ORIGINAL PAPER

# Impact of HIV Information and Peer Support on Psychiatric Outcomes in HIV positive Young People

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## ABSTRACT

***Background**:* Young people are most vulnerable to acquiring HIV Infection in Zambia and they are at increased risk of developing psychiatric disorders which if left unchecked can have behavioural and health consequences. It's from this background that this study aimed at evaluating the impact of HIV information and peer support intervention on the psychiatric outcomes of HIV positive youths.

**Methods**: A total of 130 participants were recruited from three anti-retroviral (ART) clinics in Lusaka, 80 were randomized to intervention group. The Hamilton Depression Scale for children was administered to the intervention group (n= 80) at baseline and after 10 weeks intervention by a psychiatrist who was a member of the research team.

**Results**: The results indicated that 42 percent of the subjects had depressive symptoms. However, after intervention, only 15 percent of these, were diagnosed with depressive symptoms; representing 65 percent intervention efficacy.

***Conclusion**:* HIV information and peer support can significantly avert any psychiatric effects of HIV infection. However, the sustainability of this improvement should be established through further studies.

## INTRODUCTION

Young people are the most vulnerable group to acquiring HIV infection in Zambia. This is due to among other factors their lack of knowledge about HIV, substance abuse and peer pressure. Recent data reveal that the most infected categories of youths are those with low education attainment as well as those dwelling in urban areas.[1] While the National AIDS Strategic Framework (NASF) 2011-2015 provides guidelines on all HIV response activities in Zambia, it does not clearly spell out any specific strategy for providing care and support to HIV positive youths.[2] This poses a major concern regarding HIV positive young people especially that research evidence from the developed countries has indicated that HIV positive children and young people are at increased risk of psychiatric disorders.

Like other chronic illnesses, HIV may cause its carriers to experience emotional disturbances and psychological disorders which ultimately impair their health. A study conducted in the U.S suggested that there was a very high rate of psychiatric disorders among HIV infected youths. Acute distress usually starts when one is first notified of a positive HIV status and has to adjust oneself to the new reality of living with a fatal virus.

Psychiatric distress in the context of HIV can lead to depression, social withdrawal, suicide ideations, anger, frustration, increased substance use, mood disorders, and conduct disorders among others. If left unchecked, psychiatric outcomes can influence risky sexual behaviours and other unsafe and maladaptive behaviours; thereby endangering the lives of the HIV positive patients.

Depression has been the most observed psychiatric disorder in HIV-positive patients. It has a very negative effect on the immune system and is highly associated with mortality in HIV infected persons. One way in which it does this is by reducing Natural Killer (NK) cells, thereby increasing the viral load. Epidemiological studies in HIV-positive women revealed that depression accounted for high mortality rates among these women. Mortality rates among chronically depressed HIV patients were found to be twice higher than those HIV patients with no depressive symptoms. Depression has further been linked

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to poor adherence to antiretroviral treatment among HIV positive individuals.

While major depressive symptoms can be effectively treated using antidepressant medication, research has shown that remission is not always guaranteed. A study established that more than half of the patients treated for depression relapse within one year.It is therefore, crucial that in an effort to eradicate the HIV pandemic and protect the lives of the already infected, HIV messages and other support strategies be blended in a manner that addresses psychiatric outcomes of being HIV positive. Due to their HIV status, youths are twice more likely to develop major depressive symptoms than HIV negative individuals. Besides, there is a higher association between depression and HIV infection progression.

Psychiatric outcomes may also occur in HIV positive youths due to low perceived social support. Social support involves assurances an individual receives that they are cared about, valued and loved. The lack of this support results in depressive symptoms. Interventions which provide social support and impart skills needed for stress reduction have been found to reduce depressed moods and increase immune system in HIV positive men.

Current statistics on HIV infection among young people in the age group 15 to 24 in Zambia is 8.7 percent. This figure represents a decrease in HIV incidence between 2001 and 2009.Unfortunately, most of these young people still lack knowledge about HIV. According to the 2007 Zambia Demographic Health Survey, 65 percent of the young people in Zambia do not have comprehensive knowledge of HIV. The survey further revealed that HIV knowledge among the young people has actually been declining; from 48 percent in 2005 to 35 percent in 2007.[2]

Coupled with a low perceived social support, lack of comprehensive information on HIV has the potential to influence mental and emotional distress among HIV positive people[2] As a chronic illness, HIV has to be handled in a manner that ensures that infected persons are equipped with the vital information on how to manage their chronic condition without impairing their mental health. It is from this background that this study investigated the impact of HIV information and peer support intervention on the psychiatric outcomes of HIV positive youths.

This study aimed at evaluating the impact of HIV information and peer support intervention on the psychiatric outcomes of HIV positive young people.

## Materials and methods

In total, 130 participants were recruited from three anti-retroviral (ART) clinics in Lusaka namely the University of Zambia Clinic, SOS Medical Centre in Chazanga and the University Teaching Hospital. Of these, 80 were randomized to intervention group. Personal Data Sheet, Semi- structured interview schedule to evaluate/ measure self-management, Strengths and Difficulty Questionnaire Youth Version and Parent/ Caregiver version (Goodman, 1997) and Self-Esteem Rating Scale (Nugent & Thomas, 1993) were used to collect data before and after 10 weeks intervention. Hamilton Depression Scale for children was administered to the intervention group (n= 80) at baseline and after 10 weeks intervention by a psychiatrist who was a member of the research team. The intervention involved 1 meeting every week that included reviewing group rules, imparting information on HIV and AIDS, participating in child-initiated talk time, group activity, free play and snack time. In total, there were 10 interactive meetings led by a moderator and based on a brochure developed by the Department of Psychology at the University of Zambia.

## RESULTS

### Number of Children with Depression

The total number of children presenting with depression was recorded. Table 1 shows that thirty four (34) of the eighty (80) (42.5%) children presented with depression before the intervention. However, this number reduced to twelve out twelve (12) (15%) after intervention (Table 1).

**Table 1: Number of "Children with Depression" before and after intervention**

| | Before Intervention | After Intervention |
|---|---|---|
| **Number of Children showing symptoms of depression** | 34 (42.5%) | 12 (15%) |
| **Number of Children showing no symptoms of depression** | 46 (57.5%) | 68 (85%) |
| **Total** | 80 | 80 |

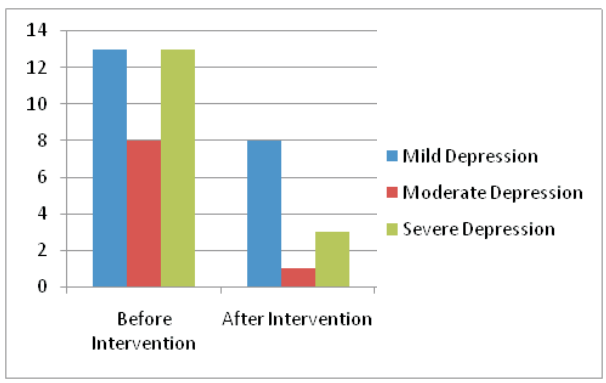
### Severity of the symptoms of Depression

Figure 1 shows the effect of the intervention on the level of depression. Thirteen (13) of the eighty (80) children had

presented mild depression before intervention which reduced to mild depression in only eight (8) of the eighty (80) children after the intervention. Similarly eight (8) of eighty (80) children presented with moderate depression before intervention whereas only one child presented with moderate depression after intervention. Most significant change was seen in the children with severe depression (13/80) before intervention and this reduced to only three (3) children after the intervention. This shows that the intervention was successful in reducing the rate of depression among children with HIV.

The children with severe depression who expressed ideas of hopelessness, however, did not show any significant improvement after the intervention. They still had suicidal ideations although they had no specific plans or attempts.

**Figure 1: Comparison between "Severity of the symptoms of Depression" before and after intervention**




### Social Withdrawal

In table 2 Out of the eighty (80) children fifteen (15) children presented with profound social withdrawal because of the stigma attached to their illness. After the intervention they were much more comfortable with their status and could easily reveal it and share with others. In fact they would encourage others as well to be more open about their HIV status. Further it was found that only five (5) of the eighty(80) children still showed social withdrawal after the intervention. Four (4) of these five (5) children had moderate to severe depression while one child with social withdrawal had serious skin lesions. There was a further decrease in the number of children presenting with a general lack of interest.

**Table 2: Comparison between "Social Withdrawal" before and after intervention**

| | Before Intervention | After Intervention |
|---|---|---|
| **Social Withdrawal** | 15 (18.75%) | 5 (6.25%) |
| **No Social Withdrawal** | 65 (81.25%) | 75 (93.75%) |
| **Total** | 80 | 80 |

### Weight Loss

Seventeen (17) of the eighty (80) children presented with significant weight loss before the intervention. After being educated on the importance of healthy eating, balanced diet and its effect on the overall immunity and quality of life only four (4) of the eighty (80) children still showed weight loss. These were the children who exhibited moderate to severe depression even after the intervention (Table 3).

**Table 3: Comparison between "Weight Loss" before and after intervention**

| | Before Intervention | After Intervention |
|---|---|---|
| **Weight Loss** | 17 (21.25%) | 4 (5%) |
| **No Weight Loss** | 63 (78.75%) | 76 (95%) |
| **Total** | 80 | 80 |

### Problems with Sleep

Table 4shows that sixteen (16) of the eighty (80) children presented with significant problems with sleep before the intervention. Twelve of these children improved and only four (4) of the eighty (80) children presented with problems with sleep after intervention. Again these were the children who exhibited moderate to severe depression even after the intervention.

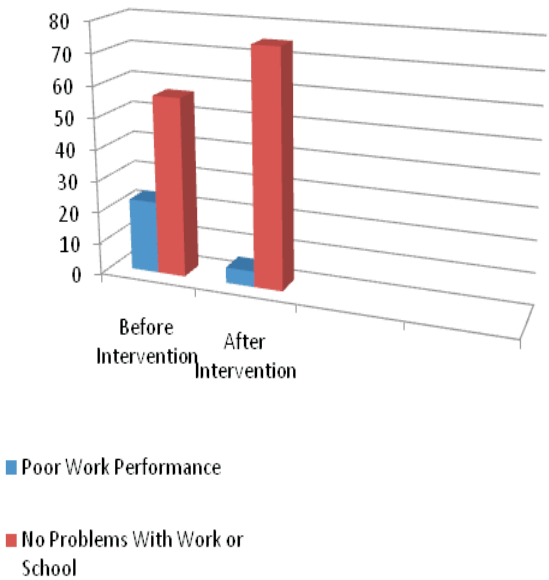
**Table 4: Comparison between "Problems with Sleep" before and after intervention**

| | Before Intervention | After Intervention |
|---|---|---|
| **Problems with Sleep** | 16 (20%) | 4 (5%) |
| **No Problem with Sleep** | 64 (80%) | 76 (95%) |
| **Total** | 80 | 80 |

### Work Performance

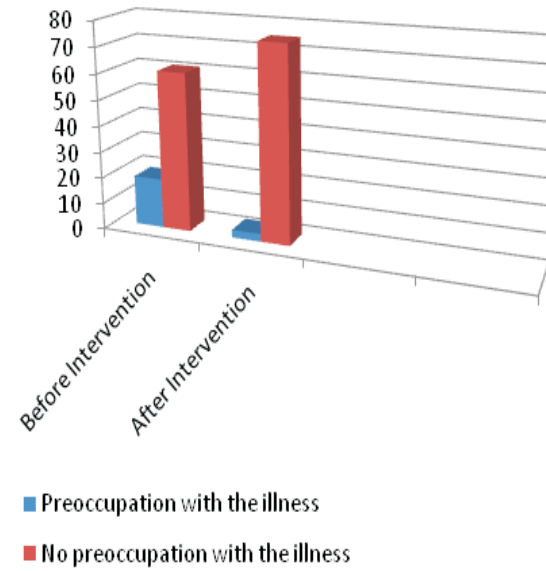
On work performance, twenty three (23) of the eighty (80) children reported poor performance at home or school before the intervention. This performance was gauged by a questionnaire itemising household chores and academic expectations. Further eighteen of these children improved and only 5 of the 80 children presented with problems with work at home or school after the intervention (Figure 2).

Figure 2: **Comparison between "Work Performance" before and after intervention**




### Preoccupation with the Illness

Figure 3 shows that of the eighty (80) children (19)were extremely preoccupied with their illness and had extreme concerns about the prognosis, the length of treatment and if they could ever become fully functional or not. However, after the intervention, only three (3) of the eighty (80) children exhibited such symptoms.




### Guilt in the Mother

As shown in Table 5 One incidental finding was that, the mothers to 24 (30%) of the 80 children showed profound guilt of having put their children through this illness. However, after the intervention, only eight (8) of those mothers still reported feelings of guilt.

Table 5: **Comparison between "Guilt in the Mother" before and after intervention**

| | Before Intervention | After Intervention |
|---|---|---|
| **Guilt in the Mother** | 24 (30%) | 8 (10%) |
| **No Guilt in the Mother** | 56 (70%) | 72 (90%) |
| **Total** | 80 | 80 |

## DISCUSSION

The studyconfirms results of similar studies which reported that HIV positive individuals are highly predisposed to suffering from psychiatric disorders by virtue of their chronic condition. In the U. S, a study conducted revealed that there was a higher rate of psychiatric disorders among HIV infected young peoplethan in the general population as measured by the Hamilton Depression Scale.[4]In a sample of HIV infected young people, two thirds had experienced depression with almost half of them reporting continued depressive symptoms.[4]The depressive symptoms among HIV

positive young people could be attributed to the fear and anxiety of living with a life threatening condition.

While little research has been conducted on the mental health of HIV positive young people in Zambia, the findings of our study may be sufficient to draw stakeholders' attention towards the provision of care and support services for people living with HIV and AIDS. There is a lacuna in the current National AIDS Strategic Framework 2011 – 2015 as regards the management of psychiatric outcomes in HIV patients.Most policies in Zambia have concentrated on the importance of HIV prevention while needs of young people living with HIV have sadly been neglected.As much as prevention strategies should be encouraged, at this stage of the epidemic all concerned stakeholders to look after the specific needs of those who are already infected.

At the study baseline, it was established that 42 percent (34/80) of the subjectshad depressive symptoms. However, after intervention,only 15 percent (12/80)of these, were diagnosed with depressive symptoms; representing 65 percent intervention efficacy. This data indicates that HIV information and peer support, to a great extent can lead to an improvementin depressivesymptoms more than the ordinary care. The results are therefore, consistent with Pfeiffer etal's findings which also indicated the effectiveness of peer support in depression care.

The fact that provision ofHIV information and peer support could help reduce depressive symptoms in HIV patients. This has implications for HIV care strategies. Firstly, since HIV patients tend not to report their psychological difficulties when seeking treatment,physicians should always screen for any psychiatric disorders in their patients. Overlooking depressive symptoms in HIV patientscanresult in treatment failure and deaths. Research has consistently proved that depression does harm to patients on antiretroviral treatment.

Secondly, support networks should be viewed as essential for recovery, as they potentially provide peer support and emotional encouragement. A study by Hamilton etal revealed that most HIV patients preferred to share their experiences with those who were undergoing similar difficulties.Another related study showed that better social support significantly led to reductions in multiple problem behaviours, depression and conduct problems among HIV positive youths.Not only do social support groups reduce isolation associated with stigma, but also are the most effective avenue for dissemination of useful information on accepting the HIV positive status, coping with the HIV virus and adhering to treatment. All factors that discourage people from seeking social support such as fear of rejection should be addressed adequately if HIV patients are to fully benefit from peer support programmes.

Our study recorded a substantial reduction in the number of severely depressed children at the end of the intervention period. The number of children presenting with social withdrawal, weight loss, preoccupation with the illnesses, problems with sleep, problems with work and general lack of interest also reduced.This finding extends the findings of other studies which established that HIV positive individuals who go through some form of coping effectiveness trainings, social support and other behavioural interventions, report low perceived stress and higher coping self-efficacy.It is however, difficult to isolate the singular influence of either HIV information, social support or any other extraneous variables such as subject background and characteristics on the general outcome observed (severity of depression).

The stigma which frequently surrounds HIV diagnosis can be so internalized by an HIV carrier as to develop feelings of shame about living with a condition that is transmitted in ways that are perceived associally undesirable.In our study, 15 of the 80 children presented profound social withdrawal because of the stigma attached to their illness. The ensuing feelings of shame ultimately prevent one from sharing their HIV diagnosis with others who may potentiallyprovidesocial support. Past studies have argued that failure to disclose one's HIV positive status for fear of stigma is the most common barrier to psychological support and adjustment.It may be hypothesized therefore, that the severely depressed children in our study, who persistently expressed ideas of suicide even after intervention, may have been encountering a barrier to their psychological adjustment, such as the fear to disclose.Further research is however needed to establish whether there is any association between psychiatric disorders and non-disclosure of a positive HIV diagnosis.

**Strengths and Weaknesses**

Overall, the finding that HIV information and peer support can effectively address psychiatric problems among HIV positive young peoplehas clinical implications for care

and support. Nonetheless, the efficacy of this intervention should be replicated with a much larger and broadly-representative sample. There is also need to clearly standardise the approach for providing peer support so that its outcome-effects may be easily distinguishable from those of other variables.

## CONCLUSION

This study has corroborated the evidence of many other studies regarding the fact that HIV positive young people go through considerable psychological distress, which may lead to impaired health, substance use and other maladaptive behaviours. The study has further revealed that HIV information and peer support can significantly avert any psychiatric effects of HIV infection. The intervention seemed to have improved psychiatric outcomes in HIV positive youths. However, the sustainability of this improvement should be established through further studies.Finally, as the body of information on psychiatric outcomes of HIV is growing, it may be interesting for future research to investigate the extent to which psychiatric disorders account for HIV infection rates in Zambia.

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