

Correlates of Anxiety

Association between socio demographic factors and anxiety

Female patients were significantly more likely to have anxiety compared to male patients (50.5%, 29.6% respectively, with p value 0.002). Young adults 18-29 years were more likely to develop anxiety followed by those on their 30s (63%, 53.1% respectively, p value 0.003). Those who were not Muslims or Christians (Not known religion group) showed high prevalence of anxiety followed by Muslims (60%, 57.7 respectively, p value 0.092).

There was an association between marital status and anxiety with 64.7% of those who were single were more likely to have anxiety followed by those who were widowed, separated or divorced (46.1%). Among those who were married, only 41.1% were likely to have anxiety, p value 0.175. Of those with no formal education 56.8% were more likely to have anxiety compared to those with primary education or post primary education (43.5%, 42.3% respectively with p value 0.31).

There was significant association between income and anxiety. Participants with low income of <100,000 Tshs were more likely to have anxiety compared to those with income of >100,000 Tshs (48.7%, 35.9% respectively with p value of 0.036). Employment factor showed patients who were not employed were more likely to have anxiety (53.7%), while those who were employed were less likely to develop anxiety (35.9% with p value of 0.092). Table 5 summarizes the association between socio demographic characteristics and anxiety.

Table 5: Association between socio demographic factors and anxiety

Socio-demographic characteristics	Anxiety		Chi2 (df)	Pvalue
	No	Yes		
	<i>n</i> (%)	<i>n</i> (%)		
Gender			9.30(1)	0.002
Female	101(49.5)	103(50.5)		
Male	50(70.4)	21(29.6)		
Age (years)			15.76(4)	0.003
18-29	10(37.0)	17(63.0)		
30-39	38(46.9)	43(53.1)		
40-49	64(66.7)	32(33.3)		
50-59	27(48.2)	29(51.8)		
>=60	12(80.0)	3(20.0)		
Marital status			3.48(2)	0.175
Married	69(58.9)	48(41.1)		
Single	6(35.3)	11(64.7)		
Widowed/divorced/separated	76(53.9)	65(46.1)		
Education			2.37(2)	0.305
None	16(43.2)	21(56.8)		
Primary	105(56.5)	81(43.5)		
Post-primary	30(57.7)	22(42.3)		
Employment			4.76(2)	0.092
Employed/retired	25(64.1)	14(35.9)		
Self employed	82(58.2)	59(41.8)		

Unemployed	44(46.3)	51(53.7)		
<i>Income (Tshs)</i>			3.71(1)	0.036
<100,000	101(51.3)	96(48.7)		
>100,000	50(64.1)	28(35.9)		
<i>Religion</i>			4.77(2)	0.092
Christians	127(58.3)	91(41.7)		
Islam	22(42.3)	30(57.7)		
Not known	2(40.0)	3(60.0)		

DISCUSSION

This study was conducted at the main referral and consultant hospital for the Lake and Western zones of the United Republic of Tanzania hence highlights the magnitude and correlates of depression and anxiety among HIV/AIDS patients in Tanzania.

The findings showed that a significant number of people living with HIV/AIDS attending the clinic are experiencing mood and anxiety. Similar findings on the burden of depression and anxiety among these patients have been reported in previous local and global studies[14-16].

The female to male ratio in this study was 2.9:1 with the majority been in the age group of 40-49 years followed by 30-39. The findings could be explained by the fact that women have more health seeking behaviours compared to men. This findings correlate with the Tanzania HIV indicator survey which indicates prevalence of HIV been higher among women than men, with increased prevalence from young adults peaking at the age of 45-49 for women and 30-49 for men[3]. Local studies has shown higher prevalence of HIV/AIDS among females [17-19], with

the age prevalence of 40-49 been the same to that reported in the same study settings in Kenyatta national hospital in Nairobi[20], Rwanda and Zambia[21]. A combination of factors including biological, social, behavioral, culture and economics has led to the disparate increase in HIV infection rates in Sub Saharan Africa among women compared to their male counterparts[22]. The prevalence of HIV/AIDS continues to be high among married group, findings comparable to those found by the same study setting in rural Tanzania[23], Kenya and Namibia [24].

There is a variation of education level among HIV/AIDS patients in Sub-Saharan Africa, 67.6% of the studied participants had primary level of education, this can be explained by the high levels of illiteracy of the country, the same findings was observed on the rural area of Tanzania[23], southern Uganda [25], Ethiopia [26] and Cameroon[27]. In contrast, higher level of education among HIV/AIDS patients have been observed in Kenya[20], Nigeria [9] and South Africa [28].

Employment and income continue to be a major concern among HIV/AIDS patients in Sub-Saharan Africa. The majority of the studied participants reported to be engaged in self-employment activities such as petty traders, hawking, tailoring, bodaboda riders with income of less than 100,000/=Tshs per month. The low socioeconomic status of the majority of participants may affect the likelihood of contracting HIV and developing AIDS, determine the quality of life after being affected by the virus, determine the drug and treatment adherence, which may all precipitate to depression and anxiety. The same study findings have been found in different local studies showing majority of HIV/AIDS patients live in poverty, poor economic status, are unemployed or depends on their relatives for food [16, 18, 19, 29].

The prevalence of depression and anxiety continues to be high among HIV/AIDS population, in this study the prevalence of 24% for depression was observed and found to be consistent to that

observed in previous studies [19, 30]. The prevalence of 45.1% for anxiety was higher to what have been observed in previous local and sub-Saharan studies [31, 32]. The higher prevalence of depression and anxiety observed can be contributed by underutilized of psychological services among HIV/AIDS population in our settings which highlights the importance of incorporating specific mental health services to this population including identification, evaluation, pharmacological and non-pharmacological treatment, such as counselling, group or individual psychotherapy.

Conclusion

This study showed high prevalence of anxiety and depression and their correlates among people living with HIV/AIDS. It emphasizes the importance of policy makers to incorporate mental health services on the treatment guidelines of HIV/AIDS patients.

Conflict of interest

Authors declare no conflict of interest.

Acknowledgement

The authors would like to thank the administration and all the staff members at BMC-CTC for their support during this study, all the participants who gave willingly their time and shared their life experience with us.

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