

RELATIONSHIP BETWEEN HIV STATUS, SELF-CONCEPT, ACADEMIC PERFORMANCE AND BEHAVIOURAL ATTITUDES OF PUPILS IN SELECTED PRIMARY SCHOOLS IN NAIROBI-WEST, KENYA

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ABSTRACT

In this study the relationship between Human Immunodeficiency Virus (HIV) Status, self-concept, behavioral attitudes and progress in academic performance of pupils in selected primary schools in Nairobi - west, Kenya was evaluated. The main aim was to investigate how the self-concept, behavioral attitudes and academic performance may interact with each other in the face of HIV/AIDS scourge and the likely outcomes. The study consisted of 308 pupils, selected from class 4, 5, 6, 7 and class 8 in nine primary schools in Nairobi West District, Kenya. The nine schools were sampled from about 132 schools. The study included HIV infected children from various children's homes and normal family set-ups who were enrolled as pupils in these schools. The results provided evidence that; there was significant relationship between HIV status and the pupils' self-concept, behavioral attitudes and academic performance. Moreover there was strong and significant correlation between self-concept behavioral attitudes and academic performance. Based on the findings it was recommended that there is need to strengthen both the psychological and behavioral interventions in the formal learning of the HIV infected pupils in both public and private primary schools.

Keywords: *HIV, self-concept, academic performance, Pupils, Primary schools, behavioural attitudes*

INTRODUCTION

The high level of HIV/AIDS infection among the children transmitted during birth is a matter of concern. The health of the HIV infected children is already challenged and vulnerable due to the HIV seropositive status. WHO defines health as the state of being physically, mentally and socially fit, not necessary the absence of diseases or infirmity. Therefore there is need to emphasize all the three components of health. Several studies have been done on HIV/AIDS awareness and education in both urban and rural communities in Kenya. However, if Kenya is to realize one of her goals in the KNASP 2009/2010-2012/2013 in the fight against HIV/AIDS, that is giving complete care to the HIV infected children and quality life, then the educational needs of these children should be taken as a

matter of great importance. Since HIV/AIDS has been proved to be a chronic disease there is dire need to ensure they do not only receive quality education but also have open opportunities to exploit their academic potentials despite their HIV status. To ensure that the expected academic excellence is achieved their mental and social health cannot be ignored.

The primary concern of this study therefore was to investigate the emerging relationship between the HIV pandemic and self-concept among the HIV positive pupils and the likely impact on their academic performance. The study will also investigate the emerging behaviours as a result of the infection as well as the gender differences in self-concept and behaviour. To this end, the following hypotheses were formulated and tested.

Ho₁: There is no relationship between the HIV status, self-concept, behavioral attitudes and academic performance of the pupils in the study area.

Ho₂: There were no differences in self-concept, behavioral attitudes and academic performance due to the HIV status on both the HIV positive and HIV negative.

Ho₃: There were no gender differences in self-concept and behavioral attitudes among the pupils under study.

METHODOLOGY

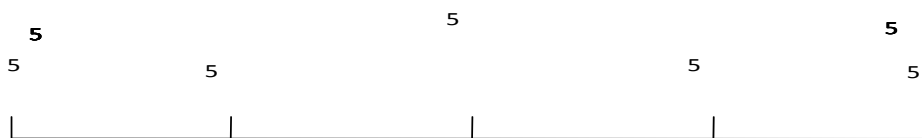
The targeted population for this survey was the pupils who were attending both public and private schools in Nairobi west, Kenya. The pupils came from both children homes and parental families. A total of 308 pupils were selected for the study, 218 living with their families and guardians while 90 living in the children homes. The HIV positive pupils and the HIV negative pupils were of equal proportion of 154 each for comparison purposes. The population studied included children of ages between 9-17 years. The pupils under study fell under the pre-adolescent and adolescent ages. Rosenberg (1985) argues that disturbance of self-image is most acute during early adolescence and adolescent. Bracken (1996) points out that people define their self-concept as they advance in age. At preadolescent and adolescent stages children face transitional challenges which prompt them to try to find who they are, to form an identity and to find their place in society. This is a period characterized by a wish to dispel the feelings of dependency on parents and caregivers. The emotional and physical changes beginning to occur are perceived as part of the sickness by the HIV-infected pupils.

The total number of children homes in Nairobi province is 142 but the homes hosting HIV⁺ children are 14. The number of the government schools which had officially enrolled these children is equally low. Nevertheless, the researcher opted to include public schools in areas where communities had been exposed to HIV/Aids education programmes. These are programmes run by NGOs in conjunction with the government in fight against HIV associated stigma. Out of about 132 public and private primary schools in Nairobi West district (Nairobi City council Quarterly Annual Report, 2009) 9 schools were purposely sampled and were labeled as, R, S, T, U, V, W, X, Y, Z. Four children homes which were identified by the letters, A, B, C and D were accessed.

A modified semantic differential scale was used to measure the children's self-

concept together with Conner's teacher rating scale which was used for behavioural evaluation. Academic performance was determined using the terminal exam grades which were availed through a questionnaire from the school records. The scale was adopted from Olowu (1982). It has been used in Kenya by Mwathi (1998) and Juma (2004). It covers six self-areas. These include; academic self, emotional self, social self, physical self, family self, and character self. Each of the six self areas is represented by these items on scale. These researchers used the scale with adolescents.

After considering the scales' content and face validity, the researcher was satisfied and preferred to use it in this study with the pupils who fell in preadolescent and adolescent stages with a few modifications. The scale consisted of eighteen bipolar adjectives and phrases separated by a line similar to a Likert type rating scale. The items were randomly placed so as to avoid set responses from the subjects. The respondent was required to check any of the five positions shown along the line separating each pair of phrases of adjectives.



For use in scoring, numerical values of 1-5 were assigned to each of the five positions on the scale as indicated above. The numerical value against the cross mark made by the respondent was the score for the particular item (i.e.3). The total self-concept score for each subject was obtained by adding the numerical values for all the 18 items. Each subject's obtained total self-concept was then classified as positive or negative in relation to the expected mean score obtained. To obtain the mean score, the lowest possible score per item (i.e.1) and the highest possible score (i.e.5) was added and their sum divided by 2 to give the expected mean score per item

The value obtained (3) was multiplied by 18 to give the expected total mean score per subject. $18(3) = 54$ (expected total mean score per subject). This mean was used to classify or categorize subjects score as positive or negative. For various domains of self-concept an individual pupil's score was determined by his or her total score in the three items measuring that particular domain of self.

Measurement of academic achievement

Each student's total aggregate score of the five subjects examined in the end of the term examination was obtained from school examination records. The researcher used the average grades e.g. A or B or C or D to indicate performance since these are the grades used by the Kenya National Examination Council. The grades were then classified into two categories. Those with grades A and B were classified as High performers while those who obtained grades C and D were classified as average and low performers respectively.

Measurement of the HIV status

The pupils' HIV status had been clinically confirmed as sero-positive and the respondents under study were already under antiretroviral therapy. Those living in children homes had clinical records confirming the sero-positive status under custody of the various institutions.

The respondents staying with their families or relatives or guardians were identified by the fact that they were using the antiretroviral drugs which was specifically known to the class teacher or the school counselor or the Head teacher.

Description of the Conner's Teacher Rating Scale

This scale was used to measure any possible emotional and behavioural problems. It was adopted from the original Teacher Rating Scale by Conner in 1969 (Gabel, 1981). It was revised in 1997 (Sattler & Hoge, 2006) and it provides for cross-informant assessment of behavioural problems in children with a primary emphasis on externalizing problems. The teacher's version of the rating scale was designed for rating children of ages 3-17 years. The scale had been widely used in the United States of America and in Canada (Sattler & Hoge, 2006). Though the revised form of Conner's Teacher Rating Scale had shown considerably high reliability and satisfying validity, Conner states that the original scale, which had more items, had greater reliability (Gabel, 1981). Therefore in this research, the original form of Conner's Teacher Rating scale was preferred. The adopted scale had 3 subscales with each sub scale representing behaviours commonly found in children, at school. The scale had a total of 39 items.

Scoring Conner's Teacher rating scale

The Teacher Rating Scale consisted of 39 items each of which was Scored from 0 to 3. It reflected the rater's judgment that the behaviour occurs, "not at all" "just a little" ,"pretty much", and "very much" respectively. Subscale scores were obtained by summing the scores for the particular items contained within the subscale. Higher scores reflected that there were behavioral problems to a greater degree than would the lower scores. Scores were categorized into two, that is, scores below the mean score were considered to depict positive behavioural attitudes while scores above the mean score indicated negative behavioral attitudes. The mean score was obtained by calculating the average score a respondent was expected to get.

The lowest possible score = $0 \times 39 = 0$

The highest possible score = $3 \times 39 = 117$

Average behavioral attitude score =59

If a respondent got a score below 59 thus he or she had more positive behavioral attitudes and if a respondent scored above 59 thus he or she had more negative behavioral attitudes.

Table 1: Children Living in Children Home

Schools		HIV(+)	HIV(-)	RA
A	R	24	-	5
	S	21	-	5
	T	5	-	1
B	U	15	15	1
C	V	7	-	2
D	W	3	-	1
Total		75	15	17

Source: Survey, 2009

The table above indicates that the HIV negative respondents were largely sampled from those staying with their parents, relatives or guardians. This is because during this research

it was discovered that there were countable children homes that were able to support their children through school. Therefore the comparison group was drawn from the respondents staying with their families except in children home U where there were HIV positive respondents and HIV negative respondents living together as well as attending school together.

Table 2: Children living with their Families or relatives.

Schools	HIV(+)	HIV(-)	RA
R	-	24	5
S	-	21	5
T	-	5	1
V	-	7	1
W	-	3	-
X	77	77	16
Y	1	1	1
Z	1	1	1
Total	79	139	30

Source: Survey, 2009.

Data obtained from selected Nairobi-west primary schools during this research showed that the number of respondents living with their families was 218 while the number of respondents living in the children's homes was 90. The number of the HIV positive respondents was equal to the number of HIV negative respondents hence the total number of respondents was 308.

Table 3: Six areas used in the modified semantic differential scale

Self-concept domain/areas	Items
Physical self	1-3
Character self	4-6
Emotional self	7-9
Academic self	10-12
Social self	13-15
Family self	16-18

Source: Survey 2009. Scale was obtained and modified for this research from Olowu 1982

The table above showed the semantic differentials scales and the related likert typ rating scale of 18 items

Table 4: Correlations on Self-concept, Behavioral Attitudes and Academic performance.

	TS	MM	TBA	TSN	MMN	TBAN
TS	1					
MM	0.061	1				
TBA	-0.335(*)	-0.231(*)	1			
TSN	0.109	0.038	-0.025	1		
MMN	0.000	-0.058	-0.052	0.186*	1	
TBAN	-0.013	0.090	0.052	-0.105	-0.409(*)	1

* Correlation is significant at the 0.05 level (2-tailed).

TS (Total self-concept for HIV Positive), MM (Mean mark for HIV positive), TBA (Total behavioral Attitudes for HIV Positive), TSN (Total self-concept for HIV Negative), MMN (Mean mark for HIV Negative), TBAN (Total behavioral Attitudes for HIV Negative).

Table 4 was obtained from research results analysis by using SPSS computer program. The correlations done on the dependent variables revealed that there was a significant negative correlation between the self-concept and the behavioural attitudes of the HIV positive pupils. As the self-concept values among the HIV positive population increased, the behavioural attitudes values decreased. This implies that those respondents with positive self-concept also have less behavioural problems. The high values of self-concept mean positive self-concept while low values of behavioural attitudes mean less behavioural maladjustments. On the Academic performance and behavioural attitudes, there was a significant but negative correlation between the variables. These results indicated that those HIV positive respondents with high marks had low behavioural attitudes values. It was interpreted that high performers had less behavioural attitudes. There was no significant relationship between the self-concept and the academic performance among the HIV positive group.

The HIV negative group showed relatively similar results. There was a significant and negative correlation between the academic performance and behavioural attitudes. This indicated that those who performed well also had less behavioural problems as it was the case in HIV positive group. Surprisingly, there was no significant correlation between the self-concept and behavioural attitudes among the HIV negative respondents with a correlation coefficient of $r = -0.105$, $p = 0.197$, $p > 0.05$. However, for the self-concept and academic performance in this group, there was a significant positive correlation. This indicated that for high values of the self-concept (positive) there was increase in academic performance. The results from the correlations tally with the earlier research findings.

Table 5: Correlations on Academic performance and Academic Self-concept

	Pass/Exams (ASC ₁)	Hardworking (ASC ₂)	Memory (ASC ₃)	MM
Pass exams(ASC ₁)	1			
Hardworking(ASC ₂)	0.604(*)	1		
Memory(ASC ₃)	0.700(*)	0.449(*)	1	
MM	0.557(*)	0.291(*)	0.398(*)	1

* Correlation is significant at the 0.05 level (2-tailed).

ASC = Academic Self-concept (How respondents perceive their ability to Pass Exams, Memorize and work hard in school), MM = Mean mark of the Academic performance.

Table 5 was obtained from research results analysis by using SPSS computer program. It showed that the academic performance correlated strongly with the academic self-concept. All the three domains of academic self-academic had a positive correlation greater than 0.291. These results agree that academic self-concept positively correlates with the academic performance. Further correlations were done to find out whether there was a significant relationship between some classroom behavioural attitudes and the academic performance among the HIV negative group. This was presented on table 6.

Table 6: Correlations between Academic performance and Classroom Behavioral Attitudes

	Q1	Q2	Q3	Q4	Q5	Q6	MM	Q7
Q1	1							
Q2	0.671	1						
Q3	0.652	0.786	1					
Q4	0.582	0.499	0.548	1				
Q5	0.669	0.673	0.823	0.579	1			
Q6	0.582	0.707	0.804	0.479	0.747	1		
MM	-0.601	-0.662	-0.794	-0.441	-0.694	-0.692	1	
Q7	0.588	0.754	0.667	0.497	0.620	0.683	-0.585	1

Correlation is significant at the 0.05 level (2-tailed).

Q1=Constantly Fidgeting, Q2 = Hums and makes other odd noises, Q3=Poor co-ordination, Q4=Inattentive or easily distracted, Q5=Day dreams, MM=Mean Mark, Q7=School Attendance.

Table 6 was obtained from research results analysis by using SPSS computer program. The results show that there was a significant negative correlation between the Academic performance and the classroom behavioural attitudes among the boys and girls under this study. These results indicate that as the occurrence of these behavioural attitudes increases the academic performance decreases, which corresponds positively with the results obtained in this study on the relationship between the academic performance and the total behavioral attitudes.

Drawing from the analysis, it can be said that there is a minimal relationship between the self-concept and HIV status. Both the descriptive and the inferential analysis show significant but little positive relationship. There are significant mean differences in self-concept between the HIV positive and the HIV negative pupils. In the Chi-square results there was a significant relationship also between the two variables. Moreover, self-concept was found to have a strong correlation with both the behavioural attitudes and academic performance which were also statistically significant. Most of those pupils with positive self-concept were found to have positive behavioural attitudes. Likewise, majority of the pupils with positive self-concept showed high academic performance.

The study also showed that there was a strong relationship between behavioural attitudes and HIV status. The relationship was statistically positive and significant meaning that majority of the HIV positive pupils had more negative behavioural attitudes compared to their HIV negative peers. The correlations between the HIV positive group and the HIV negative group were weaker compared to the correlations within the two groups among the three variables. For instance, the correlations of the behavioural attitudes between the HIV positive pupils and the HIV negative pupils are negative and fairly weaker as compared to the correlations of the behavioural attitudes and self-concept among the HIV positive pupils. Further analysis of the results showed that there was a relationship between the academic performance and HIV status. A positive and significant correlation was reported with most of the HIV negative pupils performing better than those who are HIV positive. The chi-square test showed a strong and a statistically significant relationship between the academic performance and HIV status. This could imply that academic performance among the population under study to some degree is influenced by HIV status. The results also indicated that HIV status negatively contributed on the pupils' self-

concept, behavioural attitudes and the academic performance.

On gender, there were no significant differences on self-concept, behavioural attitudes and academic performance between the HIV positive and the HIV negative pupils. This could imply that gender difference is of no consequence as far as HIV status relates to the three variables on study.

CONCLUSION AND RECOMMENDATIONS

The research findings have shown that HIV status has significant correlation with self-concept. The HIV positive pupils had a lower mean in self-concept compared to the HIV negative pupils. These findings agree with previous studies that reported significant differences in self-concept between the early adolescents with medical problems and the comparison groups. The findings also indicated that HIV status has a strong and significant correlation with behavioural attitudes. The HIV positive pupils tended to show more negative behavioural attitudes than the HIV negative pupils. These results were supported by previous studies that have reported that the sickly child gets distressed. As a result he or she displays warning signs through behavioural attitudes which could be problems at school or in social relationships.

Moreover, the findings also showed that HIV status has a strong and significant correlation with academic performance. The HIV negative pupils performed better in their academics than the HIV positive pupils. The results continue to depict that the HIV positive status contributes more negatively on the behavioral attitudes. It has also come out clearly that HIV status determines highly how the HIV positive pupils perform in their class work. The condition contributes least on the pupils' self-concept among the three variables under study, a confirmation of the reviewed studies in this work. There is no significant difference in self-concept, behavioral attitudes and academic performance based on gender. The mean differences between the male pupils' self-concept and the female pupils' self-concept are insignificant. Similarly, the means of the male pupils' behavioural attitudes and the academic performance are not significantly different from their female peers. Therefore, both the girls and the boys have their self-concept, behavioural attitudes and academic performance equally affected by the HIV status. Based on the results obtained, the following are recommended.

Greater emphasis need to be put on professional counseling in both private and public primary schools since it has emerged that the number of the HIV infected children engaged in formal learning is increasing in these schools. Organized professional counseling services should be provided to children with visible physical needs like the blind learners, the deaf learners, physically disabled learners and more of such like. The HIV positive learners are slightly different since they also suffer HIV associated stigma apart from the pain due to numerous infections characteristic of HIV/AIDS. The AIDS condition involves the common diseases which to most of the people living with these pupils may just seem to be passing. To the pupil the frequent sickness which in most cases is not openly defined cause a lot of concern for it makes them feel different from the others. Therefore, once these pupils have been identified in school there is need to help them overcome the

psychological challenges and as a result their behavioural shortcomings. This research has shown that there is a strong positive and significant correlation between a positive behavioral attitudes and a high academic performance.

The ministry of education through the recruiting agencies should include professional counseling skills as a requirement for the primary school teachers. This may help the teachers to deal with the increasing numbers of HIV positive children in formal learning cope with the psychological and behavioural challenges. According to the research results, if they overcome the two related challenges they will be able to realize their full academic potential. In the schools where this study was done there was only one or two 'teacher counselors' who were in charge of the pupils' welfare. Ninety nine percent (99%) of these teachers were not professional counselors at least from the researcher's investigation. This may lead to negligence of the pupils' special needs and consequently low performance in their academic work.

The research results have also indicated that behavioural attitudes of the HIV positive pupils have such a strong correlation with both the self-concept and academic performance. This finding further indicate that any negative change in behaviour if noted in good time and appropriate help given to the infected pupil, may help him or her adjust relatively well to the HIV status. It is therefore necessary for school teachers to regularly carry out behavioural assessment. Any deviation from the normal may be considered as a warning. This will then prompt the teacher counselor to take action especially in cases where the pupil's status has been concealed from the teacher.

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