Original Article

Socio-demographic correlates of the health-seeking behaviours in two districts of Pakistan's Punjab province

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Abstract

Objective: To explore socio-demographic correlates of the health-seeking behaviours among urban and rural population.

Methods: A population-based cross-sectional study was conducted in two districts of Pakistan's Punjab province with a random multi-stage cluster sample of 1080 individuals. Bivariate analysis using chi-square test and Fisher's exact test was used as the test of trend. Multivariate logistic regression was used to obtain adjusted odds ratio (OR) with 95% confidence interval (CI). Statistical significance was considered at P<0.05.

Results: Utilization of the public health facilities (74%) was associated with rural area (P=0.034) and poverty (P=0.001) while use of the private hospitals (41%) was associated with better education (P=0.002) and higher income (P<0.001). When simultaneously adjusted for area, income and education, the poor were more likely to use the public hospitals (OR 2.29, 95% CI 1.56-3.37) and less likely to attend a private hospital (OR 0.42, 95% CI 0.30-0.60). Main constraints in the public health facility use were cost (25%), dissatisfaction with quality of care (19%) and transportation difficulties (12%). Costs were more likely to be a problem among rural (P=0.010), illiterate (P<0.001) and poor (P<0.001) while dissatisfaction with quality of care was associated with urban area (P<0.001) and poverty (P=0.001).

Conclusion: Socio-demographic factors significantly drive the health seeking behaviours among general population. After adjusting for all factors, the poor were more likely to use public hospitals. Costs and dissatisfaction with quality of care were main constraints in utilization of the public health facilities.

Keywords: Socio-demographic, Health-seeking behaviours, Urban population, Rural population, Private hospitals, Public hospitals (JPMA 61: 1205; 2011).

Introduction

Policy formulation for the health care services in any country should be based on the knowledge regarding the health-seeking behaviours of the community and the factors influencing it. The factors determining trends in the health-seeking behaviour may be seen in various contexts like demographic, socioeconomic and cultural.[1,2] Most countries have diverse health systems according to the local circumstances, and a multi-sectoral and multi-level coordination is essential for better health profile of the nation.[3,4] Features of the health facility and confidence in health care workers also play a major role in decision making about the choice of the health facility.[1]

Pakistan has a population of about 160 million with the per capita gross national income (GNI) of 870 US$ and only 1% of the total central budget is spent on health.[5,6] Provincial departments of health deliver the public health and curative care services while the federal government is concerned with planning and policy-making. District health system was introduced in 2001, and the districts were independent in administrative and financial matters regarding the health care.[7] Utilization of the public health facilities in Pakistan is very poor and private sector serves majority of the population.[8] Most of these private facilities are in urban areas and the quality of care is questionable. Moreover, private sector provides only curative care and virtually no preventive services. Private sector facilities are poorly regulated resulting in varying standards from the highly reputed costly urban hospitals to the clinics run by quacks.[8] Many non-government organizations (NGOs) are working in the health sector but their role in the health care delivery is very limited especially in rural areas.

Health-seeking behaviour has been explored in many international and its significant correlates included the physical, demographic, socio-economic and cultural factors and the organization of health care system.[9-14] However, very few studies in this regard have been conducted in Pakistan.[15-18] Despite adequate resources, the health care delivery and utilization of the public health care services in Pakistan is way behind many other countries, and there is urgent need for studies exploring the factors influencing health-seeking behaviors in the community. The present study was aimed to investigate demographic and socioeconomic correlates of the health-seeking behaviours among general population in urban and rural areas of two districts in the Punjab province of Pakistan, with the ultimate goal to address the needs of specific population groups and identify social determinants for a better public health policy and health system development.

Methods

A population-based cross-sectional study was conducted in two out of the 35 districts in Pakistan's Punjab province, Nankana Sahib from central Punjab and Bahawalnagar from southern Punjab, having a population of 4.8 million.

By multi-stage cluster sampling, three tehsils (sub-districts) were selected randomly from each district. Next, five union councils, two urban and three rural (according to the urban-rural population proportion in Pakistan) were picked randomly from each tehsil. Two villages (in case of the rural union councils) or two electoral wards (in case of the urban union councils) were randomly selected from each union council and eighteen individuals were interviewed from each village/electoral ward (18 respondents x 2 villages/electoral wards x 5 union councils x 3 tehsils x 2 districts = 1080 respondents). Epi Info 6.04d (Centers for Disease Control and Prevention, USA, 2004) was used to calculate sample size with confidence interval of 95% and 5% design effect.

A semi-structured questionnaire was designed and translated into Urdu (National language of Pakistan). It was pre-tested and modified accordingly. The questionnaire included socio-demographic factors (age, sex, education, occupation, family members and family Income, housing condition, water supply and sanitary condition) and the health-seeking behaviour (consultation about the disease, frequency of hospital/clinic visits, reasons for not using public health services).

Respondents aged 20 years and above were included in the study after taking their verbal informed consent. Health care providers were excluded. Selection of the direction of first household was done as follows: interviewers moved to the center of the village/electoral ward, spun a bottle and continued in the direction where the bottle pointed. Medical students trained in the interviewing techniques filled the questionnaire during household visits and a field coordinator monitored the entire process. Health education was also provided as a part of the study. The study was approved by the ethical review board of Allama Iqbal Medical College and permission to conduct the study was granted by the Punjab Department of Health, Lahore, Pakistan.

Data were entered and analyzed by manual and computerized checking using SPSS version 18.0 (SPSS Inc. Chicago IL, United States, 2009). Descriptive statistics were used to evaluate the health-seeking behaviour among general population. Health-seeking behaviour was stratified by the area of residence (urban, rural), education (illiterate, primary, high school and above) and per-capita income (low = <1000 PKR, middle = 1000-2000 PKR, high = >2000 PKR). Bivariate analysis using chi-square test and Fisher's exact test was

used to compare the data among stratified groups. Multivariate analysis using logistic regression model was used to obtain adjusted odds ratio (aOR) with 95% confidence interval (CI) for public and private hospital use, simultaneously adjusting for all factors. All tests were two-sided and statistical significance was considered at P<0.05.

Results

Of 1080 respondents, 40% were from the urban area and 60% from the rural area. Illiteracy was 25% while 22% had primary education and 54% were educated up to the high school or above. Majority of the respondents were having low per capita income (48%) while 32% had middle per capita income and 21% had high per capita income. Occupation of the respondents was business (29%), government employee (19%), farmer (18%), labourer (17.5%) and others (16%).

Table-1: Health-seeking behaviours and constraints in utilization of the public health facilities in Punjab, Pakistan (n=1080).

	n (%)
Health-seeking behaviours	
Public Hospital	798 (73.9)
Private Clinic	445 (41.2)
Traditional Healer	38 (3.5)
NGOs	13 (1.2)
Others	9 (0.8)
Frequency of visits at a clinic or hospital	
Twice a year or more	859 (79.5)
Once per year	97 (9.0)
Once in past 5 years or more	33 (3.1)
Never in past 5 years	91 (8.4)
Constraints in unitization of the public health facilities	
Costs	273 (25.3)
Don't trust or like attitude of health care providers	205 (19.0)
Distance/transport difficulty	128 (11.9)
Not Sure where to go	306 (28.3)
Cannot leave work	243 (22.5)
Don't want to know about the disease	39 (3.6)

Water source was electric pump (41%), hand pump (31%), community supply (23%) and others (5%). Eighty-seven percent were having an improved sanitation facility while 9% practiced open air defecation. Four percent population lacked access to a public health facility within ten kilometers. Rural, poor and illiterate were having poor access to an improved sanitation facility (all P<0.001), an improved water source (all P<0.001) and a public health facility within ten kilometers (rural P=0.001, poor P<0.001, illiterate P=0.007). The public health facility utilization was 74% while that of the private hospitals/clinics was 41%. Respondents also consulted traditional healers (3.5%) regarding their illness. Frequency of visits to the hospital was twice or more per year (79.5%), once a year (9%), once in past five years (3%) and never in past five years (8%) (Table-1).

Utilization of a public health facility was significantly associated with rural area (P=0.034) and low per capita income (P=0.001). The respondents with better education (P=0.002) and higher per capita income (P<0.001) were more likely to use the private hospitals/clinics. When simultaneously adjusted for area of residence, income and education, income remained the significant independent predictor. The poor were more likely to use the public hospitals (OR 2.29, 95% CI 1.56-3.37; P<0.001) and less likely to attend a private hospital (OR 0.42, 95% CI 0.30-0.60; P<0.001) (Table-2).

Main constraints in the utilization of public health services were cost (25%), dissatisfaction with quality of care (19%) and distance/transportation problems (12%) (Table-1). Costs were more likely to be a problem among rural (P=0.010), illiterate (P<0.001) and poor (P<0.001) population. Dissatisfaction with quality of care was significantly associated with residence in urban area (P<0.001) and poverty (P=0.001) (Table-3).

Table-2: Socio-demographic correlates of the public and private hospital utilization in Punjab, Pakistan (n=1080).

Population circumstances	Public Hospital			Private Hospital		
	n (%)	aOR (95% CI)*	P value	n (%)	aOR (95% CI) *	P value
Area						
Urban	304 (70.4)	0.82 (0.62-1.09)	0.177	181 (41.9)	0.93 (0.72-1.20)	0.572
Rural	494 (76.2)	Reference		264 (40.7)	Reference	
Education						
Illiterate	179 (75.5)	0.86 (0.59-1.25)	0.433	82 (34.6)	0.77 (0.55-1.08)	0.125
Primary	195 (73.9)	0.88 (0.62-1.24)	0.448	96 (36.4)	0.79 (0.58-1.08)	0.132
High School and above	424 (73.2)	Reference		267 (46.1)	Reference	
Per Capita Income (PKR)						
Low (<1000)	352 (79.5)	2.29 (1.56-3.37)	<0.001	152 (34.3)	0.42 (0.30-0.60)	<0.001
Middle (1000-2000)	305 (73.2)	1.67 (1.17-2.34)	0.005	165 (39.9)	0.52 (0.37-0.73)	<0.001
High (>2000)	141 (63.2)	Reference		128 (57.4)	Reference	

*Adjusted odds ratio (aOR) with 95% confidence interval (CI). PKR: Pakistani Rupees.

Table-3: Socio-demographic correlates of constraints in utilization of public health facilities in Punjab, Pakistan.

Population circumstances	Total Sample (n=1080)	Costs (n=273)		Satisfaction with the quality of care (n=205)	
		n (%)	P value	n (%)	P value
Area					
Urban	432 (40.0)	91 (21.1)	P=0.010	109 (25.2)	P<0.001
Rural	648 (60.0)	182 (28.1)		96 (14.8)	
Education					
Illiterate	237 (21.9)	89 (37.6)		34 (14.3)	
Primary	264 (24.4)	84 (31.8)	P<0.001	47 (17.8)	P=0.056
High School and above	579 (53.6)	100 (17.3)		124 (21.6)	
Per Capita Income (PKR)					
Low (<1000)	403 (37.3)	156 (35.2)		63 (14.2)	
Middle (1000-2000)	505 (46.8)	97 (23.4)	P<0.001	83 (20.0)	P=0.001
High (>2000)	172 (15.9)	20 (9.0)		59 (26.5)	

PKR: Pakistani Rupees.

Discussion

Perceptions of users should be the cornerstone in planning a rational health policy to reach all population strata. If a health service is to work, it must start from what users need.[2] In Pakistan, 65% of population is rural, nearly half of population is illiterate and 23% live below the poverty line of 1.25 US$ per day,[3,25] and socio-demographic factors were significantly correlated with the health-seeking behaviours. Although only 4% population did not have access to a public health care facility within ten kilometers radius, but most of them were rural, poor and illiterate. Water and sanitation was also poor among rural, low income and least educated communities.

The public health facilities were not utilized by one-fourth of the respondents. Rural and poor population was more likely to consult a public health facility while those living in urban area and having better education were more likely to attend a private health facility for their illness. Education has been associated with the health-seeking behaviour in previous studies.[6,13-14] Availability of standardized private health facilities in urban area makes these a better choice for urban and educated population but the lack of preventive services at these facilities adversely affects the overall disease burden. When simultaneously adjusted for area of residence, income and education, the poor were more likely to use public hospitals and were less likely to attend a private hospital. Poverty was associated with poor health-seeking behaviours previously.[7,17-18] Financial constraints have been reported as the commonest factor in deterrence from seeking health care in previous studies in Pakistan.[13,15] In Pakistan, federal government spends only one percent of the budget on health and 76% of the health expenditure comes from out of pocket.[3,18] Household economics certainly limit the choice and opportunity of health seeking.[19] Lack of social security and economic polarization further aggravates the situation and makes the poor more vulnerable because of the lack of affordability and limited choice of health care provider.[2,8]

Main reasons for not using a public health facility were costs, dissatisfaction with quality of care and distance/transportation difficulties. Distance and transportation difficulties and costs have been indicated previously as major constraints in the health service utilization.[12-13,15,20] Costs were more likely to be a problem with rural, illiterate and poor respondents that also reflects costs incurred on traveling and economic losses due to taking a day off their daily activities. Poor quality of the health service and not having trust in the health service provider was associated with poor health service utilization in previous literature.[9-10,15,17,21-22] The urban and poor population was more likely to perceive dissatisfaction with the quality of care as a constraint. There is a need for training health workers in communication skills and sensitizing them to clients' needs, and improving the working conditions and providing financial incentives to the public health care workers.[1,23-24]

Both the urban and rural areas were included in the study, on the basis of urban-rural population proportion in Pakistan, to make generalization of the results more appropriate. We tried to control for the bias in health-seeking behaviour by interviewing the users at home, and not near the health centre, and a few days after the visit to the health centre. In addition, interviewers made clear that they were not related to the health centre.

Improving quality of care at the public health facilities especially at primary-level, state regularizing private health facilities, training of health workers in communication skills and technical capacity building by continuing education and supportive supervision, and inter-sectoral coordination and supporting households by schemes like micro-financing is recommended. Socio-demographic correlates of the health-seeking behaviours should be considered in prioritizing the policies and planning interventions, especially with a focus on the most disadvantaged segments of population.

Conclusions and Recommendations

Socio-demographic factors significantly drive the health seeking behaviours among general population. After adjusting for all factors, the poor were more likely to use public hospitals and were less likely to attend a private hospital. Costs, dissatisfaction with the quality of care and distance/transportation difficulties were the major constraints in the utilization of public health facilities.

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