



The prevalence of comorbidities among people mainly workers of Bihar state and living with HIV/AIDS in Patna City: An observational trial done in a teaching institute

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Abstract

Aim: The study is aimed to evaluate the prevalence of comorbidities among people living with HIV/AIDS in Patna City.

Method: This is cross sectional observation study among 241 HIV positive patients attending Outpatient Department (OPD) at patna medical college and hospital. Per schedule, structured, self-administered questionnaire was used for the data collection.

Result: Respondents age range was 22-75 years where as 31-40 years (38.6%) was the modal age range. 126 (52.3%) were females, 17 (48.5%) were government employees and 143 (59.5%) were married. In present job, 1-45 years were the range of working years. It had been observed that almost all participant had multiple comorbidities and among them 58 (24.3%) respondents were symptomatic. 52 (89.7%) were had fever, 6 (8.6%) were had diabetes mellitus, 26 (44.8%) were hypertensive, 21 (36.2%) were had arthritis, 7 (12.1%) were had tuberculosis and 25 (43.1%) had persistent diarrhoea. Among the respondents these were the major AIDS defining conditions present. Only significant social factor related to co-morbidities were the age above 50 years. 55 (94.8%) high pill burden, 48 (82.8%) had increased side effects, 33 (56.9%) complaining of cost of medication 79.8% were hard workplace victimization and these were the major challenges faced by the patients.

Conclusion: It was observed in these study that comorbidities of both non-AIDS defining and AIDS defining were prevalent among our respondents. The respondents who were more likely to develop comorbidities were above 50 years. Assisting management of comorbidities should include in HIV workplace policy.

Keywords: Comorbidities, Prevalence, HIV/AIDS, Patna.

Introduction

Comorbidity of HIV was defined as an acquired immunodeficiency syndrome which associated (AIDS-defining) illness. As the age progressed the major concern is the longer life span for this patients presented with various comorbidity. 1.1 and 1.4 were the mean number of HIV-associated comorbidities and general amongst HIV patients [1]. The most common comorbidities associated

with HIV includes chronic pulmonary respiratory disease, CV disease including heart failure, hypertension, metabolic disease like diabetes mellitus^[2-5].

Mental health of the patients who had infected with HIV is one of the major concern in developing countries and this aspects contributing towards the quality of life of the patients and also these became one of greatest challenge for the

clinicians. A serious psychological trauma and many different psychological disorder are associated with the infection progress and this have a great impact on patient's life. This situation even interrupts with the further complication and crests burden for medical diagnosis and treatment. It is well known to us that there were limited facilities are available in India to treat mental health related problem which is associated with HIV infection and treatment.

There is an increased need to evaluate the burden of HIV care and its associated diseases in the community, so that commissioning services respond adequately to the changing needs of patients living in the community with HIV and accompanying comorbidity.

Methods

This is cross sectional observation study among 241 HIV positive patients attending Out Patient Department (OPD) at patna medical college and hospital. Per schedule, structured, self-administered questionnaire was used for the data collection and personal interview was conducted with the concern patients and others who had attended the OPD with the patients. . Institution based cross-sectional study was conducted. We collected data from 241 adult patients through a face to face interviewing technique using a standardized questionnaire and review of medical records. This interview was conducted in different rooms and kept confidentiality.

Patients writer or verbal concern was taken before initiating the study. The predesigned questionnaire was clearly explained to patients or the attenders who had come with the patients. It has taken care that before initiation of the trial all the participant clearly understood the procedure. Institutional ethical committee approval was taken well before to initiate the trial. All patients who had included in the study were literate and had participated in this trial by their own will.

Variables which have a p -value < 0.05 during bivariable regression were entered into multivariable (binary logistic regression) and

finally which have a p -value of < 0.05 under multivariable (binary logistic regression) were identified as statistically significant association at 95% of confidence interval.

Results

Respondents age range was 22-75 years where as 31-40 years (38.6%) was the modal age range. 126 (52.3%) were females, 17 (48.5%) were government employees and 143 (59.5%) were married. in present job, 1-45 years were the range of working years. (Table 1)

Table-1 Socio-Demographic variables of respondents

Variables	Frequency (N = 241)	Percent
Sex distribution:		
Females	126	52.3
Males	115	47.7
Age range:		
21 – 30	51	21.2
31 – 40	93	38.6
41 – 50	58	24.1
51 – 60	33	13.7
61 – 70	5	2.1
71 and above	1	0.4
Marital status:		
Single	62	25.7
Married	143	59.3
Widowed	24	10
Divorced/separated	12	5
Present/past occupation:		
Government employee	117	48.5
Private employee	45	18.7
Self employed	79	32.8
Total years of working:		
1–9	139	57.7
10 – 19	68	28.2
20 – 29	25	10.4
30 – 39	6	2.5
40 - 49	3	1.2

It had been observed that almost all participant had multiple comorbidities and among them 58 (24.3%) respondents were symptomatic. 52 (89.7%) were had fever, 6 (8.6%) were had diabetes mellitus, 26 (44.8%) were hypertensive, 21 (36.2%) were had arthritis, 7 (12.1%) were had tuberculosis and 25 (43.1%) had persistent diarrhoea. (Table 2)

Table-2: Prevalence of co-morbid conditions and AIDS-related symptoms among PLWHA at time of study

Variable	Frequency	Percent
Presence of co-morbid conditions or AIDS-related symptoms:	N=241	
Yes	59	24.5
No	182	75.5
Types of co-morbid conditions:	N=58	
AIDS related comorbidities or AIDS-related symptoms:		
Persistent febrile illness	52	89.7
Generalized muscle pains	33	56.9
Persistent diarrhea	25	43.1
Generalized rash	19	32.8
Extreme fatigue	15	25.9
Anorexia	13	22.4
Insomnia	12	20.7
Tuberculosis	7	12.1
Cancer	2	3.4
Epilepsy	1	1.7
None AIDS Related Comorbidities:		
Hypertension	26	44.8
Arthritis	21	36.2
Typhoid fever	6	8.6
Diabetes	6	8.6
Hepatitis	3	5.2
Peptic ulcer disease	2	3.4
Renal problem	2	3.4

Among the respondents these were the major AIDS defining conditions present. only significant social factor related to co-morbidities were the age above 50 years. 55 (94.8%) high pill burden, 48 (82.8%) had increased side effects, 33 (56.9%) complaining of cost of medication 79.8% were had workplace victimisation and these were the major challenges faced by the patients. (Table 3)

Table-3: Period of diagnosing the co-morbid condition and associated challenges in its management

Variables	Frequency N = 58	Percent
Period of diagnosing the co-morbidity:		
Before developing HIV/AIDS	24	41.4
After developing HIV/AIDS	30	51.7
I do not know	4	6.9
Challenges in managing the co-morbidities:		
Too many drugs to take	55	94.8
More side effects	48	82.8
Increased cost of medication	33	56.9
Difficulties with controlling the co-morbid condition	13	22.4
Nothing	3	5.2

Discussion

Like general healthcare facility urban and rural both needed a specilieased treatment care center which provides diagnosis, effective screening, treatment and prevention of the disease. a high prevalence of chronic pain, an increasing prevalence of other chronic diseases oral health needs and co-morbid presence of mental health and substance abuse disorders are the major and common challenges to the healthcare professional who were dealing with PLWHA. It had been observed that this condition further develops other chronic medical co-morbidities, including CV disease like heart faifure, hrpertention, diabetes mellitus, cognitive impairment, osteoporosis and cancer as the age progressed which further complicate the situation ^[6]. Several studies had confirmed that lifestyle diseases and cardiovascular diseases are the two most common complication which is associated with the disease progression^[7]. Our study has correlated with some older studies which address the issue that even patients who lived in old age homes where the situation was more worsening and it further detoriate when co prescription for addressing the comorbid condition required^[8,9].

Among older persons number of comorbidities as chronic medical conditions are known to be commoner and which are in rise. In our study we had observed that a preponderance of females like many previous study, but the difference did not appear significant ^[10-12]. This observational study once again confirm that prevalence of various comorbidities among HIV patients is need to be taken as priority and HIV management with management of common medical comorbidities. People who generally suffered from HIV/AIDS were also frequently encounter with mental depression or other major depressive disorder which is twofold more frequent compare to general population^[13]. This common incidence among HIV infected people are common mainly because of the various complications of antiretroviral therapy (ART)^[14-16]. Thus clinicians should be more cauisous and attentive regarding

screening, diagnosis and management of mental disorder associated with PLWHA^[17].

Conclusion

It was observed in these study that comorbidities of both non-AIDS defining and AIDS defining were prevalent among our respondents. The respondents who were more likely to develop comorbidities were above 50 years. Assisting management of comorbidities should include in HIV workplace policy.

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