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HEALTH CARE SEEKING BEHAVIOR AMONG NEWLY DIAGNOSED HUMAN IMMUNODEFICIENCY VIRUS CASES IN RAWALPINDI

Mommana Ali Rathore, Zubaida Rashid, Syed Fawad Mashhadi, Muhammad Ali Rathore*, Imtenan Sharif

Army Medical College/National University of Medical Sciences (NUMS) Rawalpindi Pakistan, *Armed Forces Institute of Transfusion/National University of Medical Sciences (NUMS) Rawalpindi Pakistan

ABSTRACT

Objective: To determine the health care seeking behaviour and its association with socio-demographic factors among newly diagnosed Human Immunodeficiency virus infection patients.
Study Design: Cross sectional analytical study.
Place and Duration of Study: The study was conducted in a regional blood centre and an Institute of Pathology affiliated with National University of Medical Sciences (NUMS) in Rawalpindi, from Feb 2019 to Oct 2019.
Methodology: A pretested structured questionnaire was used to collect data from thirty newly diagnosed (within last one year) Human Immunodeficiency Virus Infection (HIV) patients, using consecutive sampling. Age, education, socioeconomic score (SES), family size, income and months living with HIV were divided into groups for analysis. Chi square test was applied to determine association between these variables and health care seeking behaviour. Data was analysed using SPSS version 22. A *p*-value of <0.05 was taken as significant.
Results: The participants were divided into three groups depending on their total questionnaire score value based on cut-off score value of 60%. Out of total 30 patients, 7 (23.3%) had inappropriate behaviour, 18 (60%) moderately appropriate and 5 (16.7%) appropriate behaviour respectively. No statistically significant association (*p*-value >0.05) was found between these independent variables and overall health care seeking behaviour.
Conclusions: Health care seeking behaviour of newly diagnosed Human Immunodeficiency Virus infected patients was moderately appropriate and no significant association was found between sociodemographic variables and health care seeking behaviour.

Keywords: Health Care Seeking, Health Care Seeking Behaviour, Human Immunodeficiency Virus, Acquired Immunodeficiency Syndrome, HIV/AIDS.

INTRODUCTION

The infection with Human Immuno-deficiency Virus (HIV), further leading to Acquired Immunodeficiency Syndrome (AIDS) have become a major global public health problem over the last few decades[1]. Early health care seeking in diagnosed HIV cases is important to decrease the transmission of this disease within a society[2]. In South Asia and other developing countries of the world, the affected individuals are mostly unaware of this disease as it is usually asymptomatic in the early stages[3]. Currently it is estimated that only about 75% of the people with HIV know their status and only 62% are accessing treatment[4]. This is significant because health care seeking behaviour of people living with HIV (PLHIV) in different parts of the world on average is poor, mostly due to the stigma attached to the disease[5]. Many studies have identified various factors associated with poor health care seeking behaviour for example lack of transportation and health insurance, caregiving responsibilities, depression, substance use[6], psychosocial factors, level of education, culture and beliefs[7], knowledge about the disease, medication and situational factors[8]. A study conducted in Karachi found out that the health care seeking behaviour of patients with HIV is poor on average[3].

Pakistan is classified as a low HIV/AIDS prevalence country with estimated prevalence of 0.1% in general public, but there are rapidly increasing number of HIV positive cases, increasing the spread of this disease[9]. Out of

Correspondence: Dr Mommana Ali Rathore, Community Medicine Department, Army Medical College Rawalpindi Pakistan
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160,000 people, currently estimated to be living with HIV, only 20,994 are on treatment. Understanding the post diagnosis health care seeking behaviour is as important as, research for cure of this disease. The research supports the importance of knowledge about the disease and the need to seek health care in patients particularly in a disease like HIV/AIDS[10]. This study was designed to help in identifying the health care seeking behaviour and its determinants among incidentally diagnosed new patients coming for blood donation or routine testing.

METHODOLOGY

A cross sectional analytical study was conducted among incidentally diagnosed new patients of HIV (within last one year), above 18 years of age and belonging to any gender coming for blood donation or routine testing in a regional blood centre and an institute of Pathology affiliated with National University of sciences and Technology Rawalpindi. All patients were confirmed to be having HIV infection by nucleic acid testing (NAT). All the patients were on treatment in different Anti-retroviral therapy (ART) centres in Rawalpindi and Islamabad region where medication is provided free of cost to the registered patients. Study was conducted from Feb to Oct 2019, using a consecutive sampling technique. A sample size of 30 was calculated using WHO sample size calculator, based on prevalence of disease 0.1%[11] with 95% CI and 5% margin of error. Study was conducted after obtaining approval of the Ethics Review Committee of Army Medical College, National University of Medical Sciences. Verbal as well as written informed voluntary consent was obtained from the patient after explaining the purpose of study. Respect for privacy, anonymity and strict confidentiality of participants was maintained keeping in view of the sensitive nature of the disease. A structured validated questionnaire was administered by interviewer for data collection[12]. It was translated verbatim by a linguistic expert in Urdu for better understanding of study participants and then back translated for quality control. Questionnaire consisted of forty questions answered and scored on 5 point Likert scale. Score for each question was calculated and then by adding score of all, total questionnaire score was calculated. Cut-off value was setas 60% of total score. Participants were deemed as having inappropriate behaviour if scoring 60% or less, moderately appropriate behaviour with scores between 60-70% score and appropriate behaviour with score >70% of total score. Age, education, family size, socioeconomic score (SES) and income (based on Kuppuswammy's scale)[13] and months living with HIV were divided into groups for analysis. Data was entered and analysed using IBM SPSS Statistics for Windows, version 22.0 (IBM Corp., Armonk, NY, USA). Descriptive statistics like frequencies and proportions were used for categorical variables. Chi square test was applied to determine the association between variables of interest and dependant variables.

RESULTS

A total of 30 participants completed the questionnaire. Male patients were 28 (93.3%) and only 2 (6.7%) were females. Mean age of the participants was 31 years. All of the participants were Muslims and majority of them belonged to Rawalpindi district, and had a family size of more than 5 members. Most of the patients 13 (43.3%) were self-employed andhave been living with HIV infection for more than 8 months. Majority of the participants 18 (60%) had moderately appropriate, while only 5 (16.7%) had appropriate health care seeking behaviour.

Demographic characteristics of participants were exhibited in table-I.

The participants were divided into three groups depending on their total questionnaire score value. The frequency of patients in each group was shown in table-II.

Age, education, socioeconomic score (SES), family size, income and months living with HIV were divided into groups for analysis purpose. No statistically significant association (p-value >0.05) was found between these independent variables and overall health care seeking behaviour.

Most of the participants n=10 (33.3%) having moderately appropriate behaviour were more than 30 years of age. Out of participants of age more than 30 years, 3 (10.0%) participants each had appropriate behaviour and inappropriate behaviour respectively. While 8 (26.6%) had moderately appropriate behaviour, 4 (13.3%) had inappropriate behaviour and 2 (6.67%) had appropriate behaviour in less than 30 years of age group (*p*-value=0.805).

Table-I: Socio-demographic characteristics of participants.

Characteristics	Number (n %)
Age (yrs.)	
Less than 30 years	15 (50)
More than 30 years	15 (50)
Gender	
Male	28 (93.3)
Female	2 (6.7)
Marital Status	
Single	9 (30)
Married	21 (70)
Education	
Less than 10 years	22 (73.4)
More than 10 years	8 (26.6)
Income (PKR)	
Less than 36,650	16 (53.3)
More than 36,650	14 (46.70)
Family size (persons)	
Less than 5 persons	8 (26.6)
More than 5 persons	22 (73.4)
Months living with HIV	
3-6	7 (23.3)
7-12	23 (76.7)
Socioeconomic scale	
Middle (11-25)	16 (53.3)
Lower (5-10)	14 (46.7)

Table-II: The frequency of health care seeking behaviour categories (n=30).

Behaviour category	Frequency n (%)
In appropriate behaviour	
(<60% score)	7 (23.3)
Moderately appropriate behaviour	
(60-70%)	18 (60)
Appropriate behaviour	
(>70%)	5 (16.7)

Most of the participants 14 (46.6%) having moderately appropriate behaviour had education of less than 10 years (*p*-value = 0.168). Education groups and behaviour categories were shown in fig-1.

Based on marital status, analysis revealed that most of the married participants 12(40%) had moderately appropriate behaviour, 5 (16.67%) had inappropriate behaviour, and only 4 (13.3%) had appropriate behaviour. While in unmarried group 6 (20.0%) had moderately appropriate behaviour, 2 (6.6%) had inappropriate behaviour, and only 1 (3.3%) had appropriate beha-viour (*p*-value=0.844).

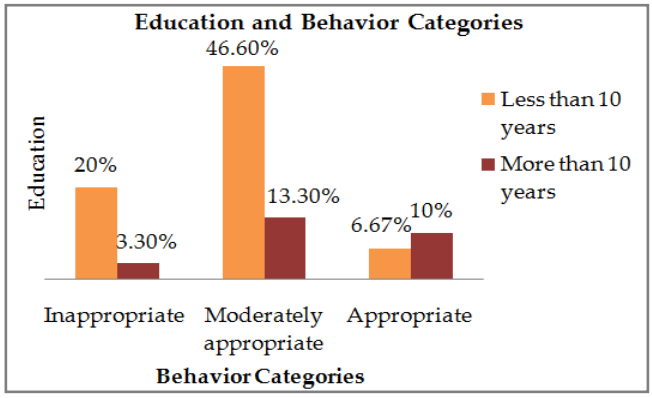

Figure-1: Education groups and behaviour categories.

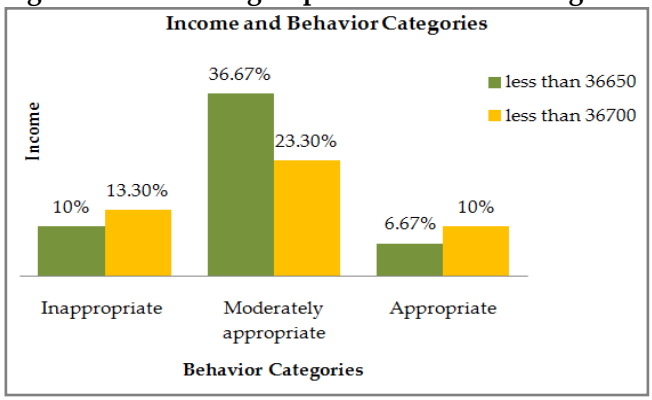

Figure-2: Income groups and behaviour categories.

Most of participants 11 (36.67%) having moderately appropriate behaviour had income <366650 Pakistani rupees (PKR) (*p*-value=0.576), when monthly income was divided into groups as shown in fig-2.

Analysis with respect to duration of disease showed that no participant had an appropriate behaviour with regard to treatment in the group having disease for <6 months while most of the

participants 13 (43.3%) having moderately appropriate behaviour were having the disease for >6 months. While 5 (16.67%) had inappropriate behaviour, and 5 (16.67%) had appropriate behaviour in group of >6 months. However in the group of 3 to 6 months, 2 (6.67%) had inappropriate behaviour and 5 (16.67%) had moderately appropriate behaviour (*p*-value = 0.401).

DISCUSSION

Seeking care in a disease like HIV is stressful due to the potential associated risks of being labelled as HIV-positive by visiting the clinic and being seen taking the pills. It has been portrayed as time-consuming, and also as burdensome because of dependence on lifelong therapy. This was not the case in this study because all patients were on medication and after diagnosis there was no pause in starting treatment. According to The Global AIDS response progress report of Pakistan 2017, estimated 69% males (92,121) and 31% females (41,178) are infected with HIV. This gender difference could be because of the reason that men are usually more prone to high risk of infection due to more exposure to external environment resulting in indulgence in more risky behaviours[14]. In this study also there were more male participants than females which are in line with other studies conducted in Pakistan[15]. This could also be due to the fact that in a country like Pakistan women have not much say in their life's decisions and they may have not been given permission to donate blood or talk to someone about their HIV status, due to the social set up[14].

The results of this study showed that majority of the participants had moderately appropriate health care seeking behaviour. These results were in contrast to the results of a study conducted in Karachi in which the health care seeking behaviour of participants was found to be poor generally[3]. Similarly in another study in China as well a very low rate of HIV care seeking was found among sample of Chinese population living in urban areas[16].This might be due to the fact that the participants of this study were all newly diagnosed and they were properly counselled at the time of diagnosis by the concerned physician. This might have motivated them to initiate treatment as soon as possible resulting in moderately appropriate health care seeking behaviour.

Education is likely to influence awareness and attitudes towards disease occurrence and increase perception of well-being but it was not the case in this study. In this study the majority of participants had an education of 10 years or less, however it was not found to be significantly associated with health care seeking behaviour. The revelation that education was a minor determinant of healthcare-seeking behaviour among PLHIV was also in line with the results of some previous studies. As results of one study carried out in Peshawar showed that most of the participants were illiterate or had education of >10 years and level of education was associated with number of HIV patients[15,17]. Similar results were found out by a study conducted in Tanzania and Kenya as well in which those without formal education were 14.4 times and 27% respectively more likely than those who had education up to secondary level to initiate treatment early[18,19].

There is a strong link between un-employment, poverty and HIV and its associated complications as evident by study conducted in Argentina in which poor HIV people were suffering more from anaemia than their counterparts[20]. Poverty leads to more susceptibility of high risk behaviours hence resulting in poor health care seeking as well[17]. Most of the participants of this study also belonged to lower socioeconomic groups according to Kuppuswammy's scale. However it was not associated with their health care seeking behaviour. Reason being, antiretroviral therapy (ART) in Pakistan is being provided free of cost to the patients registered with National Aids Control Program (NACP), which is mostly being funded by global fund. This may have resulted in early initiation of treatment and better compliance of the patients so far.

A study conducted in Uganda indicated that male patients who were married showed better

health care seeking behaviour and practices than men who were not[21]. Similar were the results of this study as patients who were married showed better health care seeking than those who were not in a relationship. This may be because men's health and well-being experiences, health-related attitudes and behaviours change substantially over the course of life as a result of both the aging biological process and different roles (e.g., fatherhood, jobs). These in turn affect their sense of responsibility as they realize that their families are greatly affected by their behaviour and feel the social and economic pressure resulting from their ill health. So they try to maintain their health to fulfil their responsibilities[8].

This study found that the socio demographic characteristics of participants including age, gender, marital status, education, income family size, socio economic status and months living with HIV have no significant relation with the health care seeking behaviour. Conversely the results of other studies indicate association of these with the early or late seeking of treatment in HIV positive individuals[22-24]. However in another study in Tanzania, Kayabu *et al*[19] found out that factors like gender, marital status and income have no association with the health care seeking behaviour consistent with the results of this study. This may be due to the fact that time and resource constraints of data collection resulted in getting data from a limited number of patients presenting in selected study settings. It is also difficult to extract information from patients due to taboo nature of HIV and stigma associated with the disease. And self-defined time period for early initiation of treatment in study might have also been a limiting factor in study.

LIMITATION OF STUDY

Though no significant differences were found based on gender, the study results are limited by under representation of females. Secondly the responses of patients may have been affected by their feeling of social desirability. An association between self-reported HIV risk behaviours and socially desirable responding has been documented in the literature, which could be an issue for this study as well. Ensuring privacy to prevent reactions to patient responses helped reduce this risk but still it can't be ruled out. Finally, the findings of this study may not be generalized to other populations because our patients, medical procedures, and geographic and cultural background vary from others. In addition, not all defined factors can be applied equally across communities and locations, but these results can be applied to some what similar settings and sample population.

RECOMMENDATIONS

Health care seeking behaviour and practices of patients are largely affected by fear shame and stigma attached with this disease. Guilt, shame and stigma need to be addressed so that the community accepts HIV, like any other disease; patients feel free to disclose their HIV status; and go to the treatment centre regularly, when required and necessary. More studies like these should be carried out in different settings in order to make the findings generalizable for wider communities with the goal of providing the necessary knowledge to improve stigma and prejudice and assess the health care seeking practices using context-sensitive approach.

CONCLUSION

The study concluded that no significant association was found between socio-demographic variables and health care seeking behaviour. However, inspite of having less education and belonging to lower socioeconomic group the participants had moderately appropriate healthcare seeking behaviour.

CONFLICT OF INTEREST

This study has no conflict of interest to be declared by any author.

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