

Influence Of Behavioral Interventions On Performance Of Hiv Prevention Projects Among Adolescents In Kisumu County, Kenya

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Abstract: The aim of this research was to explore how behavioral interventions influences performance of HIV prevention projects for adolescents in Kisumu County, Kenya. The study population comprised of HIV prevention projects for adolescents which have been implemented from 2016 – 2018 in Kisumu county Kenya. Target population comprised of adolescents enrolled in HIV prevention projects in 6 organizations in Kisumu county, Kenya. A sample of 360 adolescents enrolled in HIV prevention projects was drawn from a population of 32,428 using stratified, random, and selective sampling methods. A systemized interview tool and questionnaires were used to gather data. Observed descriptive statistics indicated that behavioral interventions had an influence on performance of performance of HIV prevention projects for adolescents in Kisumu County, Kenya. The value of r^2 was 0.429, indicating behavioral interventions explained 42.9% of the variance in performance of HIV prevention projects for adolescents in Kisumu. The beta coefficient was 0.655, implying that behavioral interventions' influence on performance of HIV prevention projects for adolescents is significant ($\beta=0.645$, $t=10.862$, $p=0.000<0.05$). The Beta value indicated that each record variation on performance of HIV prevention programs for adolescent could be linked to 65.5% variation in behavioral interventions.

Keywords: Behavioral interventions; project performance; HIV prevention; project monitoring and evaluation process

I. BACKGROUND TO THE STUDY

Behavioral prevention interventions aim to influence knowledge and attitudes, people's perceived risk of being infected with HIV, and to offer the motivation and skills that people require to change their sexual and substance abuse behaviors that causes an upturn in their vulnerability to HIV infection.

Human beings however display complicated behavior and characteristics that makes it difficult to achieve universal as well as sustained behavior changes. (World bank, 2012) Amidst these complications, behavioral interventions in this field needs to remain the as the main priority for best results HIV prevention. Behavioral interventions alone are not sufficient to eradicate HIV transmission: they therefore need

to be applied together with structural and biomedical interventions.

Projects in this region adopts a combination prevention package approach to achieve their set objectives in reduction of HIV incidences among adolescents in Kisumu County. Behavioural interventions target to minimize the vulnerability to infection by confronting highlighted undesirable behaviours. An intervention can seek to minimize the number of sexual partners a person has; promote adherence to medication among PLWHIV or increase the consistent and correct usage of condoms. Examples of behavioural interventions include, information sharing through health talks, counselling and other ways of psycho social support as well as stigma and discrimination reduction programmes.

The projects capitalize on effective implementation of evidenced based interventions to prompt positive change in

behavior knowledge and attitudes of its different sub populations based on age. (PEPFAR, 2016)

STATEMENT OF THE PROBLEM

Young people contribute approximately 29% of the new cases of HIV infections in Kenya based on a report generated by NACC in 2016. Young people aged between 15 to 19 years prevalence is at 70% for females and 30% for males whereas in age group 20 to 24 years it stands at 62% for females and 38% for males. Also national statistics indicate that 16% of PLHIV are young people and adolescents while a similar percentage require anti-retroviral therapy.

Moreover KDHS 2014, recorded that approx. 9,720 youths in Kenya died of AIDS. Twenty percent of the youths (15-24 years) had their sexual debut by the time they were fifteen years or younger. Youths aged between 15-24 years who said they had used condoms during their first sexual encounter were 67% for girls and 58% for boys. While responding to the questions under study, 89% of women aged 15 to 24 years said they had abandoned condom use with a male sexual partner whose HIV status they didn't know. (NACC, 2016).

Whereas literature provide evidence of the independent relationship between the intervention strategies and success of projects (Arnold, 2009; Barron, 2007; Cole, 2006; Buykx, 2012; USAID, 2008), there was limited information on the extent to which the interventions independently and collectively influence success of projects. Researchers are conducting continuous studies to determine what other interventions are required to promote HIV prevention among adolescents. This study therefore aimed at establish how behavioral interventions influences performance of HIV prevention project aiming to reduce HIV prevalence among adolescents in Kisumu County.

OBJECTIVE OF THE STUDY

This study sought to explore to what extent behavioral interventions influence performance of HIV prevention programs for adolescents in Kisumu County, Kenya.

HYPOTHESIS OF THE STUDY

The researcher hypothesized that: Ho Behavioral interventions does not significantly influence the performance of HIV prevention projects for adolescents in Kisumu Kenya.

H1 Behavioral interventions significantly influences the performance of HIV prevention projects for adolescents in Kisumu Kenya.

II. LITERATURE REVIEW

Cooke-Davies (2002) poses that , indicators of project performance are explained as controls through which achievement of a project goal or its derailment is weighed against. Toor and Ogunlana (2009) proposed the following indicators to be used in grading the performance of projects: Timeliness, quality and cost effectiveness; able to meet

stakeholders expectations, as well as reduced conflicts. It can therefore be recorded that performance indicators for HIV prevention projects achievement is beyond the traditional calibration of duration, expense and quality, commonly used to determine management success; Different indicators emerge which consists of beneficiary's contentment stakeholder

contentment, safety, and minimized disputes. Following the reviewed literature, this study will adopt performance of projects indicators to include: - budget compliant, time compliant, quality compliant, safety compliant and Beneficiaries' expectations met.

In establishing these unusual problems, former studies have posed that there is a need to apply and develop more interventions to address increasing cases of HIV infection among adolescents. This study examined behavioral interventions as well as their effect in influencing performance of HIV prevention projects in the region under study.

A. INFLUENCE OF BEHAVIORAL INTERVENTIONS AND PERFORMANCE

Behavioral theory poses retention of behaviour is dependent on what happens when the behavior is exhibited when reinforcers are applied, the behavior is likely to be exhibited more. Negative reinforcement is characterized by withdrawal of something in the person's surrounding following a behaviour that causes firming the exhibited behaviour. This approach involves: identification of behavior exhibition causes and its reinforcers (functional analysis), and using the information obtained to put together a strategy through which the behavior can be altered by applying different reinforcers and, sometimes, punishment.

B. BEHAVIORAL APPROACHES AND INTERVENTIONS TO DEAL WITH PROBLEM BEHAVIOR IN CHILDREN

It was until 1960's that parents started being involved in management of children's behavior. Before then it was taken to be the responsibility of professionals. It was the recommendation made by Bandura (1969) as well as the realization by clinicians that guardians/parents could be trained to control the behavior of their children. Following this developing body of evidence, governments have included parent training projects in their family support implementation structures. HIV prevention programs for adolescents however not only calls for involvement of parents in implementing behavioral approaches but requires support of all stakeholders and peers to champion the course. The projects under study are donor funded and implemented by non-governmental organizations in the region.

C. BEHAVIORAL INTERVENTIONS FOR HIV POSITIVE PREVENTION AMONG ADOLESCENTS

Today, project designers and implementers appreciate that continuing to bank on generalized HIV sensitization messaging can strain the efficacy of approaches being applied. It is considered easier to control behavior r of lesser

numbers of HIV positive individuals compared to huge numbers of HIV negative individuals. Shifting focus to HIV discordant couples have been said to be one of the most effective strategies towards decreasing HIV infection rates. (UNITAID, 2008) This strategy is known as positive prevention. There is no accord on what it entails, but it is founded on 4 clear goals which include: (i) improving PLHIV physical health; (ii) improving PLHIV mental health; (iii) preventing more transmission of HIV virus; and (iv) recruiting PLHIV to be involved in leadership and advocacy. This paper sought to determine the efficacy of behavioral interventions through components such as positive prevention among other strategies

D. FACTORS INFLUENCING ADOLESCENTS' VULNERABILITY TO HIV INFECTION

Adolescence is a moment when exponential thinking capacity develops including conceptual thinking capacity. Adolescents seek for approval and influence from their peers which makes a major contribution to their growth process. This stage is also defined by social transitions such as completion of formal education, seeking for employment, "moving out", sexual and intimate relationships debut, teenage pregnancies, and cohabiting. These events happen at a time of reduced adult supervision when adolescents lack adequate information, esteem and life skills leading to involvement in behaviors that increase their HIV infection chances.

Identifying reinforcers of behaviors is important in ensuring ensure that approaches adopted are useful and applicable in population based programming" (Audrey Petifor, 2010). Behavioral interventions have been have been applied to minimize vulnerabilities to HIV infection by prolonging date before sexual debut, campaigning for correct and consistent condom use, and/or reducing multiple sexual partner relationships as well as drugs and alcohol abuse. Interventions delivered in group forums, such as schools, are the most applicable in a low resource setting. This paper however maintained focus on influence of behavioral interventions on performance of projects.

Understanding broader context of behavioral interventions is key to attaining their set objectives. Most small group setting interventions were carried out in environments where huge gender and power imbalance may negatively affect projects' success. Also, factors related to compliance and fidelity in implementation of said interventions likely undermined efficacy

E. FACTORS AFFECTING HIV PREVENTION AMONG YOUTHS

a. LIMITED KNOWLEDGE ON HIV

Access to comprehensive sexuality education (CSE) before sexual debut would increase the chances for adolescents to make informed choices about their sexuality and engage in relationships more confidently. Adolescent girls' would also be able to negotiate for condom use use and increase uptake of HIV testing and counselling services, There lacks adequate and reliable HIV and sexual

reproductive health information on HIV transmission especially among adolescents in schools. Youth groups have the potential to provide HIV knowledge, but only on a small scale

b. LACK OF ACCESS TO HIV SERVICES

Denial from guardians and adults about young people's exposure to sex may lead to formulation of policies that govern access to sexual reproductive health and rights services including HTS. Mostly parental consent is required for adolescents to access these services. This is no exception for children below 18 years in Kisumu County. The facilities does not strive to provide tailored services for adolescents.in their region and this information was made available from the baseline studies conducted in the previous years by the projects currently being implemented. Many adolescents have reported that healthcare service providers display negative attitudes towards youths seeking sexual reproductive health and rights services, particularly the ones considered underage, involved in same-sex relationships or are involved in drugs and substance use. These factors prevents them from visiting the health facilities to get contraception, STI screening and treatment, and HIV testing and counselling services. Other policies deny access of SRH services to non-married people.

F. THE FUTURE OF HIV AMONG YOUNG PEOPLE

With the number of young people expected to increase by 100% rate in the African continent by 2050, more efforts is required to prevent new infections from increasing in this age group. Even if the progress in minimizing the rate of new infections among adolescents is maintained, it is approximated that new HIV infections among young people would rise to 270,000 annually by 2025 and 300,000 every year by 2030. If the momentum in this efforts were to be lowered, it could be even worse. Involving adolescents is crucial to managing their general health and dealing with the HIV epidemic as a whole. Allowing adolescents to be meaningfully involved in design and delivery of integrated SRHR and HIV projects is key to the provision of effective HIV prevention interventions. Technology is already deeply integrated into the lives of adolescents in most parts of the world. Innovations have been introduced to exploit this opportunity of increasing connectedness and offer HIV awareness information and reminders to ART uptake adherence, among other services.

III. THEORETICAL FRAMEWORK

The study was founded on the following theories:

A. THE THEORY OF PERFORMANCE (TOP)

This theory suggests 6 basic constructs to develop the framework applied to illustrate project performance and its enhancements. i.e to produce worthy results. Performance improvement is a process and performance scale indicates position in the process. Current performance is associated with 6 items: context, knowledge, skill level, and identity level,

personal as well as fixed elements. ToP emphasizes on teamwork and a sense of belonging necessary for HIV prevention projects' performance. Levels of performance are only affirmed due process in the progress of the project through scheduled and routine reviews. ToP will therefore be best suited for this purpose. It was applied to direct and enhance the dependent variable.

B. THEORY OF REASONED ACTION (TRA)

The theory posits that, individuals perception to a behavior is guided by their belief in what results from practicing the behavior, multiplied by their assessment of the said repercussions. It posits that external stimuli affects perceptions through altering individual's format of beliefs. This theory will therefore help to compare the influence of behavioral interventions against other interventions necessary to improve performance of HIV prevention projects for adolescents.

C. HEALTH PROMOTION THEORY

This theory, encourages interventions focusing on the societal determinants of health, and activities designed and conducted in partnership with the targeted communities, to address an assumed bias that is available towards personal and 'top-down' interventions. That prescriptive characteristic is detailed in documents such as the WHO's Global Strategy of Health for All by the Year 2017. Practically most health promotion interventions, such as the ones focusing on HIV transmission, has maintained an individualistic focus and are driven by experts. This theory will therefore help to determine the influence of community participation in formulating and implementing behavioral interventions.

IV. CONCEPTUAL FRAMEWORK

The study aimed at exploring to what behavioral interventions affects performance of HIV prevention projects for adolescents in Kisumu County, Kenya. Three key indicators of behavioral interventions were used including IEC materials availability; EBI curriculums available and availability of qualified trainers. The relationship among the specified study variables is shown in Figure 1.

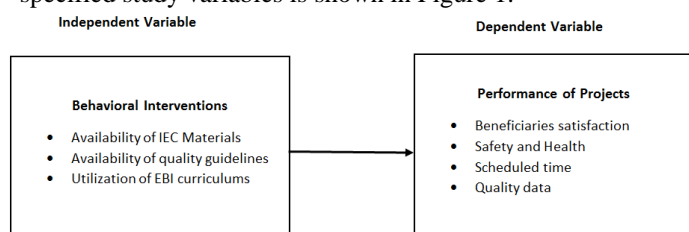


Figure 1: Conceptual Framework for the study

V. RESEARCH METHODOLOGY

This study applied pragmatic research paradigm. Pragmatists such as Creswell, 2013 argues that knowledge

emanates from actions, circumstances and consequences as opposed to antecedent conditions. The rule of thumb in pragmatism

specifies that the truth value of an expression defined by applicable results of belief or application for the expression globally (Onwuegbuzia, 2004). This paradigm was chosen as the most appropriate to be adopted since standardized questionnaires were utilized in collection of both qualitative and quantitative data.

This study utilized blend of descriptive survey combined with correlational design. This choice was preferred since descriptive and inferential analysis was done together. Target population comprised of adolescents enrolled in HIV prevention projects in 6 organizations in Kisumu county. Kenya implemented within 2016 – 2018. A blend of census, stratified random, and purposive sampling methods were applied. Every organizations was included in stage one. In the second stage 360 adolescents were randomly sampled from the total 32,428 adolescents enrolled by the organizations who are recipient of behavioral interventions. In the third stage, parents, project managers, M&E officers, and government officials, were chosen using purposive sampling techniques sampled above totaling to 380.

To cater for construct validity, the instruments were reviewed by experts who included study supervisors as well as his peers. Verification of internal validity was done through triangulation where questionnaires had similar quizzes synthesized according to responses from various respondents (Merriam, 1998). Reliability was tested by conducting a pilot study in three (3) chosen organizations, involving twenty (20) respondents.

VI. FINDINGS AND DISCUSSIONS

A sample size of 364 respondents from a research population of 32,428 adolescents in Kisumu County as recorded in the most recent census. Questionnaires were utilized as the main instruments to gather data. Thirty one (31) questionnaires were returned which was a return rate of 94.7% which is sufficient for this study. Richardson (2005) indicated that a response rate of 60% and above is both desirable and achievable in social sciences though in some cases it could go lower.

A. BACKGROUND INFORMATION OF THE RESPONDENTS

Below is tabulated description of how respondents were distributed by gender, age and level of education.

Gender	Adolescents	M&E	Project Managers	Parent	Government official	Total %
Male	102	3	4	4	1	30
Female	258	3	2	2	1	70
Total	360	6	6	6	2	100

Table 1: Distribution by gender

Age in years	Adolescents	M&E	Project Managers	Parent	Government official	Total (%)
< 9	70	0	0	0	0	18.4
10-14	128	0	0	0	0	33.7
15-19	150	0	0	0	0	39.5

> 20	12	6	6	6	2	8.4
Total	360	6	6	6	2	100.0

Table 2: Distribution by age

Level of Education	Adolescents	M&E	Project Managers	Parent	Government official	Total %
						%
Drop out	96	0	0	0	0	25.3
Primary	114	0	0	0	0	42.0
Secondary	145	0	0	0	0	26.2
Tertiary	5	6	6	6	2	5.0
Total	0	6	6	6	2	100.0

Table 3: distribution based on level of education

The research results indicate that 30% of responses were provided by men while 70 % were provided by women. This shows that projects under study had enrolled more girls than boys.

On age, the findings indicated that majority of beneficiaries enrolled in the projects were aged between 15 to 19 years (39.5%), while 33.7% of the respondents were in 10-114 age bracket. 18.4 % were below 9 years of age and 8.4% were above 20 years old. With regard to education level, they were required to tell the highest education level achieved or currently being pursued. The findings indicated that the highest number of respondents had completed primary level education, 26.2 % had acquired secondary education while 5.0 % had gone through tertiary level education. This was attributed to the fact that most respondents interviewed were of school going age and therefore fall under categories as described. 25.3% of the respondents however had dropped out of school due to various reasons discussed further later sections of this paper.

B. TESTS OF ASSUMPTIONS AND ANALYSIS OF LIKERT TYPE OF DATA

Kolmogorov-Smirnov and Shapiro-Wilk tests were used to do a normality test. Rizali & Wah 2011 argues that SW-test has is capable of identify deflections from normality caused by skewness, kurtosis or both. For this reason it was utilized in verifying the validity of normality output from Kolmogorov-Smirnov statistics. Multi-collinearity was also tested among the variables was also done by applying VIF in the regression analysis. Following assumptions made by regression model, it was concluded that no issues of heteroscedasticity occurred since data used w assumed to be linear, and the population had been verified to being normally distributed.

C. ANALYSIS OF LIKERT- TYPE DATA AND ACCOUNTING FOR THE ERROR TERM

The study employed Likert Scale described below: 1=very little; 2= little; 3= moderate; 4= great; and 5= very great. The following scale was applied as well: 1=Strongly Disagree; 2=Disagree; 3=Neutral; 4=Agree; and 5=Strongly Agree. It was assumed that Likert-type data was equidistant and therefore parametric techniques for analysis were applied (Lantz, 2013). Racco 2017 poses that when using a five point Likert scale the should be done as follows; strongly agree (SA) 4.2<SA<5.0; agree (A) 3.4<A<4.2; neutral (N)

2.6<N<3.4; disagree (DA) 1.8<DA<2.6 and strongly disagree (SDA) 1.0<SDA<1.8. The same scale was successfully applied by Ng'ang'a (2015) in his study.

D. ANALYSIS OF PROJECT PERFORMANCE INDICATORS IN HIV PREVENTION PROJECTS

Project performance in HIV prevention for adolescents was specified in this study to be the dependent variable. Beneficiaries satisfaction, Safety and Health, Scheduled time and quality data were applied as indicators of performance of HIV prevention projects for adolescents. Items were presented to the respondents on a 5 point Likert scale and the results displayed as shown in table2 below.

Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Total (%) n
Implementation cost was within budget for the project	343	44	0	0	0	387
No changes were made to requests raised for the Project Budget estimates	88.6 (78.3)	(11.4) 84 (21.7)	(0)	(0)	(0)	(100) 387
No funding issues were raised during the project time	168 (43.4)	189 (48.8)	30 (7.8)	0 (0)	0 (0)	387 (100)
Many provisional sums and prime costs were factored	0 (0)	0 (0)	27 (7)	287 (74.1)	73 (18.9)	387 (100)
Payments to the vendors were released without delays.	0 (0)	0 (0)	42 (10.9)	334 (86.3)	11 (2.8)	387 (100)
Time Related.						
Implementation was timely	0 (0)	0 (0)	3 (0.8)	20 (5.2)	364 (94)	387 (100)
Duration specified was not sufficient for project completion	0 (0)	0 (0)	7 (1.8)	13 (3.4)	367 (94.8)	387 (100)
There was delayed mobilization and advocacy	0 (0)	5 (1.3)	30 (7.8)	352 (90.9)	0 (0)	387 (100)
There were frequent deign related changes	0 (0)	0 (0)	8 (2.1)	321 (82.9)	58 (15)	387 (100)
There were government bureaucracies authorities	0 (0)	0 (0)	0 (0)	100 (25.8)	287 (74.2)	387 (100)
Review meetings attendance was not regular	0 (0)	0 (0)	0 (0)	75 (19.4)	312 (80.6)	387 (100)

Safety and Health Related.						
No fatalities were reported during the project time	0	0	0	4	383	387
	(0)	(0)	(0)	(1)	(99)	(100)
No injuries were recorded during implementation	0	87	40	260	0	387
	(0)	(22.5)	(10.3)	(67.2)	(0)	(100)
No physical harm was from beneficiaries associated with project was reported	0	78	13	296	0	387
	(0)	(20.2)	(3.4)	(76.4)	(0)	(100)
Safety precautions were a must for all	0	0	18	67	302	387
	(0)	(0)	(4.7)	(17.3)	(78)	(100)
Signing of code of conduct was mandatory	0	0	0	97	290	387
	(0)	(0)	(0)	(25.1)	(74.9)	(100)
The team collaboratively planned for the days work before start	0	0	40	127	220	387
	(0)	(0)	(10.3)	(32.8)	(56.9)	(100)
Supervision was done	0	0	50	187	150	387
	(0)	(0)	(12.9)	(48.3)	(38.8)	(100)
Trainers were well oriented on safety measures	0	31	65	72	219	387
	(0)	(8)	(16.8)	(18.6)	(56.6)	(100)
Meeting spaces were well ventilated	0	14	33	193	147	387
	(0)	(3.6)	(8.5)	(49.9)	(38)	(100)
First aid kits were available in training venues	0	20	29	189	149	387
	(0)	(5.2)	(7.5)	(48.8)	(38.5)	(100)
Safety officer was required full time at the training venue	0	0	60	177	150	387
	(0)	(0)	(15.5)	(45.7)	(38.8)	(100)

9.5 Client satisfaction related.

Feedback mechanism provided for be	0	60	0	327	0	387
	(0)	(15.5)	(0)	(84.5)	(0)	(100)
No legal issues raised by stakeholders	0	314	0	73	0	387
	(0)	(81.1)	(0)	(18.9)	(0)	(100)
Beneficiaries referred their friends to the project	0	0	0	69	318	387
	(0)	(0)	(0)	(17.8)	(82.2)	(100)
Beneficiaries were satisfied with the project	0	54	0	333	0	387
	(0)	(14)	(0)	(86)	(0)	(100)
Coordination between implementers and Stakeholders & implementers was noted	0	171	0	216	0	387
	(0)	(44.2)	(0)	(55.8)	(0)	(100)
No conflicts recorded	0	91	33	263	0	162
	(0)	(23.5)	(8.5)	(68)	(0)	(100)

The research results in Table 3, indicated that 88.6% of the responses said they strongly disagree that implementation cost was as allocated within the budget, 78.3% said they strongly disagree that no changes were made to requests raised for the Project Budget estimates, 48.8% disagreed with the statement that budget estimates were agreeable, 74.1% agreed that no financing problems were highlighted in the implementation period, 86.3% agreed that most predictable costs were included in budgeting, and 85.0% disagreed that vendors were paid in a timely manner indicating that there were inconsistencies in processing the vendor payments.

Questions regarding the project schedule held the following opinions as illustrated by results on Table 3 showing that most responses strongly agreed implementation was within allocated timelines (94.0%), Timelines specified during project

design was never adequate (94.8%), government bureaucracies were encountered (74.2%), and review meetings were not held regularly (80.6%); agreed that mobilization was done in a timely manner (90.9%), and many suggestions to alter the design of projects were made within the implementation period (82.9%).

Results show that 73.3% of the responses given agreed that data correctness was a concern. 70.5% of the respondents were of the opinion that data verification was need, 77.8% held the opinion that routine schedules of supervision were not adhered to, 67.2% agreed that there were a lot of modifications made to the proposed design of the project, 63.5% thought that EBI trainers were not well equipped, and 69.0% agreed that there were frequent make up sessions. Based on this analysis it was concluded that the projects had quality management issues.

Majority of the respondents strongly agree they had not witnessed any fatalities (99%), safety precaution discussions were compulsory for every entrant (78%), signing of code of conduct was mandatory to honor confidentiality at the training sites (74.9%), the team collaboratively created daily workplans before carrying out tasks (56.9%), support supervision was conducted (56.6%). Other respondents agreed that they had not witnessed any legal concerns brought up (67.2%), there were no cases of fatalities highlighted while working (76.4%), necessary permits had been acquired (48.3%), confirmed that training venues were adequately ventilated (49.9%), indicated that first aid kits were easily accessible at the safe spaces (48.8%) and health attendant was available at all time at the training venue (47.5%). These results implied that prevention projects were implemented accorded safety and health guideline provided. This also showed that these factors are highly valued as an indicator of performance in HIV prevention projects.

With focus on beneficiaries' satisfaction, 84.5% indicated that feedback mechanisms didn't exist for beneficiaries to share opinions on project implementation, 81.1% disagreed with the statement that there were no judicial cases brought about by stakeholders, 82.2% strongly agreed they would refer their friends to the program, 86% agreed that the projects had met their objectives, and 68% agreed to experiencing no conflicts among stakeholders. 17.8% agreed that they would refer their friends for the project, 14% disagreed that there lacked good coordination between the projects' and their stakeholders, 44.2% disagreed there was smooth information coordination between owner and project parties, and 23.5% disagreed there existed any quarrel among project partners. In his analysis the researcher concluded that the beneficiaries satisfaction with the project was not optimal and therefore there needed to be more vigilance among implementers in promoting this component.

E. OVERALL ANALYSIS ON PROJECT PERFORMANCE INDICATORS

Table 4 shows summary of results on performance of HIV prevention projects

Indicator	n	Min	Max
Cost effectiveness	380	1	5
Time management	380	1	5

Data quality	380	2	5
Safety & Health	380	2	5
Beneficiaries satisfaction	380	2	5
Overall composite index	380	1	5

Table 4: Means and standard deviations for projects performance indicators

Mean for selected indicators was found to be 3.54 with std dev. of 0.20. According to specific means & std dev. for every indicator; to a very great extent (Mean = 4.33, Std dev. = 0.45) the performance was good in safety issues; to a great extent they did well based on time management, data quality, and beneficiaries satisfaction (Mean = 4.01, Std dev. = 0.19), (Mean = 3.48, Std dev.= 0.55), and (Mean = 3.53, Std = 0.54) respectively, and to a low extent they operated within the allocated cost (Mean = 2.40, Std dev. = 0.27).

Small std dev. Was assumed to imply that responses provided concentrated around the mean and lacking significant variations. Similar trend followed for the index of combined indicators. Selected respondents for the service appeared to have almost the same scoring trend close to the mean, and the combined indicators results were greatly valued by the respondents and therefore required to be considered to have projects in HIV prevention projects optimally performing to meet beneficiaries' satisfaction.

When asked to list 2 key challenges and ways of improving project implementation in the open ended questions, research results showed that the responses given were similar to the closed ended questions from the instruments. For triangulation purposes, items related to performance of HIV prevention projects indicators were included in the set interview guide prepared for G.O.K officials. The summarized results of responses indicated that the interviews produced results that were similar to the ones provided through questionnaire items.

F. INFLUENCE OF BEHAVIORAL INTERVENTIONS ON PERFORMANCE OF PROJECTS

Respondents were asked to choose and mark the extent to which behavioral interventions influenced performance in the HIV prevention projects. Ten (10) items were provided and ranked on a Likert scale. The results are summarized below

No Item		Scale of measurement					Total	Mean	Std Dev
		SA	A	N	D	SD			
1.	EBI trainings are comprehensive	134 37.5 %	146 40.8 %	27 7.5%	30 8.4%	21 5.7%	358 100 %	3.9 6	1.1 41
2.	The EBI delivery structure promotes peer interactions	54 15.0 %	132 36.9 %	55 15.3 %	69 19.2%	48 13.5 %	358 100 %	3.2 1	1.2 9
3.	The project has a feedback mechanism for participants to air opinions	127 35.4 %	113 31.5 %	30 8.4%	55 15.3%	33 9.3%	358 100 %	3.6 8	1.3 4
4.	Commodities such as condoms are easily accessible to participants	143 39.9 %	129 35.7 %	23 6.3%	37 10.5%	26 7.5%	358 100 %	3.9 3.9	1.2 46

5.	EBI trainers are qualified	127 35.4 %	134 37.5 %	30 8.4%	43 12.0%	24 6.6%	358 100 %	3.8 3	1.2 21
6.	The training involves use of audio-visual aids to help participants understand concepts better e.g. video screening sessions	133 35.5 %	100 26.3 %	52 14.4 %	40 11.1%	33 9.3%	358 100 %	3.7 3	1.3 15
7.	There are community resource centers near the safe spaces e.g. counselling centers, police station, children's office etc	113 31.5 %	114 31.8 %	44 12.3 %	63 17.7%	24 6.6%	358 100 %	3.6 4	1.2 72
8.	The training area has restricted access to provide a good learning environment for participants	102 28.5 %	150 42.0 %	35 9.9%	48 13.5%	21 6.0%	358 100 %	3.7 4	1.1 83
9.	There are sessions for drugs and substance abuse for all primary beneficiaries.	107 30.0 %	135 37.8 %	49 13.8 %	48 13.2%	19 5.1%	358 100 %	3.7 4	1.1 68
10.	Training centers are easily accessible	137 38.4 %	106 29.7 %	39 10.8 %	54 15.0%	22 6.0%	358 100 %	3.8 3.8	1.2 64
Composite average		118 32.9 %	126 35.2 %	38 10.7 %	49 13.6 %	27 7.6 %	358 100 %	3.7 3.7 23	1.2 1.2 44

Table 5: Frequencies for behavioral interventions

From Table 4.3.2 the first item result indicates that EBI trainings are comprehensive. This indicator had a mean of 3.97 and a std dev. of 1.141. The researcher concluded that appropriate delivery of EBIs had an influence on the performance of the project.

This means that as a project implementer, it is your responsibility to ensure that evidence-based sessions are properly delivered by closely monitoring to ensure coverage of the curriculum as expected. 161 (78.3%) responses given agreed with the statement, 47 (14.1%) disagreed and 25 (7.5%) indicated that they neither agreed nor disagreed with the statement thereby indicating a neutral response.

The second item from the findings shows that the EBI delivery structure promotes peer interactions and learning. The mean was 3.21 while std. dev. was 1.290. This results indicates, beneficiaries confidence in the quality of sessions conducted. The third item from the tabulated findings shows that there is a procedure for participants to give feedback at the training centers. With a mean of 3.68 and a std. dev. of 1.340. These findings shows that most participants recognizes the availability of feedback provision mechanisms.

The conclusion made in this regard is that the participants are comfortable with established mechanisms of providing feedback while they are attending the sessions.

The fourth item from Table 4.3.2 result indicates that the trainers are knowledgeable about the topics they discuss in the sessions. With a mean of 3.90 and S.D of 1.246. This result shows that the respondents thought that the trainers were qualified to facilitate the topics covered in the sessions. The

researcher concluded that the participants were satisfied with the skills displayed by the trainers based on the responses given by the respondents.

The fifth item from Table 4.3.2 result indicates that there was sufficient commodities such as condoms available for the beneficiaries in various channels. This had a mean of 3.83 and S.D of 1.221. This implies that respondents acknowledge sufficiency in distribution of condoms from the training centers and other sources. It was concluded that the supply and distribution of condoms as a preventive tool was adequate and satisfactory to beneficiaries.

The sixth item from Table 4.3.2 results indicate that trainers/facilitators used audio visual aids while facilitating sessions at the training centers. With a mean of 3.73 and S.D of 1.315. The result implies that the facilitators employed strategies that accommodates participants with different characteristics such as slow learners. It was concluded that the audio or visual aids required to facilitate trainings at the centers were available at all times.

The seventh item from Table 4.3.2 results indicate that resource centers were available for use by beneficiaries attending sessions at the centers. Such facilities included counselling centers, legal offices, police stations etc. with a mean of 3.64 and S.D of 1.272. This result indicates that the beneficiaries could relate with the resource centers around them.

The eighth item from Table 4.3.2.1 result indicates that the training centers have controlled access to allow conducive environment for beneficiaries to learn and interact with peers. The recorded mean score was 3.74 and standard deviation of 1.183. This result indicates that the projects provides a protected zone for adolescents to interact and learn through their facilitators, peers or any other structure established for this purpose.

The ninth item from Table 4.3.2 result indicates that sensitization on drugs and substance abuse is done at the training centers to all beneficiaries. The recorded mean of 3.74 and S.D of 1.168. This implies that respondents were familiar with messages regarding drugs and substance abuse being shared at the training centers. It is therefore concluded that the beneficiaries are receiving sensitization messages on this topic alongside other necessary packages delivered to them.

The tenth item from Table 4.3.2 result indicates that training centers are easily accessible to participants. With a mean of 3.80 and a S.D of 1.264. This implies that respondents were comfortable covering the distance to the training centers. A key informant in the study notes that:

“The general rule in the project is that a beneficiary should not walk more than 3 kilometers to access a training center”

The composite mean of the 10 items was 3.72 and the std. dev was 1.22 concluding that project performance is a function of behavioral intervention in HIV prevention for adolescents. Computations were shown in Table 4.3.2.1 below.

Table Means and Standard Deviation of behavioral interventions and project performance

Scale of measurement	F	%	Mean	S.D
1. Strongly Agree	117	31.8%	3.72	1.24
2. Agreed	127	36.3%		
3. Neutral	37	9.7%		

4. Disagree	50	14.6%
5. Strongly Disagree	27	7.6%
Total	358	100%

Source: Survey Data (2018)

Results shows that 117 (32.9 %) respondents strongly agreed and 127 (35.2 %) agreed on the listed items while 50(13.6%) and 27 (7.6%) disagree and strongly disagreed respectively. Only 38 (10.7%) were neutral. The average mean for all was 3.723 and S.D was 1.244. The mean is close to 4 implying agreement on all items confirmed by 244 (68.1%) of respondents. This indicates that most responses 244 (68.1%) with mean = 3.723 agreed that behavioral interventions were well conducted.

G. INFERENTIAL ANALYSIS OF INFLUENCE OF BEHAVIORAL INTERVENTIONS ON PERFORMANCE OF HIV PREVENTION PROJECTS

Behavioral interventions in HIV prevention projects was regarded as independent variable. Null hypothesis (**H₀**: Behavioral interventions have no significant influence on performance of HIV prevention projects for adolescents in Kisumu County Kenya) was tested by applying the linear regression model below:

$$Y = a + \beta_4 X_4 + e$$

Where;

Y= Project performance in HIV prevention projects

a=constant

β_4 = Beta coefficient

X_4 = Behavioral intervention

e= error term

recorded results were tabulated as shown below:

Table Correlation analysis of Behavioral interventions on performance of projects

Model 1	N	Performance of projects 'r' Value
Behavioral interventions	Pearson Correlation Sig. (2-tailed)	1 .527 ^{xx} .000
Total	358	

Source: Survey data (2018)

Results shows that behavioral interventions were positively correlated with performance of projects significantly with $r = .527$ ($P < 0.05$) and as Shirley *et al.* (2005) argues, a weak 'r' ranges between + 0.10 to + 0.29; a moderate "r" value ranges from + 0.30 and + 0.49; and a strong "r" value ranging between + 0.5 and + 1.0. With $r = 0.527$ the researcher concluded that the 2 variables had a strong correlation.

At 95% confidence level, $P = 0.000$ ($P < 0.05$). Therefore alternative hypothesis was accepted and the researcher made a conclusion that the dependent and the independent variables had a significant, strong and positive relationship. These findings were in support of Draft and Armstrong study in 1959. When beneficiaries' as part of project implementation process are mandated to carry out roles such as educating their peers in an organizational, they have a role as part of the system to direct the operational role of the system explaining why their role in peer education should not be overlooked.

VII. CONCLUSION AND RECOMMENDATIONS

Conclusion made was in reference to the objective. 3 key indicators of behavioral interventions were specified i.e. , availability of IEC Materials, availability of quality guidelines and utilization of EBI curriculums. Highlighted indicators were tested using ten items on the instruments of data collection. The research results were $R^2= 0.527$, $t=4.577$, $P = 0.000 < 0.05$. The null hypothesis (H_0) was rejected and the researcher therefore concluded that behavioral interventions had a statistically significant influence on the performance of HIV prevention projects in Kisumu County Kenya. Recommendation made was that HIV prevention projects should have appropriate policies on implementation of behavioral interventions to promote improved performance of the projects.

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