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Original Article

Association of Socio-demographic Characteristics with Pattern of Health Seeking Behavior among Hepatitis C Patients in Pakistan

Shahina Pirani, Tazeen Saeed Ali, Saleema Allana, Faisal Wasim Ismail
School of Nursing and Midwifery and Community Health Sciences, The Aga Khan University, Karachi.

Abstract

Objectives: To identify association between socio-demographic characteristics and pattern of health seeking behavior among hepatitis C patients in Karachi, Pakistan.
Study design, settings and duration: A descriptive, cross-sectional study done at Aga Khan University Hospital and the Civil Hospital Karachi between March and May 2013.
Patients and Methods: Hepatitis C patients who were coming for treatment at the above 2 sites underwent a filling of questionnaire by the researcher. The questionnaire collected basic demographic information and their health seeking behavior i.e. visit to traditional healer or spiritual healer or medical doctor. Sample size of 250 patients was calculated. Analysis was done by using Chi square test and Fisher's exact test. *p*-value of 0.05 was considered as statistically significant.
Results: A total of 250 hepatitis patients were interviewed. The study showed that patient's occupation and educational level had significant association with their first visit either to a spiritual healer or traditional healer. More educated group consulted the medical doctor while those with none or low education initially went to see spiritual healers ($p < 0.008$) and second visit was made to traditional healers ($p < 0.002$). Patients with larger number of children went less often to visit a medical doctor on their second visit ($p = 0.007$), and family members belonging to the medical field were more likely to make their first visit to doctors ($p < 0.05$).
Conclusion: Socio-demographic characteristics greatly influence the pattern of health seeking behavior among hepatitis C patients.
Key words: Health seeking behavior, hepatitis C, demographic characteristics, Pakistan.

Introduction

Hepatitis C causes significant morbidity and mortality throughout the world. Globally, 170 million people are infected with the hepatitis C virus [1] and over 350,000 die per year due to its complications.[2] Hepatitis C has become a major health problem in the developing countries.[3] In Pakistan, the HCV prevalence is 4.8% which is the second highest among all developing countries.[1] Statistically, 80% patients with hepatitis C develop chronic hepatitis, 25% to 30% develop liver cirrhosis, and 25% hepatocellular carcinoma.[4]

The desired health care seeking behavior is that an individual responds to an illness by seeking first and foremost help from a trained allopathic doctor, in a formally recognized health care setting.[5] Various studies have been conducted globally to assess the barriers of health seeking behavior among hepatitis C patients [6-9] and a few studies have also been conducted on the use of alternate treatment for HCV.[10-13] One study was conducted on socio-demographic correlates of health seeking behavior in urban and rural population of Punjab.[14] Scarce information is available on the association between socio-demographic characteristics and health seeking behavior in hepatitis C patients, therefore this study was done to see this association.

Corresponding Author:
Shahina Pirani
School of Nursing and Midwifery and Community Health Sciences
The Aga Khan University, Karachi.
Email: shahina.sabzali@gmail.com

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Authors Contribution

TSA and SA have done the conceptualization of project and statistical analysis. Data collection was done by SP and FWI. SP also did the literature search. SP, TSA, SA and FWI participated in drafting, writing and revision of the manuscript.

Patients and Methods

Descriptive, cross-sectional study design was used where 250 hepatitis C patients were recruited through purposive sampling. The eligibility criteria for participation in the study included the following: (a) male

or female, 18 years of age or above (b) visited Gastrointestinal (GI) /Hepatitis clinic during the data collection period (c) diagnosed with hepatitis C on the basis of anti-HCV and/or HCV RNA testing, in the last three years (d) absence of co-morbidities. The study settings were the gastrointestinal clinics of Aga Khan University Hospital and the Hepatitis clinic of the Civil Hospital Karachi, Pakistan.

The data were collected between March and May 2013, through a questionnaire on patients demographic characteristics and pattern of health seeking behavior. Patients fulfilling the eligibility of inclusion were informed about the study purpose, risks, benefits, and their rights. All those who agreed to participate were provided the written consent form which was signed by them. The researcher filled questionnaire based on the participants' responses which took a maximum of 20-30 minutes.

Ethical approval was taken from the Ethical Review Committee of Aga Khan University Hospital. Permission for data collection was also sought from head of both the study settings. The principles of autonomy, confidentiality, and anonymity of the participants were followed throughout the study.

The association of participants' socio-demographic characteristics with the patterns of health seeking behavior was determined using the chi square test. In certain cases, where the assumption of the Chi square test could not be fulfilled, Fisher's exact test was run; a *p*-value of 0.05 was considered as significant.

Results

The participants' demographic characteristics are shown in Table-1. There were 56.4% males and 43.6% females. Their ages ranged from 18-72 years (mean 38 SD $\pm$ 10.8 years). The study participants were from all 18 towns of Karachi; however, the majority lived in Baldia town (14%), outside Karachi (13%), and in Kemari town (10.8%) as shown in Figure. Ethnic background showed that 30% belonged to Khyber Pakhtunkhwa/ GilgitBaltistan (KPK/GB) and spoke Hindko, Hunzai and Pushto language; 26.4% were Urdu/ Gujrati speaking, and 18% spoke Sindhi.

Majority of participants (75.2%) were married. Occupation wise 42.4% were unemployed while others included religious teachers and students. Educational level showed that majority of the participants had received primary (18.4%) education. A majority of the participants (54.4%) had a household income of less than Rs. 10,000. The study participants were also asked if they have any health insurance and it showed that 95.6% were not insured. Almost 39.2% participants used some kind of protection during sexual contact.

Table-2 shows that significant difference was found between participants' occupation and their first visit to spiritual healers ($p < 0.015$). Participants belonging to the labor class (50.8%) were more prone to visit spiritual healers on their first visit. Those who were educated (60.9%) were more likely to visit traditional healers (82.4%) on their first visit while uneducated went to spiritual healers (57.4%). Similarly uneducated (75%) participants were more likely to visit traditional healers on their second visit.

Table 1: Socio-demographic characteristics and background information of the Study Participants. (n = 250)

Characteristics	*Frequencies (n=250)*	*%*
Gender		
Male	141	56.4
Female	109	43.6
Age		
≤29	58	23.2
30-39	71	28.4
≥40	121	48.4
Marital Status		
Currently married	188	75.2
Currently unmarried	62	24.8
Occupation		
Laborer	90	36.0
Service	43	17.2
Business	11	4.4
Others/unemployed	106	42.4
Occupation Exposure to HCV		
Doctor	2	0.8
Housekeeping at hospital	1	0.8
Sweeper	1	0.4
Literacy Rate		
Educated	143	57.2
Uneducated	107	42.8
Education Level		
Primary	46	18.4
Middle	17	6.8
Matric	44	17.6
Intermediate	17	6.8
Higher/others	20	8
Family Structure		
Nuclear	127	50.8
Extended	123	49.2
Ethnicity		
Sindhi	45	18
Punjabi/Saraiki	44	17.6
Balochi	13	5.2
Urdu/Gujarati/Memon/Kachhi	66	26.4
KPK/GB	75	30
Others	7	2.8
Income		
≤10000	136	54.4
≥10000	114	45.6
Total Family Members		
≤7	125	50
>7	125	50
Number of Children		
≤4	153	61.2
>4	97	38.8
Diagnosed with HCV (months)		
1-3	59	23.6
4-6	70	28
7-12	58	23.2
>12	63	25.2
Health Insurance		
Yes	11	4.4
No	239	95.6

Decision Maker (n=263)		
Self	185	74
Spouse	37	14.8
Others	41	16.4
Family Members Belonging to Medicine Field		
Yes	48	19.2
No	202	80.8
Family Members with HCV		
Yes	92	36.8
No	158	63.2
Sexual Partners		
1	188	75.2
>1	2	0.8
No sexual partners	6	24.0
Sexual Protection		
Yes	98	39.2
No	152	60.8

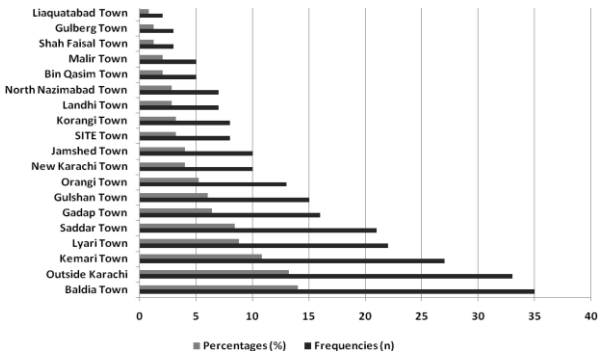

Figure: Residential areas of the participants.

The participants' level of education showed significant association to their first visit to doctors ($p < 0.034$) and spiritual healers ($p < 0.008$) and second visit to traditional healers ($p < 0.002$). Participants having middle level of education were more likely to visit doctors (43.3%) and those with a middle and metric level of education were likely to visit spiritual healers more (11.5%) on their first visit. Similarly, participants with a middle level of education visited traditional healers (68.8%) on their second visit. No difference was found between participants' gender, age, marital status, and income were compared with patterns of health seeking behavior.

Table-3 showed a significant association between participants' number of children ($\leq$4 and > 4 children) and their second visit to the doctor ($p < 0.007$). Participants with $\leq$ 4 children visited doctors mostly on their second visit (53.5%).

Discussion

This study showed that educated people were more likely to visit a doctor while uneducated mostly preferred to visit a spiritual healer or a traditional healer. Another study from Pakistan found similar findings i.e. an association of better education with utilization of private hospitals and clinics.[14] These findings are consistent with the report on Taiwanese HCV patients, which also showed that patients' education level was significantly associated with their visiting the hospital clinic every 4-6 months.[8]

Table 2: Chi-Square analysis for association of socio-demographic characteristics with patterns of health seeking behavior among hepatitis C patients.

Characteristics	*First Visit*							
	Doctor n (%)	*p value*	*Homeopath n (%)*	*p value*	*Traditional Healers n (%)*	*p value*	*Spiritual Healers n (%)*	*p value*
Gender								
Male	96 (56.1)	0.507	4 (66.7)	0.469	9 (52.9)	0.478	35 (57.4)	0.490
Female	75 (43.9)		2 (33.3)		8 (47.1)		26 9 (42.6)	
Age								
< 29	37 (21.6)	0.679 (F)	1 (16.7)	0.919 (F)	7 (41.2)	0.142 (F)	16 (26.2)	0.690 (F)
30 – 39	49 (28.7)		2 (33.3)		5 (29.4)		15 (24.6)	
> 40	85 (49.7)		3 (50.0)		5 (29.4)		30 (49.2)	
Occupation								
Laborer	56 (32.7)	0.265 (F)	2 (33.3)	0.452 (F)	4 (23.5)	0.112 (F)	31 (50.8)	0.015* (F)
Service	32 (18.7)		0 (0.0)		6 (35.3)		6 (9.8)	
Other / unemployed	83(48.5)		4 (66.7)		7 (41.2)		24 (39.3)	
Education								
Educated	104 (60.8)	0.059	4 (66.7)	0.486	14 (82.4)	0.024*	26 (42.6)	0.006*
Uneducated	67(39.2)		2 (33.3)		3 (17.6)		35 (57.4)	
Level of Education								
Primary	35 (20.5)	0.034*	0 (0.0)	0.656	6 (35.3)	0.266	8 (13.1)	0.008*
Middle	74 (43.3)		4 (66.7)		4 (23.5)		7 (11.5)	
Matric	32 (18.7)		2 (33.3)		4 (23.5)		7 (11.5)	
Intermediate	13 (7.6)		0 (0.0)		2 (11.8)		3 (4.9)	
Higher	17 (9.9)		0 (0.0)		1 (5.9)		1 (1.6)	

Characteristics					*Second Visit*			
	Doctor n (%)	*p* value	Homeopath n (%)	*p* value	Traditional Healers n (%)	*p* value	Spiritual Healers n (%)	*p* value
Gender								
Male	75 (58.1)	0.328	4 (66.7)	0.055	7 (43.8)	0.213	13 (44.8)	0.128
Female	54 (41.9)		2 (33.3)		9 (56.2)		16 (55.2)	
Age								
< 29	29 (22.5)	0.474 (F)	0 (0.0)	0.457 (F)	4 (25.0)	0.325 (F)	7 (24.1)	0.603 (F)
30 – 39	33 (25.6)		2 (40.0)		2 (12.5)		6 (20.7)	
> 40	67 (51.9)		3 (60.0		10 (62.5)		16 (55.2)	
Occupation								
Laborer	43 (33.3)	0.145 (F)	3 (60.0)	0.444 (F)	6 (37.5)	0.466 (F)	13 (44.8)	0.442 (F)
Service	28 (21.7)		1 (20.0)		1 (6.2)		3 (10.3)	
Other / unemployed	58 (45.0)		1 (20.0)		9 (56.2)		13 (44.8)	
Education								
Educated	76 (58.9)	0.331	3 (60.0)	0.634	4 (25.0)	0.008*	14 (48.3)	0.202
Uneducated	53 (41.1)		2 (40.0)		12 (75.0)		15 (51.7)	
Level of Education								
Primary	21 (16.3)	0.697	0 (0.0)	0.567	2 (12.5)	0.002*	7 (24.1)	0.473
Middle	65 (50.4)		2 (40.0)		11 (68.8)		17 (58.6)	
Matric	22 (17.1)		2 (40.0)		2 (12.5)		4 (13.8)	
Intermediate	11 (8.5)		0 (0.0)		0 (0.0)		0 (0.0)	
Higher	10 (7.8)		1 (20.0)		0 (0.0)		1(3.4)	

*Significant p-values, (F): Fisher exact test

Table 3: Chi-Square analysis for association of other socio-demographic characteristics with patterns of health seeking behavior among hepatitis C patients.

Characteristics	*First Visit*							
	Doctor n (%)	*p Value*	*Homeopath n (%)*	*p Value*	*Traditional healers n (%)*	*p Value*	*Spiritual healers n (%)*	*p Value*
Family Structure								
Nuclear	90 (52.6)	0.237	3 (50.0)	0.643	11 (64.7)	0.175	27 (44.3)	0.152
Extended	81 (47.4)		3 (50.0)		6 (35.3)		34 (55.7)	
No. of Children								
≤ 4	107 (62.6)	0.302	2 (33.3)	0.160	12 (70.6)	0.291	35 (57.4)	0.289
> 4	64 (37.4)		4 (66.7)		5 (29.4)		26 (42.6)	
Time since Participants Diagnosed with Hepatitis C (months)								
1-3 months	42 (24.6)	0.645 (F)	0 (0.0)	0.087 (F)	4 (23.5)	0.697 (F)	15 (24.6)	0.734 (F)
3-6 months	49 (28.7)		0 (0.0)		3 (17.6)		19 (31.1)	
6-12 months	41 (24.0)		3 (50.0)		4 (23.5)		11 (18.0)	
> 12 months	39(22.8)		3 (50.0)		6 (35.3)		16 (26.2)	
Family members belonging to Medicine Field								
Yes	38 (22.2)	0.051*	1 (16.7)	0.675	2 (11.8)	0.331	7 (11.5)	0.053*
No	133 (77.8)		5 (83.3)		15 (88.2)		54 (88.5)	
Characteristics	*Second visit*							
	Doctor n (%)	*p Value*	*Homeopath n (%)*	*p Value*	*Traditional healers n (%)*	*p Value*	*Spiritual healers n (%)*	*p Value*
Family Structure								
Nuclear	69 (53.5)	0.226	1 (20.0)	0.175	7 (43.8)	0.373	14 (48.3)	0.463
Extended	60 (46.5)		4 (80.0)		9 (56.2)		15 (51.7)	
No. of Children								
≤ 4	69 (53.5)	0.007*	5 (100.0)	0.084	7 (43.8)	0.113	20 (69.0)	0.241
> 4	60 (46.5)		0 (0.0)		9 (56.2)		9 (31.0)	
Time since Participants Diagnosed with Hepatitis C (months)								
1-3 months	29 (22.5)	0.897 (F)	2 (40.0)	0.556 (F)	3 (18.8)	0.118 (F)	4 (13.8)	0.516 (F)
3-6 months	36 (27.9)		2 (40.0)		1 (6.2)		8 (27.6)	
6-12 months	29 (22.5)		0 (0.0)		5 (31.2)		9 (31.0)	
> 12 months	35 (27.1)		1 (20.0)		7 (43.8)		8 (27.6)	
Family members belonging to Medicine Field								
Yes	27 (20.9)	0.289	2 (40.0)	0.245	3 (18.8)	0.631	3 (10.3)	0.149
No	102 (79.1)		3 (60.0)		13 (81.2)		26 (89.7)	

*Significant p-values, (F): Fisher exact test

The present study showed that educated people went on first visit to the traditional healer while uneducated in their second visit went to the traditional healers. Another study from Pakistan also reported that quite a few HCV patients, whether educated or uneducated, were using ayurvedic treatment for disease.[15]

This use of alternate therapy is probably due to their cultural norms, beliefs, and financial constraints.

The present study reported that uneducated people were more likely to go to spiritual healers on their first visit. This finding is similar to another study from Pakistan that found that the use of dam/ darood decreased with the increasing level of education and increase in monthly household income among hepatitis C patients.[12] This again shows the belief of uneducated lot on evil spirits and their faith in spiritual healers.[16]

Additionally, the current study also showed that participants having $\leq$ 4 children were more likely to visit a doctor in their second visit. Moreover there was an association between participants' family not belonging to the medical field and their first visit to the doctor or spiritual healers. People who had a health care provider within their family were more likely to visit a doctor for their illness while other group went to traditional medicine people.

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Conflict of interest: None declared.

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