboratory diagnosis of rabies. However, they are knowledgeable about the post-exposure vaccination. Only in 4.19 per cent cases wound toilet was undertaken. It has been reported that wound toilet was carried out in 15.9 per cent cases of dog bite[5]. This shows that rural people don't recognize the importance of wound toilet in case of animal bite. Therefore, health education of the people should be carried out to make them aware of the necessity of wound toilet.

The different types of local domestic treatments undertaken (54. 2%) were application of red chillies, surma, haldi, sarson oil singly or in combination[6, 7]. This is not a good practice and people need health education to persuade them to shun such practices.

About 40.64 per cent bitten people did not take antirabic treatment. Also majority (31.62%) started late post-exposure antirabic treatment[5]. There is disproportion in the awareness (99.9%) and actual practice (59.36%) of post-exposure vaccination. This shows how casually rural people take the animal bite. So, much needs to be done to educate them about the necessity of early start of antirabic vaccination in order to avoid the dangers of animal bite.

The main reasons for not having antirabic vaccination were dog not rabid, dog observed for 10 days and treatment from Syanas. Study shows that 27 cases had treatment from Syanas in the form of hair removal from bite wound (19), oral medicine (6) and both these types of treatment (2). Another practice in the area is drinking sanctified water. The belief is that after such treatment there is no danger of rabies. People resort to such practices out of fear of the disease and at the same time because of their ignorance and lack of knowledge. Local availability and single visit to such practitioners might be the other reasons for people indulging in such practices. So, to have a check on such practices people should be educated and vaccine might be made available as close to people as possible. Research should be carried out to develop a cheap vaccine with minimum number of doses. Indulgence of people in such practices has also been reported[7].

CONCLUSION AND RECOMMENDATION

The study shows that people are well aware of post-exposure vaccination in cases of animal bite. However, there is gross difference between awareness and practice of post-exposure vaccination. It is also seen that people don't widely practice wound toilet which is otherwise so important in removing the virus from the wound site. People indulge ignorantly and unnecessarily in applying one or the other thing like red chillies, surma, etc. on the wound site which is likely to cause damage instead of safety to the patient

All this shows that the people in the rural area grossly lack in health education regarding management of animal bite. It is therefore recommended that intensive health education of the rural people who are more intimately related to animals should be undertaken to educate them about various aspects of animal bite especially its dangers and management They also need awareness regarding dangers of harmful practices they undertake in cases of animal bite like application of red chillies etc. on wound and taking treatment from Syanas (witch doctors) in order to shun such practices.

Research should be continued to develop a cheaper vaccine with lesser number of doses and also vaccine should be made available in a centre/hospital as close to the people as possible.

सारांश

इस लेख में पंजाब के पटियाला जिले के भादसों के क्षेत्र के ग्रामीणों में पशु–दंश उपचार करने में उनकी जागरूकता तथा आदतों का विश्लेषण किया गया है। लेख में रैबीज (अलर्क रोग) संबंधी टीका लगने से पहले तथा बाद में लक्षणों और इसकी प्रयोगशालीय जांच के बारे में भी चर्चा की गई है। रैबीज के टीके न लगवाने संबंधी कारणों के बारे में भी चर्चा की गई है। अध्ययन से पता चलता है कि अध्ययन–क्षेत्र के उत्तरदाताओं में पशु–दंश उपचार के बारे में स्वास्थ्य शिक्षा का बहुत अभाव था।

REFERENCES

1. WHO Tech. Rep. Series(Expert Committee on Rabies) 7th Report, 709:21,(1984)
2. WHO Tech. Rep. Series; 1:321;1966
3. RAICHOUDHARI, A.N AND THOMAS, A.K. Principels and Practice of Anti-Rabic Treatment and control of Rabies 1979.
4. DEBBIE, J.B. World Health Forum, 9(4):536:54 and 621, 1988.
5. FULARE, M.B. Epidemiological study of Rabies, Thesis submitted to Nagpur University,1975.
6. BRIJ KISHORE, BANERJEE, S.C, MAHESWARI B.B., GUPTAR R.D. AND GUPTA, M.C. Ind. J. of Prev. and soc. Med., 4:106, 1973.
7. SURI, S.P. AND CHUGH, M.L Ind J. of Med. Asso., 65, 1975.

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ACCEPTANCE ON SPACING METHODS OF CONTRACEPTION IN MUNICIPAL CORPORATION OF DELHI

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ABSTRACT

The factors *influencing the acceptance of spacing methods of contraceptions are presented in this paper. The study was based on the Government of India's prescribed norms and guidelines for the delivery of the spacing methods of contrceptions. The study had revealed that although* the *contraceptives were made available with adequate infrastructure and knowledgeable service providers, yet the acceptance of terminal method was much more popular than the spacing methods. To popularize the spacing methods, the authors suggest to bring about changes in the attitude of service providers as well as to strengthen IEC activities followed by proper counseling and follow-up practices.*

India is the second most populous country in the world. It is one of the few developing countries recognized the relationship between population growth and economic development and launched an official family planning programme from very first five year plan. Over the years, the National Family Planning Programme was target oriented, laying more emphasis on sterilization as compared to spacing methods of contraception. Only during the recent years, mainly from seventh five year plan onwards, promotion of spacing methods of contraception was taken up but its impact is not so effective. During the year 1992-93, out of 43.4 per cent couples protected, 30.2 per cent adopted terminal methods with 2 or more children and the rest only 13.2 per cent accepted spacing methods[6].

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The Second All-India Family Planning Survey conducted by Khan in 1983[4]showed that 95 per cent of the couple were aware of sterilization, both tubectomy and vasectomy while 36 to 54 per cent of the couple were aware of spacing methods. The same study had also showed that there exists a big gap between knowledge, attitude and practices of contraception amongst the couple. Evaluation of contraceptives use done by Planning Commission in 1986[7], showed that a gap of 2 to 8 years or even more exist between awareness and adoption in 76.3 percent of acceptors of various family planning methods. The Ail-India Survey of Family Planning Services conducted by Khan and Prasad in 1988 5 had shown that35 per cent of the eligible couples were non-acceptors, although majority of them had awareness. This according to them possibly due to lack of permeation of knowledge of spacing methods of contraception's and undue emphasis on the sterilization. The present scenario is more or less same all over the country with marginal rural and urban variation. Delhi, the metropolitan city in the National Capital of India, has multiple health care organizations providing health and family welfare services. It had an effective couple protection rate of 43.1 per cent during the year 1992-93 as compared to national figure of 43.4 per cent, with 21.3per cent of the acceptors of spacing methods*. Therefore, the present study was an effort to identify some of the important factors which influence the acceptance of spacing methods of contraception in Delhi.

The objective of the study was to correlate the service delivery system of various spacing methods of contraception with the factors that influence the acceptance, continued use and the problems encountered in the promotion of the same in the metropolis of Delhi.

METHODOLOGY

The study was descriptive in nature, conducted at four selected centers of Municipal Corporation of Delhi, namely (i) Mehrauli Maternity, Child and Family Welfare Centre, (ii) Hastsal Health Post (iii) Lahori Gate Maternity, Child and Family Welfare Centre, and (iv) Geeta Colony Maternity Home and Family Welfare Centre.

The centers' were selected by multistage random sampling technique in such a way to represent rural, slum and urban population of Delhi, out of the 12 zones grouped in four areas namely South, West, North and East (Table 1). The methodology of the study was mainly based on the interview of the acceptors and non-acceptors of different spacing methods of contraception in order to find out their perception and attitude as also the degree of satisfaction with the services; and the service providers namely medical officers and paramedical staff, in order to elicit their knowledge, attitude and practices, using semi-structured questionnaires. The observation technique provided was adopted to ascertain the

type and quality of the services particularly towards counseling, pre-operation screening, follow-up and referral system. The study sample consisted of equal number of acceptors and non-acceptors (100 each) of various spacing methods of contraception and all the service providers available at the above four selected centres. Data were collected during the period from October 1993-April 1994.

TABLE 1

FAMILY WELFARE UNITS UNDER MCD WITH CENTRES SELECTED

Group	Name of MCD Zone	Number of Units				Centre Chosen
		MC&FW	*M/H*	PPU**	HP***	
WEST	West	13	2	1	4	Hastsal HP
	Najafgarh	8+1*	1	NIL	Nil	
	Karol Bagh	8	2	Nil	Nil	
SOUTH	South	10+2*	Nil	1	2	Mehrauli MC&FW
	New Delhi	7	2	1	Nil	
	Sadar Pahar Ganj	5	2	Nil	Nil	
NORTH	City	6	Nil	Nil	1	Lahori Gate
	Civil Lines	13	5	Nil	Nil	MC&FW
	Rohinl	12	2	Nil	1	
EAST	Shahadara - (S)	10	3	Nil	6	Geeta
	Shahadara - (N)	11	1	NIL	1	Colony M/H&FW
	Narela	1+2	1	Nil	Nil	

Note: 1. *Means rural centers.
2. **These are *C' typo PP Units. Apart from this there are four 'A' type PP units in four major hospitals of MCD,
3. ***Means covering mainly slum population.

OBSERVATIONS AND DISCUSSIONS

1. Infrastructure and Facilities

All the four centers were located in the buildings of Municipal Corporation of Delhi (MCD) and were within the walking distance, making it convenient for the beneficiaries to have various services. The drugs, vaccines and contraceptives were available in sufficient quantity in all the centers. There was no vehicle in most of the centers except at Mehrauli and that also was non-functional most of the times. This hinders to conduct immunization, health clinic, follow-up visits, etc. at far off areas.

2. Type and Quality of Services Provided

All the centers were providing curative services along with MCH and family planning services at their static clinic, whereas domiciliary deliveries were conducted only at Mehrauli and Lahori Gate centers, and the institutional deliveries were conducted only at Geeta Colony maternity home. The delivery of family planning services was the important activity at all the four centers, which were provided daily. Although, all the four centers had maintained eligible couple register, but updating was found only at Hastsal and Lahori Gate centers. The eligible couples were motivated both for spacing and terminal methods depending upon the parity. But the cafeteria approach was not followed in any of the centers and most of the time, the beneficiaries were advised the contraception according to the motivator's discretion. The information about oral pill was hardly given in any of the centers. Proper facility for IUD insertion was present in all the centers, which the service providers were utilizing. None of the centers had MTP and sterilization facilities. The condom and oral pill were provided only on demand from the acceptors. There was neither any proper motivation or counseling about oral pill acceptors nor proper clinical assessment before starting the pill. This probably is an important reason for poor acceptance of oral pill. Motivation and counseling was mostly targeted towards IUD and female sterilization by most of the service providers in all the four centers.

In regard to referral services, none of the centers had any attached hospital, the acceptors of sterilization, MTP or with post insertion IUD complications were referred to the nearby hospital or hospital of the acceptors choice, where either they go alone or sometimes the workers accompany them. However, none of the cases got any special preference and no feedback was received by the referring centre.

3. IEC Activity

Interpersonal communication and group talks were mostly used for motivation of eligible couples. None of the centers used any mass media approach i.e. audio-visual aids, pamphlets, drama, etc. for motivating eligible couples since they had neither any material nor resources. This corroborates with the findings of the study conducted by Mani in 1985* at Mehrauli Block of Delhi, which showed that most of the villagers were motivated through interpersonal communication. The role of mass media was very limited.

4. Knowledge and Practices of Service Providers

The staff in most of the centers were according to the sanctioned strength except in one at Geeta Colony where there was shortage of doctors (vacant posts were four out of five) and nurses (three out of 15). This had caused burden on the only one doctor compromising the quality of services. The knowledge regarding delay the first child and space the second was found to be present in all the medical officers, more than half of the nursing staff and half of para-medical staff, but it was observed that very few were advising contraceptives to the newly married and couples with one child. Though most of the health providers had knowledge regarding cafeteria approach but in practice they were not using it (Table 2). Ail the medical officers, nursing staff and most of the para-medical workers had knowledge regarding screening before IUCD insertion and oral pill administration (Table 3). However, in practice the screening was done for almost all the IUCD acceptors before insertion but was rarely done before starting oral pills. Planning Commission in 19B6[7] reported that a large percentage of couples were not well informed about the spacing methods mainly due to lack of interest on the part of the service providers to promote the same. Similar was the observation of Pratinidhi et al. in their study conducted at Maharashtra State in 1991[8].

5. Profile of the Acceptors and Non-Acceptors

a. *Age.* Most of the acceptors of spacing methods were either in the age group of 20 to 24 years (41%) or 25 to 29 years (39%) and the non-acceptors in this age group were 46 per cent and 35 per cent respectively. (Table 4 and 5). The studies conducted by Khan and Prasad in 1983[4] and from State Family Welfare Bureau, Himachal Pradesh in 1987[2] showed low incidence of acceptance of spacing methods in younger age group couples.

TABLE 2

DETAILS OF KNOWLEDGE AND ATTITUDE OF HEALTH PERSONNEL REGARDING CONTRACEPTIVE METHODS.

	Positive Responses				
	MO n=6	LHV n=14	ANM n-20	E.E n-2	FWWs n-2
A. Indicators of Knowledge					
1. What Is cafeteria approach	6 (100)	12 (86.4)	10 (50)	2 (100)	0
2. Counseling before administration	6 (100)	12 (86.4)	16 (60)	2 (100)	1 (50)
3. Counseling after administration	6 (100)	12 (86.4)	16 (80)	2 (100)	1 (50)
4. Regarding adoption of spacing method of F.P. by newly married	6 (100)	10 (71.4)	10 (50)	2 (100)	0 (00)
5. Regarding advising spacing method of F.P. to primi gravida	6 (100)	12 (86.4)	14 (70)	1 (50)	2 (50)
6. Regarding adoption of spacing method of F.P. along with MTP	6 (100)	14 (100)	2 (100)	2 (100)	2 (100)
B. Indicators of Attitude					
1. Should the cafeteria approach be used	5 (83.3)	10 (71.4)	8 (40)	1 (50)	0
2. Regarding adoption of F.P. by newly married	4 (66.6)	7 (50)	8 (40)	2 (100)	0 (00)
3. Regarding subsequent adoption of F.P. to primi gravida	5 (83.3)	10 (71.4)	8 (40)	2 (100)	0 (0)
4. Adoption of F.P. along with MTP	6 (100)	14 (100)	20 (100)	2 (100)	2 (100)

Note: Figures In parentheses are the column percentages.

TABLE 3

DETAILS OF KNOWLEDGE OF HEALTH PERSONNEL REGARDING IUCD, ORAL PILLS AND CONDOMS AS PER GOI GUIDELINES

Indicators of Knowledge	Positive Knowledge Amongst				
	M.O. n=6	LHV n=14	ANM n=20	EE n=2	FWW n=2
IUCD					
1. Time of insertion	6 100	14 100	20 200	2 100	2 100
2. Need for screening before insertion	6 100	14 100	17 85	2 100	0
3. Regular follow-up after insertion (every 3-6 months)	6 100	12 86.4	15 60	2 100	0
4. Common complications due to IUCD	6 100	14 100	20 100	2 100	2 100
5. Management of minor complications	6 100	14 100	18 90	NA	NA
6. Failure rate					
Oral Pills					
1. Check list	6 100	14 100	18 90	2 100	1 50
2. When to start	6 100	12 86.4	10 50	1 50	0
3. Screening before starting	6 100	14 100	20 100	2 100	2 100
4. Regular follow-up (every 3-6 months)	6 100	12 86.4	12 60	2 100	0
5. Complications	6 100	12 86.4	10 50	2 100	0
6. Management of complications	6 100	14 100	18 00	2 100	1 50
7. Failure rate	6 100	16 80	16 80	NA 2	NA
Condom		14 70	14 70	100	0
1. To use condom for each act of coitus	6 100	14 100	20 100	2 100	21 00
2. How to use (after erection)	6 100	14 100	18 90	2 100	2100
3. Storage	6 100	8 57.1	8 40	2 100	2100
4. Disposal	6 100	14 100	20 100	2 100	2100
5. Failure Rate (20-40%)	5 83.3	4 38.5	2 10	1 50	0

Note: Bold figures are the column percentages.

TABLE 4

PERCENTAGE DISTRIBUTION OF ACCEPTORS OF SPACING METHODS ACCORDING AGE GROUPS

Centre Name	F.P. Method	Age Group (in years)				
		<20	20-24	25-29	30-35	>35
Hastsal	IUD	1	7	2	-	-
	OPU	(10)	(70)	(20)	-	1
			5	4		(10)
			(50)	(40)		
	CCU		4	1	-	-
			(80)	(10)		
	Total	1	16	7	.	1
		(4)	(64)	(28)		(4)
Mehrauli	IUD		3	3 (30)	4 (40)	-
			(30)			
	OPU	1	3	4	2	-
		(10)	(30)	(40)	(20)	
	CCU		3	1	-	1
			(30)	(20)		(20)
	Total	1	9	6	6	1
		(4)	(36)	(32)	(24)	(4)
Lahori Gate	IUD		5	4	1 (10)	0
			(50)	(40)		
	OPU		4	3	-	3
			(40)	(30)		(30)
	CCU		1	4	-	-
			(20)	(80)		
	Total		10	11	1	3
			(40)	(44)	(4)	(12)
Geeta Colony	IUD		3	4	2	1
			(30)	(40)	(20)	(10)
	OPU		2 (20)	6	-	2
				(60)		(20)
	CCU		1	3 (30)		1
			(10)			(10)
	Total		6	13	2	4
			(24)	(52)	(8)	(16)
All Centres	TOTAL	2	41	39	9	9
		(2)	(41)	(39)	(9)	0)

Note: Figures In parentheses give row-wise percentages.

TABLE 5

PERCENTAGE OF NON-ACCEPTORS BY AGE GROUP-WISE

Centre Name	Age Group On years)				
	<20	20-24	25-29	30-34	>35
Hastsal	1	13	10	1	-
	(14)	(52)	(40)	(4)	-
Mehrauli	-	13	9	2	1
		(52)	(36)	(8)	(4)
LahorlGate	2	8	8	3	4
	(8)	(32)	(32)	(12)	(16)
Geeta Colony	8	12	3	1	1
	(32)	(48)	(12)	(4)	(4)
Total	11	46	30	7	6
	(11)	(46)	(30)	(7)	(6)

Note: Figures in parentheses give row-wise percentages.

b. *Parity.* As regards parity, 52 per cent of the acceptors had two children, 23 per cent had one child and 25 per cent had three or more children, but none of the acceptors had adopted any spacing method with no child. In case of non-acceptors, the majority had either one or more children, only 2 per cent of them did not have any child. The studies conducted by Bhatnagar during 1988[1] in the urban slums of Maharastra and Uttar Pradesh had shown that most of the acceptors of spacing method of contraception were having more than two children. Similar was the observation In the study conducted by State Family Welfare Bureau at Himachal Pradesh State in 1987[2] where the acceptors were having more than three children.

c. *Acceptors of Various Spacing Methods:* Around half of the acceptors adopted contraception within three months after last delivery or abortion. Mostly, acceptors (68%) were motivated by health staff while very few (2%) got motivated through mass media (Table 6). Similar was the observation by Man in 1985 in his study at Mehrauli Block in Delhi[9]. More than half of the oral pill acceptors were taking oral pills from the centers while 50 per cent of the condom users were buying condoms from the markets because of the poor quality of condoms supplied at the centers. Almost all the acceptors (100% oral pill and 90% condom users) were satisfied by the method they were using, whereas satisfaction rate among IUCD acceptors was 85 per cent this was probably due to improper selection of cases (Table 7).

TABLE 6

RESPONSES OF THE ACCEPTORS OF SPACING METHODS REGARDING VARIOUS FACTORS INFLUENCING THEIR ACCEPTANCE

Different Factors	No. of Positive Response of the
Using Contraception In Past - Total - Cu T users - Oral pills users - Condom users	 60%* 38% 10% 18%
When Started Using - Within 40 days of delivery or abortion - 40 days and < 3 months - > 3 months	 12% 36% 50%
Motivation by - Health staff - Friends - Husband - Mass Media - Self	 68% 2% 16% 2% 12%
Influence of Mother-in-Law or any Elders at Home - Encourage and support - Discourage	 45% 9%
Counseling - Pre-administration - Post-administration	60% 60%

*Some of the acceptors had used more than one method in the past

TABLE 7

RESPONSES OF THE ACCEPTORS OF VARIOUS CONTRACEPTIVE METHODS

Responses	IUCD Users n=40	OPUs n=40	ccu n=20
Using for How Long			
- <3 months	6(15)	12(30)	8(30)
- 3-6 months	7 (17.5)	10(25)	2(10)
- 6-12 months	18(45)	14(35)	9(45)
- 12 months	9(22.5)	4(10)	3(15)
Motivation			
- By M.O./Health Staff	33 (82.5)	29(72.5)	11(55)
- Friends/Husband/Self	7 (17.5)	11 (27.5)	9(45)
Insertion/Supply at			
- Centre	35(87.5)	23(57.5)	10(50)
-Outside	5(12.5)	9(22.5)	10(50)
-Both	NA.	8(20)	
Screening Before Administering	35 (87.5)	15 (37.5)	Nil
Regularly Using	40(100)	39 (97.5)	18(90)
Inserted/Started by			
- Doctor	39 (97.5)	36(90)	5
- Health staff	1(2.5)	4(10)	15
Follow-up Advice	35 (87.5)	20(50)	Nil
Advice About Complications/Warning Signs	35 (87.5)	12(30)	Nil
Follow-up Check up	31 (77.5)	3(7.5)	Nil
Home visits by Health Staff	22(55)	6(15)	9(45)
During Follow-up			
- Both Counseling and treatment	28(70)	10(25)	
- Counselling	4(10)	4(10)	2
- Treatment	8(20)	26(65)	Nil
Pregnancy Due to Failure	2(5)	1(2.5)	6(30)
Satisfied by the Method	34(85)	40 (100)	18(90)

Note: Figures in parentheses are the column percentages.

TABLE 8

PERCENTAGE DISTRIBUTION OF NON-ACCEPTORS ACCORDING TO THEIR REASONS FOR NON-ACCEPTANCE OF ANY CONTRACEPTIVE

Reasons	Hastsal	Mehrauli	lahori Gate	Geeta Colony	Total
Lack of knowledge	4 (16)	2 (B)	3 (12)	1 (4)	10
Lack of feasibility	-	2 (8)	-	-	2
Large family or male child preference	3 (12)	5 (20)	10 (40)	4 (16)	22
Religious taboos	-	6 (24)	16 (64)	3 (12)	25
Husband/Mother-in-law not willing	8 (32)	14 (56)	6 (32)	6 (24)	36
Wanted to complete family and then adopt sterilisation	2 (8)	-	-	2 (8)	4
Dissatisfied by services	1(4)	3 (12)	-	-	4
Misconceptions	-	2 (8)	-	-	2
No reasons	12 (48)	*9* (36)	8 (32)	14 (56)	43
Total number of non-acceptors	25 **(100)**	25 (100)	25* (100)	25 (100)	

Note. Figures in parentheses, indicated column- wise percentage

d. ***Non-acceptors of spacing methods*** **:**Although majority (90%) of the non- acceptors were knowledgeable about the different spacing method of contraception's , but the reasons stated by majority of them accepting the spacing method of contraception, but the reasons stated by majority of them accepting were non-willingness of their husband/mother-in-law, religious taboos and large family or male child prefence. A significant number of them (43%) had no reason for non-acceptance. The non-willingness of husband or mother-in-law was no reason for non-acceptance. The non –willingness of husband or mother-in-law was maximums in Mehrauli which was mainly due to predominant rural

Population and low literacy level at the region while religious taboos were highest amongst Lahori Gate population which was probably due to predominant Muslim population (Table 8). The studies by Mani in 1985[6] and Regional Family Planning Centre, Lucknow in 1972" had also found the influence of husband and mother-in-law is a significant factor in the acceptance of spacing methods.

CONCLUSION

The study found that although all the contraceptives were available at these centers, supported by adequate infrastructure and knowledgeable service providers, but still the acceptance of terminal method was far more than the spacing methods which was mainly due to attitudinal variation amongst the service providers including the doctors, lack of adequate **lEC** about all the methods to the eligible couples, inadequate counseling and follow-up. The study also identified that the low socio-economic status, son preference, religious taboos in some areas, etc. are some of the important factors affecting the spacing methods of contraception.

सारांश

इस लेख में बच्चों के जन्म में अन्तर रखने संबंधी गर्भनिरोधक विधियों की स्वीकार्यता को प्रभावित करने वाले घटकों के विषय मे चर्चा की गई है। यह अध्ययन, बच्चों के जन्म में अन्तर रखने के लिए गर्भनिरोधक सेवाओं के वितरण करने में भारत सरकार द्वारा निर्धारित मानकों तथा दिशा–निर्देशों पर आधारित था। अध्ययन से पता चलता है कि यद्यपि गर्भनिरोधक पर्याप्त संगठनात्मक व्यवस्था तथा योग्य सेवा–प्रदाताओं के माध्यम से उपलब्ध कराये गए थे फिर भी बच्चों के जन्म में अन्तर रखने संबंधी गर्भनिरोधक उपायों की अपेक्षा गर्भ–समापन उपायों की स्वीकार्यता अधिक लोकप्रिय थी। आलेखकों का मत है कि जन्म में अन्तराल रखनें संबंधी उपायों को लोकप्रिय बनाने के लिए सेवा–प्रदाताओं के दृष्टिकोण में परिवर्तन लाने के साथ–साथ समुचित तथा अनुवर्ती, परामर्श देने और सूचना, शिक्षा एवं संचार गतिविधियों का सुदृढ़ीकरण करने की आवश्यकता है।

REFERENCES

1. BHATNAGAR, S. MURALI, I., BHATIA, P.S., TRAKROO, P.L, SHARMA, B.B.L, AND CHANANA, H.B. (1988) Report of the Field Study of IUD Acceptors in State of Maharashtra and Uttar Pradesh, Department of Planning and Evaluation, NIHFW, New Delhi.

2. DEMOGRAPHIC AND EVALUATION CELL, STATE FAMILY WELFARE BUREAU, HIMACHAL PRADESH (1987) Follow-up Study of Non-acceptors of Family Planning - A Case Study.

3. GOVERNMENT OF INDIA (1992-93) Ministry of Health and Family Welfare, Annual Report.

4. KHAN, M.E. et al (1983) The Second All-India Family Planning Survey by ORG Studies, Baroda - A Report

5. KHAN, M.E. AND PRASAD (1988) Family Planning Services in India - An All India Survey, ORG, Baroda, *J. of Family Welfare,* Vol. XXXIV, No. 2 & 3.

G. MANI, S.B. (1985) Fertility, Family Planning and Status of Women, *J. of Family Welfare.* Vol.XVI, No. 3 & 4.

7. PLANNING COMMISSION REPORT (1986) Ministry of Health and Family Welfare, Government of India, New Delhi.

8. PRATTNIDHI, A.K. (1991) Premarital Counseling on Family Planning, *Health and Population - Perspectives and Issues, NIHFW*, New Delhi. Vol.14, No. 3 & 4.

9. QUARTERLY BULLETIN OF FAMILY WELFARE STATISTICS (1992-93) Department of Family Welfare, Ministry of Health and Family Welfare, Government of India, New Delhi.

10. RAMACHANDRAN, L AND CHANDERSHEKHAR, R. (1992) Perception of Nirodh Among Users and Health Workers - A. Psycho-social Study, *J. of Family Welfare,* Vol. 38, No. 4.

11. REGIONAL FAMILY PLANNING CENTRE, LUCKNOW (1972) Effect of Literacy and Socio-economic Status on Knowledge, Attitude and Practices of Contraception in Nishant ganj, U.P. - A KAP Study Report.

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UTILISATION OF PRIMARY HEALTH CARE SERVICES IN A RURAL SET- UP

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ABSTRACT

The primary health care services namely; ante-natal and post-natal, immunization and family planning rendered by the Primary Health Centres (PHCs) in Guntur district of Andhra Pradesh are discussed in this paper. The study has revealed that the utilization of primary health care services in regard to general medicines, family planning accidents/casualties by the sample respondents was very poor while they utilized the services in case of immunization and child care. {Non availability of doctors, non-availability of medicines and distance from the *place of residence to PHCs were the main factors responsible for the poor utilization of primary health care services by the sample Respondents.*

Primary health care is an essential health care which is based on practical, scientifically sound and socially acceptable methods. The primary health care should be universally accessible to every individual and the family in the community and the cost of the health care should be affordable. With this concept Bhore Committee (1940) stressed the importance of providing health care services through the primary health care approach. It was proposed to establish one Primary Health Centre (PHC) for each community development block.

Primary health care is delivered to the rural population through primary health care centre by bringing health care as close as possible to where the people live and work. In India a large proportion of population lives in rural area and hence the health care system has been extended to rural masses through PHCs, sub centres (SC) and Health Guides, DAI/TBA, PHC became a focal point of health care delivery in our country. The essential components of primary

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health care are: 1. Education of the people about prevailing health problems and methods of preventing and controlling them, 2. Promoting food supply and proper nutrition, 3. Adequate supply of safe water and basic sanitation, 4. Maternal and child health care and family planning 5. Immunization against major infectious diseases 6 Prevention and control of locally endemic diseases, 7. Appropriate treatment of common diseases and injuries, and 8. Provision of essential drugs. With all these strategies in view, the Government of India with the suggestion of Bhore Committee started primary health care through PHC.

Over the past decades, the health care delivery has undergone extensive changes and expansions in stages by incorporating various committees' recommendations. The major committees are the Mudaliar Committee (1961), the Mukherjee Committee (1966), the Kartar Singh Committee (1974) and the Srivastava Committee (1975). The subsequent five year plans aimed at extending Health and family planning services through primary health centres so as to attain the improvement in health status. In this respect during 1978, the Government of India committed to attain the goal of Health for All by the year 2000, by-signing Alma-Ata declaration.)Even though various plans have been introduced, still the infant neonata, post neo-nata and maternal mortality have not declined. Many research studies have been carried out and identified various factors and limitations responsible for not achieving the better health status

To focus the utilization of health care services in India many attempts have been made by the researchers, Dutta et al. 1975, Kakar 1977; Ramachandran 1977; Srikantan and Samuel 1981; Seal 1981; and Kothari etal. 1982. Majority of these studies have revealed that the community population is having very poor image of the Government health centers. John Hopkins University (1976), and Chuttani et at. (1982) have indicated that only 10 to 20 per cent of the villages utilized the PHC services. Similarly Kothari et al. (1982) observed that the unsatisfactory behavior of the staff at the health centre, the long distance, no availability of drugs and lack of faith in the doctor's treatment are some of the major factors responsible for poor utilization of the PHC. Ghosh and Mukherjee (1989) in their survey data analysis of West Bengal PHCs found that the utilization of health care services varies by income of the family, occupation, education of the housewife and the distance of the PHC. Study conducted In Kanyakumari district revealed that the females showed a significantly higher acceptance of indigenous medicine than males. For jaundice, post polio paralysis, whooping cough, vishakkadi, etc., the community people preferred indigenous medicine than the medicine given in PHC. Swami H.M. et al. (1982) in their study noted that the upper caste utilized the free services of the health centers whereas home remedies were used by lower caste and most of the people visited the private practitioners in spite of free medical care services provided through PHCs and sub-centers.

From the above studies, it was evident that the health resource utilization is more important in improving the health care system in rural areas of our country. Keeping the above points in view an attempt has been made in this study to know the extent of utilization of primary health centers services like (I) ante-natal and post- natal care, (ii) immunization, (iii) family planning, and (iv) accidents/casualty.

METHODOLOGY

This study was conducted in Guntur district of Andhra Pradesh. At first step, all the villages have been listed on the basis of their population, distance from the nearest PHC/SC and per cent literate population. By using the PPA, sixteen villages have been selected. From the selected villages, 50 households from each village have been selected at random, thus 800 households were selected in all. From the selected households, married women in the age group of 13-49 have been interviewed using a predesigned questionnaire. The questionnaire consists of three parts. The first part deals with the information related to village, household and demographic characters of the household population. The second part consists of information regarding reproductive history of the eligible women in the household. The third part includes information related to utilization of PHC services by the women for ante natal and post-natal care, immunization, family planning services and accidents/casualty services.

RESULTS

I. ***Utilization of PHC Services for General Health Purpose:*** Preliminary enquiry has been made whether the respondent women are utilizing the health services available at the PHC or not Nearly 54 per cent of women (Table 1) expressed that they are visiting the PHC while 46 per cent do not visit PHC. Nearly 20 per cent of them revealed to have received no advice even though they have paid a visit to the PHC. Women who are not attending the PHC expressed that they have no faith or got bad treatment (33.7%). Nearly 18 per cent of the women said that there is no need to go to PHC because no medicine and same proportion expressed that they prefer to go to private doctor for treatment Small proportion of respondents (2.2%) expressed that the doctor at PHC is careless and demands money. From Table 1 it is also evident that majority of the people are having negative attitude towards PHC. Further, those who are having positive attitude towards PHC also dissatisfied with services.

TABLE 1

PERCENTAGE OF RURAL WOMEN VISITING PHC AND THE REASONS

	Number of	Percentage
Visiting to PHC		
Yea	432	54.0
No	368	46.0
Total	600	100.0
if yes, advise for		
1. Medicine and check-up	162	37.4
2. Pregnancy particulars	139	32.2
3. Regarding food habits	48	11.2
4. No specific advice	83	19.2
Total	432	100.0
If no, reasons		
1. No faith In doctor or got bad treatment	124	33.7
2. Doctor careless and asks money	8	2.2
3. No facilities at PHC	43	11.7
4. PHC is far away	61	16.6
5. No medicine at PHC	66	17.9
6. Got alternative arrangement	66	17.9
Total	368	100.0

II. *Utilization of PHC Services for Ante-Natal and Post-Natal Care.* Ante-natal and post-natal care services have been utilized by 54 per cent (Table 2) of the women. It was found that majority of women (90%) seek PHC services after the delivery for their baby but not for themselves before delivery. It could be a reason for higher maternal mortality. From Table 2, it is clear that 255 respondents do not visit PHC for ante-natal and post-natal care as they do not have faith in PHC services.

TABLE 2

PERCENTAGE OF RESPONDENTS UTILISING PHC SERVICES FOR ANTE-NATAL AND POST-NATAL CARE

	UTILISING THE SERVICES FOR	NO. OF WOMEN	PERCENT
1.	Ante-natal and post-natal care:		
	Yes	432	54.0
	No	368	46.0
	Total	800	100.0
2.	If yes, reasons:		
	For baby care	388	89.8
	for ante-natal care	44	10.2
	Total	432	100.0
3.	If no, reasons:		
	1.Doctor Is not available	10	2.7
	2.PHC is far away	68	18.5
	3.Do not know where to get services	35	9.5
	4.No faith or bad treatment	255	69.3
	Total	368	100.0

III. ***Utilization of PHC Services for Immunization Services:*** Out of 800 mothers who had delivered during the last four years before survey date, 90.4 per cent of women (Table 3) expressed to have utilized the immunization services provided by the PHC. Among them 9.6 per cent (78 women) were of non-utilizes of immunization services. Table 3 further shows that out of 8 non-utilizes, 10.2 per cent expressed that their child died before reaching the age of one and 23.2 per cent missed the immunization dates and could not follow-up. Among 78 women, 45 expressed that they are not aware of the programme like what is immunization?

And where to immunize? Otherwise, they might have made use of the programme. From this analysis one can conclude that immunization services provided by PHC are very effectively used by the rural women. Hence, to strengthen the programme, proper awareness should be created by incorporating educational programmes to the pregnant mothers.

TABLE 3

PERCENTAGES OF RESPONDENTS UTILISING IMMUNIZATION SERVICES

SERVICES	NO. OF WOMEN	PERCENTAGE
1. Got Immunized the child		
Yes	722	90.4
No	78	9.6
Total	800	100.0
1. If no, reasons:		
1. Do not know where to	22	28.2
2. do not know what is	23	29.4
3. Baby died	8	10.2
4. No facilities	18	23.2
5. Not stated	7	9.0
Total	78	100.0

IV. ***Utilization of Family Planning Services:*** From Table 4 it is evident that a large proportion of women (62.3%) have adopted family planning methods. Among these, majority of women (96.4%) had undergone tubectomy operation and only 1.6 per cent had undergone vasectomy and 2 per cent followed spacing methods.

When enquiry was made regarding utilization of PHC for family planning services, out of 488 (tubectomy and vasectomy) who had adopted permanent method, 376 women (77.1%) had undergone the family planning operation in a private hospital or nursing home. From this, it is evident that the family planning operation services at the PHC are very poor and the rural masses prefer to visit nearest nursing home for better treatment.

TABLE 4

PERCENTAGE OF ACCEPTANCE OF FAMILY PLANNING METHODS AND PLACE OF OPERATION BY THE RESPONDENTS

SERVICES	NO. OF WOMEN	PERCENTAGE
1. Family planning accepted:		
Yes	498	62.3
No	302	37.7
Total	800	100.0
2. If yes, method:		
Tubectomy	470	96.4
Vasectomy	8	1.6
Others	10	2.0
Total	488	100.0
3. Place of operation for permanent method:		
1.PHC/SC	110	22.5
2.Govt. Institutions	2	0.4
3.Private hospitals and nursing homes	376	77.1
Total	488	100.0

V. *Utilization of PHC Services for Accidents/Casualties:* Accidents occur unknowingly and it is a practice to use the nearest best sources to protect human life. In this study area, it has been observed that a large proportion of families (59.1%) go to private nursing homes (Table 5) in case of accidents and injuries. Whereas 29 per cent go to nearest PHC and very few (10.6%) visit government hospitals. Hence, even for curative purpose, the utilization of PHC services by the rural population in this study area is very poor.

TABLE 5
PERCENTAGE OF RESPONDENTS UTILISING PHC SERVICES FOR ACCIDENTS/CASUALTIES

SERVICES	NO. OF WOMEN	PERCENTAGE
1. For accidents/casualties visiting:		
PHC	232	29.0
SC	10	1.3
Govt. hospital	85	10.6
Private nursing home	473	59.1
Total	800	100.0
2. Reasons for visiting private nursing home		
1.Treatment Is good	37	78.9
2.Doctor won't care at PHC	34	7.2
3.PHC hospitals far away	11	2.3
4.No medicine at Govt. hospital	55	11.6
Total	473	100.0

Apart from the utilization of PHC services, an additional question was asked relating to utilization of health care services beyond PHC. To get this concept a question was asked: Do you consult any other person apart from the health department's personnel for your health problems? For this, nearly 19 per cent of the respondents expressed that they are consulting "faith healers" and they have faith in them.

SUMMARY AND CONCLUSION

The utilization of primary health care services catered through PHC has been examined in this study. The PHC services have been examined in terms of (i) Visit to PHC, (ii) Ante-natal and post-natal, (iii) Immunization, (iv) Family Planning and (v) Accidents/Casualty services. Data were collected from a survey conducted in rural areas of Guntur district, Andhra Pradesh. Responses received from 800 women have been analyzed in this study.

(i) Nearly 54 per cent of the rural women were utilizing PHC services for general health care.

(ii) Majority of women are utilizing the PHC services for their baby care after delivery (post-natal services). Small proportion of mothers (10%) expressed that they are utilizing ante-natal services.

(iii) As large as 90 per cent of the women have utilized immunization services available through the PHC and the remaining expressed that they are not aware of it. Hence, by introducing extension education programmes regarding immunization of the child, the universal immunization programme will become a grand success.

(iv) Nearly 77 per cent of the rural masses are not utilizing the family planning services through PHC but they prefer to have such services from the private nursing homes.

(v) Utilization of PHC services for the accidents/casualty services by the rural population in the study area is found to be very poor.

From the above analysis, it is evident that the primary health care services through primary health centre (PHC) could not reach rural masses as expected by the various health committees. On the other hand people are getting services through the private nursing homes and private hospitals to their satisfaction. Hence, one can conclude that primary health care services should be delivered more through non-governmental organizations in addition to governmental efforts so as to achieve the goal of HFA within required time.

Lkkjk'k

प्रस्तुत लेख में आन्ध्र प्रदेश के गुन्टूर जिले में प्राथमिक स्वास्थ्य केन्द्रों द्वारा दी जाने वाली प्रसव–पूर्व, प्रसवोत्तर, प्रतिरक्षण तथा परिवार नियोजन जैसी प्राथमिक स्वास्थ्य परिचर्या सेवाओं के बारे में चर्चा की गई है। अध्ययन से पता चलता है कि सामान्य औषधियों, परिवार नियोजन तथा दुर्घटना/आपात सेवाओं के संदर्भ में उत्तरदाताओं द्वारा प्राथमिक स्वास्थ्य परिचर्या सेवाओं का बहुत कम उपयोग किया गया था, जबकि उन्होनें प्रतिरक्षण सेवाओं तथा शिशु परिचर्या सेवाओं का ही अधिक उपयोग किया था। डाक्टरों की अनु–उपलब्धता, औषधियों का अभाव तथा उत्तरदाताओं के

घर से प्राथमिक स्वास्थ्य केन्द्रों की दूरी अधिक होना आदि ऐसे घटक थे, जो उत्तरदाताओं द्वारा प्राथमिक स्वास्थ्य परिचर्या सेवाओं की कम उपयोगिता के लिए उत्तरदायी थे।

REFERENCES

1. CHUTTANI, C.S. et. al. (1976) Factors Responsible for Underutilization of Primary Health Centers - A Community Survey in Three States of India, *NIHAE Bulletin.* 9(3), 229-237.

2. DUTTA, P.R. et al. (1975) Report on the Study of Functioning of District Family Planning and Maternity and Child Health Officers in Four States in India, *Bulletin ofGIRH.&FP,9{3),* 15-53.

3. GHOSH, B.N. AND MUKHERJEE, A.B. (1989) An Analysis of Health Services Coverage of Primary Health Centre in West Bengal, *Indian Journal of Public Health,* Vol. XXXIII, No. 1, Jan-March.

4. JOHN HOPKINS UNIVERSITY (1975) Functional Analysis of Health Needs and Services, New York, Asia Publishing House.

5. KARKAR, D.M. (1977) Folk and Modem Medicine (a North Indian Case Study), New Delhi, pp. 168-175.

6. KOTHARI et al. (1982) Health Services Utilization in Rural Area, *Indian Pediatrics,* 19(4), pp. 30-34.

7. PRAKASAM, C.P. AND THATTE, S.M. (1994) Factors Influencing Health Resources Utilization in Rural Area of Andhra Pradesh, Project Report, UPS, Bombay.

8. RAMACHANDRAN, I. (1977) A Study of District Health Administration, *Bulletin of GIRH&FP,* 12(1), pp. 1-50.

9. SWAMY H.M., MARWAH, S.M. AND RAO, N.S.N. (1982) Utilization of Medical Care in a Rural Area: A Perspective Study, *Indian Journal of Preventive and Social Medicine,* Vol. 13, No 2-4, June-Dec.

10. SEAL, S.C. (1981) Primary Health Care in the Rural Setting in India, *Indian Journal of Public Health*, 25(2).

11. SRIKANTAN, K. AND RUBERT SOMUEL G.E. (1981) Community System Between District Health Office and Health Centre, *Health and Population • Perspectives and Issues.* 4(1), pp. 66-78.

Health and Population
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IMPACT OF HEALTH EDUCATION ON AIDS AWARENESS AMONG RURAL COMMUNITY

R.C. Goyal*

ABSTRACT

The impact of health education drive on AIDS awareness has been assessed in this study in the rural areas of Ahmednagar District. A substantial amount of increase in knowledge among the respondents about AIDS after health education drive has been observed in this study. This study has further proved that the educational status has a key role in acquiring information regarding AIDS. In addition, the author observed that before launching the health education drive on AIDS, the respondents had a little knowledge about its mode of transmission, clinical features and preventive measures.

Acquired Immune Deficiency Syndrome (AIDS) has assumed pandemic proportions during past decade. The disease has enormous social, economic and behavioral impact on individuals, families, communities and the whole world. Around 2.5 million people have developed AIDS till 1st of July, 1993 and around 13 million adults have been infected by Human Immunodeficiency Virus (HIV), with an additional one million or more HIV infected children[1]. About 12 to 18 million people are likely to have fallen ill with AIDS by the year 2000 and 10 million or more children world-wide will be orphaned[2]. WHO estimates as many as 40 million people will be HIV infected world-wide by the year 2000[3]. In India alone as many as 444 reported AIDS cases and 10 lakh estimated to have HIV infection, these figures are increasing day by day. It is the duty of every human being to involve them in fighting the AIDS problem.

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OBJECTIVES

The study aims at studying:

i. AIDS awareness amongst rural community; and
ii. The impact of health education on AIDS awareness.

MATERIALS AND METHOD

This study was conducted at Pravara Medical Trust, Loni, Ahmednagar, with the help of USAID Project staff in 20 villages of field practice area of the project during June-July 1993. 50 houses in each village were selected for the study by a simple random sampling technique wherein either an adult male or adult female whosoever was available and willing to respond were interviewed. 10-12 basic questions on AIDS were asked in local language and noted on a predesigned proforma. A total of 1000 respondents were interviewed. The health education drive was started in August 1993, twice a month with the help of audio-visual aids, lectures, group discussions, etc. in selected villages. During the study 14 females got married and left the study area, hence only 986 respondents were again interviewed after one year of the health education drive In July 1994.

OBSERVATIONS

A total of 712 males (71.2%) and 288 females (28.8%) before health education drive and equal number of male and 274 females after health education drive, above 15 years of age, were interviewed to know their knowledge regarding AIDS in a rural community (Table 1). As we know that females are shy and do not come forward to respond on any sex related topic due to lack of sex education and moreover culture is so that it does not permit them to talk freely on sex, we could not interview more females.

Table 2 reveals that majority 76.67 per cent were married and only 16.06 per cent females belonged to unmarried group.

Majority 40.67 per cent were farmer by occupation followed by labourers 19.67 per cent, service class 11.97 per cent and artisens 4.67 per cent while 23.02 per cent were not engaged in any work (Table 3). The overall increase of 32.0 per cent in awareness regarding AIDS due to health education drive was noticed. More than 50 per cent of the literate are still unaware of AIDS even after health education, though it has helped increase the percentage from 17.39 to 48.36 in the same group. Similar increase in awareness was observed in literacy groups, college educated, the percentage of awareness was 88.12.

TABLE 1
AGE AND SEX-WISE DISTRIBUTION OF RESPONDENTS

Age in Years	Male		Female*	
	Number	Percentage	Number	Percentage
15-25	253	35.53	88	30.58
26-35	196	27.53	95	32.99
36-45	136	19.10	56	19.44
46-55	83	11.66	14	04.86
56 and above	44	06.18	35	12.15
Total	712 (71.2%)	100.0	288 (28.8%)	100

*Since 14 females (8 in 15-25 years and 6 in 26-35 years) got marrie and left the study area, hence, the total female respondents were only 274.

TABLE 2

MARITAL STATUS OF RESPONDENTS

Marital Status	Before H.E. Drive			After H.E. Drive		
	M	F	T	M	F	T
Married	506 (71.07)	230 (79.86)	736 (73.60)	526 (73.88)	230 (83.94)	756 (76.67)
Unmarried	206 (28.93)	58 (20.14)	264 (26.40)	186 (26.12)	44 (16.06)	230 (23.33)
Total	712 (71.20)	288 (28.80)	1000 (100.0)	712 (72.01)	274 (27.99)	986 (100.0)

Figures in parentheses indicate percentages.
H.E. =Health Education, M = Male, F = Female T=Total

The Increase In awareness on *AIDS* after health education drive has registered an increase of equal proportion of percentage in both literate, 17.39 to 48.36 in illiterate and 52.21 to 84.18 in literate and proved highly significant

Table 5 reveals that (43.10%) of total respondents claimed to have the knowledge from television and radio followed by doctor (20.69%) and nurses (11.16%) after health education drive which was 29.40 per cent, 6.50 per cent and 11.16 per cent respectively before health education.

TABLE 3

OCCUPATION-WISE DISTRIBUTION OF RESPONDENTS

Occupation	Before H.E. Drive		After H.E. Drive	
	Number	Percentage	Number	Percentage
Farmers	401	40.10	401	40.67
Laborers	202	20.20	194	19.67
Artisans	046	04.60	046	04.67
Service	118	11.80	118	11.97
Not doing any work	233	23.50	227	23.02
Total	1000	100.00	986	100.00

TABLE 4 (A)

LITERACY-WISE AWARENESS

Awareness Education	Awareness	
	Before H.E. Drive	After H.E. Drive
Illiterate	A = 345 60 (17.39)	B = 335 162 (48.36)
Literate	C=655 342 (52.21)	D=651 548 (84.18)

A B C D = Number of respondents,
For illiterates - Z1 - -9.1, $p < 0.00001$
For literates - 22 - -13.2, $P < 0.00001$
Figures in parentheses indicate percentages.

TABLE 4(B)

EDUCATIONAL STATUS AND AWARENESS

	Before H.E. Drive			After H.E. Drive		
	Total Respon-dents	No. of aware	Percent-age	Total Respon-dents	No. of aware	Percent-age
Illiterate	345	60	17.39	335	162	48.36
Primary	176	74	42.04	172	132	76.*74*
Middle	207	109	52.66	207	179	66.47
High School	171	94	54.97	171	148	86.55
College	101	65	64.36	101	89	88.12
Total	1000	402 (40.2)	-	986	710 (72.01)	-

TABLE 5

SOURCE OF KNOWLEDGE

Source	Before H.E. Drive		After H.E. Drive	
	Number	Percentage	Number	Percentage
Television	165	16.50	206	20.89
Radio	129	12.90	219	22.21
Nurse	041	04.10	110	11.16
Doctor	065	06.50	204	20.69
Others	147	14.70	130	13.18
Multiple Response				

The pattern of knowledge on various aspects like mode of transmission, spread through blood, knowledge about signs and symptoms and fate of disease, are given in Table 6(A) and 6(B).

TABLE 6 (A)
KNOWLEDGE ABOUT AIDS*

Knowledge	Before H.E. Drive		After H.E. Drive	
	Number	Percentage	Number	Percentage
1. What Is AIDS				
- Do not know	258	64.18	30	4.23
- A disease	144	35.82	680	95.77
2. Modes of Transmission				
- Do not know	94	65.27	15	2.21
- Sexual intercourse	42	29.17	367	52.94
- Needles/Syringes	08	05.56	115	16.91
- Blood transfusion	-	-	318	46.76
- Tran placental	-	-	088	12.94
3. Modes by which it does not spread				
- Do not know	125	86.80	15	2.21
- Hand shaking	15	10.42	455	66.91
- Sharing of clothes	03	02.08	286	42.06
- Sharing of food	-	-	122	17.94
- Sharing of toilet	-	-	108	15.86
- Others	01	00.70	180	26.47
4. Does it spread through blood transfusion				
- Yes	32 112	22.22	318	46.76
- No		77.78	362	53.24

Multiple Response

Those who claimed to have knowledge, as many as 95.77 per cent respondents told that AIDS is a disease, after health education drive while it was only 35.82 per cent before health education. Knowledge about modes of transmission was raised after health education from 29.17 per cent to 52.94 per cent for sexual intercourse, zero to 46.76 per cent for blood transfusion, zero to 12.94 per cent for transplacental and for needles and syringes 5.55 per cent to 16.91 percent.

TABLE 6(B)

KNOWLEDGE ABOUT AIDS

Knowledge	Before H.E. Drive		After HE. Drive	
	Number	Percentage	Number	Percentage
5. Clinical Features				
- Do not know	136	94.44	151	22.21
- Loss of weight	-	-	348	51.18
- Persistant fever	-	-	112	16.47
- Persistent diarrhea	-	-	203	29.85
- Lymphadenopathy	-	-	88	12.94
- Sever weakness	08	5.56	588	86.47
6. Does It affect Children				
- Yes	17	11.80	276	40.59
- No	127	88.20	404	59.41
7. Fats of Disease				
- Do not know	112	77.78	62	12.06
- Death	32	22.22	598	87.94
8. Preventive Measures				
- Tracing source of inspection	03	02.08	42	6.18
- Use of sterilised needles and syringes	03	02.08	96	14.12
- Avoidance of multiple sexual partners	18	12.50	522	76.76
- Use of condoms	09	06.25	304	44.70
- Safe blood transfusion	-	-	244	35.88
- Do not know	111	77.08	149	21.91

Multiple Responses

The various modes by which it does not transmit e.g. hand shaking (10.42%), sharing of clothes (2.08%) and others (0.70%) were also increased to 66.91 per cent 42.06 per cent and 26.47 per cent respectively. They also agreed that there is no transmission through sharing food (17.94%) and sharing toilet (15.88%).

When asked about the blood transfusion as a mode of transmission, 46.76 per cent gave affirmative answer after health education as compared to before launching health education (22.22%).

Nearly 40 per cent of the respondents told that children may be affected by AIDS and 87.94 per cent of the respondents agree that death is definite in AIDS patients.

The only symptom, i.e., weakness was noted by respondent 5.56 per cent and remaining (94.44%) did not know any signs and symptoms of AIDS before health education drive.

A drastic change was observed after health education drive in the knowledge about signs and symptoms of AIDS. More than 3/4 of respondents told two or more than two signs/symptoms. The main signs/symptoms answered were severe weakness (86.47%), loss of weight (51.18%), persistent diarrhea (29.85%), persistent fever (16.47%) and lymphadenopathy (12.94%) which was restricted to only weakness (5.56%) before health education.

The various steps to prevent the spread of AIDS were enumerated by nearly 78 per cent of the respondents after health education drive. The majority of the respondents were in favour of avoiding multiple sexual partners (76.76%), use of condoms (44.70%), safe blood transfusion (35.88%) and use of sterilized needles and syringes (14.12%).

DISCUSSION

Initially only 40 per cent of the respondents were aware of AIDS, after intensive health education drive the level of awareness has drastically increased to 72 per cent The awareness was more in literate than illiterate which indicates that the educational status has a key role in acquiring the knowledge about AIDS and it also forms the basis for the health education. It was observed that knowledge about modes of transmission, clinical features, fate of disease and preventive measures to be taken, were much less before launching the health education drive,

A concerted, coordinated and carefully designed health education messages can bring about the change in attitude, perception and sexual behavior of the community, though literacy, socio status and sex education are other facets to be considered.

Lkkjk'k

प्रस्तुत लेख में महाराष्ट्र राज्य के अहमद नगर जिले के ग्रामीण क्षेत्रों में 'एड्स' रोग के प्रति जागरूकता के बारे में स्वास्थ्य शिक्षा अभियान के प्रभाव का आंकलन किया गया है। इस अध्ययन में स्वास्थ्य शिक्षा अभियान चलाने के पश्चात 'एड्स' रोग के बारे में उत्तरदाताओं के ज्ञान में काफी वृद्धि देखने में आई थी। प्रस्तुत अध्ययन से यह भी सिद्ध हुआ है कि एड्स रोग के विशय में सूचनायें प्राप्त करने में शैक्षिक स्तर की भी अहम भूमिका है। इसके अतिरिक्त, लेखक द्वारा यह भी अनुभव किया गया है कि 'एड्स' संबंधी स्वास्थ्य शिक्षा अभियान प्रारम्भ करने से पहले उत्तरदाताओं को इस रोग के प्रसार के कारणों, इसके नैदानिक लक्षणों तथा रोकथाम के उपायों के बारे में बहुत ही कम जानकारी थी।

REFERENCES

1. CHOWDHURY, SHANKAR (1993) HIV/AIDS Update, *Ind. J. Com. Medicine*XVIII, (2), P 93-95.

2. SVVASTHH/A/0 (1992) WORLD AIDS DAY-1992 XXXVI (11-12) P 261-263.

3. HEALTH ACTION (1994) AIDS Update, AIDS the Second Decade 7, (8) p 23.

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KNOWLEDGE, ATTITUDE AND JOB PRACTICES OF AUXILIARY STAFF IN CONTEXT OF HIV/AIDS IN A LARGE HOSPITAL IN DELHI

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ABSTRACT

The present study attempts to assess the knowledge, attitude and job practices of auxiliary staff in the hospitals in the context of AIDS. This study includes a sample of 289 respondents, representing 23 OT attendants, 19 laboratory attendants, 17 dressers and 225 nursing attendants. The study revealed that majority of these categories of functionaries were observed to have negative attitude and performing high risk job practices in their job settings due to their ignorance of the hazardous practices in relation to HIV infection.

Acquired Immune Deficiency, Syndrome (AIDS) has been the most dreaded and much discussed fatal disease of the present century. It was first reported among homosexual patients in USA in 1981. From October 1985, until the end of May 1994, 20,83,997 individuals had been tested for HIV through the nationwide surveillance network; and 15,325 were found HIV positive (confirmed by Western Blot). The sero-positivity rate was 2.5/1000 in 1986 and increased to 7.28/1000 by May 1994. HIV infected individuals were found in 26 States/UTs, basically everywhere, where the testing facilities are available for surveillance, blood testing or research purposes[1]. Till may 1994, 728 cases of AIDS have been reported to the Ministry of Health and Family Welfare from all over India. It is projected that In India by the year 2000, HIV infected individuals would be five million (three million from high risk groups and two million from general population) and there would be more than one million cases of AIDS if the rate of HIV transmission is not changed[2, 3].

The present study attempts to assess the knowledge, attitude and job practices of auxiliary staff in the hospitals in context of HIV/AIDS and handling of suspected AIDS cases.

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MATERIALS AND METHOD

The study was carried out in a large hospital with 900 indoor beds in Delhi. This hospital has 29 departments and provides services in all the major specialties. Total strength of auxiliary staff as on March 31, 1993 was OT attendants 28, laboratory attendants 19, dressers 17 and nursing attendants/ay as 225.

Sample Size and Sampling Technique

The Out Patient Department (OPD), indoor, Operation Theatre (OT) and laboratory areas of the hospital were categorized into the following three strata:

i. **Zone A:** Comprising blood bank, skin and venereal Diseases OPD, injection room and minor OT;

ii. **Zone B:** Includes main OT, and laboratories of the Hospital; and

iii. **Zone C:** Comprising wards of medicine, surgery, Pediatrics, obstetric and genie, eye and ENT, dermatology, emergency, burns and plastic, and neurosurgery of the hospital; and OPDs of pediatrics, ENT, medicine, surgery, obstetric and genie and eye of the hospital.

From Zone A, all the auxiliary staff was included in the study. From Zone B every alternate auxiliary staff was selected randomly after listing them. From Zone C all the staff (auxiliary) was listed and using systemic random sampling every tenth auxiliary staff was selected. For those personnel not available, at three visits were made to contact them before labeling them as non-response. The complete data were available for 109 auxiliary staff of the hospital and considered to be a satisfactory sample size.

Data Collection Techniques

The data were collected, using the following techniques;

i. Interview of the staff; and

ii. A sub sample of the study population was observed in their job Situation to validate the information collected through interview.

Development of Tools

The main tool was interview schedule which was constructed considering the objectives of the study, reviewing relevant literature and having discussions with consultants from National AIDS Control Organization, WHO and All India Institute *of* Medical Sciences. The Interview schedule was prepared including statements pertaining to knowledge and beliefs about HIV/AIDS. The knowledge part of the schedule had *49* statements on cause, transmission, clinical features, prevention, diagnosis and treatment and control of HIV/AIDS. The respondents were requested to grade these as correct, incorrect and don't know. For study of the beliefs of respondents about different types of sex, five statements were given and respondents were asked to grade each of the statements as safe, risky and very dangerous sex.

The attitude part of the interview schedule was for measurement of attitudes of the respondents which contained *14* statements and respondents were required to state their opinions as definitely agree, partially agree, could not decide, partially disagree and definitely disagree.

The job practices head of the interview schedule was for analyzing job practices of the functionaries which contained nine open ending questions meant for auxiliary staff. These questions covered various aspects of job practices related to HIV/AIDS and were based on the guidelines given by the WHO for these categories of health personnel.

Validation of Tools

All the statements and questions included in the interview schedule were shown to seven experts on HIV/AIDS (two from AllMS, two from WHO and three from NACO) and their opinions about the content validity was obtained. Only those statements and questions were included in the final schedule which were considered to be relevant and valid in Indian settings. From a total of *114* statements and questions the final tool had only *105* statements and questions.

Pre-testing of Tools

These tools were pre-tested and suitable corrections were made in the interview schedule. The final interview schedule was again shown to the experts and after their approval data collection was started.

DATA ANALYSIS

Scoring Method

The statements related to knowledge about HIV/AIDS were scored by awarding a score of two for correct responses, and incorrect and don't know responses were not given any score. A maximum score of 98 was possible for the knowledge sub-heads. The scoring of beliefs part of the schedule was done by giving two marks to correct statement and no mark to incorrect statement. A maximum score of ten was possible for beliefs part.

The attitude score was calculated by allotting five marks to definitely agree response for positive statement and for definitely disagree response for negative statement; a minimum score of one was given to definitely disagree response for positive statement and definitely agree for a negative statement, using the Like type of scoring method. The total maximum score of 70 was possible for attitude head. The job practices of the functionaries were also graded. Three marks were given for taking all the precautions, two for taking two precautions and one for taking only one precaution and no score for not taking any precaution. The maximum possible score was 27 for auxiliary staff.

Statistical Analysis

The data were analyzed with the help of computer on SPSS package. The tabulation of data was done by preparing simple one way tables as per the objectives of the study. The mean, standard deviation, 5th, 25th, 50th, 75th, 90th and 95th percentile values were calculated for knowledge score for each category of the personnel.

The quartile value (Q1 and Q3) for each category was also calculated for knowledge, attitude and job practices and those persons having their score less than/equal to first quartile value (Q1) were labeled as low score and the percentage of such persons in each category was estimated and those score more than or equal to third quartile (Q3) were labeled as high score and percentage of such respondents in each category was also calculated.

RESULTS

The mean age was 47.1 (SD = 9.7) years for dressers, 41.7 (SD = 10.1) years for nursing attendants, 40.5 (SD = 10.5) years for laboratory attendants and 39.7 (SD = 10.2) years for OT attendants. All the dressers and laboratory attendants, 96 per cent of the nursing attendants and 42.9 per cent of the OT attendants were married. About 40 per cent of the dressers and 40 per cent of the

nursing attendants were illiterate among the auxiliary staff included in the study. Only 20 per cent of the laboratory attendants who had certificate/diploma as laboratory technician while the remaining auxiliary staffs were without any professional qualification.

Mean duration of service was 28.3 (SD = 11.5) years for dressers, 21.4 (SD = 10.6) years for nursing attendants, 19.9 (SD = 10.7) years for laboratory attendants and 19.8 (SD = 10.0) years for OT attendants. Nearly 40 per cent of the dressers and 68 per cent of the nursing attendants were posted in indoor departments, while 60 per cent of the laboratory attendants were posted in biochemistry laboratory and 71.4 per cent of the OT attendants were posted in main OT. Only 10 per cent of the dressers, 1.3 per cent of the nursing attendants and 10 per cent of the laboratory attendants had undergone training in last five years. None of the auxiliary staff had undergone any training in HIV/AIDS.

Knowledge about HIV/AIDS

About 30 per cent of the dressers, 16 per cent of the nursing attendants, 22 per cent of the laboratory attendants and 11 per cent of the OT attendants knew that AIDS was caused by vim's. All the dressers, laboratory attendants and OT attendants considered sharing of needles, sexual act and transfusion of blood as the route of transmission of HIV infection, while responses for same statements among nursing attendants were 97 per cent, 92 per cent and 95 per cent respectively. Other routes of transmission of HIV infection recognized correctly were pregnant woman to newborn, breast milk and during delivery by the sample respondents. Transmission of AIDS was through pregnant woman to newborn was stated by majority of the dressers, nursing attendants, laboratory attendants and OT attendants as compared to other routes of transmission like 'breast milk' and during delivery. However, other routes like hugging and kissing, mosquito bite, contaminated water and food, using personal belongings, coughing and sneezing and living with HIV individuals were considered as the routes of transmission by majority of the respondents.

Knowledge of the auxiliary staff included in the study about clinical features of HIV infection was grossly inadequate as majority of the auxiliary staff were not aware of different clinical features of AIDS. The correct responses for different clinical features of AIDS ranged from 0-20 per cent among dressers, 3-16 per cent among nursing attendants, 0-30 per cent among laboratory attendants and 11-67 per cent among OT attendants. Different measures for prevention of HIV infection like use of Nirodh during sex and screening of blood for HIV before use were recognized by the dressers, nursing attendants, all the laboratory attendants and OT attendants.

Almost half of the dressers, 50 per cent of the nursing attendants 80 per cent of the laboratory attendants and 56 per cent of the OT attendants knew that there was no treatment for AIDS. However, 80 per cent of the dressers, 82 per cent of the nursing attendants, 70 per cent of the laboratory attendants and 44 per cent of the OT attendants thought that if HIV infection was diagnosed at an early stage then it was curable. Only 11 per cent of the OT attendants had heard about the use of AZT drug for treatment of AIDS among the auxiliary staff included in the study. Majority of the auxiliary staff did not know about the cost and availability of anti AIDS drugs in India. About 50 per cent of the dressers, 66 per cent of the nursing attendants, 90 per cent of the laboratory attendants and 89 per cent of the OT attendants considered prevention of AIDS in India as joint responsibility.

All the respondents agreed with the importance of health education in prevention of AIDS. About 30 per cent of the dressers, 42 per cent of the nursing attendants, 60 per cent of the laboratory attendants and 78 per cent of the OT attendants stressed on the health education activities outside the hospital for general population also. Majority of the dressers (80%), nursing attendants (95%) and all the laboratory attendants and OT attendants emphasized the importance of role of hospital staff in providing health education.

The total mean knowledge score was 29.0 (SD = 5.5) for dressers**,** 34.7 (SD = 9.3) for nursing attendants, 50.7 (SD = 16.7) for laboratory attendants and 40.0 (SD = 5.1) for OT attendants. The fields in which they had gross lack of knowledge were etiology, clinical features, diagnosis and treatment of AIDS, where the mean score was 1.7 (SD = 1.5), 1.0 (SD = 1.8), 0.3 (SD = 0.8) and 5.3 (SD = 2.1) respectively among dressers, 1.6 (SD = 1.8), 1.8 (SD = 3.4), 0.9 (SD = 1.4) and 6.2 (SD - 2.7) respectively among nursing attendants, 2.7 (SD = 2.2), 5.8 (SD 3 6.1), 3.1 (SD = 3.5) and 9.1 (SD = 3.9) respectively among laboratory attendants and 0.9 (SD = 1.9), 6.9 (SD = 3.2), 0.2 (SD 0.7) and 8.4 (SD = 3.0) respectively among OT attendants (Table)•

About 66.7 per cent of the dressers, 34.2 per cent of the nursing attendants, 30 per cent of the laboratory attendants and 20 per cent of the OT attendants had score up to 25th) percentile. There were none of the dressers, 5.3 per cent of the nursing attendants, none of the laboratory attendants and none of the OT attendants had score more than 90th percentile (Table 2).

TABLE 1
KNOWLEDGE SCORE* OF AUXIUARY STAFF INCLUDED IN THE STUDY

Sub heads	Max Score	Dressers N=10			N. Attdt N - 75			Lab. Attdt. N-10			OT Attdt N - 14		
		Mean	SD	Range	Mean	SD	Range	Mean	SO	Rang	Mean	SD	Range
1. Etiology	6	1.7	1.5	0-4	1.6	1.8	0-6	2.7	2.2	0-6	0.9	1.9	0-2
2. Transmission	24	11.3	2.7	8-16	13.2	2.8	8-20	16.9	3.8	12-24	14.0	4.0	12-24
3. Clinical Features	18	1.0	1.8	0-4	1.8	3.4	0-12	5.8	6.1	0-14	6.9	3.2	0-12
4. Diagnosis	10	0.3	0.8	0-2	0.9	1.4	0-6	3.1	3.5	0-10	0.2	0.7	0-2
5. Treatment and Control	22	5.3	2.1	0-8	6.2	2.7	0-10	9.1	3.9	6-18	8.4	3.0	4-14
6. Prevention	10	5.0	2.4	0-6	5.9	1.9	0-10	7.3	2.6	4-10	5.6	2.4	4-10
7. Health Education	8	4.7	2.1	0-6	5.1	1.5	0-8	5.8	1.9	4-8	6.0	1.0	4-8
Total	98	29.0	5.5	22-38	34.7	9.3	20-58	50.7	16.7	26-70	40.0	5.1	36-50

*_Scoring:_ Two marks were given to correct response and no score was given to Incorrect and don't know responses.

TABLE 2

PERCENTILE SCORE OF KNOWLEDGE OF AUXILIARY STAFF
INCLUDED IN THE STUDY

percentile	dressers Mrs. N = 10		N. Attdt N = 75		Lab. Attdt. N - 10		OT Attdt N - 14	
	Score	N (%)	Score	N (%)	Score	N (%)	Score	N (%)
1.5 th	-	-	21.9	5.3		-	-	-
2.29th	25.0	66.7	25.0	34.2	37.0	30.0	37.0	20.0
3.50th	2B.0	70.0	34.0	50.0	46.0	60.0	40.0	55.6
4.75th	35.0	66.7	35.0	61.6	67.0	90.0	43.0	88.9
5.90th	-	-	48.0	94.7	-	-	-	-
6.95th	-	-	52.3	97.4	-	-	-	-

Belief about Sex

Vaginal sex with one partner with Nirodh was considered as safe sex by 70 per cent of the dressers, 87 per cent of the nursing attendants, 90 per cent of the laboratory attendants and all the OT attendants. Vaginal sex with many partners without Nirodh and anal sex with Nirodh were considered as very dangerous by most of the respondents.

Main Source of Information About HIV/AIDS

The main sources of information about AIDS among auxiliary staff were television (29.2%), posters (21.8%), peer group (21.8%), newspapers (14.9%), magazines (7.8%), radio (2.1%) and others (2.4%).

Attitude towards HIV/AIDS

Almost 80 per cent of the dressers, 87 per cent of the nursing attendants, and all the laboratory attendants and OT attendants stated that foreigners are responsible for appearance of AIDS in India Nearly 80 per cent of the dressers, 68 per cent of the nursing attendants, 60 per cent of the laboratory attendants and 89 per cent of the OT attendants were in favor of testing of foreigners only for HIV. All the auxiliary staff realized the important role of hospital staff in helping and guiding the AIDS persons. All the auxiliary staff was in favor of a separate AIDS ward in the hospital. Nearly 80 per cent of the dressers, 79 per cent of the nursing attendants and all the laboratory attendants and OT attendants were ready to work in AIDS ward. However, all the dressers, 87 per cent of the nursing attendants, 40 per cent of the laboratory attendants and 78 per cent of the OT attendants were not ready to allow their children to play with their friends who had AIDS.

Job Practices In Relation to HIV/AIDS

Almost 60 per cent of the dressers, 67 per cent of the nursing attendants, 60 per cent of the laboratory attendants and 55 per cent of the OT attendants were washing hands without using any disinfectants after dressing an open skin wound. Nearly 60 per cent of the dressers, 55 per cent of the nursing attendants, 50 per cent of the laboratory attendants and 65 per cent of the OT attendants were washing hands after handling blood stained material. About 60 per cent of the dressers, 68 per cent of the nursing attendants and 10 per cent of the laboratory attendants were not taking any precaution for spillage of blood on table/floor Nearly 30 per cent of the dressers and 33 per cent of the nursing attendants, 10 per cent of the laboratory attendants and 20 per cent of the OT

attendants were not taking any precaution while disposing off the disposable needles and syringes. About 40 per cent of the dressers, 56 per cent of the nursing attendants, 20 per cent of the laboratory attendants and 43 per cent of the OT attendants were not practicing any of the precaution listed in the table while handling blood samples or blood stained material even when they had open skin wound on their hand(s).

Almost 90 per cent of the dressers, 73 per cent of the nursing attendants, 40 per cent of the laboratory attendants and 80 per cent of the OT attendants included in the study were not taking any precaution while carrying blood samples to laboratory. About 10 per cent of the dressers, 19 per cent of the nursing attendants, 70 per cent of the laboratory attendants and 71 per cent of the OT attendants followed both the precautions listed in the table for spillage of blood on their clothes/apron.

Majority of the auxiliary staff included in the study were not taking any precaution while assisting for minor procedures. Almost 70 per cent of the dressers, 44 per cent of the nursing attendants, 60 per cent of the laboratory attendants and 50 per cent of the OT attendants were taking all the precautions listed in the table after needle stick injury with blood stained needle.

The total mean score for knowledge and attitudes among auxiliary staff were 29.0 (SD = 5.5) and 37.8 (SD = 7.9) respectively among dressers, 34.7 (SD = 9.3) and 36.8 (SD = 7.4) respectively among nursing attendants, 50.7 (SD = 16.5) and 45.0 (SD = 5.3) respectively among laboratory attendants and 40.0 (SD = 5.1) and 42.9 (SD = 6.0) respectively among OT attendants. While total mean score for job practices among auxiliary staff were 4.0 (SD = 1.7} among dressers, 8.9 (SD = 4.8) among nursing attendants, 14.0 (SD = 4.8) respectively among laboratory attendants and 13.6 (SD = 4.6) among OT attendants (Table 3).

Almost 66.7 per cent of the dressers, 34.2 per cent of the nursing attendants, 33.3 per cent of the laboratory attendants and 33.3 per cent of the OT attendants had knowledge score less than or equal to first qua/tile which may be considered as low knowledge level. About 33.3 per cent of the dressers, 31.6 per cent of the nursing attendants, 44.4 per cent of the laboratory attendants and 12.2 per cent of the OT attendants had score more than *or* equal to third quartile which may be considered as high score among auxiliary staff. Nearly 16.7 per cent of the dressers, 13.2 per cent of the nursing attendants, 11.1 per cent of the laboratory attendants and 44.4 per cent of the OT attendants had attitude score less than or equal to first quartile or we may say that these percentage of auxiliary staff were having negative attitudes. About 33,3 per cent of the dressers, 50.9 per cent of the nursing attendants, 22.2 per cent of the laboratory attendants and 22.2 per cent of the OT attendants had attitude score equal to or more than third quartile or

these percentages may be considered as having positive attitudes. Almost 20.0

TABLE 3

KNOWLEDGE, ATTITUDE AND JOB PRACTICES SCORE* OF AUXILIARY STAFF

	Dressers N=30	N.Attdt N=5	Lab. Attdt N- 10	OT Attdt. N-20
	Score	Score	Score	Score
1. Knowledge Score				
Mean	29.0	34.7	50.7	40.0
SD	5.5	9.3	16.5	5.1
Range	22-38	20-58	26-70	36-59
2. Attitude Score				
Mean	37.8	36.8	45.0	42.9
SD	7.9	7.4	5.3	6.0
Range	25-48	26-58	34-51	36-43
3. Job Practices Score				
Mean	4.0	8.9	14.0	13.6
SD	1.7	4.8	4.8	4.6
Range	3-16	2-21	5.23	10-27

Scoring Knowledge	Two marks were given to correct response and no score was given to incorrect and don't know responses. (Maximum possible score was 98)
Attitude	
Job Practices	Maximum five marks were given to most appropriate response while minimum one mark was given to least appropriate response. The responses in between were scored proportionately. {Maximum possible score was 70)
	No precaution-Q, One precaution-1 mark, Two precautlons-2 marks and more than two precauttons-3 marks. (Maximum possible score was 27)

TABLE 4

QUARTILE SCORE OF KNOWLEDGE, ATTITUDE AND JOB PRACTICES OF AUXILIARY STAFF

	Dressers N = 10	N.Attdt. N=75	Lab. Attdt N - 10	OT Attdt. N=14
1. Knowledge Score				
Q1	25	25	35	35
N (%)*	66.7	34.2	33.3	33.3
Q3	35	35	45	45
N (%) **	33.3	31.6	44.4	12.2
2. Attitude Score				
Q1	25	25	35	35
N (%)*	16.7	13.2	11.1	44.4
Q3	35	35	45	45
N (%)**	33.3	50.9	22.2	22.2
3. Job Practices Score				
Q1	2.5	7.5	12.5	12.5
N (%)*	20.0	61.0	70.0	85.7
Q3	12.5	12.5	12.5	12.5
N (%) **	10.0	17.3	30.0	14.3

* = Percentage of respondents having score less than or equal to Q1 score.
**= Percentage of respondents having score more than or equal to 03 score.

per cent of the dressers, 61.0 per cent of the nursing attendants, 70.0 per cent of the laboratory attendants and 85.7 per cent of the OT attendants had job practices score less than or equal to first quartile, in other words we can say that these percentage of auxiliary staff were practicing high risk job practices which may spread HIV infection in the hospital settings. About 10.0 per cent of the dressers, 17.3 per cent of the nursing attendants, 30.0 per cent of the laboratory attendants and 14.3 per cent of the OT attendants had score more than or equal to third quartile of the job practices score, these percentage of respondents may be considered as practicing safe job practices (Table 4).

सारांश

इस लेख में 'एड्स' के संबंध में अस्पताल के सहायक स्टाफ के ज्ञान, दृष्टिकोण और कार्य संबधी अभ्यासों का आंकलन करने का प्रयास किया गया है। इस अध्ययन में 28 आपरेशन थिएटर परिचरों, 19 प्रयोगशाला परिचरों 17 ड्रेसरों और 225 नर्सिंग परिचरों सहित 289 उत्तरदाताओं को शामिल किया गया था। अध्ययन से यह उद्घाटित हुआ है कि इस बारे में कार्मिकों का दृष्टिकोण नकारात्मक पाया गया था एच आई वी संक्रमण के बारे में उचित जानकारी के अभाव में यह अपनी कार्य–स्थितियों में जोखिमपूर्ण ढंग से कार्य निष्पादित कर रहे थे।

REFERENCES

1. NACO (1994) Monthly Update on HIV Infection. Ministry of Health and Family Welfare, Government of India, New Delhi.

2. NATIONAL AIDS CONTROL PROGRAMME IN INDIA (1991) NACO, Ministry of Health and Family Welfare, Government of India, New Delhi.

3. GOVERNMENT OF INDIA (1991) Strategic Plan for Prevention and Control of AIDS in India, Ministry of Health and Family Welfare, New Delhi.

4. HARDY, AM. (1992) National Study of Knowledge of AIDS, Testing Patterns and Self-assessed Risk Among Health Care Workers. *Jn. of Acquired Immune Deficiency Syndrome,* 5(11), p.1131-1135.

5. KARANI, A. (1991) Knowledge Attitude and Practices of Health Care Workers towards AIDS in Nyeri, a District in Kenya. *Jn. of Applied Behavior,* 24(4), p.713-715.

6. SANTA, R.T. et al (1992) AIDS Education for Hospital Workers In Manila - Effect on Knowledge, Attitude and Infection Control Practices; *AIDS,* 6(11), p. 1359-1363.

7. HOLA, GLORIA et al. (1993) Assessment of Knowledge Attitudes and Job Behavior Changes in Hospital Staff; International Congress on AIDS in Asia and the Pacific, New Delhi, November 8-12, 1994.

8. FROSNER, G.G. (1989) Occupational Risk of HIV for Medical Personnel, *Jn. Orthop. Ihre Grenz.* 127(4), p. 494-498.

9. STANLY, H.W. (1988) Risk* of HIV Infection among Lab Workers; *Science,* 239: p. 68-71.

10. BHUTAN!, A., AND MALVIYA, A.N. Impact of AIDS Education on Work Practices of Nuses; Second International Conference on AIDS in Asia and the Pacific, New Delhi, November, 22.