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INVOLVEMENT OF INDIGENOUS MEDICAL PRACTITIONERS IN CERTAIN NATIONAL HEALTH PROGRAMMES IN A PHC AREA**

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ABSTRACT

This paper identifies certain areas in the national health programmes in which the indigenous medical practitioners can optimally be involved. Certain measures with reference to the indigenous medical practitioners in terms of their policy matters, research and training are recommended in this article. In addition, the perception of the community regarding the indigenous medical practitioners as well as the extent of communities' acceptance of the IMPs is also discussed in this paper.

In every society, there are health problems varying from simple to complex and there are many types of unrecognized human resources who heal these health problems through different approaches. They are traditional healers, Indigenous Medical Practitioners (IMPs), etc. But unfortunately such a huge battalions of health healers have never been given any recognition. The issue is whether government would recognize the status of traditional healers and IMPs in order to create local human resource which can help us in creating a health movement which would demand generation of huge human resources in the ratio of growing population and would make a holistic approach of health management? Or it would remain confined to their conservative approaches that so far it has been following. The answer to this question perhaps could be provided more scientifically by undertaking research studies which can reveal people's perception, believes, preferences towards health healers, IMPs, government doctors, private allopath and practitioners of other system of medicines such as unani, siddha, homoeopath, ayurved, etc.

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Keeping this in view, the present study has been designee

i. study the perception of the community regarding the IMPs;

ii. Assess the extent of community's acceptance of the IMPs Involvement in the national health programmes;

iii. Ascertain the efficacy of IMPs in the national health programmes;

iv. Identify the different areas in the national health programmes in Which IMPs can be optimally involved; and

v. ascertain the demographic variables, professional experiences And motivation with the degree of involvement of IMPs in certain national health programmes and their acceptability by the community.

METHODOLOGY

The study has been conducted in two groups of people comprising 70 IMPs and 300 community members selected through suitable criteria to make the sample representative. These 70 IMPs have been selected after conducting a benchmark survey in the PHC area of Iradat nagar in Saiyan Block of Agra district which encompasses 30 villages with a population of approximately 30,000. The survey revealed that there were 70 IMPs following different approaches in providing health care services to the people.

With regard to the community members, ten community members from each village representing ten sections of people were selected. These are village pradhan, school teacher, and woman of the village committee, member of scheduled caste, backward caste, pandit (Brahmin), nai, mahajan, village chaukidar and informal leader.

Data were collected using two structured, close ended interview schedules, one for IMPs and the other for community members.

The main thrust of the first schedule was to identify the socio-demographic background of IMPs, including their qualifications, training and experiences, views, perceptions and beliefs about certain national health programmes, and role in the promotion of national health schemes. The ways in which IMPs could be involved in the efforts to manage national health programmes were ascertained.'

The main purpose of the second schedule was also to study the opinions and perceptions of community members towards government doctors, IMPs and their abilities to manage the seasonal diseases. It also included variables directed towards their preferences about different groups of doctors/health staff working directly for the cause of health and the nature of involvement of IMPs in the existing national health programmes.

SALIENT FINDINGS

One of the important findings is that 78.6 per cent of the community members have got the facility of health centre just in the range of 1 km. followed by 11.4 per cent in the range of 1 -3 kms. Only 5 per cent have got facility within the range of 5 kms. While 22 per cent of people travel the distance of 5 or more than 5 kms in order to get the services of IMPs. This finding, however, reflects that merely creation of health infrastructure and its accessibility cannot guarantee its utilization. It appears that there could be more valid reasons for the utilizations of health services. The utilization is influenced by the perceptions, opinions and beliefs of the people which they hold towards the personnel of health care and health care facilities. If they do not believe in health personnel and health infrastructure, no matter how qualitative it would be people would remain largely unmotivated and unconcerned towards the utilization of the services and they would remain attracted towards those people whom they believe. Therefore, a common belief system towards health is a major determinant of utilization which needs to be incorporated in any system of health care.

It was found that people from both the income groups, i.e. higher and lower, showed more preferences towards IMPs regardless of distance from their residential areas. The difference, however, has not emerged significantly. Since it is commonly believed that people in general do not give a correct picture of their income to others, it is, therefore, quite possible that the two groups, generated with the help of analysis into high and low, could not be really distinctive in nature. Therefore, another route was adopted to ascertain the perceptions of community by the quality of their houses as an important indicator of their social status. Interestingly, it was found that people having fully pakka houses covered relatively a longer distance in order to have the services of IMPs in comparison to the people having fully kachcha houses. In the village scenario, the status of housing is considered to be a highly distinctive indicator of social status and therefore to conclude that people coming from a relatively better-off background prefer to avail of the health services of IMPs even at the cost of more expenditure and longer distance and are found to be less inclined towards using the health facilities provided by the government in the form of health centre and sub-centres. And people coming from lower social strata remain relatively more confined towards the facilities available at less distance, even though their preference for IMPs remains

by and large stable. In fact, it is their economic constraints which do not permit them to travel longer distances for seeking treatment from more qualified providers of their choice.

In the village context, it is generally believed that people do not take a conscious decision regarding the utilization of health care facilities created for them and they just follow what most of the villagers have been following. It is also believed that once the message of popularity of any practitioner increases, people start visiting them without giving too much thinking. In other words, it is believed that there exists too much social conformity in the village scenario which is considered to be true even in the case of health practices. In order to ascertain the reliability and validity of such common beliefs, an analysis was done to find out whether villagers preferences towards IMPs is a result of conscious decision or not. It was found that about 41 per cent of the village community members consulted the practitioners under the influence of other villagers; the remaining 59 per cent were not influenced at all and exercised their thoughtful preferences in selecting the private practitioners. It was interesting to find out that the people coming from relatively more developed areas were even less influenced by the social conformity phenomena.

Findings Relating to IMPs

Sixty per cent of IMPs were found to be in the age-group of above 40 years; 94 per cent were married; and most of them belonged to other than backward and scheduled castes. Forty per cent were found to have education up to matric level and remaining 60 per cent had education in the range of intermediate to post-graduation. Overall, 73 per cent had some formal qualification with registration for the private practice and 27 per cent had no formal qualification. However, they had undergone some practical experience with some established doctors while working as their assistants. Duration of training was found to be up to two years for 36 per cent of respondents, 2-4 years (for 33%) and remaining 31 per cent had working experience of more than four years. Regarding training, it was discovered that about 46 per cent had training experience for a period of more than three years. It could be concluded that training exposure (formal and informal) to them appears to be adequate for a large percentage of practitioners.

Around two-thirds of IMPs have taken medical practice in their respective areas as a major occupation in case of formally unqualified group. This finding tends to suggest that a large group of IMPs would remain working in the health sector regardless of their recognition by the government. Since they have taken the practice as a major source of their livelihood, as such any deterrent action on the part of government would not be able to throw them away from the private practice and from serving the needy people. Government, under such

Circumstances, is perhaps left out with no other alternative except to accept their presence and utilize them for the promotion of on-going health services. It appears to be a feasible proposition that a very sincere effort should be made to make use of IMPs' services to the people in the best possible manner.

i. It is noteworthy that 41 per cent of practitioners are in this Profession for the last 11 or more years and 31 per cent has been for the last 5-10 years. They have been in the health sector informally and have also been accepted by the people. It is a testimony of their utility as far as reality is concerned. As such, the highly professionalized group of people and the health planners can hardly play with the idea of keeping these IMPs away from their continued endeavors to improve the health status of the people.

ii. To substantiate this observation, one can also have a look on the Number of patients whom these practitioners examine every day. It was found that around 38 per cent of the practitioners (both formally and non-formally qualified groups) used to get more than seven new patients per day. If it is combined with the old patients, the number further becomes larger. About 97 per cent have reported that they charge fees less than Rs.5 and 89 per cent have reported that they charge mostly for medicines, and that too only a nominal amount. Most of the respondents (88.6%) are highly conscious towards the concept of equal treatment to all the people. However, their charges of medicine vary according to the economic status of client. They have reported that their charges, from those who are economically well of, used to be relatively high in' comparison to the people from underprivileged group. Under such circumstances, whether these IMPs, especially those who have not been given any registration certificate or permission for doing private practices, could be debarred from their activities. Perhaps the answer is No.

iii. Further, efforts were made to ascertain about their functioning and it was found that most of them do not start their treatment without thorough examination and therefore, they try their best to make them conversant with some of the most desirable and common laboratory tests, clinical examination and skills of taking a detailed history of illness. This appears to be most desirable style of their functioning.

iv. It was found that about 49 per cent of IMPs follow allopathic System of medicine and 11 per cent follow combination of all systems of medicines. Next to allopathic group comes the use of ayurvedic system of medicine by 37 per cent of IMPs. It could, thus, be concluded that allopathic and ayurvedic systems of medicines respectively are predominantly practiced by these IMPs.

v. Referral services were also studied to precisely find out as to Whom do they refer to. It was found that 50 per cent referral was towards private nursing homes and private doctors working in nearby city of Agra. The referral to the hospital of medical colleges and government hospitals was found only 29 per cent and 17 per cent respectively. The immediate referral centres for IMPs working in the rural areas could only be the PHC/sub-centre and the referral for this was meager, 4 per cent.

vi. When an effort was made to study the level of awareness of IMPs who were supposed to be working in all the rural areas about health facilities under different national health programmes, it was found that non-qualified groups hardly had awareness (10%) as against 55 per cent of the qualified group who had awareness about the facilities.

This finding appears to be very typical because if the very people who are directly or indirectly working in the health sector do not possess complete awareness what could be the plight of the common people. It gives an impression that health workers perhaps have not done the desirable work, neither in educating the people nor even those who are serving the real needs of the people. To validate this observation, further analysis was completed for different nine national health programmes and most surprisingly, it was found that IMPs had a very poor knowledge about different schemes such as diarrhea (38%), tuberculosis (33%), MCH (excluding immunization and family planning) (23%), blindness (20%), and leprosy (11 %). However, their knowledge regarding family planning (77%), malaria (68.6%) and immunization (67.1%) was found to be somewhat satisfactory. It is quite possible that the knowledge in these three national health programmes could be due to mass media (radio and television) and not due to the health functionaries who are supposed to disseminate information related to these NHPs to every individual working in the respective areas.

vii. This explanation gets further substantiated when data were further analyzed to ascertain the cooperation which health functionaries seek from IMPs. It was found that only a nominal percentage of

government health functionaries approach only for family planning (30%) and immunization (27%). It appears that a small number of health workers approach IMPs especially for family planning and immunization under a great pressure for target completion.

viii. Despite such indifferent attitude and concern of government health functionaries towards IMPs, it was found that IMPs themselves try to extend their support to some extent for some of the NHPs and they also try their best to solve some health problems if it emerges all of a sudden. These findings are clear indicators of the willingness of IMPs to contribute to the government efforts to the health sector.

ix. It was found that 10 per cent of them are already working for government health services and 71.4 per cent have expressed their keen desire to contribute. Only a small section of IMPs (18.6%) however, have expressed their inability to contribute and they are mostly from qualified group who enjoy relatively a better social status and recognition as a private practitioner in comparison to non-formal qualified IMPs. When it was asked whether they would like to contribute towards NHPs if they are requested by the government, an affirmative response has come from more than 90 per cent of IMPs specially for distribution of Vitamin A, health education, motivating the people and distribution of ORS. The eagerness to contribute has been found more dominating amongst non-formally qualified group in comparison to formally qualified group. The possible reasons for this could be the need for recognition by the government. Other forms of their involvement were observed in terms of their contact with the health centre (76%) and their effort to minimize the health problem of people by educating them at the time of practice (93%). They try to make people aware of various diseases (99%), make people aware for check-up of the diseases (97%); methods of keeping the drinking water clean (99%), keeping the environment clean, motivating the people for the small family norms, explaining the importance of immunization (94%), etc.

x. The reason for their desire of involvement in the NHPs was also studied and it was found that 95.7 per cent of IMPs want to involve themselves in NHPs due to their intense desire to do the service for maximum people. Other reasons were: to do the best use of services for the people (94%); to collect some information which they can use for their professional growth (84%); and to get

Some experience (63%).

Around half of the IMPs have also expressed their feeling of getting monetary benefit 34.3 per cent wanted to participate in NHPs just to honor the request on the part of the government Such an intense desire to contribute to certain NHPs could be taken as an open indicator of IMPs involvement. Now the question is whether they expect anything from the government in lieu of their services or they want to do on voluntary basis. The answer is perhaps both. They have expressed that government can provide them occupational training (94%), supply them some medicines which they could distribute among people (94%), some instruments which they could use for the purpose of diagnosis (84%) and supply of health related literature and journals (100%). In comparison to all expectations the desire for literature, which was found to be most dominating, and suggests that IMPs are perhaps more eager to make them professionally sound and conversant with the recent development However, they want to be given full respect and need for respect among non-formally qualified group was found to be more dominating (86%) in comparison to formally qualified group (65%).

xi. It is time and again demonstrated that any health programme of the government cannot achieve its goal without community. The view has been corroborated by IMPs also. They were of the opinion that their participation could help government health functionaries to achieve their goal more successfully. They were also of the opinion that they could easily mobilize the community towards any health programme because they fully enjoyed the trust and confidence of the people. They command the respect of community to a greater extent as compared to any government health functionary.

xii. It would not be an exaggeration if it is concluded that the involvement of IMPs is an undisputable issue. But how they could be involved? Do they need some training? These were also studied and it was found that all of them have expressed their keen desire for some training for their involvement. Duration of training, according to the majority of people, could be one month (61%), one week (24%), two weeks (11%) and three weeks (5%). They wanted to be trained only in the lean season, i.e. winter (76%).

In regard to the venue of training, most of them wanted to be trained only at PHC level (66%); district level (30%) and only 5 per cent wish to be trained at State level. The choice for PHC for a venue appears to be a reflection of genuine training need of IMPs.

Findings Relating to Community Members

i. Findings regarding the reason for opting the treatment from IMPs Were found to be highly interesting amongst all the reasons. Surety of treatment was found to be dominating (96%), followed by other reasons such as easy availability of practitioners (68%) lesser cost of treatment (67%), loan based treatment (61.3%) and popularity of practitioner (42%). These findings are very close to the findings reported by Shukla (1980).

ii. Another salient finding is that 76 per cent of the community Members is satisfied and 16 per cent are fully satisfied and it is only a meager percentage (8%) who has expressed their dissatisfaction. Such a high level of satisfaction on the part of community members towards the services of IMPs is clear testimony of their importance. Any people oriented programme of health care is bound to accept this as a reality. Such a high level of satisfaction amongst the users have not been found against any schemes being run by the government Therefore, it is an eye opening information.

iii. The finding regarding poor preference of community members Towards the government hospital (7%) in comparison to IMPs (92%) is either doubtful or amazing. It is quite possible that people in general either have lost their complete faith towards the government hospitals or they had never developed their choice towards the government hospitals. It is also possible that entire functioning of IMPs is so appealing and satisfying to the people to the extent they can hardly think of services provided by government hospitals. People have strongly registered their reason for choice. They strongly believe that IMPs are highly capable of managing the seasonal diseases in lesser cost People have got very strong belief towards IMPs and that is why their level of acceptance as well as preference is very high. One of the other possible reasons could be informal relations which exist between them.

Iv. Loan based treatment appears to be a true reflection of rural characteristics. Many a times it happens that people have no money while they are seeking health services of practitioners. It also happens that emergency comes to the people at any moment and perhaps they could get services of such practitioners without any inconvenience. There could be many other reasons.

It appears that IMPs, because of being mainly local, are more conversant with the life-style of the people and as such they work in such a manner which is more in consonance with the social reality as against the functioning of health functionaries which appears to be more alien and foreign in its functioning.

v. Villagers hold a very strong opinion about the involvement of IMPs in the on-going NHPs. "They strongly (91.7%) recommended that government should motivate IMPs for appropriate treatment of diseases and government should also provide free medicines which they could distribute among the needy (93.3%). Views regarding monetary incentives to boost the morale of IMPs have been substantiated by only 66 per cent. They also feel that some most essential diagnostic instruments should be given to IMPs in order to enhance their quality of service further. Villagers, however, have shown very poor response (17.7%) with regard to the supply of health literature. This finding is totally in contrast to the finding obtained from IMPs. The reason is that villagers who are mostly illiterate cannot understand the value of literature as against the perception of IMPs. Such weak recommendation for literature and strong for others tend to suggest that the recommendations have not been made casually. They have rather been giving a very conscious suggestion and it also speaks about the reliability of the information.

vi. The findings related to the opinion about health workers once again establish some important issues that (i) the health workers do not come to the villages (76%); and (ii) concerned health workers do not come for immunization (4%), spraying of medicines (insecticides) (72%), distribution of Nirodh (96%), ORS distribution (61%), disinfection of well and distribution of chlorine tablets (97%) and leprosy (100%). It is evident from these findings that the claims made on the part of government regarding various national health services appear to be really bogus.

It was interesting to find that whatever visits the health workers make in the villages, they remain more confined to the people which are relatively more developed. This finding suggests that weaker sections and underprivileged remain neglected even by grass root workers to a great extent. A possible reason could be that majority of grass root workers come from well-to-do families.

RECOMMENDATIONS

The major recommendations with reference to the policy matter, research issues, training and actions emerged from the study are as follows:

1. Policy

i. Importance of IMPs should be given due recognition in the same way as it has been accorded to ISM and Western system of medicine. However, the level of recognition should remain at local level.

ii. Confidence building approach should get the recognition as much as the concept of accessibility and availability in primary health care approach which received attention in the policy document.

2. Research

iii. Government of India in collaboration with any international organization should sponsor a national survey of IMPs to some national/voluntary organizations in order to ascertain actual status of IMPs and their direct and indirect contribution to the cause of health.

iv. A series of studies like the present one could be sponsored by WHO under HSR in different States so that more scientific information could be gathered regarding the strength of IMPs, their abilities and willingness to contribute to the National Health Schemes.

v. Opinion surveys of policy makers, bureaucrats, professional and Community members are conducted for assessing the possible involvement of IMPs in the national health programmes along with their acceptability, affordability, ability and accessibility.

3. Training

vi. There is a need for constituting a national level training committee with some major responsibilities in hand such as (a) Conducting training need assessment of IMPs; (b) Training curriculum; (c) Training infrastructure; (d) Training programmes of some lead persons from IMPs group; and (e) Honorary reward based involvement of IMPs in the team of PHC personnel.

vii. Training has emerged as a dire need of the I MPs in view of community members' perceptions and also in their own views. Both IMPs and community members feel that the government should organise some orientation training programmes at PHC and district levels in order to acquaint them with more desirable health information so that they could make their involvement more meaningful. In view of this strong training need realized by IMPs and reciprocated by people, it is strongly recommended that Directorate of Health at State level and Government of India at the Central level should take up this matter immediately.

To start with, two-day orientation training at PHC on experimental basis should be sponsored.

viii. Positive attitudes, perception, faith, motivation and sense of formal relations between practitioners and users are major behavioral components. It is strongly recommended that existing training institutes which are equipped with required technical knowledge should develop training package of such behavioral components and incorporate them into on-going training programmes.

4. Action

Major challenges for the government are how to create confidence about health programmes and health services in the mind of users. Therefore: (a) it demands a drastic change in the style of functioning on the part of government functionaries; (b) they need to develop informal style of functioning; (c) they also need to ensure availability of health personnel at health centers; and (d) there is an urgent requirement to manage the sense of uncertainty of people regarding availability of health functionaries at health centers.

In this context, it is strongly recommended that senior health officials should encourage forming some confidence building committees with the involvement of eminent IMPs at local level.

x. National Registration Scheme of IMPs need to be developed and Implemented at the earliest

xi. A very dismal performance on the part of health functionary gives an impression that these workers do not take up their job responsibilities seriously and they pass on false information to higher authorities which later on become a base for unrealistic impression about various health schemes. IMPs being local and

well conversant with the local dialect, could be included into the monitoring system. It is, therefore, recommended that in any national and State level department agencies engaged in either developing any monitoring system or using any monitoring system should involve IMPs as health informant in order to make the system more effective and efficient.

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प्रस्तुत लेख में राष्ट्रीय स्वास्थ्य कार्यक्रमों से संबंधित ऐसे कुछेक क्षेत्रों को चिन्हित किया गया है, जिनमे देसी चिकित्सा पद्धति के चिकित्सकों को अधिकाधिक शामिल किया जा सकता है। इस लेख में देसी चिकित्सा पद्धति के चिकित्सकों के लिए नीतिगत मामलों, अनुसंधान एवं प्रशिक्षण संबंधी पक्षों के संदर्भ में सिफारिशें की गई हैं। इसके अतिरिक्त इस लेख में देसी चिकित्सा पद्धति के चिकित्सकों के बारे में सामुदायिक अवधारणा और इसके साथ–साथ समुदायों द्वारा उन्हें स्वीकार किए जाने की सीमा पर भी विचार–विमर्श किया गया है।

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UNIT COSTING OF IMPORTANT COST CENTRES IN A GENERAL HOSPITAL IN DELHI

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ABSTRACT

This paper identifies the direct and indirect service cost centers of the ESI Hospital, Basaidarapur, and New Delhi. The unit cost calculation with respect to the major service areas, viz. the inpatient, outpatient, casualty, operation theatre and others is the hallmark of this paper. The unit cost calculation is an important input into pricing decision for the management particularly for cost recovery, budgeting and efficiency analysis.

With the rising cost of medical care in hospitals it has become imperative to carry out analysis of cost of patient care. This is important not only in the private/corporate hospitals but also in the government hospitals. The findings of such an analysis can be applied to improve the financial management of the hospital.

Cost analysis is the process by which an organization obtains estimates of the cost of producing a product, providing a service, performing a function, or operating a department.

The tertiary teaching hospitals in a developing country consume a large proportion of the total resources available for health. Hospitals absorb the bulk -40 to 80 per cent of public spending on health in developing countries[4]. In India, the capital costs, recurring costs, inflationary pressures together with rising costs of equipment and other supplies make medical care in hospital an expensive proposition[1]. Hospitals have felt additional financial pressure as a result of international efforts to shift spending towards primary health care and reduce dominance of hospitals' share of public health budgets. In this environment, attention has been focused on methods for analyzing costs of public hospitals in developing countries[3].

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Careful analysis of costs by using accounting and statistical data can help hospital management to concentrate on areas needing closer study. When the accounting information is carefully gathered and interpreted it becomes an invaluable tool for effective management[3]. Cost analysis should not be used solely for one-time analysis, but should be built into ongoing information systems that enable departmental and senior managers to monitor resource utilization patterns, initiate operational changes to reduce costs or improve productivity, and evaluate the impact of the operational changes over time[3].

METHODOLOGY

The ESI Hospital, Basaidarapur, New Delhi, is a general hospital with a bed strength of 400. The financial data for the year 1992-93 were used for analysis.

All the relevant records were studied and analyzed after selecting important cost centers on the basis of the organizational structure of the hospital. The cost centers were used for the cost allocation and calculation of unit costs. The various records studied were financial records, consumption records and output records. Work study techniques were applied to study the time spent on different cost centers by medical personnel for the purpose of calculating cost of medical staff. Doctors from each department were listed separately and lists so prepared formed the sampling frame of the study. Fifty per cent of the sample units were selected from each department using random number tables. Total sample size was 70 doctors. The reliability of the information provided by the doctors in the work study was cross-checked by on the spot observations through check lists. The costs of the indirect departments were allocated to the direct service departments using the step-down method. After allocation of the costs to various cost centers, unit costs were calculated for each cost centre depending on the unit suitable for the department.

FINDINGS

ESI Hospital had sanctioned staff strength of 1088 but in-position strength was 847. Budgetary allocation of ESI Hospital for the financial year 1992-93 was Rs.6, 74, 00,000. But the actual expenditure was less than the allocation. The details of expenditure considered for the study is given in Table 1.

Physicians drew Rs. 1, 40, 40,876 of salary. Out of which Rs.29, 35, 296 was apportioned directly to the cost centers. The remaining amount of Rs.1, 11, 05,580 was apportioned to various cost centers using certain scientific principles i.e. by calculating physician's equivalence. Multiplying this physician's equivalence with the standardized man-hours calculated, the total physician's equivalence for

Various cost centers were worked out and the amount to be apportioned was distributed according to the percentages of physician's equivalence. Cost of all other categories of staff was apportioned according to the number of personnel posted in each cost centre.

TABLE 1

BUDGET ITEMS INCLUDED IN THE COST ANALYSIS FOR THE YEAR 2002-03

Heads		Amount (Rs.)	Per cent
Salaries		3,51,30,053	55.37
Pay (Officers)	45,78,428		
Pay (Estt.)	1,08,66,923		
DA	1,25,60,601		
TA	2,42,984		
NPI	8,92,449		
HRA	21,63,380		
OTA	2,65,787		
CCA and other allowances	24,52,040		
PL Bonus	11,07,461		
Drugs and Dressings		1,00,54,259	15.85
Hospital	13,467		
DUD	1,00,40,792		
Consumable Items		17,64,924	2.78
Med. Equip. (Capital)	24,97,878		
Total	42,62,802		
Electricity		34,52,744	5.44
Water		15,71,449	2.48
Liveries and Washing		8,85,727	1.39
Ann. Main, and Repair		24,94,742	3.93
Telephone		1,08,236	0.18
Others (Administrative)		11,02,976	1.74
Washing Material Linen		30,798	0.05
Medical Gas		8,79,923	1.38
Petrol/Oil/Lubricants		2,59,191	0.42
Blood Bank (private)		1,25,930	0.21
Diet (Raw materials)		9,58,473	1.51
Reagents/Chemicals		21,19,086	3.34
Investigations (private)		22,48,835	3.54
		2,52,618	0.39
Total		6,34,39,964	100.00

Expenditure on drugs and dressings and other consumable supplies (such as syringes, needles, surgical gloves intraocular lens implants, other orthopedic implants, etc.) for different cost centers were taken from various stock registers of medical stores. Expenditure on water and electricity was apportioned on the basis

of number of water taps and the load of electricity respectively in various cost centers. Thus it was found that maximum consumption of water was in inpatient (wards) and of electricity it was in operation theatre. The cost of administration was apportioned on the basis of total salaries of staff working in each cost centre.

The cost of laundry was apportioned on the basis of number of clothes washed for each cost centre irrespective of the amount of time and material used to do so. Cost of linen was also added to the cost of laundry. Cost of CSSD was apportioned on the basis of number of items sterilized irrespective of the time taken to sterilize different items.

Table 2 gives percentage-wise total costs of all the direct service cost centers.

TABLE 2

THE STRUCTURE OF HOSPITAL COST BY COST CENTRES (1992-93)

Cost centre	Amount	Percentage
Inpatient	2,72,18,170	42,90
Operation Theatre	1,08,72,908	17.14
Casualty	88,88,821	14.01
OPD	73,13,091	11.53
Laboratories	57,29,347	9.03
Radiology	34,17,627	5.39
Total	6,34,39,964	100.00

Cost per bed per annum	Rs.1, 58,600
Cost per bed per day (overall)	Rs.434.50
Cost per OPD attendance	Rs.14.21
Cost per inpatient per day	Rs.171.58
Cost per admission	Rs.1098.11
Cost of diet per patient per day	Rs. 19.84
Cost per casualty attendance	Rs.155.12
Cost per laboratory investigation	Rs.20.52

DISCUSSION

Certain cost centers were identified for the purpose of cost analysis. Direct service cost centers identified include casualty, OPD, indoor, operation theatre, radiology and laboratories (histopathology, microbiology and biochemistry). For any particular given disease it is not necessary that all the cost centers are used in

Same proportion and amount It all depends on the type and severity of the case, age of the patient, and other factors. For example, cost of a patient admitted in medical ward and surgical ward won't be same as the cost of a patient undergoing surgical procedure is likely to be much higher than that of a patient admitted in the medical ward. Use of radiological and laboratory services also greatly vary from patient to patient this was the reason for costing operation theatre, radiology and laboratories separately.

The other important use of unit cost is to know the variation from certain standard costs. This will help to know from year to year whether the hospital is improving its efficiency by comparing its own costs over time and in some similarly placed hospital elsewhere. With the above exercise one can gradually work out standards because some of the standards cannot be fixed arbitrarily, in fact standards are to be evolved gradually and for that purpose it is important to generate the cost estimates from time to time and across different hospitals. Various management and cultural factors may have some impact on hospital functioning and possibly because of these factors some hospitals function much more efficiently than others. Standard cost is a standard which can be variable over time depending on the technological efficiency, changes in manpower pattern and the introduction of new disciplines.

The purpose of standard cost is to study deviation from it and ascertain the reasons for such deviation. A unit cost is basically total cost divided by some output. This total cost is in turn the product of number of inputs and the price of these inputs. Variation in cost may arise on account of changes in any of these parameters.

The sources of variation, once known, it would be possible to find out whether the observed increase or decrease in cost is due to certain factors beyond the control of hospital or due to inefficiencies in the system. Thus, if these can be identified one can easily pinpoint the source of increase or decrease in cost and that becomes a very important tool for management in control of cost.

CONCLUSION

The unit cost calculation is an input into pricing decision for the management for cost recovery, budgeting, efficiency analysis and comparisons of unit costs over time or among facilities. It is not necessary that pricing is done only to earn revenue, but it is useful for internal costing and decision-making to know how much it costs in terms of resources to provide a service and its effectiveness. Thus, unit cost data are useful for taking resource allocation decisions.

Lkkjk'k

प्रस्तुत लेख में कर्मचारी राजकीय बीमा निगम (ई0एस0आई0) अस्पताल, बसई दारापुर, नई दिल्ली के परोक्ष एवं अपरोक्ष सेवा लागत केन्द्रों को चिन्हित किया गया है। इस लेख में प्रमुख सेवा–विभागों, जैसे अंतरंग रोगी विभाग, बहिरंग रोगी विभाग, आपात सेवा विभाग और आपरेशन थियेटर आदि की इकाई लागत पर प्रमुख रूप से चर्चा की गई है। प्रबन्धन, विशेषकर लागत–व्यय वसूलने, बजट बनाने और दक्षता विष्लेषण हेतु मूल्य–निर्धारण संबंधी निर्णय लेने के लिए इकाई–लागत–व्यय वसूलने, बजट बनाने और दक्षता विष्लेषण हेतु मूल्य–निर्धारण संबंधी निर्णय लेने के लिए इकाई–लागत–व्यय निकालना एक महत्वपूर्ण आदान है।

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THE DIFFERENT FACTORS WHICH AFFECT THE UTILISATION OF HOSPITAL RESOURCES BY IN-PATIENTS OF A LARGE GENERAL CITY HOSPITAL

Sarita Bahmanl Punia*, Helen H. Simon and D.H. Nath*****

ABSTRACT

An attempt is made in this paper to identity the factors which could be controlled and strengthened by modern management techniques so as to treat a large number of in-patients in a large hospital within same amount of resources. This is important because hospital resources are scarce and costly today as the population has grown rapidly in recent years. Though large hospitals have grown, they have not kept in pace with population and a large gap has occurred between demand and supply. Certain crucial issues in this regard are discussed in this paper.

The large general hospitals have been providing services almost free of cost. This has caused a peculiar situation. The attitude of in-patients towards hospital services has changed over the years and the utilization of resources in the hospitals has gained importance. This is probably due to rise in population and exorbitant fees charged by the private nursing home. The common man has diverted himself to these general hospitals which are already overburdened and overcrowded. Furthermore, even educated common man wants to have better services from general hospitals. Keeping these issues in view, this study was undertaken to identify the controllable factors which affect the utilization of hospital services by in-patient so as to manage efficiently the resources for providing better hospital services to the patients within the existing resources.

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METHODOLOGY

The study was carried out in general medicine department of Safdarjung Hospital, New Delhi, which is one of the big general hospitals in our country.
The data were collected through:

1. Retrospective study, and
2. Prospective study.

Retrospective Study A: An adequate sample of ten per cent was drawn by a systematic sampling method from a sample frame which consisted of 9691 in-patients discharged case records belonging to all major diagnostic categories of International classification of diseases code VIII, for a period of one year from Januarys to December 1988.

Retrospective Study B: In order to find out whether there was any variation in resource utilization between dissimilar and similar categories, retrospective study B was carried out.

A sample of ten per cent was drawn by a systematic sampling method from a sample frame which consisted of 728 discharged case records belonging only to code 410 and 414 of ischemic heart disease. The period was the same from January to December. The sample respondents in both cases include 1042.

2. *Prospective Study.* The variation between actual and available resources, as per record, was studied by interviewing the hospital staff and inpatients as well as by studying the records like attendance, admission, discharges registers, etc.

OBSERVATIONS AND DISCUSSION

The medical department had 183 out of 1387 beds. These beds were equally distributed in its three units and there were 25 beds in emergency ward -A.

DOCTORS

In the shift 9 a.m.-4 p.m. in wards the doctor bed ratio was the highest as 1:5.7 and the highest doctor patient ratio as 1:7.5 whereas in emergency ward A it was 1:7.6 and 1:16.3 respectively. There were only 0.53 clinicians per 100 hospitalized patients and when the junior and senior residents were excluded from

the study, it fell as low as 6.20 clinicians per 100 in-patient. Thus, the average satisfaction scores of patients regarding opportunity to talk to doctors was 1.87 per cent and visitors policy (doctors round) was 1.12 per cent[1].

TABLE 1

THE OPINION OF CUNICIANS OF MEDICAL DEPARTMENT REGARDING IN-PATIENT RESOURCES AND SERVICE AVAILABILITY IN MEDICAL UNITS
(FEBRUARY TO APRIL 1 989)

Items	Average Satisfaction Score	Rank
Doctors	57.1	6
Nurses	46.9	9
Beds	14.2	14
Blood bank	24.3	12
Dietary	22.4	13
Pharmacy	32.6	10
Housekeeping	12.2	15
Linen and Laundry	69.3	3
Pathology	83.6	2
Microbiology	65.3	4
Biochemistry	10.2	16
Radiology	26.0	11
Special Investigations		
E.C.G.	89.7	
Ultrasound	61.2	5
E.E.G.	53.2	8
E.M.G.	54.3	7

TABLE 2

RANK ORDER OF AVERAGE SATISFACTION SCORE (ITEM-WISE)
OF IN-PATIENTS OF MEDICAL UNITS
(FEBRUARY TO APRIL 1989)

Item No.	Unit I		Unit II		Unit III		Medical Department	
	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
1.	1.96	1	1.76	3	1.46	8	1.7	2.5
2.	1.63	3.5	1.86	2	1.5	7	1.6	4
3,	1.13	6.5	0.9	16.5	1.53	6	1.18	11
4.	1.63	3.5	1.3	8	1.26	11	1.39	5
5.	0.2	18	0.6	18	0.83	16.5	0.5	18
6.	1.13	6.5	1.5	5	1.33	10	1.32	5
7.	1.1	6.3	1.4	6	1.13	13	1.21	10
8.	1.6	5	1.7	4	1.8	1.3	1.7	2.5
9.	0.5	16	1.13	10.3	1.13	12	0.92	14.5
10.	0.3	17	0.9	15.5	0.83	16.5	0.67	17
11.	0.8	13.5	0.83	17	1.1	14	0.91	16
12.	0.8	13.5	1.13	10.3	0.9	15	0.94	13
13.	1.0	11	1.03	13.5	0.73	18	0.92	14.5
14.	1.73	2	1.96	1	1.8	1.3	1.83	1
15.	1.1	8.3	1.03	13.5	1.8	1.3	1.24	8
16.	0.6	15	1.16	9	1.6	5	1.12	12
17.	1.1	83	1.36	7	1.43	9	1.29	7
18.	0.9	12	1.13	10.3	1.63	4	1.22	9
		0.81		0.86		0.69		

Spear man's rank Correlations Co-efficient (rs)

The reason given for the low opinions by clinicians was that they were overworked due to overcrowding and rise in population which had caused low doctor patient ratio and 57 per cent of clinicians wanted more doctors for medical department.

Nursing Staff

In the morning shift, nursing staff bed ratio was 1:8.8 and nursing staff patient ratio was 1:11.48. This was far from the national convention for nurses recommendation of nurses bed ratio of 1:3 for indoor wards and 1:1 for emergency wards in a large general hospital. This shortage led to overwork and hence average satisfaction scores of patients were low for nurses call system 1.32 per cent. Promptness of response by nurses was 1.21 per cent and visitors policy was (nurses round) 1.2 per cent[5]. But nurses behavior had good score of 1.7 per cent which shows they were well trained and caring (Table 2).

46.9 per cent of clinicians wanted more of good nurses to cope with the overwork. But in spite of shortage, there was good co-ordination between doctors and nurses which avoided unwarranted morbidity and mortality. Patients had an average satisfaction score of (1.83%). The doctor nurse ratio was maximum 1:0.72 in the evening shift (4 p.m. to 9 p.m.) and least 1:0.62 in the night shift (9 p.m. to 9 a.m.)

Sweepers

In the morning shift, the sweeper bed ratio was 1:26.5 and sweeper patient ratio was 1:34.5. The average satisfaction score by patients for this category was very low -0.67 per cent. The reasons given by patients were that they did not work and also were rude without respect to human dignity and life.

The average satisfaction score by clinicians was 12.2 per cent and reasons given were that they absented themselves without prior permission and hence no replacement was available. The wards and toilets were lacking hygiene.

Policies and Procedures

There was a need for certain definite policies and procedures for hospitalization, stay and discharge of in-patients. No single written order or copy could be provided. 88 per cent of clinicians had never seen any written procedures and policies[2]. The clinicians were of the opinion that criteria used for hospitalization were severity of disease (92.5%), investigations (35.1%), observation (20.3 %), clinical interest (1.8%), postgraduate research (1.8%) and poor patient (1.8%) [5].

Administrative authorities issued orders regarding admissions and discharges only during strikes by hospital staff or in epidemics. 83.3 per cent of clinicians were of view that criteria used for discharge were improvement in condition or completion of investigations, data regarding clinical interest and post-graduate research. Management information system was also lacking. No adequate useful data were being generated.

Delay in Start of Treatment

An average of 17.6 minutes was delay in start of treatment in retrospective study B and 1.3 hours in retrospective study A. This clearly showed emergency nature of disease which took priority than all other diseases. It was not possible to measure the delay in discharge as exact time of ordering the discharge and when the discharge actually took place was not available.

Utilization of Supportive Services

Blood Bank: **69 patients utilized 78 bottles of blood.**

Dietary Services: No record was available as to how many patients took normal diet but 375 patients took special diet in retrospective study A and 73 patients in the retrospective study B. Patients average satisfaction score for this item was very low 0.92 per cent and 57 per cent of clinicians thought that there was a need for better diet (Table 1 and 2).

Central Sterile Service Department

Average satisfaction score of doctors was 69.3 per cent as compared to patients which was only 0.92 per cent. This disparity in opinion was due to the fact that the doctors were managing a large number of in-patients within the available resources but all in-patients could not have it so they were dissatisfied.

Social Service

This was found to be extremely inadequate since the hospital was to take care of a large number of economically deprived people. Only one social worker irregularly visited the wards and did not provide any proper social work.

Only 11 guides were posted in emergency and OPD block of the hospital who guided the massive patients who visited every day. They were not able to do justice due to their job and even patients suffered a lot in reaching their destinations.

Pharmacy

Eight hundred sixty-six patients in retrospective study A and 61 patients in retrospective study B received the medicines. Thus most of emergency medicines were provided though some time routine medicines were not available and patients had to purchase.

Pathological Services

***Retrospective Study* A** - All 443 had routine investigations whereas only 55 patients had special investigations (Table 3).

A delay was observed in 1st stage-time recommended till time carried out, as 1.9 days for routine investigations and 4.6 days for special investigations whereas in 2nd stage-time taken for receiving the sample was 1 day and 3 days Respectively.

As most of the reports were normal, it showed that no discretion was exercised in sending the samples. The reason given for delay was that doctors were overworked with massive in-patients load and had little time to take samples[6].

Retrospective Study B - It Sixty-two patients took 133 investigations and there was no delay at any stage. This was due to the emergency nature of the disease. Average satisfaction score of doctors for this service was 83.6 per cent

Microbiological Services

Retrospective Study A – It Fifty-five patients utilized 73 investigations out of which 37 were special investigations. Delay in 1st stage was 1.4 days and in 2nd stage was 1.25 days (Table 3).

Retrospective Study B -it four patients utilized four investigations and there was no delay. Average satisfaction score by doctors for this service was 65.3 percent.

Biochemistry Services

Retrospective Study A- Fifty-four per cent of patients utilized 2423 investigations. All 547 had routine and 221 have special investigations. Delay for former in 1st stage was 1.36 days and in 2nd stage was 1.46 days (Table 3).

TABLE 3

DISTRIBUTION OF DISCHARGED CASES ACCORDING TO DIFFERENT SUPPORTIVE SERVICES UTILISED BY THEM IN MEDICAL UNITS 1989

Supportive Services	Unit I				Unit II				Unit III				Medical			
	W. No.	E No.	Tota No.	%	W. NO.	E. No.	Total No.	%	W. No.	E. No.	Total No.		W. No.	E. No.	Total No.	%
Blood Bank	24	2	26	23.1	21	1	22	31.8	19	2	21	30.4	64	S	69	100
Diet(special)	110	-	110	29.3	127	-	127	33.8	139	-	138	36.8	375	-	375	100
Pharmacy	228	39	267	30.8	269	48	317	36.6	239	43	20	32.5	736	130	866	100
Pathology	144	2	14S	32.9	173	4	177	39.9	117	3	120	37.0	434	9	443	100
Microbiology	17	-	17	30.9	27	-	27	49.0	11	-	11	20.0	55	-	55	100
Biochemistry	170	4	174	31.8	206	7	213	38.0	154	6	160	29.2	530	17	S47	100
Radiology	30		30	254	51	1	52	44.0	35	1	36	30.5	116	2	118	100
Special Investigation																
E.C.G.	38	4	42	29.7	55	1	46	39 7	40	3	43	30.4	133	8	141	100
Ultrasound	3	-	3	30.0	4	-	4	40.0	3	-	3	30.0	10	-	10	100
E.E.G.	2	-	2	22.2	4	-	4	44 4	3	-	3	33.3	9	-	9	100

Retrospective Study -ft Fifty-three patients utilized 399 investigations and there was no delay.

Averge satisfaction score by doctors was only 10.2 per cent. They argued that reports were not only inaccurate but in most of the cases, the reports did not tally with clinical diagnosis of the patients. Thus, this resource was grossly wasted as it was not of much-help in the management of the patients.

Radiological Services

As Xray films were scarce, extreme precaution was taken in using them. Only 118 patients took 127 services in the former study (A) and 5 patients took 8 services in the latter study (.B). There was a delay of 2.7 days for 38 patients in the former study but no delay in the latter study.

Average satisfaction score by doctors was 26.6 per cent as most of them felt a need for more Xray films which could have been utilized meaningfully for the benefit of the patients.

E.C.G. Services

In the former study 141 patients took 152 services whereas in the latter 73 patients took 173 services. No delay was observed due to its emergency nature. Here average satisfaction score of doctors was 89.7 per cent.

Oxygen Supply

It was in short supply quiet often leading to increase in morbidity and mortality. Incineration services were satisfactory.

Ambulance services were inadequate. Instead of transporting patients, the transports were utilized most of the time to get special investigations done from other hospitals which were not available in this hospital.

Mortuary services 'were even more inadequate, as only 2 vans were available for the whole hospital and most of the time relatives made their own arrangement.

RECOMMENDATIONS

1. Multiple factors viz patient characteristics, centralization of authority and Management handicaps of repetitive types could be solved by proper management techniques.

2. Stringent, written definite policies and procedures regarding admission, stay and discharge are to be provided to each department.

3. Hospital Admission scheduling system has to be followed so as to adjust the staff for smooth functioning of the hospital.

4. Use of certified hospital admission programme by strengthening management information system which could provide adequate relevant data for admission and surveillance programme.

5. Regular clinical meetings on fixed days are to be held so that doubtful diagnosis of patients can be discussed.

6. Strengthening the staff in all categories, depending upon the norms.

7. Administrative support is to be provided for controlling the staff.

8. The administrative side is to be run by the clinicians with post-graduate qualification in health and hospital administration only and not by virtue of the seniority.

9. Proper discretion is to be exercised while sending the investigations to various laboratories so that unnecessary over work, wrong reports and delay in reports is avoided.

10 More number of oxygen cylinders, ambulances and mortuary vans are to be provided.

11 Formation of utilization review committee is recommended which will coordinate the activities of the hospital.

12 Development of Resource Utilization Standard by which it could be possible to avoids unnecessary wastage of resources.

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प्रस्तुत लेख में उन घटकों का पता लगाने का प्रयास किया गया है कि आधुनिक प्रबन्धकीय तकनीकों के माध्यम से नियंत्रित तथा सुदृड़ किया जा सकता है, ताकि बड़े अस्पतालों में भारी संख्या में आने वाले अंतरंग रोगियों का पहले से उपलब्ध संसाधनों में रहकर ही उपचार किया जा सके। ऐसा करना इसलिए भी महत्वपूर्ण है कि हमारे पास अस्पतालीय संसांधनों की कमी है तथा ये संसाधन बहुत मंहगे भी हैं और दूसरी ओर गत वर्षों में जनसंख्या वृद्धि हुई है। अस्पतालों की संख्या में यद्यपि विस्तार हुआ है किन्तु बढ़ती जनसंख्या के अनुरूप इनकी संख्या पर्याप्त नही है तथा इनकी मांग और आपूर्ति में बहुत बड़ा अन्तराल है। इस लेख में तद्विषयक कुछ महत्वपूर्ण मामलों पर चर्चा की गई है।

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CHANGING ASCRIBED LIFESTYLE OF ILLITERATE VILLAGE WOMEN INTO HEALTHY LIFE EVENTS THROUGH INFORMATION, EDUCATION AND COMMUNICATION INTERVENTION**

Neelaksh K. Saxena*

ABSTRACT

The socio-cultural factors responsible for ascribed lifestyle of Indian illiterate village women are discussed in this paper. The author has made an attempt in this paper to simplify and integrate the IEC components into identified factors and develop semi-pictorial schedule of healthy life events. In addition, the author has discussed about motivating Indian, illiterate village women through the semi-pictorial, individualized and integrated IEC package to adopt healthy life events.

India as a fast developing country is making efforts to strengthen and expand the systems of primary health care. The objective of Health for All by 2000 AD' also directs us to look towards the declaration of Alma-ata (in 1978) which identified eight essential elements of primary health care. Family planning, immunization and proper nutrition are of greater concern for village women and children especially when they are mostly illiterate. In view of the fact that more than 70 per cent of our population resides in rural areas, the illiteracy, being one of the major factors, is affecting at two levels, viz. (i) health status of illiterate rural women; and (ii) health programme itself.

The present health systems research (HSR) project was formulated, with the technical guidance and managerial training provided by the National Institute of Health and Family Welfare, New Delhi. The World Health Organization, through Ministry of Health and Family Welfare, New Delhi, India, provided the financial support.

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PROBLEM

A woman is the central figure in family whose health status represents the standard of living of the whole family. But this aspect of Indian illiterate village women (IVW) is hindered by such factors as: (i) Her own illiteracy; (ii) Soclo-cultural barriers in the local rural communities or Rural Health Culture; and (Hi) Domination by the nead/elders in the family, to which she is subjected.

Consequently, her, own life events regarding: (i) scheduled spacing of child birth; (ii) status of maternal health; (iii) status of motherhood; and (iv) child rearing practices are adversely affected due to her existing levels of knowledge with low motivation towards 'Quality of. Life*. The outcome of these inhibiting factors appears in the form of following lifestyle' for the IVW.

(SET - A) Ascribed Lifestyle (ALS)	(A) Early/premature/un-spaced Child births, (B) Unsafe motherhood, (C) Poor maternal health, and (D) Unhealthy -child rearing practices.

Since this kind of lifestyle cycle rotates from generation to generation, as such it becomes an Ascribed Lifestyle (ALS) of a village woman, against the desirable national norms, national health and family welfare policies and programmes, demographic targets and overall scientific patterns as prescribed below:

(SET-B) HEALTH LIFE EVENTS (HLES)	(A) i. Time for 1st pregnancy	- After 2 years of marriage
	ii. Scheduled spacing between 1st and 2nd pregnancy	- Minimum 3 years
	iii. Time for terminal method	- After 5 years of 2nd child birth
	(B) Safe motherhood	
	(C) Good maternal health	
	(D) Healthy child rearing practices	- Based on i. Immunization ii. Nutrition iii. Affection iv. Education

Thus, the existing problem, i.e., the wide gap between the two sets of health behavior (or) between the ascribed lifestyles and the prescribed healthy life events, i.e., Set-A and Set-B, was taken up for this study with a view to minimizing it with certain specific interventions.

OBJECTIVES

General

To identify the socio-cultural factors responsible for 'Ascribed Lifestyle' of IWV and to promote 'Healthy Life Events' through integrated information, education and communication intervention.

Specific

i. To assess the level of information and to identify the factors responsible for 'Ascribed Lifestyle' of IVW;

ii. To simplify and integrate the IEC components into identified factors and to develop a semi-pictorial schedule of Healthy Life Events (HLEs);

iii. To motivate village women through semi-pictorial individualized and integrated IEC package to adopt the 'Healthy Life Events' (HLEs); and

iv. To evaluate the impact of above intervention.

PLACE OF THE STUDY

The locale of the study was Patna. It is a Tehsil in Jabalpur district in the State of Madhya Pradesh, i.e., in central part of India. It is at a distance of 32 kms. From city on road approaching district Damon. The study was conducted in selected four villages (Katra and Belkheda as experimental and Sakra and Jamunia as control groups of villages).

METHODOLOGY

In this field-cum-quacy experimental study, the design consisted of 214 control subjects and 328 experimental subjects in 4 (2x2) villages. The entire-count method was used for selection of sample as per requirements of the study.

The study was divided into three phases. Initially, in Phase I, the baseline survey was conducted to assess the existing levels of IEC and the factors responsible for the 'Ascribed Lifestyle' of IVW. Based on these findings, in Phase II, an intervention, for **a** period of 10 months, with systematic planning, preparation and discussion with local resource persons, was introduced, which was divided into 3 sub-phases as shown in Table 1. After the intervention, in Phase III, the evaluation was conducted which involved a post-intervention survey, using the same baseline survey schedule for impact evaluation.

PHASE *I* (The Preparatory Phase)

i. *Diagnosing/Understanding Community.* Initially, a good rapport was established to diagnose the community problems, identify the leaders, local resources and elicit local cooperation at the optimal level for the proposed intervention.

ii. *Baseline Survey*. Before conducting baseline survey, a systematically planned (i) staff training (ii) development of research instruments, and (iii) collection of secondary data and other necessary formalities were completed. The survey was conducted using a specially designed and pretested baseline survey schedule, consisting of 5 sections to seek information in accordance with the objectives of the project.

TABLE 1

THE DESIGN OF THE TRIPHASIC OVERLAPPING INTERVENTION PROGRAMME

Sub-Phase	Approach (Specific)	Period (Months)	Duration
I →	Mass	1st to 10th month	10 months
I +II →	Group	3rd to 10th month	8 months
I+II+III →	Individual	6th to 10th month	5 months
------ →			
# # # # →			

PHASE II (The Intervention Phase)

i. *The Triphasic Overlapping Intervention Design:* Ten months period of intervention was divided into three -sub-phases. The first sub-phase with 'mass approach', was conducted from 1st to 10th month. The second sub-phase with 'group approach' was added with ist sub-phase and was conducted from 3rd to 10th month. In the same manner, the third sub-phase with individual approach was added further with Ist and 2nd sub-phases and this was conducted from 6 to 10 months as shown in Table 1.

ii. *The Differential Communication Strategy (DCS):* During individual approach programme the DCS was used. It was intended to fulfil the priority needs of the eligible couples. The couples with one or two children and the newly married couples were considered under 'High Priority Group'. They were covered with high frequency group meetings and were benefitted by weekly home visits by the staff. All the other cases were taken under 'Priority Group'. They were covered with regular group meetings and were given fortnightly home visits. The planning and expansion under DCS is shown in Figure 1.

iii. *Comprehensive and Integrated Package of IEC.* The audio/visual/audio-visual materials were developed and used appropriately during the intervention for effective communication with mass, groups and individuals at the time of home visits:

A. During Mass Approach:
1. A set of 5 posters
2. Mass meetings
3. Video films (MCH and FP)

B. During Group:
4. Pictorial Flip Card (Form-1)
5. Total pictorial aids
6. Three dimensional aids
7. Real objects
8. Pre-recorded audio cassettes (with folk songs on immunization).

C. During Individual Approach:
9. Semi-Pictorial Flip Book Form-2
10. Semi-Pictorial Flip Roll Form – a
11. A set of 6 'Reminder Stickers'
12. Other supporting materials (as per need of any particular case)

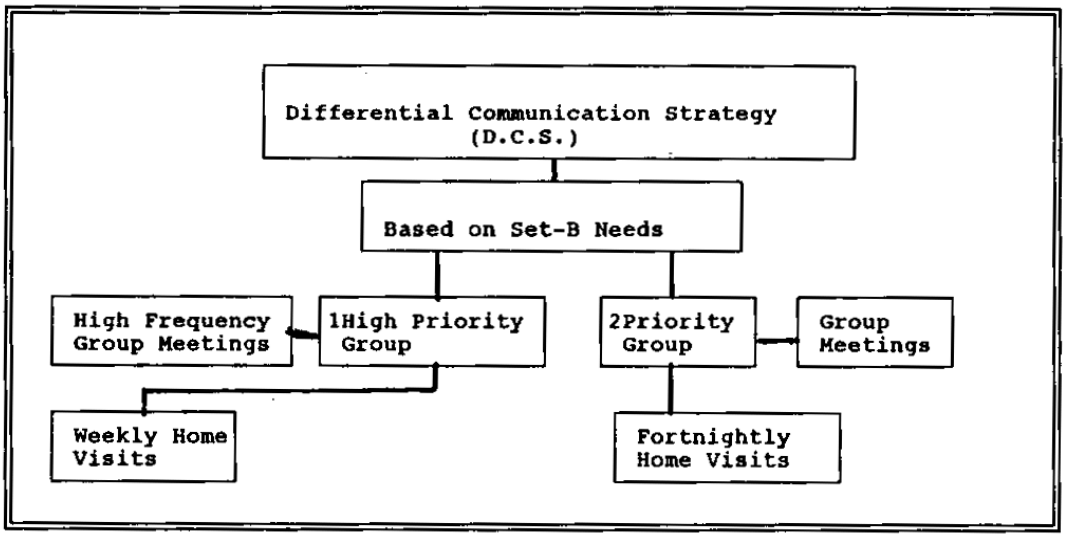

Figure -1

PHASE III (The Evaluation Phase)

i. ***The Post-Intervention Survey.*** This was conducted using the same Schedule (B.L.S.S.) at the end of 10 months intervention programme with the objective of impact evaluation.

FINDINGS

i. The socio-demographic profile of the respondents indicated that majority (70%) belonged to the age group of 15 to 30 years in the experimental group as well as in the control group.

ii. The religious composition of the two groups indicated that Hindus consisted of the largest proportion followed by Muslims. Caste-wise, most of the respondents belonged to the general category; very few of them were S.C. and S.T.

iii. Further, at the time of baseline survey only about 13 per cent of The IVW had a fairly high level of knowledge about the spacing methods-in family planning. Most of them (48%) had moderate level of information/knowledge about spacing method and a little over one-third had low level of knowledge. However (after the intervention) the post-evaluation survey revealed that the percentage of IVW in so-far as the knowledge regarding spacing methods was concerned, swelled as high as 85 per cent and correspondingly their percentage under low and moderate categories of knowledge/information squeezed. In contrast, the IVW in the control group showed a negligible amount of variation in all the 3 categories. The net gain, after comparing with the control group and adjusting with its variations came to the tune of 71 per cent. This goes to show a high impact of the effectiveness of the IEC intervention, designed in the present study.

iv. It was also observed from the results that the effect of IEC Components on maternal health and safe motherhood were more pronounced. The respondents in the experimental group were having only 2.13 per cent level of knowledge about the ante-natal and post-natal care at the time of baseline survey. The moderate and low levels were 93.30 per cent and 4.57 per cent respectively. But after the programme intervention, the findings revealed that 95 per cent of respondents were able to understand about the maternal health and sate motherhood aspects correctly. This achievement is one of the major successes attributable to the differential communication strategy adopted for the purpose.

v. Another important item was child rearing practices for which the Status of the IEC was also found very poor in the high category during pre-intervention period, i.e., no one could respond or explain about the child's rights, nutrition, etc; it was almost nil. But

this was increased considerably up to 82.06 per cent in the experimental group while in the control group it remained the same. Thus, the provision of IEC components are very important to increase or promote the health status of IVW as well as the first-hand information regarding the child rearing practices on scientific lines.

vi. The findings also revealed that the Ascribed Lifestyle (ALS) of IVW can be altered/changed to a great extent with, the help of careful and well planned integrated IEC package and also by various approaches. Though these changes may occur slowly but 'change' can be brought about. At the time of baseline survey, only 4.27 per cent respondents or IVW could understand the slogans and messages on the health aspects, but after the intervention through total pictorial/visual aids used, 87 per cent of them could be able to follow the messages, while in the control group, there was no change at all. From generation to generation, most of the rural people get accustomed to follow the same social and cultural patterns of behavior, consciously or unconsciously.

vii. The present study has shown that these existing social barriers could be altered/modified or changed with the help of improving their level of knowledge and by inducting changes in attitudes about their health. During the post-intervention period, the IVW came to know and understand about the ideal family size for them and also they were not feeling that much subjugated in the family. The cultural barriers and traditional practices were gradually breaking down as in the case of overloaded value for male children. However, in the control group, it remained the same. Regarding 'decision-making and social status, it was found that 17.69 per cent IVW were having low level of decision-making capacity in the family and 64.02 per cent had moderate level of participation in the family decision-making process. Only 18.29 per cent were able to participate in decision-making at the time of baseline survey. After the intervention, this figure of 18.29 increased to 84.85 per cent. It was observed that the women were allowed to come out from the family and no significant change was reported in the control group.

viii. It is noteworthy that before the commencement of the intervention, a high proportion of IVW (73%) had a moderate and one fourth (25%) of them had low levels of motivation for seeking information and/or accepting the family planning services. In fact, merely 2

per cent of them were found to have a high degree of motivation. However, after the intervention it was encouraging to note that more than 90 per cent of them were found to have very high degree of motivational level, after shifting from low and moderate categories. This apparent difference of increase in 90 per cent of the 1VW after adjusting the difference with the control group worked out to be 88 per cent which is a very significant gain, attributable to the impact of intervention.

It was also found that only 24 per cent of the IVW properly utilized the health facilities available to them and 51 per cent of them were reported to utilize the health facilities at moderate level earlier. But after the intervention the level of utilization of health facilities significantly increased from 24 to 94 per cent. Thus, the intervention programme made them to understand and also created awareness in utilizing the health facilities available to them.

The results of the present study reinforce the fact that the ascribed lifestyle of IVW can be changed by using the integrated information, education and communication packages in a well-planned and comprehensive manner. The highest impact of 1EC packages was perceptible on IVW's motivational level (Rank I) followed by upon understandability (Rank II), utilization of health services (Rank III), decision-making (Rank IV), and least upon cultural (Rank V) and social barriers (Rank VI).

RECOMMENDATIONS

The study also embodied certain suggestions and recommendations at the end. The more important ones are given below:

i. Based upon experiences and problems faced in the beginning of the intervention, it is suggested that the felt-needs of the rural communities should be given first priority. It could be food, water, shelter, health or for that matter, any need. In fact, any information or health education cannot be thrust upon any one with empty stomach, this is true of economically backward and illiterate weaker sections who mostly remain hand-to-mouth and whose socio-psychological environment is different.

ii. A major paradox in the rural health sector is that while there is Considerable 'unmet need', utilization of existing health services is inadequate. Thus, the policy for rural health has the dual task of improving health services as well as raising demand for 'health'.

iii. Attention to children and women is generally subsumed under 'Maternal and child health services'. These do not pay particular attention to the female child who is at a cultural disadvantage, nor do they attend to 'non-maternal' aspects of women's health. Even their potential to lower mortality due to 'maternal' causes among women is not being met The ambit of MCH programmes must be extended to include all women, regardless of their reproductive status and to address the general health problems which underlie the high mortality rates among female of all ages.

iv. It is now well known that people rich or poor are reluctant to limit Their fertility unless they are assured of the survival of their children. Therefore, although family planning services have in the past almost submerged maternal and child health care, there is clearly a need to rectify this situation as that child mortality reduction assumes the first priority. Thus, the links between health and population go beyond the exigencies of service delivery to common underlying social and economic phenomena.

v. Women and children are severely disadvantaged in health matters, for which the family has first level responsibility. Within the family, women are the main health care providers, but they are limited in their access to external health care institutions. Women's education and employment status affect both the quality of health care provided within the home and the degree to which outside health is sought and utilized, reflecting on their own health and that of other family members. Given the poor health status of the women and children, policies must be oriented to providing them the necessary health care in an accessible manner. And given women's responsibility for health maintenance and sick-treatment, policies must also aim to build women's competence in these areas.

vi. Women, especially those in rural areas, cannot assert their right or Need for health care if they lack even elementary education. While health education by personnel in contact with women and families is important, many health problems are rooted in beliefs, attitudes and practices which may not be influenced by health knowledge alone. Thus, the policies to expand women's formal and non-formal education are of immediate relevance and concern.

vii. The 'economic' issue of the cost of health technologies (such as IEC, AV aids and other materials)is inextricably linked to the

Social issue of their 'acceptability'. Primary health technologies are 'demand-oriented' and as such clients perceptions, attitudes and practices determine their acceptance, use and effectiveness. 'Cultural appropriateness' is of prime importance to the spread of a health technology. Unless appropriate, the technology (IEC) will not be sought after by the clients; and it will only be perceived as high opportunity costs. Even strenuous efforts by health workers will then be in fructuous, and the IEC technology will become 'costly*.

viii. While dealing with illiterates specially, the use of audio/video/audio-visual aids or such other materials must ensure that: (a) written contents should be avoided or they should be minimum if necessary; (b) plain, simple, less colored pictures, real objects; short demonstration, etc., result in more convincing and perceivable effect

ix. IEC strategies for 'need fulfillment objectives' and 'demand generation objectives' should be distinctly identified.

x. Research must form an integral part of message development and activities such as audience research, pilot testing of materials and field validation of the message must take place.

xi. Although there is no gain saying the fact that desire for a son, which is a prime determinant of family size, to a large extent stems from financial and old age security considerations, emotive aspects of having children, whether a boy or a girl, should also form an integral and important part of message development.

xii. IEC managers and decision-makers, at all levels of the system, must receive training in the application of research data for IEC.

Lkkjk'k

प्रस्तुत लेख में भारत की निरक्षर ग्रामीण महिलाओं की आरोपित जीवनशैली के लिए उत्तरदायी सामाजिक–सांस्कृतिक घटकों के बारे में चर्चा की गई है। इस लेख में लेखक ने ज्ञात घटकों के साथ शिक्षा, सूचना तथा संचार के घटकों को समेकित करके उत्तरदायी घटकों को सरल ढंग से प्रस्तुत करने का प्रयास किया है। इसके अतिरिक्त लेखक ने चित्रों, व्यक्तिगत एप्रोच तथा एकीकृत आई0ई0सी0 पैकेज के माध्यम से स्वस्थ जीवनशैली अपनाने हेतु भारत की अशिक्षित ग्रामीण महिलाओं को प्रोत्साहित करने के बारे में लेख में चर्चा की है।

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AWARENESS OF DIFFERENT CONTRACEPTIVE METHODS AMONG CURRENT FAMILY PLANNING ACCEPTORS IN URBAN PONDICHERRY

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ABSTRACT

The Study attempts to find out the awareness level of various available methods of contraceptive among different segments of the population of urban Pondicherry. Results show that the higher the education of husbands, the more was the awareness and acceptance of different contraceptive methods. Most of the acceptors of tubectomy were unaware of vasectomy. Similarly most of the male acceptors were unaware of the contraceptive methods available for females, particularly oral pills and IUD.

Family planning is defined as a way of thinking and living that is adopted voluntarily upon the basis of knowledge, attitudes and responsible decisions by individuals and couples in order to promote the health and welfare of the family, group and thus contribute effectively to the social development of a country[5].

Since independence India's population has more than doubted, growing at the rate of about 2.0 per cent per year. A direct relationship between education and willingness to utilize contraceptives has been observed[2]. The motivating factors among women leading to acceptance of contraceptive methods were documented[1]. Age, average number of living children per women, economic considerations and health aspects, also influenced any decision on use of contraceptives. The reasons for women's acceptance of sterilization (tubectomy) along with those for non-acceptance of sterilization (vasectomy) by their husbands were analysed[6].

In India there are about 145 million eligible couples as per 1991 census[3]. The objective of family welfare programme is to motivate all eligible couples to adopt a small family norm so as to stabilize India's population. The long-term goal of the programme is to reduce the net reproduction rate to one by 2000 AD.

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To make contraceptive programme a success story, awareness of the different contraceptive methods among the people becomes important The present study was undertaken to understand the extent of awareness of contraceptives among different segments of urban Pondicherry.

MATERIALS AND METHOD

The study was conducted in the Pondicherry region of the Union Territory of Pondicherry during the period January-June, 1994. There are six health institutions in this region providing maternal and child health care including family welfare services. These six institutes are Maternity Hospital, Jawaharlal Institute of Urban Health Centres, Kundukuppam, Primary Health Centres in Mudaliarpet and Muthialpet and Subsidiary Health Centres in Odiensalai .and Kosapalayam. Family welfare services include those for conventional contraceptives, facilities for insertion of intrauterine devices, sterilization for males and females, distribution of oral contraceptive pills and also family welfare education.

The data relating to the number of eligible couples covered by these institutions along with information regarding couples practicing/adopting different contraceptive methods were readily available in these institutions as well as in Directorate of Health and Family Welfare Services, Pondicherry.

A sample of fifty acceptors each of different contraceptive methods viz. tubectomy, vasectomy, intrauterine device, condoms and oral pills (during the period between 1989 and 1993) in all the six health institutions were selected by a random sampling method making use of the random number tables. The acceptors thus selected were interviewed individually in their houses using a pretested questionnaire designed for the purpose of the study. The data thus obtained were then analysed.

RESULTS AND DISCUSSION

i. ***Extent of Awareness of Different Contraceptive Methods'*****.** It is observed that 49 (98%) of the sample of tubectomised women interviewed were aware of tubectomy (Table 1). The proportions of tubectomised women who were aware of vasectomy and oral pills were 64 and 66 per cent respectively.

Understandably 100 per cent of the sample of IUD users was aware of IUD. Forty two of them (84%) were also aware of tubectomy and 36 of them (72%) were aware of oral pills. The proportions of oral pill users who were aware of tubectomy and oral pills were high *i.e.* 98 per cent and 96 per cent respectively. However, the awareness of vasectomy and condoms was low among the women studied.

TABLE 1

EXTENT OF AWARENESS OF DIFFERENT CONTRACEPTIVE METHODS AMONG STUDY SAMPLE OF DIFFERENT CONTRACEPTIVES ACCEPTORS

Family Planning Methods	Extent of Awareness*									
	Tubectomy Group		IUD Group		Oral Pills Group		Vasectomy Group		Condom Group	
	No.	%	No.	%	No.	%	No.	%	No.	%
A. TEMPORARY										
1. Condom	25	50	24	48	24	48	34	68	50	100
2. Oral Pills	33	66	36	72	48	96	12	24	32	64
3. IUD	25	50	50	100	38	76	18	36	28	56
B. PERMANENT										
1. Vasectomy	32	64	17	34	21	42	50	100	39	78
2. Tubectomy	49	98	42	84	49	98	32	64	46	92

***Multiple Responses**

As expected, the entire sample of vasectomies men was aware of vasectomy as a method of contraception. Thirty four of them (68%) were also aware of condoms and 32 (64%) were aware of tubectomy. All the 50 (100%) condom users interviewed were aware of condom as a method of contraception. The awareness of vasectomy and tubectomy were high *i.e.* 78 per cent and 92 per cent respectively. However, the awareness of oral pills and IUD was low among the men interviewed.

ii. ***Perception of Safe/Convenient Contraceptive Methods:*** It is clear from Table 2 that 98 per cent of the acceptors of tubectomy considered tubectomy as safe/convenient contraceptive method followed by 84 per cent of IUD users, 98 per cent of oral pill users and 92 per cent of condom users. In case of condom. 100 per cent of condom users opined condom is safe/convenient contraceptive method while only 50 per cent of tubectomised 48 per cent of IUD acceptors and 48 per cent of oral pill users considered condom is safe contraceptive method. In case of IUD, only half of the acceptors of tubectomy and all the respondents of IUD acceptors considered the IUD as safe/convenient contraceptive method. In case of vasectomy, 100 per cent of vasectomy acceptors and 78 per cent of condom

users considered vasectomy as a safe/convenient contraceptive method. In case of oral pill, 96 per cent of the oral pill users considered oral pill is safe/convenient contraceptive method while acceptors of tubectomy, IUD, vasectomy and condom considered it is safe but the percentage varied from 24 to 72.

TABLE 2

PERCEPTION OF SAFE/CONVENIENT CONTRACEPTIVE METHODS AMONG STUDY SAMPLE OF DIFFERENT CONTRACEPTIVES ACCEPTORS

Safe Convenient Family Planning Identified	Responden									
	Tubectomy Group		IUD Group		Oral Pills Group		Vasectom Group		Condom Group	
	No.	%	No.	%	No.	%	No.	%	No.	%
Condom	25	50	24	48	24	48	34	68	50	100
Oral Pills	33	66	36	72	48	96	12	24	32	64
IUD	25	50	50	100	38	76	18	36	28	56
Vasectomy	32	64	17	34	21	42	50	100	39	78
Tubectomy	49	98	42	84	49 50	98	32	64	46	92
TOTAL	50	100	50	100		100	50	100	50	100

Thus it may be noted that there were a sizeable proportion of respondents who still did not consider the contraceptive methods they had already adopted or were currently using as totally safe or convenient.

iii. ***Source of Information about Contraceptive Methods:*** It is seen from Table 3 that health personnel (doctors and health workers) were the main sources of information for 44 per cent of the vasectomy acceptors, 30 per cent of the tubectomy acceptors and 24 per cent each of IUD and oral pill users. Friends were the main source of information for 38 per cent of IUD users and 28 per cent of oral pill users. The important source of information for the condom users was advertisement (24%) followed by cinema and television and friends. The proportion of respondents who mentioned other sources like relatives, and literature/books were low in all the groups. Surprisingly 36 per cent of the condom users were not able to specify any source.

iv. ***Motivators Responsible for Adopting Different Contraceptive Methods:*** Family members and relatives who accepted contraceptive methods had been motivators for 60 per cent of tubectomised women, 38 per cent of IUD users and 12 per cent of oral pill users. It is to be noted that there were no motivators for 28 per cent of the tubectomised women, 72 per cent of oral pill users and 36 per cent of IUD users (Table 4).

TABLE 3

SOURCES OF INFORMATION ABOUT CONTRACEPTIVE METHODS FOR DIFFERENT CONTRACEPTIVES ACCEPTORS

Sources of Information	Contraceptive Methods Practiced									
	Tubectom		Vasectom		IUD *4*		Oral Pills		Condom	
	No.	%	No.	%	No.	%	No.	*%*	No.	*%*
Doctors and Health Workers	15	30	22	44	12	24	12	24	-	-
Friends	6	12	16	36	19	38	14	28	8	16
Relatrves	10	20	4	8	6	12	6	12	-	-
Advertisement	5	10	-	-	6	12	6	12	12	24
Literature Books	4	8	4	8	3	6	5	10	3	6
Cinema and Television	5	10	-	-	-	-	-	-	9	18
Husband	-	-	-	-	4	8	7	14	-	-
None	5	10	2	4	-	-	-	-	18	36
Total	50	100	50	100	50	100	50	100	50	100

v. ***Person Making Decision for Adoption of Contraceptive Methods*** In the tubectomy, UD and oral pill user groups, the decision to adopt a particular contraceptive method was mostly made by the user herself viz (38%), (44%) and (38%) respectively. It is observed from Table 5 that the decision making in more than 90 per cent of the clients for all the three methods viz tubectomy IUD and oral pills were the women themselves and/or their husbands. Other family members took the decision only in about 6 per cent of the cases. This is definitely a healthy trend since the best persons to take any decision regarding limiting family size would be the husband and wife.

CONCLUSION

The awareness of different contraceptive methods among the sample of tubectomised women and condom users were above 50 per cent This definitely is a healthy trend. Among IUD and oral pill users the awareness of vasectomy and

TABLE 4

DISTRIBUTION OF RESPONDENTS BY PRESENCE OF MOTIVATORS RESPONSIBLE FOR
ADOPTING TUBECTOMY

Motivators	Respondents					
	Tubectomy		IUD		Oral Pills	
	No.	%	No.	%	No.	%
Family Members and Relatives	30	60	19	38	6	12
Friends	4	8	10	20	8	16
Neighbours	2	4	3	6	-	-
None	14	28	18	36	36	72
TOTAL	50	100	50	100	50	100

TABLE 5

DISTRIBUTION OF WOMEN RESPONDENTS BY PERSON MAKING DECISION FOR ADOPTING
TUBECTOMY/1UD/ORAL PILLS

Person Making Decision	Contraceptive Methods Adopted					
	Tubectomy		IUD		Oral Pills	
	No	%	No.	%	No.	%
Serf	19	38	22	44	19	38
Self and Husband	15	30	19	38	19	38
Husband Alone	13	26	8	16	11	22
Other Family Members	3	6	1	2	1	2
TOTAL	50	100	50	100	50	100

condom was low. Hence attempts may be made to increase their awareness appropriately. Among vasectomies men, the awareness of temporary contraceptive methods available for women was very low which demands urgent action. Health personnel, friends and electronic media were the most important sources of information regarding contraceptive methods. Decision regarding limiting family size was mostly taken by the husband and wife. This is definitely a healthy trend.

सारांश

प्रस्तुत अध्ययन में परिवार नियोजन हेतु उपलब्ध विभिन्न उपायों के बारे में पाण्डिचेरी के नगरीय क्षेत्रों में विभिन्न जनसंख्या समूहों के जागरूकता–स्तर का पता लगाने का प्रयास किया गया है। अध्ययन से प्राप्त परिणामों से पता चलता है कि पुरूषों का शैक्षिक स्तर जितना ऊँचा था, उसी अनुसार परिवार नियोजन के विभिन्न उपायों संबंधी उनकी स्वीकार्यता एवं जागरूकता का स्तर अधिक था। जिन महिलाओं ने नसबन्दी कराई थी, उनमें से अधिकांश को पुरूष नसबन्दी के बारे में जानकारी नहीं थी। इसी प्रकार, अधिकतर पुरूष, स्त्रियों के लिए उपलब्ध परिवार नियोजन के विभिन्न उपायो, विशेषकर खाने की गर्भ निरोधक गोलियों और आई0यू0डी0 के बारे में अनभिज्ञ थे।

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