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Original Research

Health Seeking Behavior and Associated Factors among Chronic Heart Failure Adult Clients, Jimma University Specialized Hospital, South West Ethiopia

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Abstract

Chronic heart failure is a chronic progressive condition where the heart fails to meet the body's circulatory demands. Health-seeking behavior is important factors determining the acceptance of health care and outcomes, especially in chronic conditions like heart failure.
The objective of the study was to assess health seeking behavior and associated factors among chronic heart failure adult clients admitted to medical and on chronic follow up clinic at Jimma University Specialized Hospital, South west Ethiopia, 2016. Facility based cross-sectional quantitative study design was conducted with a total of 335 patients admitted to medical ward and or on chronic follow up clinic of Jimma University Specialized Hospital. Consecutive sampling method was used to get the sample. Data was collected using structured questionnaire. The data was entered, into Epi-data manager version 2.0 and data entry client, data was cleared and exported to SPSS 20.0 for further analysis. Variables having *P*-value less than 0.25 in the bivariate analysis were entered into final model for multivariable analysis. Variables with *P*<0.05 in the multivariable analysis were considered statistically significantly associated with health seeking behavior of Chronic heart failure
Out of 335 participants 58.2% of the study participants had poor health seeking behavior. Distance from health facility was significantly associated health seeking behavior. Participants with monthly income of less than 500 ETB where less likely to adhere to good health seeking behavior [AOR (95% CI of OR) = 0.581 (0.35, 0.98)], Poor self-care were less likely to adhere to good health seeking behavior at [AOR (95% CI of OR) = 0.191 (0.11, 0.33)] duration heart failure less than one year were more likely to adhere to good health seeking at [AOR (95% CI of OR) = 2.3(1.12, 4.73]. In this study poor health seeking behavior is experienced in more than half of participants. In general factors such as adherence to self-care behaviors, attitude, duration of heart failure, income, distance, taking medication and knowledge were significant factors that determine health seeking behavior of individuals.

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INTRODUCTION

Non-communicable disease is a major burden in Ethiopia constituting cardiovascular as a major contributor (Misganaw *et al*., 2014). Chronic heart failure (CHF) is more prevalent between age group 38 up to 98. Most of the study participants are in New York Heart Association (NYHA) functional classification III and IV which is indicator of poor self-care and health seeking behavior (Siabani, Leeder, and Davidson, 2013). Chronic condition like heart failure have impact on both on quality of life patients and economic development of the community (Young, Barnason and Do, 2015). Study from Ethiopia indicates the eastern part of the country, an estimated prevalence of 7.2% for cardiovascular diseases (Misganaw *et al*., 2014). Heart failure is a major and speeding up public health problem on a globally. Even though there is shortage of published literature on heart failure in sub-Saharan Africa, the few available evidence from the continent suggest that the rate of hospital admission for heart failure is comparable with rates from the rest of the world (Misganaw *et al*., 2014).

Health seeking behavior is social process that starts from individual interaction with social network and extend to community interaction with health system with is ongoing process. The behavior can be either an individual adjustment of life style or appropriate use of medication to get maximum well-being (Poortaghi *et al*., 2015; Iyalomhe and Iyalomhe, 2012). Different factors like educational

background, availability of money during illness, severity of illness distance from health facility are major factors that will determine health seeking behavior of individuals (Iyalomhe and Iyalomhe, 2012; Chanda-kapata *et al*., 2016).

Health seeking behavior characterizes individuals alarming feeling for controlling and giving attention about their surrounding and its effects on health which may differ across a person and culture (Poortaghi *et al*., 2015). Study with Health seeking behavior of chronic heart failure clients in Ethiopia is not common, but clients with heart failure suffer from different problem due to poor health seeking and poor self-care behavior. This behavior includes like that of missing medication, self-care beliefs, including inability to modifying their diet, more salt intake, inadequate maintenance of a healthy weight, smoking, and lack of getting regular exercise. Most people have poor knowledge and belief about the seriousness of poor health seeking behavior for heart failure and the consequence associated with it. Bearing in mind this situation and the lack of study on this area in Ethiopia, it is necessary to assess the overall health seeking behavior and its associated factors among patient with chronic heart failure. This study was conducted to describe health seeking behavior by clients with chronic heart failure and to identify factors which promote or prevent positive health maintenance.

The study result from South Africa indicates that factors like occupation and education status of respondents were not significantly associated, but factors like income and family size were associated to health seeking behaviors of individuals(Poortaghi *et al*., 2015). A study conducted in Malaysia on health seeking behaviors of elders reveals that older people have more underlying factors such as illiteracy, family composition, misconception and financing for accessing health care. Beside this study had also revealed that elder are economically unproductive, there is a tendency that they might face with financial burden and develop social dependency due to illnesses and health care for that (Adhikari and Rijal, 2010). According to study conducted in Uganda indicate health seeking behaviors of respondents were affected by their age which was middle-aged respondents sought care more than the youths and the elderly (Lubega *et al*., 2015). Study from southern part of Ethiopia which was conducted in Woliyita reveals that family support was one of factor that will determines an individual's health seeking behavior (Begashaw, Tessema, and Gesesew, 2016).

Case, Menendez, and Ardington, examined patterns of health seeking behavior of individuals who lived in the Northern KwaZulu-Natal region in South Africa prior to their death. It was discovered that significant positive associations exist between individuals socioeconomic statuses. Individuals with greater economic resources are significantly more likely to seek treatment (Chandwani and Pandor, 2015; Senbeto *et al*., 2013). The study also indicated that Individuals who are ill for a longer period are reported to see a greater number of health providers (Inche *et al*., 2014).As study from India indicates health seeking behavior is affected by educational status literate 78.5% and also type of family accordingly nuclear families health seeking behavior is 67.2% when compared with joint family (Chandwani and Pandor, 2015; Senbeto *et al*., 2013).

Religion is one of the factors that can influence health seeking behavior of individuals as it had been revealed in a study conducted in Uganda Christian University Luwero district, accordingly Catholics were more likely to seek health care (Lubega *et al*., 2015). But another finding from Malaysia states that religion cannot affect an individual health seeking behavior (Moe *et al.*, 2012). Cross-sectional study result from south Africa indicates there is difference in health seeking behavior between urban and rural (Hoeven, Kruger, and Greeff, 2012). Many studies had revealed like that of study conducted in Dharan on Factors affecting health seeking behavior of senior citizens states that individuals will not demonstrate health seeking behavior was due to poor attitude of health care workers towards their health needs and treatment (Adhikari and Rijal, 2010). Study conducted in rural area of Woliyita indicates that income was one of the factor that determine health seeking behavior of respondents (Falaha, Worku, and Meskele, 2016).

Educational attainment had good relation with health seeking behavior as study conducted in Woliyita of Ethiopia which was conducted on rural elders and another study from Uganda states that as educational levels increase an individual's health seeking also increases. This indicates the more educated the more they seek health (Lubega *et al*., 2015; Falaha *et al*., 2016 and Inche *et al*., 2014). Family size has direct effect on health seeking behavior as family size increase by one odds health seeking behavior decrease (Lubega *et al*., 2015; Senbeto *et al*., 2013; Inche *et al*., 2014; Kishore *et al*., 2015). Distance from health facility is one of the factor that affect an individual health seeking behavior according to study result which was reported from Woliyita of Ethiopia (Falaha *et al*., 2016).

A study conducted in India on women showed there is discrepancy based on area of residence as urban 45.5% area is moderate health seekers whereas most of the respondents 48% from rural areas showed low level of health seeking. Thirty one percent urban and only 17.5% rural respondent's showed high level of health seeking behavior (Adhikari and Rijal, 2010). Study conducted in Nigeria states that people seek help on health issues based on access to healthcare facilities in terms of cost of treatment (Inche *et al*., 2014). Study conducted in Jimma south west, in 2012 indicates that almost all 94.1% of of study participants live with somebody (Beker *et al*., 2014).

According to study conducted on predictors of self-care of clients with chronic heart failure by Jemal in 2012 indicates, 75.3% were not knowledgeable about HF (Beker *et al*., 2014). Study conducted in Nigeria on health seeking behavior indicates distance was significantly associated with health seeking behavior (Afolabi *et al*., 2013). As study conducted in Malaysia on prevalence and determinants of appropriate health seeking behavior indicates that ,mean household income, duration of illness, presence of other illnesses, duration of seeking treatment upon diagnosis, family support, and perception severity of disease were determinants of appropriate health seeking behavior (Inche *et al*., 2014). Studying health seeking behavior among chronic heart failure clients helps to stimulate effective intervention and prevention for changing their health seeking behavior pattern and identifying factors associated with health seeking behavior of chronic heart failure clients that can lead to know the concern to deal with it. This study will

contribute a lot for the target group by implying the need for health seeking behavior adjustment and some modification in habits, work and we beliefs that it will have significant impact on health seeking behavior and its' associated factors.

METHODS

Study Design, Setting and Participants

Facility based cross-sectional quantitative study design was employed. The study was conducted at medical ward and chronic follow up clinic of Jimma University Specialized Hospital (JUSH)from March 01 to April 30, 2016; Jimma townwhich is located in Jimma city Oromia region south west, Ethiopia at a distance of 352 km southwest of Addis Ababa. All registered Adult clients for admission and on follow up with chronic heart failure clients at Jimma University Specialized Hospital (JUSH). All sampled clients adult with confirmed diagnosis of heart failure at least 6 month before time of data collection, admitted in medical ward and/or attending a regular follow- up at chronic follow up during time of data collection at Jimma University Specialized Hospital.

Sample Size and Sampling Techniques

The sample size in this study was determined using a single population proportion formula with assumption of 95% confidence interval, margin of error 5% and taking 50% prevalence of health seeking behavior since there is no similar study on institutional base and to get maximum sample size. We used 10% of the determined sample size was added up on calculated sample size and the final sample size was 335. Non-probability sampling technique was used to select patients, by considering patients with HF ≥ 18 years to the chronic follow up unit until the designed proportion is maintained and the same procedure was employed for admitted patients. Then each study participants was selected using consecutive sampling technique until sample size is maintained. Proportional allocation of the study subjects was employed.

Measurements/tools for Data Collection and Methods of Data Collection

The tool prepared for this data collection has sixparts with part I socio demographic data containing 11 items. Part II contains questions about clinical characteristics of heart failure which are multiple options with 14 items.

Data was collected by using structured questionnaire and interviewing study subjects. Card review was undergone to get clinical information of patients. There were 2 Bsc nurse data collectors trained for 02 day on how to fill the data and handle the documents in accordance with the objective of the study. The data was collected for 2 months. Continuous monitoring and supervision was done during data collection by senior MSc nurse as supervisor and principal investigator at spot.

Data Quality Control and management

The questionnaire was pretested in 5%(16) of the sample size before the actual data collection at Nekemte Referral hospital by the investigator and the pretest result was used to check consistency of the tool, order and local acceptability check and necessary modification and possible amendment was made based on the result.

To assure the quality of data, careful modification of the data collection tool according to Ethiopian situation was applied. The data collection instrument format was developed in English version, translated to Afan Oromo and Amharic, later translated back to English version by other experts to check its consistency. Data collectors and supervisors were Bsc nurse who had work experience of two years and above. During the data collection procedures, all the collected data was reviewed and checked daily for its completeness.

Data Analysis and Interpretation

The data was compiled, entered, into Epi-data manger 2.0 and Epi- data entry client, cleared, explored, and then exported to SPSS windows version 20.0 for, summarization and further analysis. Bivariate analysis was carried out to assess association between the dependent and all the independent variables and to identify candidate for multivariate analysis. Variable having p-value less than 0.25 was subjected for multi-variable analysis. Then multivariable analysis was performed to determine the independent associated factor of the dependent variable. Statistical significance was considered at p-values < 0.05 and adjusted odds ratio [AOR] of 95% confidence interval [95% CI].

Ethical Considerations

The study was approved and ethical clearance letter was obtained from institutional review board [IRB] of College of health Sciences, Jimma University and was given to JUSH administrative office to undertake formal investigation. A consent sheet was prepared, translated in to local language and attached to the questionnaire in a separate page. In the consent sheet, the purpose of this study was stated and there is explanation that there is no way to cause any harm to the study subjects. Oral consent was obtained from study participants to ensure confidentiality; the consent sheet indicates that there were no participant identifiers to be written on the survey questionnaire and that no individual response was reported. Everybody was participated voluntarily.

RESULTS

Socio-demographic Characteristics of the Study Participants

A total of 335 respondents were considered for the final analysis with response rate of 100%. The study reveals that the respondent's age lies between 18 and 89 with the mean age (±SD) of [48.08±16.38]. One hundred forty nine [44.5%] were males and most predominant religion was Muslim 246 [74.6%] followed by orthodox 62(18.5%) and protestant 21[6.3%]. Regarding occupation most of the study participants were farmers 142(42.4%). Greater than half of the study participants were rural residents 246[73.4%] and more than half 205[61.2%] had five or more children (Table 1).

Table 1: Socio-demographic characteristics of the adult clients with Chronic Heart Failure attending JUSH South West Ethiopia March 1- April 30, 2016 GC

Variables	Categories	Frequency	Percent %
Sex	Female	186	55.5
	Male	149	44.5
	Total	335	100.0
Religion	Muslim	246	73.4
	Orthodox	62	18.5
	Protestant	21	6.3
	Catholic	5	1.5
	Joba	1	.3
	Total	335	100.0
Educational status	Illiterate	212	63.3
	can read and write	91	27.2
	primary school	23	6.9
	high school	9	2.7
	Total	335	100.0
Ethinicity	Oromo	247	73.7
	Amhara	41	12.2
	Gurage	21	6.3
	Other	17	5.1
	Tigre	9	2.7
	Total	335	100.0
Distance from health facility	<1km	62	18.5
	1-3km	133	39.7
	3.1-5	84	25.1
	≥5 km	56	16.7
	Total	335	100.0
Age in years	18-25	38	11.3
	26-35	44	13.1
	36-50	105	31.3
	>50	148	44.2
	Total	335	100.0
Occupation	Farmer	142	42.4
	house wife	96	28.7
	Merchant	51	15.2
	government employee	29	8.7
	Other	17	5.1
	Total	335	100.0
Marital status	Married	244	72.8
	Widowed	37	11.0
	Single	25	7.5
	Divorced	21	6.3
	Separated	8	2.4
	Total	335	100.0
Monthly income (ETB)	<500	163	48.7
	≥500	172	51.3
	Total	335	100.0
Family size	<5	130	38.8
	≥5	205	61.2
	Total	335	100.0
Place of residence	Rural	246	73.4
	Urban	89	26.6
	Total	335	100.0

Other ethnicity: Dawuro, Woleyita, Kafa, Yem and **Other occupation**: student and daily labour

Clinical Conditions and Related Attributes

Greater than half (85.4%) of the study participants had confirmed diagnosis of heart failure greater than or equal to one year and 14.6% of them had confirmed heart failure less than one. Two hundred forty four (72.8%) of the study participants did not know the cause of their heart failure. Three hundred thirty four (99.7%) of the study respondents can report their sign and symptom and only one individual did not know the sign and symptom of his heart failure. Out of those who know the sign and symptoms 161(48.1%) report swelling of ankles and legs and 21(6.3%) report shortness of breath.

Among the respondents 298(89%) had information on self-care told by health professional. Most of the respondents 323(96.4%) take their medication as it's prescribed and 225(67.2%) of participants did not have experience of medication side effect while among those

individuals who had experienced medication side effect 78(64.8%) did not withdraw medication after side effect. In this study 145(43.3%) stage IV, Co-morbidity occurred in 314(93.7%) and 272(81.2%) of them were diuretics takers (Table 2).

Table 2: Clinical symptoms and treatment practice of adult clients with CHF attending JUSH, South west Ethiopia March 1-April 30, 2016 GC

Variables	Categories	Frequency	Percent %
Duration of heart failure	<1 year	49	14.6
	≥ 1year	286	85.4
	Total	335	100.0
Sign and symptom	Shortness of breath	323	96.7
	Fatigue after minor exertion	277	82.9
	Persistent cough	265	79.3
	Weight gain	216	64.7
	Swelling of ankles and legs	36	10.8
	Others	2	0.6
NYHA functional class	I	7	2.1
	II	60	17.9
	III	123	36.7
	IV	145	43.3
	Total	335	100.0
Type of medication taking	ACE inhibitors	214	63.9
	Beta blockers	120	35.8
	Digitalize	159	47.5
	Diuretics	272	81.2
	Ca channel blockers	45	13.4
	Others	164	49.0
Co-morbidity	DM	44	13.1
	Hypertension	157	46.9
	Acute myocardial infraction	54	16.1
	Renal disease	24	7.2
	Liver disease	9	2.7
	Valvular heart disease	66	19.7
	Others	68	20.3
	No comorbidity	21	6.3
Important care under taken	Adequate rest	307	91.6
	Use of pillows	286	85.4
	Limit exercise	140	41.8
	Salt restriction	140	41.8
	Daily weighing	22	6.6
	Others	4	0.2
Type of medication taking in number	1	28	8.4
	2	73	21.8
	3	133	39.7
	4	76	22.7
	5	22	6.6
	6	3	.9
	Total	335	100.0
Comirbiduty in number	0	21	6.3
	1	211	63.0
	2	85	25.4
	3	13	3.9
	6	5	0.15
	Total	335	100.0

NB. Other symptom: (night sweating, anorexia); **Other care:** (coffee and chat chewing cessation, bed rest)
Othercomorbidity:(Anemia,PUD,Asthma,TB,COPD,goiter,metabolicsyndrome,pneumonia,rhematic,thyrocarditis, thyrotoxicosis,UTI)

Health Seeking Behavior Variables

More than half 195 (58.2%) of the study participants had poor health seeking behavior and 140(41.8%) had good health seeking behavior.

Adherence to Self-care Behavior

More than half of the study participants185 (55.2%) had poor adherence to self-care behavior. The mean (±SD) on European Heart Failure self-care Behavioral

scale [EHFScBS] score was 26.86±5.79 with minimum and maximum score of 11 and 50 respectively.

Knowledge about Heart Failure

In this study about 192(57.3%) of the participants were not knowledgeable about heart failure.

Attitude towards themselves and other People

Regarding attitude towards themselves and other people for illness management more than half 222(66.3%) of them had good attitude.

Social and Behavioral Attributes

Out of total study subjects 323 (96.4 %) live with some body and only 12(3.6%) live alone. Two hundred three (60.6%) of the respondents had poor relation with medical staff. Majority 315(94%) were non-smokers and 309 (92.2%) were non-alcohol consumers. Among the study subjects 306(97.3%) had discussion with their family or relatives about their illness while 9 (2.7%) did not visit health facility after discussion. Regarding health information 145(43.3%) of the participants had been visited by health extension worker at their home while only 66(45.5%) of them went to health facility after the visit within the past six months (Table 3).

Table 3: Social and behavioral attributes of adult clients with CHF attending JUSH, Oromia region south west Ethiopia March1-April 30, 2016 GC

Variables	Categories	Frequency	Percent %
Living arrangement	Living with some one	323	96.4
	Living alone	12	3.6
	Total	335	100.0
Relationship with health care professionals	Poor	203	60.6
	Good	132	39.4
	Total	335	100.0
Do you smoke cigarette	No	315	94.0
	Yes	20	6.0
	Total	335	100.0
Do you drink alcohol	No	309	92.2
	Yes	26	7.8
	Total	335	100.0
Discussion with families or relatives about illness	Yes	315	94.0
	No	20	6.0
	Total	335	100.0
Visit health facility after discussion	Yes	306	97.1
	No	9	2.9
	Total	315	100.0
Health extension visit within the past 6 month	No	190	56.7
	Yes	145	43.3
	Total	335	100.0
Visit of health facility after health extension visit	No	79	54.5
	Yes	66	45.5
	Total	145	100.0

Factors Associated with Health Seeking Behavior

Binary logistic regression indicated that some of socio-demographic factors showed statistical significance to health seeking behavior at 5% significance level (Table 4).

Multivariable logistic regression analysis was fitted to determine factors associated with health seeking behavior. Factors that showed significance at p-value < 0.25 were included into the final multivariable model for analysis. The result of the analysis indicates adherence to self-care behaviors, attitude, income, knowledge, duration of CHF, distance from health facility, taking medication as prescribed were significantly association.

Study subjects who have health facility at a distance of 3 KM were less likely to have good health seeking behavior when compared with respondents at 1 Km[AOR (95% CI of OR)=0.457(0.22,0.94)],as well as respondents at distance of 5 km were also less likely to good health seeking behavior when compared with individuals at distance of 1 km at [AOR (95% CI of OR)= 0.415 (0.19,0.93)] and study subjects those who do not know the distance of health facility from were less likely to good health seeking behavior when compared with respondents at 1 km from health facility at [AOR (95% CI of OR) = 0.065(0.02,0.18)].

Respondents having per monthly income of less than 500 ETB where less likely to adhere to good health seeking behavior when compared with respondents those had greater or equal to 500 ETB at [AOR (95% CI of OR) = 0.581 (0.35, 0.98)]. Study participants who did not take their medication as prescribed were 8.6 more likely to adhere to good health seeking behavior when compared with participants taking their medication as prescribed at [AOR (95% CI of OR) = 8.6(1.86,39.59)]. Respondents

Table 4: Bivariate analysis of factors associated with health seeking behavior of adult clients with CHF attending JUSH, Oromia region south west Ethiopia March1-April 30, 2016 GC

Variables		Health Seeking Behavior				
		Good	Poor	COR	CI	p-value
Distance from health facility	<1 KM	34(54.8%)	28(45.2%)	1		
	1-3 KM	56(42.1)	77(57.9%)	0.599	(0.33,1.09)	0.098*
	3.1-5 KM	43(51.2%)	41(48.8%)	0.864	(0.45,1.67)	0.663
	≥5 KM	7(12.5%)	49(87.5%)	0.118	(0.05,0.30)	<0.001**
Monthly income	<500	58(35.6%)	105(64.4%)	0.606	(0.39,0.94)	0.025**
	≥500	82(47.7%)	90(52.3%)	1		
Take medication as prescribed	Yes	131(40.6%)	192(59.4%)	1		
	No	9(75%)	3(25%)	4.397	(1.168,16.55)	0.029**
Knowledge	Knowledgeable	140(36.4%)	91(63.6%)	1		
	Not knowledgeable	88(45.8%)	104(54.2%)	1.481	(0.950,2.307)	0.083*
Attitude	Good	100(45.0%)	122(55.0%)	1		
	Poor	40(35.4%)	73(64.6%)	0.668	(0.42,1.07)	0.091*
Adherence to self care behaviors	Good	88(58.7%)	62(41.3%)	1		
	Poor	52(28.1%)	133(71.9%)	0.275	(0.18,0.44)	<0.001**
Duration of stay with heart failure	< 1 year	27(55.1%)	22(44.9%)	1.879	(1.02,3.46)	0.043*
	≥1year	113(39.5%)	173(60.5%)	1		
Occupation	Govt. employee	11(37.9%)	18(62.1%)	1		
	Merchant	29(56.9%)	22(43.1%)	2.157	(0.85,5.48)	0.106*
	House wife	4142.7%)	55(57.3%)	1.220	(0.52,2.86)	0.648
	Farmer	54(38.0%)	88(62.0%)	1.004	(0.44,2.29)	0.992
	Other	5(29.4%)	12(70.6%)	0.682	(0.19,2.46)	0.559
Ethnicity	Oromo	93(37.7%)	154(62.3%)	1		
	Amhara	19(46.3%)	22(53.7%)	1.430	(0.74,2.78)	0.292
	Gurage	10(47.6%)	11(52.4%)	1.505	0.616,3.681	0.370
	Tigre	7(77.8%)	2(22.2%)	5.796	(1.18,28.49)	0.031**
	Other	11(64.7%)	6(35.3%)	3.036	(1.08,8.48)	0.034**
Place of residence	Urban	43(48.3%)	46(51.7%)	1		
	Rural	97(39.4%)	149(60.6%)	0.696	(0.43,1.14)	0.146*
Family size	<5	63(48.5%)	67(51.5%)	1		
	≥5	77(37.6%)	128(62.4%)	0.640	(0.41,0.99)	0.049**
Age category	18-25	20(52.6%)	18(47.4%)	1		
	26-35	19(43.2%)	25(56.8%)	0.684	(0.27,1.64)	0.394
	36-50	40(38.1%)	65(61.9%)	0.554	(0.26,1.17)	0.122*
	≥50	61(41.2%)	87(58.8%)	0.631	(0.31,1.29)	0.208*
Number of sign and symptom experienced	1	8(38.1%)	13(61.9%)	1		
	2	24(46.2%)	28(53.8%)	1.393	(0.49,3.92)	0.531
	3	33(47.1%)	37(52.9%)	1.449	(0.53,3.93)	0.466
	4	58(36.0%)	103(64.0%)	0.915	(0.36,2.34)	0.853
	5	17(56.7%)	13(43.3%)	2.125	(0.68,6.64)	0.195*
Relationship with medical staff	Good	68(51.5%)	64(48.5%)	1		
	Poor	72(35.5%)	131(64.5%)	0.517	(0.33,0.81)	0.004**
Alcohol consumption	Yes	14(53.8%)	12(46.2%)	1.694	(0.76,3.79)	0.198*
	No	126(40.8%)	183(59.2%)	1		
Number of medication taken	1	7(25%)	21(75%)	1		
	2	34(46.6%)	39(53.4%)	2.615	(0.99,6.91)	0.052*
	3	47(35.3%)	86(64.7%)	1.640	(0.65,4.14)	0.296
	4	36(47.4%)	40(52.6%)	2.700	(1.03,7.09)	0.044*
	5	14(63.6%)	8(36.4%)	5.2500	(1.55,17.77)	0.008**
	6	2(66.7%)	1(33.3%)	6	(0.47,76.71)	0.168*
Side effect experienced	Yes	54(49.1%)	56(50.9%)	0.642	(0.41,1.02)	0.059*
	No	86(38.2%)	139(61.8%)	1		
Knowledge cause of heart failure	Yes	47(51.6%)	44(48.4%)	1		
	No	93(38.1%)	151(61.9%)	0.577	(0.36,0.94)	0.026**

Significance level p <0.25*; p <0.05**

those were not knowledgeable about heart failure where 2.25 more likely to adhere to good health seeking behavior when compare with knowledgeable respondents at [AOR (95% CI of OR) = 2.25(1.31, 3.86)].

Study subjects having poor self-care were less likely to adhere to good health seeking behavior when compared to subjects having good self-care at [AOR (95% CI of OR) = 0.191 (0.11, 0.33)]. Study participants having poor attitude towards illness management were less likely to adhere to good health seeking behavior when compared with participants having good health seeking behavior at [AOR (95% CI of OR) =0.445(0.25, 0.81)]. Respondents who had chronic heart failure less than one year were 2.3 times more likely to adhere to good health seeking behavior when compared with individuals having chronic heart failure greater than or equal to one year at [AOR (95% CI of OR) = 2.3 (1.12,4.73)].

DISCUSSION

Over all the finding of the study demonstrated that more than half 58.2% of respondents had poor health seeking behavior with only 41.8% of them having good health seeking behavior. Similar results were reported from studies conducted in South Africa and Zambia (Hoeven *et al*., 2012; Chandwani and Pandor, 2015; Chanda-kapata *et al*., 2016).

The result of study reveals that income was significantly associated to health seeking behavior, which is consistent with studies conducted in Woliyita (Falaha et al., 2016) Malaysia (Inche *et al*., 2014), Maynamar (Khin Thandar Aung, Cho Mar Win and Aye Aye Maw, 2017), Dharan (Adhikari and Rijal, 2010) and North West of Ethiopia in 2013 (Engeda, Dachew, Woreta, Kelkay and Ashenafie, 2016).

The study result indicates that distance from health facility was significantly associated with health seeking behavior which in-line with study conducted southern part of Ethiopia Woliyita (Falaha *et al*., 2016) Malaysia (Inche *et al*., 2014), in Dharan that reported 25.3% of the respondents had poor health seeking behavior because of far distance between their homes and health facility (Inche *et al*., 2014). A Nigeria study also reported that distance was significantly associated with health seeking behavior the of the study population (Adhikari and Rijal, 2010).

The result of the study indicates that more than half 185(55.2%) of the study participants had poor adherence with self-care behavior which was consistent with study conducted in 2012 by Jemal which was 59.2% of them were poorly adhered (Beker, Belachew and Belachew Altayeworku, 2014).

The study result reveals that attitude of respondents towards illness management was significantly associated with health seeking behavior which agrees with study conducted in Nepal (Adhikari and Rijal, 2010). The study result indicates that 33.7% had poor attitude toward themselves and other people to manage their illness, and this is similar to a report from study conducted in Dharan (Adhikari and Rijal, 2010; Afolabi *et al*., 2013), which showed 41% of the participants had poor attitude towards health workers to their need and treatment. Furthermore, the result can be supported by study conducted in Nigeria on health seeking behavior among the rural Dwellers which states that community's ideas and attitudes toward health and illness affect the way they utilize health services that in turn can affect their act of seeking health (Falaha *et al*., 2016).The difference might be due to difference in education status, attitude of illness management and availability of health facility difference between study areas.

The duration of time the patients are living with heart failure was also significantly associated with health seeking behaviors of individuals which is in-line with meta-synthesis of qualitative study in 2013 (Siabani *et al*., 2013) and Malaysia (Inche *et al*., 2014).This might be as duration of illness increase an individual self-perception as well as health seeking behavior increase to improve their health behavior to optimal level as matter of adaptation to disease.

According to this study knowledge about heart failure was significantly associated with associated with health seeking behavior of individuals, similar result was reported from study conducted in Dharan (Adhikari and Rijal, 2010). Result of the study indicates that 57.2% of respondents were not knowledgeable, which is more than that 75% reported by Jemal in 2012 (Beker, Belachew and Belachew Altayeworku, 2014). The difference might be due to increased awareness, difference economic status and availability of health information.

Furthermore the result of this study indicates that place of residence was not significantly associated to health seeking behavior but study conducted in India indicates that there was significant association between place of residence and health seeking behavior (Adhikari and Rijal, 2010).

In this study co-morbidity and family support were not significantly associated with health seeking behavior of participants but study conducted in Malaysia states that there was significant association between health seeking behavior and the two factors (comorbidity and family support) (Inche *et al*., 2014). Here the difference might be difference in disease perception, knowledge of disease and educational status of study participants as well as disease knowledge and educational status of family members.

CONCLUSIONS

In this study poor health seeking behavior is experienced in more than half of participants. General determinants such as adherence to self-care behaviors, taking medication as prescribed, attitude towards themselves and other people towards managing their illness, distance from health facility, monthly income, duration of heart failure, knowledge about heart failure were significant factors that affect health seeking behaviors of individuals. Attitude and self-care behavior of patients were most important factors that affect patients' health seeking activities so that nurse working in JUSH chronic follow up and medical ward should respect patient give enough information on self-care that should be delivered for patients. A further study in large scales on many hospitals is recommended on factors affecting health seeking behaviors including qualitative part. Studies conducted in health seeking behavior were not including knowledge about the illness, so the researchers conducting studies on health seeking should include knowledge in the future.

Conflict of Interest

The authors declare that they have no competing of interests.

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