

Original article

Health-seeking pathway of patients coming to a tertiary care hospital in Vadodara City

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Abstract

Background:

It is often seen that a Government hospital is preferred by those patients who cannot afford the health-care costs in other hospitals. In the absence of a systematic referral system, the follow-up of patients suffers and in turn affects the utilization of the public health care facilities. An attempt has been made to find out the health-seeking pathway of patients coming to one such Government Hospital in Vadodara city and the reasons for preferring to choose this hospital for health-care.

Aim: To find out the health-seeking pathway of patients coming to this tertiary care Hospital in Vadodara city and the reasons for preferring to choose this hospital for health-care.

Study Area: This study was conducted in the largest referral hospital (teaching hospital) which caters to primary, secondary and tertiary health care needs of the people of the state.

Sample size: A total of 183 patients coming to various OPDs and wards of the General Hospital were interviewed using oral questionnaire. Non-probability proportional sampling technique was used.

Statistical analysis used: Data entry and analysis was done using Microsoft Excel Worksheet 2007 and analysis by Epi-Info 5.6.D

Results & Conclusion: Majority of the patients in the study attending the OPDs and wards of Government Hospital were in the age group of 18-58 years. Almost an equal number of males and females attended the hospital. With regards to the health-seeking pathway and behaviour of

the patients, 44.81% of them came directly to the Government Hospital without consulting other local doctors (PHCs, CHCs and private clinics-General Practitioners). 13.75% sought treatment here due to lack of satisfactory treatment at other medical centers.

Keywords: Health-seeking pathway, Government hospital

Introduction:

The hospital where this study was conducted has 1,118 beds across several clinical specialties and subspecialties, with an annual outdoor attendance of 5 lakh patients, annual indoor admission of 49,000 patients and bed occupancy rate of almost 90%. This is the average daily bed occupancy rate, considering 49,000 patients per year or 365 days= 135 indoor patients on a given day.¹

It is often seen that a Government hospital is preferred by those patients who cannot afford the health-care costs in other hospitals.²

A recent trend in today's public health system is that of "decentralization" of health services. This means developing a model of comprehensive primary health care system by joining different settings and integrating the efforts of different parties within and outside the health sector.^[3] This synergistic effect would help to strengthen human and social capital development and reduce health inequity. This ideology has been propounded in the National Health Policy (NHP) 1983 and 2002 and further reinforced in the National Rural Health Mission (NRHM).

The primary health care infrastructure is expected to meet over 80

percent of the health care needs of the population and refer the rest to secondary/tertiary health care institutions. However, owing to inadequate infrastructure, many of the cases that could have been managed at the PHCs are referred. There is no communication between the referring and referral centers on the case history or treatment provided to referred patients. Such patients return to the PHCs only if they have been cured after referral. If not, they resort to private health facilities. Thus, in the absence of a systematic referral system, the follow-up of patients suffers and in turn affects the utilization of the public health care facilities.² Review of studies conducted in different countries illustrate how a well-developed primary health care system would reduce all causes of mortalities, improve health status, reduce hospitalization and be cost saving despite disparities in socioeconomic conditions.^{3, 4}

A timely referral strategy is also required to strengthen the health care services. The referral should be undertaken when the prescriber (doctor) is unable to manage the patient due to inadequate experience or expertise or non-availability of appropriate facilities.⁴

As a result of rapid urbanization, people tend to move away from rural to urban areas. Disadvantaged citizens have difficulty in accessing quality health care if they become very ill. They bypass local doctors to seek help from outpatient clinics of urban hospitals.⁵

Objective

To study the health seeking pathway of the patients who come to Government Hospital, Vadodara.

Material and methods:

Sample Selection:

This tertiary hospital in Vadodara has an average of 1620 patients out-door attendance that includes regular and emergency patients as well as those

patients who require tertiary referral care. Most of these patients are supposed to be referred cases as this hospital is a tertiary care hospital. But, as a matter of fact, over 65% of these patients have minor complaints and thus the hospital works as a primary unit of the city.

We interviewed, using oral questionnaire, 183 patients who came to the various OPDs and wards of the General Hospital. Non-probability proportional sampling technique-a type of convenience sampling, was used for the selection of subjects. 15 patients each were selected from the wards and OPDs of medicine, surgery, orthopedic, pediatric, obstetrics-gynecology departments, 9 patients each from skin, ARV clinic, ophthalmology, ENT wards and OPDs (as per the proportional inflow of patients). Interviews were taken by selecting equal number of patients from the total wards or units of the specified clinical sections thereby trying to minimize selection bias.

Study Duration:

The study was conducted over a period of 7 months from December 2009 to July 2010.

Enrollment:

The subjects were selected at the time of their exit from the OPDs or after at least 2 days of hospitalization in the wards. They were explained the objective of the study, and only those patients who gave verbal consent and showed willingness to participate in the study were interviewed. Interviews were taken after assuring confidentiality. They were given the freedom to withdraw at any time during the interview (names used in the text are not the real names of the clients). Out of the patients interviewed, two of them did not give consent for the interview. The questionnaires were filled in the language that the patients understood. The study used a semi-structured instrument with open ended questions for the following:

I. Preference given to government hospital over the other primary health care centres or community health centres (in case of patients coming from rural areas)

II. Preference for being treated at government hospital rather than other health centres, private doctors or hospitals

III. Reasons for being referred to government hospital.

The verbatim used by the patient were noted at the same time and utilized at the time of data analysis. Non-verbal assessment was done simultaneously. Each interview lasted for about 20-25 minutes.

Study Tools:

This is a cross-sectional quantitative study supplemented with qualitative data, based on an open-ended semi structured Performa. Information was obtained with regards to the above mentioned questions.

Qualitative research in this study was attempted to answer how and why of the tools stated above, and to draw logical inferences by supplementing the quantitative data.

Data Analysis:

For quantitative data, data entry was done using Microsoft Excel Worksheet 2007 and analysis by Epi-Info 5.6.D

The qualitative data entry was done using group codes and numbers which were later regrouped to get an idea of the emerging trends and patterns. Verbatim relevant to each group was translated into English and mentioned accordingly.

Results:

Majority of the patients (70.5%) in the study attending the OPDs and wards of government hospital were in the age group of 18-58 years. Almost equal number of males and females (50.8% and 49.2% respectively) attended the hospital for health services. Hindus formed 79.8%

while Muslims comprised 18.6% of the study group. Of those patients studied, 34.1% had primary education, while 26.3% were illiterate. About 43.8% were engaged in skilled work, while 27.2% were unskilled workers. Of the patients who chose to seek treatment at Government Hospital, 44.8% were residents from rural, 27.3% were from urban city and 27.9% were from urban slum dwellers. (Table 1)

In this study, only 6.6% from below poverty line, 13.1% from poor income group, 31.7% were from lower middle income group, 25.1% from upper middle class, 15.3% from high class and 8.2% from upper high class availed the services of the hospital.

The reasons being- excess expenditure incurred in private (18.6%), good review regarding treatment (9.3%) and efficiency of doctors (9.3%), known to doctors at the hospital (6.97%), getting government bills passed (4.65%), for further proper investigations and/or operations (4.65% each), hospital is situated near residential area (4.65%), not satisfied with the treatment at private/local doctors (2.3%).

55.2% of the patients came in directly to government hospital while 44.8% were referred. (Table 2)

Most common reasons for coming directly to government hospital were* free treatment (14.9%), regular treatment at the same hospital (11.9%), effective treatment and hospital being located near residential area (9.9% each), on recommendation of friends and relatives (8.9%), good services and facilities at this hospital (7.9%), unsure of proper facilities elsewhere (6.9%), no knowledge of any other such hospital elsewhere/ at their village (4.9%), doctor not present at the local hospitals or investigations not being done there routinely (4.0%), came in emergency condition, bad experiences at private hospitals in the past (3.96%), Government employee –for getting bills passed/ fitness certificate (2.97%)

* Multiple answers. It was difficult to get complete answers to all the questions in case the patient's condition was serious

Ramesh, 36 year old, a labourer from urban slum said that they should have money to go elsewhere for treatment.

The poor prefer to come here for free treatment. Dashrathbhai, 45 year old male, earning 4000 rupees a month and having a family of 4, came from rural Dabhoi to the hospital. On being asked the reason, he replied that he had come there (hospital) only because he had gotten free treatment.

Ritaben, 40 year old, with family income of rupees 10,000 per month, 7 family members and residing in rural area came in here as there were no equipments elsewhere, the medicines were also not good. Darjibhai, 56 year old driver from urban city had faith in the treatment here.

Table 1: Distribution with respect to the socio- demographic pattern

	N=183	%	95% CI
SEX			
Males	90	49.2	41.7-56.7
Females	93	50.8	43.3-58.3
CASTE			
Hindus	146	79.8	73.2-85.3
Muslims	34	18.6	13.2-25
Others	3	1.6	0.1-6.9
EDUCATION			
Illiterate	44	26.3	19.8-33.7
Pre-school	2	1.2	0.1-4.3
Primary	57	34.1	27.0-41.9
Secondary	36	21.6	15.6-28.6
Higher secondary	14	8.4	4.7-13.7
Graduate	14	8.4	4.7-13.7
OCCUPATION			
Unskilled	46	27.2	20.7-34.6
Semi-skilled	22	13.0	8.3-19
Skilled	74	43.8	36.2-51.6
Highly skilled	27	16	10.8-22.4
AREA OF RESIDENCE			
Rural	82	44.8	37.5-52.3
Urban city	50	27.3	21-34.4
Urban slums	51	27.9	21.5-35

According to Nitaben, a 23 year old female who came from the urban slum area and earning rupees 900 per month,

“specialists were available at the hospital, and that too at a low cost”.

An additional 13.75% could have been included to have come directly since they had earlier visited other medical facilities before coming to this hospital.

With regards to the health-seeking pathway and behavior of the patients, 44.81% of them came directly to government hospital without consulting other local doctors (PHCs, CHCs and private clinics-General Practitioners). 13.75% came to government hospital for treatment since they could not get satisfactory treatment at other medical centers. (Figure 1)

The number of patients coming directly for treatment at the tertiary care hospital is significantly higher than those being referred from rural and urban cities and slums. (The difference being significant at 95% confidence limits, p=0.0018. (Table 2)

Table 2: Distribution of patients with respect to mode of referral and area of stay

Variable	Mode of referral		Total N=183 (100%)
	Direct 101(55.2%)	Referred 82 (44.8%)	
Rural	34 (31.7%)	48 (63.2%)	82 (44.8%)
Urban city	36 (33.6%)	14 (18.42%)	50 (27.3%)
Urban slums	31 (28.97%)	20 (26.31%)	51 (27.9%)
Chi-square 12.6 at df 2 p .0018			

Table 3: Distribution with respect to

Referred	Type of treatment		N=178
	Minor complaints N=86 (48.3%)	Complicated cases N=92 (51.7%)	
No	56 65.1%	42 45.7%	98 55.1%
Yes	30 34.9%	50 54.3%	80 44.9%
Chi -square-6.81 df:1 p 0.009			

referral and type of treatment availed

The patients in rural areas visited nearby health care centres and later were referred to government hospital due to

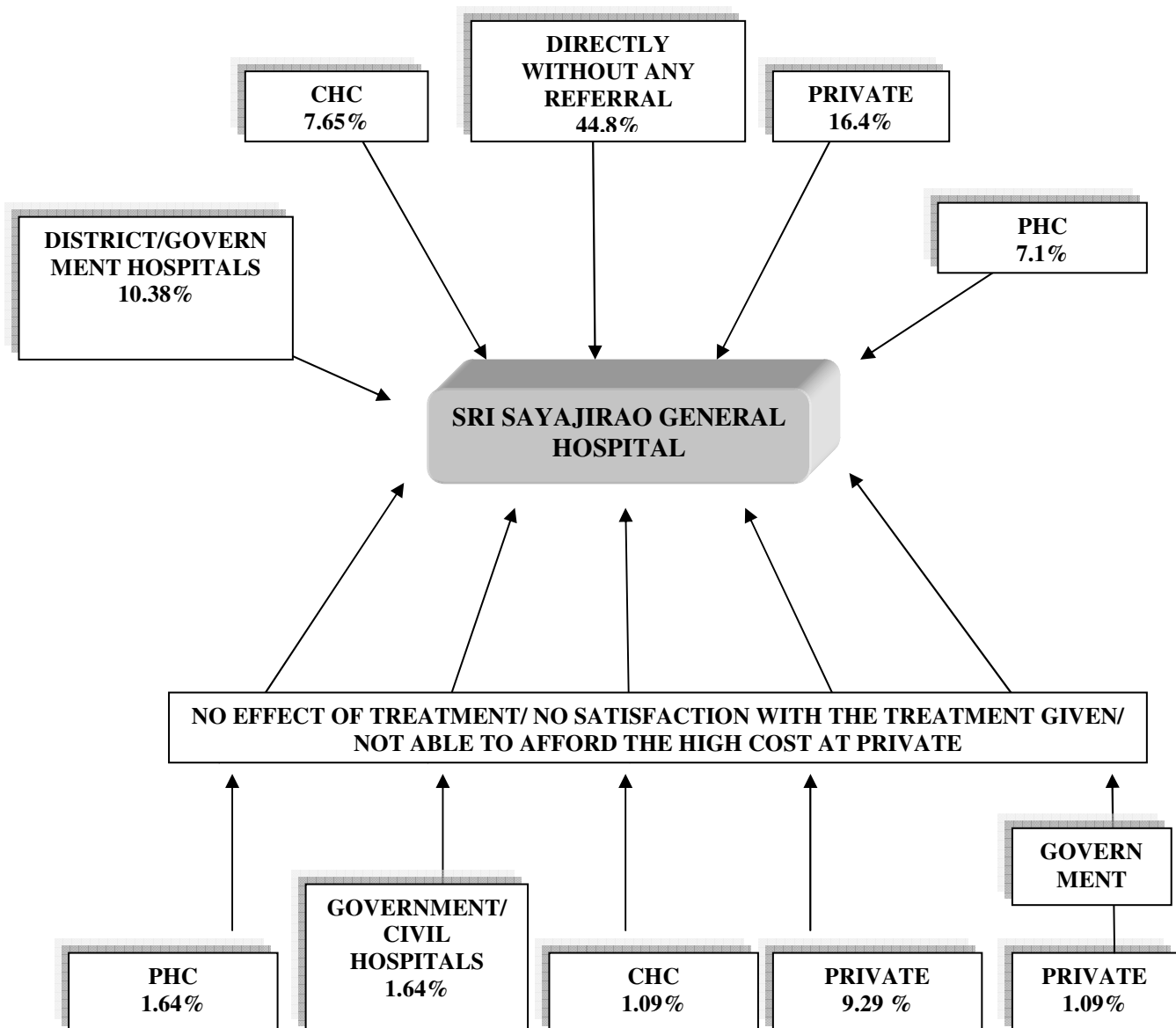
lack of money, no doctors/investigations at private or local hospitals.

The main reasons for the patients to have been referred from other health centers were- further investigations and/or diagnosis, no improvement with treatment at the previous/other health centres.

Madhuben, 60 year old housewife, coming from the urban city area, was being treated at private hospital for paralysis She left the treatment

there and came to this hospital. On being asked the reason, she replied that the treatment was not effective in spite of having spent a great amount of money in private health care centers.

Figure 1: Distribution of patients with respect to their health seeking pathway.



The reasons some patients were not treated at other health centers were: lack of facilities to cater to serious medical/surgical conditions or accidents, absence of doctors at the various other health centers, some doctors were not ready to take emergency cases in their private clinics, while in some cases, the doctors in rural areas were either absent or could not come to a specific diagnosis for treatment (especially in case of paediatric age groups).

Median time interval between signs and symptoms and seeking treatment at health centers other than government hospital was 54 days (range 1-202 days), showing at government hospital after being referred from other health centers was 144 days (range 1- 459 days). Median time interval before getting treatment was 64 days (range 1-217 days).

Almost half (48.3%) of those who came in for treatment at government hospital had complaints that could have been treated at secondary care centers (CHCs / District Hospitals or General Medical Practitioners), and 51.7% of the patients had serious complaints requiring referral. (Table 3) Of those who had come for treatment of minor complaints, 65.1% of the patients had come directly to government hospital for treatment instead of showing at local medical centres, while 34.9% of the patients had been referred by the doctors at other medical centres (Table 3). Of those coming for major complaints or complicated cases to government hospital, 36.3% had travelled a long distance from rural areas. (Table 4) Gopal, a 40 year male, came all the way from a small village of MP travelling 10 hours in a train for getting tablet ranitidine for complaint of pain abdomen for last one week, which he otherwise could have got free from the PHC in his village or for mere Rs 0.5/ tab from any medical store from the nearby place.

Of the patients referred to government hospital for further treatment 6.57% belonged to below poverty line

group. In contrast, 56.9% of the lower middle class income group patients came in directly to government hospital for treatment.

Almost all the patients who were referred to government hospital were asked to go to government hospital having been given some initial treatment. 30.8% of patients were referred to government hospital because they belonged to lower class income group and could not afford the expensive treatment at private hospitals/clinics.

In the study group, 48.3% of the patients had come for treatment of minor complaints while 51.7% had come for complicated/chronic complaints. (Table 4)

Discussion

In this study, of the patients who sought treatment at the Hospital, almost half of them were from rural areas. Those patients from urban slums prefer government hospitals due to subsidized rates of treatment and medications, thus showing appropriate utilization of government services by those who are unable to spend money in private sector.

Almost one-thirds of the patients (31.7%) came from lower middle income group while 6.6% of them are from below poverty line.⁶⁻⁸

This shows that needy beneficiaries of government hospital form a minor percentage, while those who are somewhat affording (23.5%) take undue advantages.

An ongoing review of utilization of public facilities in Maharashtra suggests that about 40% of the 'free' users can be termed poor, with the rest being beneficiaries of various exemptions-government employees, freedom-fighters and likewise. In general, not all 'free' users of public health facilities are poor.

A study by Bruno Meesen et al.⁹ shows that proximity to urban hospitals and capacity to afford these other costs are probably the main reasons why the better off benefit more from the subsidized

services in public hospitals than poor people do. A key empirical issue for universal systems is whether people living in poverty can really afford the so-called free health services they are offered which is the question also in this study conducted at the hospital.

The poor people come for free treatment at '*Sarkari davakhana*' (Government hospital), while few of them go to nearby accessible health centers for lack of money required for travelling. They are later referred to the government hospital for the same reason-lack of money.

In the study group, 19.7% of patients were referred to the hospital because they belonged to lower class income group and could not afford the expensive treatment at private hospitals/clinics.

Private health facilities are too costly and the doctors prescribe a lot of medicines which add to the costs. The health care provided in Government Hospitals is free of cost and one can avail the facilities as often as needed without any hesitation.

This is very beneficial to poor and needy patients, which is why they prefer treatment at Government hospitals.²

As per V. K. Mathur,⁵ the civilized society should make medicine and health care available to all based on need and not on paying capacity.

A study by Kristiansson C et al.¹⁰ shows that the poorest seek less care from health professionals for non-severe illnesses as well as for severe illnesses.

Another study aimed at investigating health seeking behaviour and utilization of drugs in relation to household socioeconomic status in two small Amazonian urban communities of Peru showed that majority of the patients of lower socio-economic status did not seek any treatment unless and until it was essential and till they were referred to higher hospitals.¹¹

An additional 13.75% can also be included as having come directly. They had earlier visited other medical facilities before coming to this hospital. However, instead of being referred by the doctors in those facilities, they had come to this hospital by themselves, a few of their most common reasons being: free treatment, no effect of the treatment already undergone, too much of money spent already at private/other medical centres without any good outcome, for investigations and reports at a cheaper rate, lack of facilities at other PHCs/ CHCs, no doctors available in the local medical service centres.

As per the study conducted by Gertler and Hammer,^[12] people use government services because they have no other option. User charges are known to keep people from seeking life-saving care till the situation gets worse and they have to take treatment wherever available on an emergency basis.

Among those referred, almost one fifth were from private hospitals because the staff there was not ready to take critical conditions at private hospitals in urban areas and -private setup at rural level was not adequate to treat certain health conditions

A study by Perappadan BS¹³ states that at primary level the unavailability of doctors and/or drugs at the government health centre force the patients to choose private practitioners. However, inability to pay there, forces them to seek health care again in government hospitals since they do not have any other option.

With regards to the health-seeking pathway and behaviour of the patients (Figure 1), more than half of them came directly to government hospital without consulting other local doctors (PHCs, CHCs, private clinics-General Practitioners), most of them due to their faith in the treatment here.

33.6% of patients residing in urban cities came directly to government hospital, while 63.2% of the patients from

rural areas were referred to government hospital.

Patients from rural areas came to the government hospital due to lack of money, absence of local doctors or lack of investigative facilities at the health centers. Referral was done for further investigations, no improvement in the health condition despite medications. These findings are similar to a study conducted by Perappadan BS.¹³

Almost all the patients who were referred to the hospital were asked to do so after being given some initial treatment.

Almost half of those who came in for treatment at government hospital had minor complaints that could have been treated at secondary care centers (PHCs, CHCs or General Medical Practitioners or local AYUSH doctors), and the rest of the patients had serious complaints requiring referral.

Of those who had come for treatment of minor complaints, almost two-thirds of the patients had come directly to government hospital for treatment instead of showing at local medical centres, while the rest of the patients had been referred by the doctors at other medical centres. The referral rate for minor complaints and complicated ones is significantly different. This shows that a major burden on the hospital is due to secondary or minor complaints which can be treated at the local level itself. The National Health Policy 2002 aims at decentralization of the health services in order to reduce this burden so as to help tertiary hospitals focus on the treatment of complicated cases.¹⁴

Many of the patients had travelled a long distance from rural areas to avail treatment at the government hospital. There is significant difference between the place of residence and the type of treatment availed for minor complaints and complicated cases. They could have been treated at local PHCs or CHCs instead of travelling a long distance for treatment at government hospital. Majority

of them had to spend money on travelling for long distances from their hometowns. A few of them had travelled all the way from states like Rajasthan and M.P. The health seeking attitude is preferential i.e. those who come to the hospital once tend to come here repeatedly, while those who prefer private come here when they do not have any alternative. This would give rise to bias in selecting the health seeking centre.

Conclusions:

Majority of the patients in the study coming for treatment at government hospital were from lower middle class income group. Almost half of the patients in the study group had come directly to government hospital without being referred from other health centres.

Patients were also referred because the other health centres were not equipped well enough or did not have competent doctors to treat certain minor ailments that could ideally have been treated at local health care centre. Those patients in the study group staying in urban city areas preferred being treated here as the hospital was in their vicinity.

Those patients coming from rural areas preferred nearby local health centres since they lacked money for travel. As a result they ended up in this hospital at a later stage with chronic complaints. Most of the patients preferred government hospital for free treatment.

Recommendations:

Development of work culture, moral values and a sense of commitment amongst the doctors and paramedical staff is the need of the day. This can be improved by making greater use of trained health personnel. Strengthening primary health care would help in the screening of patients at the local level and thereby reducing the burden of tertiary care hospitals. It would also reduce the compulsion of the poor to access private healthcare which, in fact proves to be

costly for them. The option of establishing public-private partnerships can be explored.

References:

1. Data from hospital records: Annual Report 2007.
2. Kotecha P, Patel D. Improving Quality of Health Care in Government Set- up. WHO India Office 2004.
3. Albert L, Andrew K, Helia M, Jorge J. Improving health and Building Human Capital Through an Effective Primary Care System. J Urban Health 2007 May; 84 Suppl 1:75-85.
4. McIntyre D, Thiede M, Dahlgren G, Whitehead M. What are the economic consequences for households of illness and of paying for health care in low and middle-income country contexts? Cape Town(SA): Health Economics Unit, University of Cape Town. (dimac@heu.uct.ac.za)
5. Mathur VK. A short Book of Public Health. Jaypee Publications
6. Kumar P. Social Classification – Need for constant updating, IJCM, 1993;18(2):60-61.
7. Prasad BG. Social classification of Indian Families. JIMA 1961;37:250-251.