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A Study To Determine The Levels of Depression Among HIV Patients

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Abstract

Human Immunodeficiency Virus (HIV) is a global problem which either infects or affects someone and its effects are experienced even among those surrounding the person. Being the virus that causes Acquired Immunodeficiency Syndrome (AIDS), it kills or damages cells of the body's immune system and, over time, destroys the body's ability to fight against infections and certain diseases. As the virus actively multiplies and infects and kills the cells of the immune system, the carrier becomes prone to infections and disorders. One such disorder is depression. Studies show that as the number of HIV patient's increases, the psychiatric aspect in adolescents with the virus is poorly studied. There is few data from nationally-representative population-based studies that have examined the correlates of depression or whether HIV risk behaviors are associated with depression in sub-Saharan Africa. The limited number of existing studies addressing correlates of depression have been mostly small, focused on sub-populations, and have not examined many correlates that are particularly relevant in countries with high HIV prevalence. It is on these grounds that this study investigates the clinical levels of depression; the factor associated with depression and HIV carriers and identifies the carriers who are at risk for depression.

Key words: HIV patients, depression, psychiatric centre, adolescents

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Introduction

Depression refers to a wide range of mental health problems characterized by the loss of interest and enjoyment in ordinary things and experiences, low mood and a range of associated emotional, cognitive, physical and behavioral symptoms. This shows that depression not only affects ones brain and behavior but also the entire body (National Institutes of Mental Health, 2011). Major depressive disorder is a common form of unipolar depression and is a major public health problem with a lifetime risk of 10–25% for women and 5–12% for men and prevalence rates of 5–9% for women and 2–3% for men. According to the standard classification criteria stated in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), a person may be diagnosed with major depression if he/she experiences one of the first two symptoms and at least five of the remaining symptoms almost daily for a period of at least 2 weeks (Table 1).Depression is a recurrent disorder, with over 80% of depressed patients having more than one depressive episode, and over 50% of depressed patients relapsing within 2 years of recovery.

Though usually found in adults, depression is also common among adolescents. Adolescence is an important developmental period for understanding depression as significant increases in depressive symptoms occur during this period. Depression among adolescents is associated with a twofold higher risk in females, high co-morbidity with anxiety disorders, substance abuse and suicidal behaviors. In addition, adolescent depression results in high social costs as well as impairment of school performance. Among other factors, depression among

adolescents can be due to lack of social support- the existence or availability of people who care about, value, and love us. Although the link between a lack of social support and reduced psychological well-being is well established, empirical research on social support among adolescents has barely begun. Hence it is characterized by the lack of a reliable, general, and convenient index of social support. Existing indices of social support among adolescents treat social support as a homogeneous mass. However, while much more empirically derived evidence is needed to provide a basis for theoretical advances in the area of adolescent social support, several studies have examined the size of social support, the frequency of contact of social support, and perception of social support as to whether it is negative and positive social support. A study by BAL and colleagues examined the role that social support plays in well-being and coping after a stressful event in a group of nonclinical adolescents (Leserman et al. 1999). They found that a highly perceived availability of social support is directly associated with fewer trauma-related symptoms.

Adolescents who are infected with HIV/AIDS are more vulnerable to depression, compared to adolescents in the general population. HIV infected adolescents have elevated risks for developing emotional distress and are more likely to engage in high-risk behaviors. Approximately twice as many women as men are affected by depression. This therefore makes adolescents an important group to examine, even though empirical research on social support for them is extremely limited.

1. Depressed mood most of the day, nearly every day	7. Psychomotor retardation or agitation
2. Reduced or loss of interest or pleasure in almost all activities (anhedonia)	8. Feelings of worthlessness or excessive guilt
3. Significant weight loss or gain without dieting	9. Reduced ability to think or concentrate
4. Insomnia or hyposomnia	10. Recurrent thoughts of death or suicide
5. Feelings of lethargy or restlessness	
6. Fatigue or loss of energy	

Table 1: DSM Standard Classification of Mental Disorders

Therefore this study's broad objective is to identify adolescent HIV patients with clinical levels of depression severity, those who are at risk for depression and also to determine the factors that are associated with depression in the patients. The study design was a descriptive and cross sectional study which was conducted at the Pediatrics Centre of Excellence of the University Teaching Hospital (PCOE). It centered on adolescents whose age range was 11-17, was living with the HIV virus and were attending their clinic at the PCOE.

Material and Methods

Site: This study was conducted at the Pediatrics Centre of Excellence of the University Teaching Hospital in Lusaka, Zambia, under the Department of Community Medicine, University of Zambia.

Study Design: The design was a descriptive and cross sectional study of adolescents aged 11-17 living with the HIV virus. All the available case records of the children attaining health services at the medical and pediatric wards during the study period were included for review.

Study Procedure: Various methods were used to extract the required information. For instance, the systematic sampling method was used by interviewing 20 participants each week that came on each day of the clinic. The target was to assess and interview 100 participants which was possible in 5 weeks. Aside from that, from the available case notes, relevant information for the study were extracted and transferred onto a structured questionnaire which served as a guide for the information required. In order to assess the severity of depressive symptomatology in the adolescents, the RADS-2 was administered.

Ethics: Patients' information was treated with confidentiality and no form of personal identifiers was disclosed as confidentially was maintained at all cost on the result obtained from the study. Consent to proceed was granted by the Director of Pediatrics Centre of Excellence and the Ethics Committee as well as from all the participants.

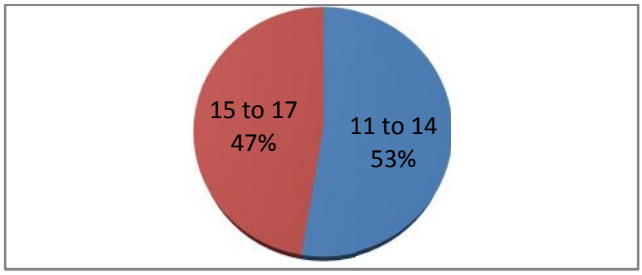

Figure 1: Age distribution of participants with clinical levels

Results

The study of 100 participants reviewed that 53% belonged to the age range 11 to 14 while 47% belonged to the age range 15 to 17 thus making the age ranging 11-14 as the commonly affected age range as regards to clinical levels of depression (Figure 1). It was found that 81% had levels that were below the total clinical depression cut off which is below 76; although 30% of these had endorsements with critical items and so could probably be at risk for depression or require additional evaluation to rule out a depressive disorder (Table 2). 10% had mild clinical depression levels (76-81) while 6% had moderate clinical depression levels (82-88) and 3% had severe clinical depression levels (89-120). Inference can thus be made that HIV/AIDS in adolescents is associated with clinical levels of depression and most of it are due to a lack of a good social support system in the management of these patients.

Participants With Depression Total Scores Below The Clinical Cut0ff	Number Of Participants
Critical Items Present	24
Critical Items Absent	57
Total	81

Table 2: Depression total scores below the clinical cut off

Clinical Description/ Interpretation	**Raw Score Range**	**T-Score Range**	**%Ile Rank Range**	**Number Of People In Particular Range**
Normal Range	30-75	<61	1−84	81
Mild Clinical Depression Range	76-81	61-64	86-92	10
Moderate Clinical Depression Range	82-88	65-69	93-97	6
Severe Clinical Depression Range	89-120	≥70	97+	3

Table 3: Depression total raw score

Discussion

In this study, RADS-2 was used for clinical evaluation of the depressive symptoms of the participants. A total of 100 participants took part in the study, of which 40% were in the age range of 11-14 years and 60% in the age range of 15-17 years. Amongst the participants 34% were male and 66% were female. The education level was to be distributed in such a way that 5% were in institutions offering tertiary education,25% in primary education and the majority,70% ,in their secondary level of education (Figure 2).

The primary RADS-2 index of the severity of depressive symptoms in adolescents is the depression total score. The RADS-2 depression total raw score is the sum of item scores for the 30 RADS-2 items. It has a possible range of 30 to 120, although raw scores above 100 are rare. The raw score range are such that 30-75 is within normal, 76-81 is mild clinical depression, 82-88 is moderate clinical depression and 89-120 is severe clinical depression, respectively (Reynolds, 2008). As an aid for interpreting depression total scores, Table 3 provides a general guide for evaluating the severity of scores. The descriptions of clinical severity levels presented in Table 3 are based on distributions of the depression total scale T scores and percentiles in the restandardization sample. Based on this, a mild level of depression severity may be inferred from standard scores ranging from 61T to 64T (with depression total raw scores of 76-81). 10% of the participants demonstrated depression total scores in this range. Although considered a mild clinical range, these scores nevertheless indicate that the adolescents are experiencing a notable degree of depressive symptomatology.

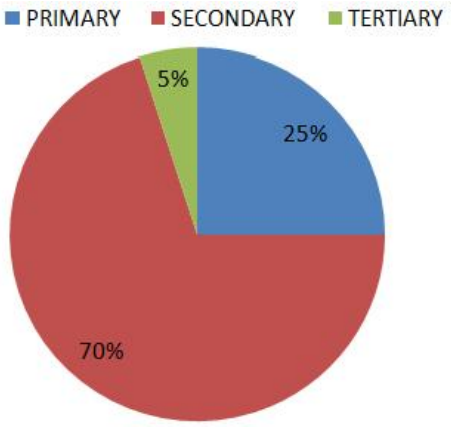

Figure 2: Educational level of participants

Depression total standard scores in the range of 65T to 69T, with depression total raw scores of 82-88, reflect a moderate and clinically relevant degree of depression and was evidenced by 6% of the participants. Standard scores greater than or equal to 70T (with depression total raw scores of 89-120) on the RADS-2 represent a severe level of depression symptom endorsement and was presented by 3% of the participants. From the above statistics, it comes out that 19% of the participants with RADS-2 cutoff score of 61T and above had clinical levels of depressive symptoms. This value is higher than the literature range of 13% to 16%.The difference between the obtained value and the literature value can be attributed to sampling, gender and age characteristics. The age distribution of the 19% was such that 53% belonged to the age range, 11-14 years, while 47% participants belonged to the 15-17 years age range.

The primary purpose of the RADS-2 critical items is to serve as a double-check for adolescents who may report depression total scores below the clinical cutoff, yet be at risk for depression or require additional evaluation to rule out a depressive disorder (Reynolds, 2008). Inthis study, 30% of those with total depression scores below 76 had endorsements with critical items present. Hence it was importantthat this group be re-evaluated. Amongst the critical items, that is loneliness, social withdrawal, self-injurious, self-reproach, self-depreciation and helplessness, inference was made that lack of social support is important contributor to the high clinical levels of depression.

The most frequently identified cause of depression among this group of patients is rejection of all sorts (Journal of Public Health and Epidemiology, 2011). This was highlighted by the present study were a high percentage of the respondents found with clinical levels of depression indicated that they felt that their friends, guardians and parents did not like them.This however could be responsible for the increase in depressive tendencies in the HIV infected adolescents. On the other hand, risks for depression among HIV patients increase when recent affective losses occur (death or physical abuse or sexual abuse), an accelerated evolution of opportunistic infections, increasing rate of hospitalizations; its duration as well as physical deterioration. This finding correlates with the result obtained in a cross-sectional descriptive study that was conducted at the University of Nigeria Teaching Hospital, Ituku-Ozalla, Enugu, and Southeast Nigeria that assed the role of social support on depression reduction. It was established that a higher percentage of patients living with HIV and belonged to support group did not have depression (66.7%) as opposed to those not belonging to any support group (54.3%) (Journal of Public Health and Epidemiology, 2011).

Other factors that contribute to the cause of depression include negative psychological and social factors such as negative coping style, past psychiatric history, comorbid psychiatric disorders, genetic predisposition such as family history of psychiatric illness, socio-demographic factors such as female gender, low education, poor socioeconomic factors; and the neurotoxic effects of HIV on the brain.

In this study it was noted that the female sex was highly affected with the clinical levels A positive association between female sex and major depressive disorder in HIV has previously been reported in Africa by both Kaharuza et al (2006) in Uganda and Orley et al (2004) in South Africa. Some of the gender differences in major depressive disorder can be attributed to the more likelihood of females than males in becoming victims of traumatic experiences such as sexual, physical and emotional abuse both in childhood and in adulthood of depression relative to the male (Figure 3). Therefore, based on the findings of this study, recommendations on three areas have been pointed out. The first, concerning pediatric physicians. It is recommended that pediatric physicians adopt the use of the Reynolds adolescent depression scale in the routine evaluation of the response to therapy of HIV/AIDS adolescents as they come for their review in the clinic with referrals to appropriate services as necessary. This will aid pediatric physicians, among other ways in measuring the internal consistency reliability and test-retest reliability of depression among adolescents thus that assessing the severity of depressive symptomatology in adolescent.

Aside from that, pediatric physicians should adopt the use of cognitive behavioral therapy in the management of adolescent patients with HIV/AIDS and establish social support groups for the adolescents living with HIV/AIDS and encourage them to belong to such groups. Creating social support groups will take away the void adolescents feel of not having social support. Additionally, pediatricians should establish a colleague working relationship with the psychiatrists even as they manage HIV/AIDS adolescents to enhance exchange

of relevant information for the benefit of the patients. This will enable them extend this research to a large scale so that more adolescents can be captured both on a pediatric and psychiatric level.

The second recommendation is based on the Department of Psychiatry at the University Teaching Hospital. The department should introduce a short cognitive behavioral therapy course that should be offered to all pediatric physicians and medical students willing to administer it to the HIV/AIDS adolescents when found to have clinical levels of depression. It should also encourage research of this sort to be conducted by empowering students with the necessary resources and providing refresher courses to the pediatric physicians on depression in adolescent, the impact it has on treatment outcome and influence on risk behavior. Other than that, it should offer a structured curriculum that contains up-to-date information about the management of depression among HIV infected patients so as to administer the information to the established support groups and establish other groups.

Lastly, the third recommendation is related to the medical students at the pediatric department. Medical students should extend this research by looking at the impact clinical levels that depression has on the patients CD4+ count, viral load; their response to Highly Active. Antiretroviral therapy(HAART) and how depression severity, symptom type and change over time relate to HIV Antiretroviral adherence.

Conclusion

The study of 100 participants reviewed that 19% had clinical levels of depression with the age range commonly affected being 11-14 years age range. It was found that 81% had levels that were below the total clinical depression cutoff (below 76), although 30% of these had endorsements with critical items and so could probably be at risk for depression or require additional evaluation to rule out a depressive disorder, 10% had mild clinical depression levels (76-81), 6% had moderate clinical depression levels (82-88) and 3% had severe clinical depression levels (89-120). Inference can thus be made that HIV/AIDS in adolescents is associated with clinical levels of depression and most of it are due to a lack of a good social support system in the management of these patients.

Conflicts of Interest: The author has none to declare

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