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Original Research Article

Factors affecting health care facility utilization in rural areas of Lucknow district

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ABSTRACT

Background: Population is increasing rapidly so with the limited resources government alone cannot cater the health of whole population. Private health sector is equally important for the improvement of health of the people. In view of these facts the present study was planned to assess the utilization of health care services (both public and private) and to assess the reasons for visiting that particular health facility (public or private).
Methods: Study was cross sectional for 1 year period. Total sample size was 1024. In the present study only rural area was taken. By using multistage stratified random sampling 6 villages were selected and sample came out as 516. Data was analyzed by stata software version -12 for windows and chi square test.
Results: 50% respondents visited public, 38% private and 10% visited others (charitable, pharmacies etc.). 62% respondents belonged to lower socio economic status preferred public health care facility. The main reason for visiting public health facility was free services and for private was got cure earlier from that heath facility. Majority of people visited any health facility for illness. (344 out of 516) and 50% of them visited for respiratory diseases. For chronic illness majority (60%) preferred public health care facility.
Conclusions: Both public and private health care facilities should be made well equipped and affordable so that people can make choices and not forced to choose particular health facility.

Keywords: Utilization, Public, Private, Partnership, Chronic

INTRODUCTION

India is a developing country with a Gross Domestic Product (GDP) of 7.35%.[1] Growth of any country directly reflect the wellbeing of its citizens e.g. health. Health is the fundamental human right. Government has been providing health care services and introducing various health programmes and schemes time to time to take good care of their citizens. In spite of economic growth and demographic transition, the Indian healthcare system is burdened by a rise in infectious and chronic degenerative diseases.[2] Infectious, contagious and waterborne diseases such as dengue fever, diarrhoea, typhoid, viral hepatitis, measles, malaria, tuberculosis, whooping cough and pneumonia are major contributors to disease, especially among poor and rural Indians.[3] Communicable diseases once thought to be under control (e.g. dengue fever, viral hepatitis, tuberculosis, malaria, and pneumonia) are still in existence in India, having reappeared with high levels of drug resistance, to the disadvantage of the poor. Since the population is increasing rapidly (it is 1.34 billion, with male population of 69.2 crore and female 65.2 crore) and 25% of rural and 14% urban population is living below the poverty line.[4,5] With the limited resources government alone cannot cater

the whole population. The supply and demand cannot be met by the efforts of the government alone. Private health sector is equally important for the improvement of health of the people. A mix of health care delivery systems is needed like public, private and other (charitable etc.) and it exist since long back. 70% of the people live in the rural area (census 2011) but 80% of the health facilities, both in public and private are concentrated in urban area and are widely utilized by urban community.[6,7] Private health sector has been expanding rapidly in the urban area but to a limited extent in rural area.

In view of these facts the present study was planned with the following objectives:

1. To assess the utilization of health care services both public and private.
2. To assess relationship of various socio demographic factors affecting utilization of health services.
3. To assess the reasons for visiting that particular health facility, public or private.

METHODS

Study design and study period

Study was cross sectional for a period of one year (August 2011 to July 2012).

Study area

Sample was drawn from rural and urban population of Lucknow district.

Study unit

All persons including children who have visited any health facility for any reason (maternal care, child immunization, family planning and treatment of illnesses) within last 3 months.

Sample size

Sample was calculated taking the utilization of Govt health facility <20% (National Population Policy 2002).By using the formula $4PQ/n^2$ ($p \leq 20\%$, Q=1-P and 5% absolute error). It has come as 256 and by applying design effect sample came as 256x2=512 (for each rural and urban). The final sample became 1024 (512+512).

Sampling technique

In urban area first two wards Cis Gomti and Trans Gomti were taken. Then from each one slum and one non slum area were selected randomly. For convenience Dalibagh (slum) and Hazratganj (non slum) in Cis Gomti area and Badshahkhera (slum) and Daliganj (non slum) in trans gomti area were selected.126 respondents were taken from each slum and non slum area.

In Rural Area first 3 PHCs Kakori, Mohanlalganj and Nadarganj were selected randomly then 1sub centre (Madhopur, Mohanlalganj and Chillava) from each PHC was selected as per convenience. Two villages from each sub centre were selected (Bigaria, Mallapur, Dhanwra, Chillava and Behesa) and after rounding off 86 respondents from each village were interviewed. In this way the sample size for rural area became 516 instead of 512. So in this way by using multistage stratified random sampling 6 villages were randomly selected with 86 respondents from each village.

Data analysis

Data was analysed using the stata software version – 12 for windows, for relationship with health care facility utilization and demographic factors chi square test was used.

RESULTS

The respondents who visited public or private health care facility are included in the present discussion and so 467 out of 516 were taken into consideration.

In the present study the majority 90% of respondents were married, 82% were females, 76% belonged to 20-40 yrs of age group. Most of the respondents were Hindus belonging to backward class (90%). About 48% were illiterate, 61% were unemployed and majority 65% belonged to lower socio economic status.

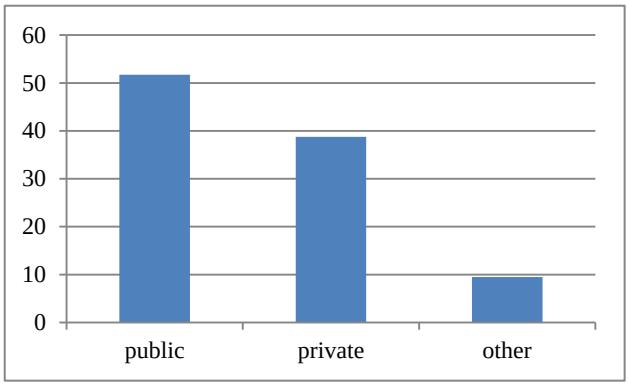

Figure 1: Showing the pattern of utilization of heath care facility in rural area of Lucknow.

In this study out of 516 rural respondents about 50% visited public health facility, 38% private and about 10% visited other than these two like charitable hospitals and clinics as shown in Figure 1. 467 respondents either visited public or private health care facility. No association was found between the type of health facility visited with age, sex, marital status, religion, literacy and type of family. Majority about 70% of general cast and scheduled caste Hindus preferred public health facility. Majority 73% of unemployed respondents visited public health facility.

Table 1: Distribution of the population according to socio-demographic characteristics.

Socio-demographic characteristics	Rural					
	Public (n=267)		Private (n=200)		Total (n=467)	P value
	No.	%	No.	%	n (%)	
Age						
<20	10	41.67 (3.75)	14	58.33 (7)	24 (5.1)	
20-40	213	59.33 (79.78)	146	40.67 (73)	359 (76.87)	0.148
>40	44	52.38 (16.48)	40	47.62 (20)	84 (17.99)	
Sex						
Male	45	54.22 (16.85)	38	45.78 (19)	83 (17.77)	0.548
Female	222	57.81 (83.15)	162	42.19 (81)	384 (82.23)	
Marital status						
Married	243	57.58 (91.01)	179	42.42 (89.5)	422 (40.36)	0.829
Unmarried	6	50 (2.25)	6	50 (3)	12 (2.57)	
Other	18	54.55 (6.74)	200	46.45 (7.5)	33 (7.07)	
Religion						
Hindu	217	56.66 (81.27)	166	43.34 (83)	383 (82.01)	0.631
Muslim	50	59.52 (18.73)	34	40.48 (17)	84 (17.99)	
Other	0	0	0	0	0 (0.00)	
Caste (Hindu)						
General	53	72.6 (24.42)	20	27.4 (12.05)	73 (19.06)	
OBC	115	48.32 (53)	123	51.68 (74.1)	238 (62.14)	0.00*
SC	49	68 (22.58)	23	31.94 (13.86)	72 (18.8)	
Family type						
Nuclear	134	56.54 (50.19)	103	43.46 (51.5)	237 (50.75)	0.779
Joint	133	57.83 (49.81)	97	42.17 (48.5)	230 (49.25)	
Education						
Illiterate	117	52 (43.82)	108	48 (54)	225 (48.18)	0.063
Literate	150	61.99 (56.18)	92	38.01 (46)	242 (51.82)	
Primary /just literate	31	70.45 (11.61)	13	29.55 (6.5)	44 (9.42)	-
Middle	51	62.46 (19.1)	30	32.04 (15)	81 (17.34)	-
High school	27	60 (10.11	18	40 -9	45 (9.64)	-
Intermediate	17	45.95 (6.37)	20	54.05 (10)	37 (7.92)	-
Graduate	21	65.63 (7.87)	11	34.38 (5.5)	32 (6.85)	-
Professional degree	3	100 (1.12)	0	0 0	3 (0.64)	-
Occupation						
Employed	70	56 (26.21)	55	44 (27.5)	125 (26.77)	0.001*
Unemployed	197	73.78 (57.6)	145	72.5 (42.4)	342 (73.23)	
Socioeconomic status						
Upper	13	76.47 (4.57)	4	23.53 (2)	17 (3.64)	
Middle	63	44.37 (23.6)	79	55.63 (39.5)	142 (30.41)	0.001*
Lower	191	62.01 (71.53)	117	37.99 (58.5)	308 (65.95)	

*Multiple Response (%) values within parenthesis are column percentage; p<0.05=Consider significant.

Table 2: Association of type of disease amongst population and type of health facility visited.

Diseases/ illness	Rural					
	Public (n=154)		Private (n=190)		Total (n=344)	P value
	No.	%	No.	%	No.	
Nature of illness						
Tuberculosis	1	25	3	75	4	0.421
Malaria	2	66.67	1	33.33	3	0.446
Leprosy	2	100	0	0	2	0.116
Filaria	5	100	0	0	5	0.5
Reproductive tract infection	1	12.5	7	87.5	8	0.062

Continued.

Diseases/ illness	Rural					
	Public (n=154)		Private (n=190)		Total (n=344)	P value
	No.	%	No.	%	n	
Respiratory tract infection	68	38.42	109	61.58	177	0.011*
Diarrhoea	4	18.18	18	81.82	22	0.009*
Acid peptic disease	11	78.57	3	21.43	14	0.010*
Diabetes	4	100	0	0	4	0.026*
Cardio-vascular disease	9	69.23	4	30.77	13	0.072
Emergency care	11	42.31	15	57.69	26	7.83
Cancer	0	0	0	0	0	
Other	41	62.12	25	37.88	66	0.002*
Duration of illness						
<1 week	67	37.64	111	62.36	178	0.018*
1 week – 1 month	4	48.89	46	51.11	90	
1–6 month	10	45.45	12	54.55	22	
>6 month	33	61.11	21	38.89	54	

Table 3: Reasons for utilization of any health facility.

Reasons	Rural (n=467)					
	Public (n=267)		Private (n=200)		Total (n=467)	P value
	No.	%	No.	%	No. (%)	
Got cure earlier	53	19.85	120	60	173 (37.04)	0.00*
Nearer to House	126	47.19	119	59.5	245 (52.46)	0.009*
Doctor listens patiently	6	2.24	15	7.5	21 (4.5)	0.01*
Waiting time less	2	0.75	5	2.5	7 (1.5)	0.144
Gets medicine from doctor	5	1.87	5	2.5	10 (2.14)	0.751
Known doctor	37	13.86	22	11	59 (12.63)	0.4
Free service / Fees less	173	64.79	12	6	185 (39.61)	0.000*
Heard from others that centre is good	11	4.12	1	0.5	12 (2.57)	0.016*
Behaviour is good (Doctor and staff)	25	9.26	5	2.5	30 (6.42)	0.004*
Minor Illness	2	0.75	4	2	6 (1.28)	0.409
Specialists are there	18	6.74	5	2.5	23 (4.9)	0.050*
Facilities available	44	16.48	6	3	50 (10.71)	0.00*
Doctor is competent	31	11.61	9	4.5	40 (8.57)	0.007*
Baby was delivered there	3	1.12	4	2	7 (1.5)	0.468
Others	7	2.65	9	4.5	16 (3.43)	0.312

Multiple response (%) values within parenthesis are column percentage; *p<0.05= Consider significant.

Majority (62.01% i.e. 191 out of 308) of people belonging to lower socioeconomic status visited the public health facility as shown in Table 1. The main reasons for visiting public health facility were the free services (64%), nearer to house (48%), got cure earlier, facilities for investigation and procedure were there in public health facility and competency of doctor. Those who visited the private health facility the main reasons (by >60%) were the got cure earlier and nearer to house as shown in Table 3.

Out of 516,344 visited the health facility for illnesses/diseases and rest of them for maternal services (like ANC, PNC), immunization and family planning services. 50% of 344 visited public health facility for respiratory illnesses. 60% of 344 visited public health care facility for chronic illnesses as shown in Table 2.

DISCUSSION

In the present study out of 516 respondents about 50% visited public health facility, 38% private and about 10% visited other than these two like charitable hospitals and pharmacies. This was similar to a study by Chauhan where 56.4% have visited public, 34.4% private and 11.6% other and was in contrast with the findings of Arya where 11% visited public health facility, 67% private and 22% visited charitable heath facility.[8,9]

No association was found between the type of health facility visited and age, sex, marital status, religion,

literacy and type of family. Similar findings were also found in a study by Chauhan.[8] In a study by Rai et al, Muslims utilized more public health care facility.[10] In contrast to this literacy had a positive impact on public health facility utilization in the study by Purohit et al, Rai et al and the study by Malhotra et al.[10-12]

Majority (72.60%) of general cast and scheduled caste Hindus preferred public health facility. In contrast to this study, SC/ST had limited access to public health facility utilization in study by Purohit.[11] This may be because of poor paying capacity of the respective social groups. In contrast to this in a study by Rai et al upper caste preferred private health facility.[10]

Majority (73.78% i.e. 197 out of 342) of unemployed visited public health facility. Majority (62.01% i.e. 191 out of 308) of people belonging to lower socioeconomic status visited the public health facility similar to a study by Purohit.[11] Majority (73.78% i.e. 197 out of 342) of unemployed visited public health facility. Unemployment and lower socioeconomic status indicate the poor paying capacity of people. Because of this, in this study, this free services came out as the main (by 64%) reason for visiting the public health facilities The other reasons for visiting public health facility were nearer to house (48%), got cure earlier, facilities for investigation and procedure were there in public health facility and competency of doctor. This is a positive sign for government's effort especially of NHM programme. Similar to this a study by Patrick also found these as main reasons for visiting the public health facility like closeness, affordability, availability of facilities.[13] Study by Chauhan et al also found free services and availability of facilities as main reasons for preferring public health services.[8]

CONCLUSION

We have seen in this study that public health facilities are better equipped than private in rural area. Further strengthening and capacity building of public health facility should be done regularly. Young doctors should be motivated to work in the rural area for some time to serve the people. Further public private health facility partnership should be encouraged in the form of insurance policy so that people can choose the particular (public or private) heath facility rather than forced to do because of lack of money.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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