Original Research Article

THE ALS-IEC THEORY AND ITS EFFECT ON PERSONS LIVING WITH HUMAN IMMUNODEFICIENCY VIRUS

ABSTRACT

The visible problems among Persons living with Human Immunodeficiency Virus are insufficiency of HIV information about the impact it will bring into their lives and non-compliance to treatment due to fear of disclosure. The need to enhance information about the Human Immunodeficiency Virus (HIV) through extensive health teaching and exemplary education modeling may help persons living with HIV live with dignity and hope as children of God. The purpose of the study is to discover what substantive theory can be used to unearth variables such as Active involvement in the society, Life change advocacy, Life promotion and dignity, One finds oneself, Sensitivity to one's knowledge needs, and Accountability and commitment to be safe which led to the development of "All Loving Support-Information, Education, and Counselling theory. A mixed method embedded experimental design was used in testing the theory through a double-blind approach that quantified the grounded explored experiences of the participants. The qualitative participants were 20 in FGD and the quantitative participants were 30 college students living with HIV, 18-24 years old, male, Christian, and currently enrolled in a college or university in the Davao region excluding those who are sick and admitted to the hospital. Pretest findings revealed that the participants were moderately informed about facts on HIV and moderately followed the course of treatment but after a series of tests (post-test after two weeks, after one month, and after two months), reported that they were totally informed about the facts on HIV and will strictly adhere to the therapy. The pretest and post-test scores on the level of awareness and medical compliance showed significant differences after a series of tests. Thus, the application of ALS-IEC theory is valid, reliable, and effective among persons living with HIV in assessing HIV awareness and drug adherence encompassing bio-psycho-sexual-social-cultural-spiritual domains. Continued use of the personalized health assessment will also offer a learning opportunity (Information) through reading (Education) and nurse-delivered Counselling as extended care after HIV screening counseling will address the immediate needs of clients.

Keywords : All Loving Support; Information, Education, Counselling, and Persons Living with Human Immunodeficiency Virus

Introduction

The Human Immunodeficiency Virus (HIV) or Acquired Immunodeficiency Syndrome (AIDS) is a worldwide health issue. Around 43.8 million people living with human immunodeficiency virus (PLHIV) from 2017 to 2021, 5.1 million people are not aware that they have the virus, and not all received Anti-Retroviral Treatment (ART) [1]. The Philippines is one of the Asian countries that showed an increase in HIV cases among men [2]. HIV attacks the immune system by glycoprotein replication (CD4) in which an

individual is prone to acquire opportunistic infections and may experience behavioral disturbances [3]. However, the Reproductive Health and Wellness Center (RHWC) in Davao City, Philippines; emphasized that an increase in PLHIV is more on risky sexual behaviors and urbanization. Hence, there are varying levels of understanding about the facts of HIV due to ignorance and myths. Generally, most PLHIV felt helpless, sad, and anxious once they knew that they were infected with the virus, even if others had shown support for their health condition. This is a problem to which nurses will be of help through clear information, education, and counseling (IEC) about HIV. Significantly, the researcher presents this as the central part of the theory being carried out in the nursing practice. To this end, a survey was conducted among twenty males positive for HIV, who expressed that support and self-awareness are vital in life goals. Thus, nurses have a greater opportunity to assess and hear the sentiments and communicate therapeutically. The visible problems among PLHIV were insufficiency of HIV information about its impact on their lives and non-compliance with treatment due to fear of disclosure. Hence, a spiritual needs assessment is also significant in the information process. Furthermore, the theory formulated from the name initials of the researcher "All-Loving Support (ALS) - Information, Education, and Counseling" theory is built on the premise that information, education, and counseling could be provided by the nurse. It has measures using the components of ALS-IEC after thorough information was given. Education will be acquired through reading some facts about the disease and its harmful effects on the body and mind of the person. Thus, counseling will enhance life skills and grab learning opportunities that may slowly lead to appreciating the gift of life. This is an opportunity to build a trusting atmosphere between the health care provider and recipients of care and learning opportunities that offer the greatest leverage in extending HIV care. Hence, the visible problems among PLHIV are insufficiency of HIV information about the impact it will bring into their lives and non-compliance to treatment due to fear of disclosure. So, there is a need to enhance HIV information through extensive health teaching and exemplary education modeling that may lead them to live with dignity and hope as children of God. The purpose of the study is to discover what substantive theory can be used to unearth variables such as **A**ctive involvement in the society, **L**ife change advocacy, **L**ife promotion and dignity, **O**ne finds oneself, **S**ensitivity to one's knowledge needs, and **A**ccountability and commitment to be safe which led to the development of "All Loving Support-Information, Education, and Counselling theory; and aims to determine the effects of ALS-IEC theory among PLHIV through a pre-test-post-test approach and develop a specialized program to extend pre and post-HIV screening test counseling.

Method

Mixed method embedded experimental design was used in testing the theory through focus group discussion utilizing a double-blind approach then quantified the grounded explored experiences of the participants through a pretest-post-test one group approach. Snowball sampling technique was used among 50 college students living with HIV who are 18-24 years old, male, Christian, and currently enrolled in a college or university in Davao region, Philippines excluding those who are sick and admitted to the hospital. There were 20 participants for the qualitative study and 30 participants for the

quantitative study. The participants were not obliged to attend instead of a freely given appearance [4] during the data collection process.

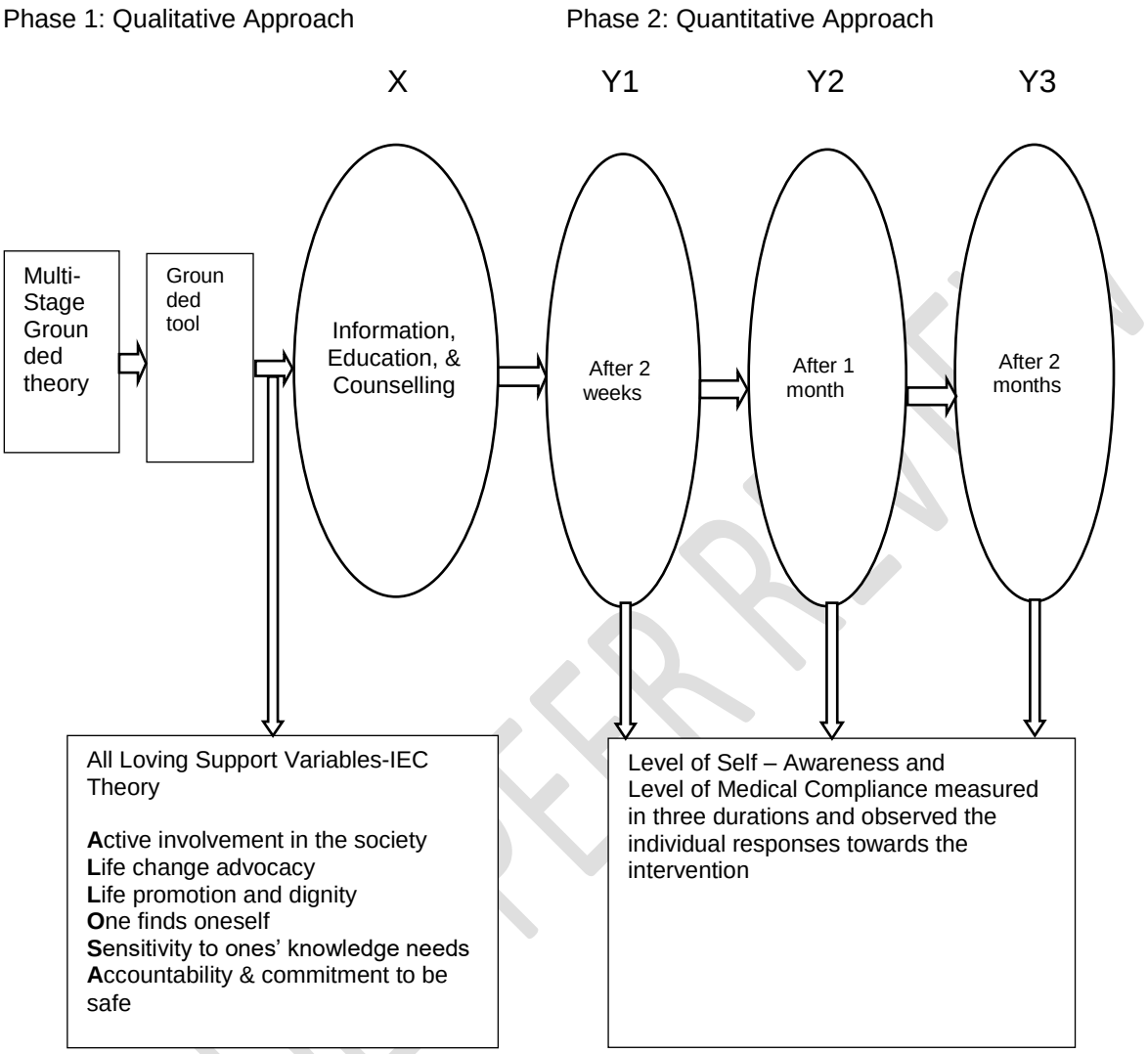

Figure 1. Conceptual Model

Results

The study underwent phase 1 (qualitative) and phase 2 (quantitative). Qualitative results revealed 13 emergent themes: (1) information dissemination, (2) understand prohibitions, (3) solitude, (4) dignity, (5) survival, (6) shame, (7) medical compliance, (8) health promotion, (9) carelessness, (10) self-expression, (11) reaching out, (12) perseverance, and (13) endeavor. A series of open and axial coding techniques finally arrived in selective coding and built the theory.

Chart 1 : List of themes and its associate codes

Themes	Open Codes	Axial Codes	Selective Code

1.information dissemination (ACTIVE INVOLVEMENT IN SOCIETY)	inform, awareness, support	Government agencies encouraged PLHIV to participate as HIV advocate.	Support from the government
2.understand prohibitions (LIFE CHANGE ADVOCACY)	instruction, avoidance, protection	R.A. 8504 empowered people to prevent further HIV transmission.	Support from the government
3.solitude (LIFE PROMOTION AND DIGNITY)	disappointed, stowaway, self-isolation	Every human being has an innate right to be valued, respected, and receive ethical treatment.	Support from the people
4.dignity (LIFE PROMOTION AND DIGNITY)	acceptance, stow away, self-isolation, feeling of indifferent	People are encouraged to show equality among people from all walks of life.	Support from the people
5.survival (ONE FINDS ONESELF)	convince, denial, weak, readiness	Self-awareness promotes acceptance.	Self-awareness
6.shame (ONE FINDS ONESELF)	faked emotions, silence	Increased self-esteem reflects emotional evaluation of his own worth.	Self-awareness
7.medical compliance (SENSITIVITY TO ONE'S KNOWLEDGE NEEDS)	preventive measures, medical follow-up, vulnerability,	Recognition of negativity entails acceptance of reality and resolution.	Self-awareness
8.health promotion (SENSITIVITY TO ONE'S KNOWLEDGE NEEDS)	prevention, protection, safe sex	Conscious knowledge of one's own character entails self-worth.	Self-awareness
9.carelessness (SENSITIVITY TO ONE'S KNOWLEDGE NEEDS)	difficulty, privacy, Antiretrovirals	Familiarization of new daily routine may help an individual develop self-discipline.	Self-awareness
10.self-expression (SENSITIVITY TO ONE'S KNOWLEDGE NEEDS)	difficulty, abandon, convince	Ventilation of feelings may boosts a better understanding of oneself.	Self-awareness
11.reaching out (SENSITIVITY TO ONE'S KNOWLEDGE NEEDS)	life coaching, caring, understanding, selective trust	Counselling brings forth self-expression.	Self-awareness
12.perseverance (ACCOUNTABILITY AND COMMITMENT TO BE SAFE)	self - threatened faith, hopelessness, counseling	Conscious knowledge and understanding of own character, feelings, motives, and desires will entail inner strength.	Self-awareness
13.endeavor (ACCOUNTABILITY AND COMMITMENT TO BE SAFE)	advocate, overseas worker, health care provider	Self - determination helps an individual achieve life goals.	Self-awareness

Hence, the researcher postulated that theory X would lead to theory Y, which entails forgiveness and preparedness before the end of life. Then, the constructs determined that theory X is the support system and theory Y is self-awareness. After building the blocks of the theoretical concepts, a theory was developed behind the events stating that support will boost self-awareness and lead to self-help. This means that this is the result of the researcher's "All Loving Support" in support of PLHIV and became ALS signifying Anna Liza Saus' effort in formulating the theory. Thus, the understudy variables provided the explanation of the built theory [5].

Finally, the researcher developed the grounded tool or survey questionnaire as part of an information inquiry about the facts of HIV. The second part is the answers to the questionnaire as an educational strategy, and awareness awakening about being one of PLHIV is the last part of the module. It deals with counseling or communication, with listed support groups. So as if they reach out to the organization, it indicates self-help. Further, the ALS-IEC theory emerged in the first phase and was experimented in the second phase of the study.

Then, IEC stands for information about the facts of HIV, education about HIV, and counseling on health concerns. Thus, the personal health assessment tool or the grounded tool will assess the combined domains of social-psycho-sexual-bio-cultural-spiritual using the six (6) variables signifying the maiden name of the researcher (ALLOSA). The six (6) variables are Active involvement in the society (A1-social), Life change advocacy (L1-psycho-sexual-social), Life promotion and dignity (L2-socio-cultural), One finds oneself (O-psychological), Sensitivity to One's knowledge needs (S-bio-psycho-sexual), and Accountability and commitment to be safe (A2-spiritual) were measured in the second phase. Tables 1 and 2 showed the pre-test level of awareness and medical compliance.

Table 1
Pre-test Level of Awareness among PLHIV

Indicators of Awareness	Mean	SD	Interpretation
Active Involvement in Society	3.71	0.63	Fully Aware
Life Change Advocacy	3.42	0.36	Partially Aware
Life Promotion and Dignity	3.17	0.37	Partially Aware
One Finds Oneself	3.36	0.39	Partially Aware
Sensitivity to One's Knowledge Needs	3.27	0.54	Partially Aware
Accountability and Commitment to be Safe	3.42	0.30	Partially Aware
Overall Mean	3.39	0.32	Partially Aware

Table 2
Pre-test Level of Medical Compliance among PLHIV

Indicators of Awareness	Mean	SD	Interpretation
Active Involvement in Society	2.88	0.93	Partially Compliant
Life Change Advocacy	3.9	0.31	Fully Compliant
Life Promotion and Dignity	2.93	0.69	Partially Compliant
One Finds Oneself	3.63	0.43	Fully Compliant
Sensitivity to One's Knowledge Needs	3.77	0.28	Fully Compliant
Accountability and Commitment to be Safe	3.53	0.51	Fully Compliant
Overall Mean	3.44	0.38	Partially Compliant

Pretest findings revealed that the participants were moderately informed about facts on HIV and moderately followed the course of treatment but after a series of tests (post-test after two weeks, after one month, and after two months); results showed that they were totally informed about the facts on HIV and will strictly adhere to the therapy. Refer to the series of table 3, 4, 5, 6, 7, and 8.

Table 3

Post-test Level of Awareness among PLHIV after 2 weeks, after 1 month, and after 2 months

	after 2 weeks			after 1 month			after 2 months		
Awareness	Mean	SD	Interpret	Mean	SD	Interpret	Mean	SD	Interpret
A1	3.58	0.19	FA	3.66	0.15	FA	3.91	0.1	FA
L1	3.52	0.28	FA	3.42	0.17	PA	3.55	0.06	FA
L2	3.33	0.36	PA	3.75	1.17	FA	3.52	0.16	FA
O	3.45	0.35	PA	3.53	0.16	FA	3.57	0.15	FA

S	3.53	0.32	FA	3.35	0.16	PA	3.41	0.2	PA
A2	3.76	0.28	FA	3.91	0.09	FA	3.82	0.16	FA
Overall mean:	3.53	0.2	FA	3.6	0.19	FA	3.63	0.03	FA

Legend: FA-Fully Aware
PA-Partially Aware

Table 4

Post-test Level of Medical Compliance among PLHIV after 2 weeks,

after 1 month, and after 2 months

	after 2 weeks			after 1 month			after 2 months		
Awareness	Mean	SD	Interpret	Mean	SD	Interpret	Mean	SD	Interpret
A1	2.72	0.72	PC	2.72	0.72	PC	2.72	0.72	PC
L1	3.87	0.35	FC	3.83	0.38	FC	3.87	0.35	FC
L2	3.50	0.82	FC	3.50	0.82	FC	3.50	0.82	FC
O	3.82	0.28	FC	3.82	0.28	FC	3.82	0.28	FC
S	3.82	0.23	FC	3.82	0.23	FC	3.82	0.23	FC
A2	3.87	0.35	FC	3.87	0.35	FC	3.87	0.35	FC
Overall mean:	3.60	0.25	FC	3.59	0.27	FC	3.60	0.25	FC

Legend: F.C. - Fully Compliant
P.C. - Partially Compliant

Table 5

Difference of the Level of Awareness among PLHIV after 2 weeks, after 1

month, and after 2 months of Intervention

Awareness	F value	p-value	Wilk's Lambda	p value	Pairwise	Interpret	Decision
A1	73.76	0.008	0.166	0.00*	2w,1m<2m	S	Reject Ho1
L1	0.331	0.569	0.639	0.002*	2w,>1m<2m	S	Reject Ho1
L2	8.074	0.008	0.734	0.013*	2w,<1m2m	S	Reject Ho1
O	2.87	0.133	0.909	0.264	2w,<1m2m	N.S.	Accept Ho1
S	4.587	0.041	0.75	0.018*	1w,2m<2m	S	Reject Ho1
A2	1.099	0.303	0.671	0.004*	2w,<1m2m	S	Reject Ho1

*Significant @p value <0.05
Legend: 2w-after 2 weeks; 1m-after 1 month; and 2m-after 2 months
NS- Not Significant; S-Significant

Table 6

Difference of the Level of Medical Compliance among PLHIV after two (2) weeks,

after one (1) month, and after two (2) months of Intervention

Awareness	F value	p value	Wilk's Lambda	p value	Pairwise	Interpret	Decision
A1	-	-	-	-	-	NS	Accept Ho2
L1	0.022	0.326	0.967	0.326	-	N.S.	Accept Ho2
L2	-	-	-	-	-	N.S.	Accept Ho2
O	-	-	-	-	-	N.S.	Accept Ho2
S	-	-	-	-	-	N.S.	Accept Ho2
A2	-	-	-	-	-	N.S.	Accept Ho2

*Significant @ p value <0.05
Legend: NS- Not Significant

Table 7

Difference of Level of Awareness between Pre-test and Post-tests Scores

	Pretest		Post-test					
AWARENESS	Mean	SD	Mean	SD	T value	p-value	Interpret	Decision
A1	3.71	0.63	3.91	0.10	-7.164	0.00*	S	Reject Ho3
L1	3.42	0.36	3.55	0.06	2.043	0.05	NS	Accept Ho3
L2	3.17	0.37	3.52	0.16	-5.159	0.00*	S	Reject Ho3
O	3.36	0.39	3.57	0.15	2.545	0.017*	S	Reject Ho3
S	3.27	0.54	3.41	0.20	-1.414	0.168	NS	Accept Ho3
A2	3.63	0.34	3.82	0.16	2.998	0.006*	S	Reject Ho3
Overall Mean:	3.43	0.30	3.63	0.03	-3.829	0.001*	S	Reject Ho3

Table 8

Difference of Level of Medical Compliance between Pre-test and Post-tests Scores

	Pretest		Post-test					
AWARENESS	Mean	SD	Mean	SD	T value	p-value	Interpret	Decision
A1	2.88	0.93	2.72	0.72	0.372	0.712	NS	Accept Ho3
L1	3.9	0.31	3.87	0.35	0.841	0.407	NS	Accept Ho3
L2	2.93	0.69	3.5	0.82	3.084	0.004*	S	Reject Ho3
O	3.63	0.43	3.82	0.28	2.362	0.025*	S	Reject Ho3
S	3.77	0.28	3.82	0.23	-0.841	0.407	NS	Accept Ho3
A2	3.53	0.51	3.87	0.35	-2.763	0.01*	S	Reject Ho3
Overall Mean:	3.44	0.38	3.6	0.25	2.223	0.034*	S	Reject Ho3

QUALITATIVE DISCUSSION

Based on the results of the study, the themes that emerged are information dissemination, understanding prohibition, solitude, dignity, survival, shame, separation, health promotion, carelessness, self-expression, reaching out, perseverance, and endeavor led to the development of the “All Loving Support-Information, Education, and Counselling” theory that can be used as a basis for positive prevention programs.

In previous studies, the support system was not fully determined when it comes to key health outcomes [6]. However, the study determined the specific support system needed by PLHIV which is from the government, people, and family. Beyond testing, the government program should improve resources in detecting HIV positives and continue giving direct assistance and referral to any nearby HIV center to make sure clients with reactive results should go to the main HIV center [7]. The Philippines lawmakers introduced the approved HIV and AIDS Policy Act of 2018 (Republic Act 11166) which include the protection of PLHIV rights [8] because the dignity and equal rights of these people are at stake. Even though the law prevails there are still underutilized health laws in the fields of health sciences [9]. Support from the people often improves disclosure with potential prevention benefits [10]. Helping them by talking, actively listening, imparting more knowledge about HIV, encouraging drug adherence, asking appropriately, and keeping the talk confidential will build their self-esteem, and trust will be achieved between nurse and client [11]. Family support significantly contributes to a better quality of life among PLHIV [12]. With the support system, self-awareness may

develop through the efforts of advocates and peer counselors' encouragement as well as spiritual counseling. PLHIVs really need regular counseling because some of the young PLHIVs mostly choose self-isolation because of feelings of rejection from their families. These people need help to regain self-worth aside from fighting the ill effects of the virus to engage in ART [13].

Consecutively, the qualitative survey questions were quantified using the 4-point Likert scale to test the ALS-IEC theory among college students living with HIV. It is a personalized health assessment tool for PLHIV encompassing psycho-social-sexual-bio-cultural-spiritual. The pre-test result showed that they are partially aware of the facts of HIV and partially compliant with the treatment regimen. Even when support groups and treatment are available and accessible, retention in care is frequently cited as a key issue in many countries. Students positive for HIV are vulnerable to being lost to follow-up because of different reasons. To mitigate these events, it is important to encourage a positive outlook in life through a support system from medical professionals, lawmakers, and the general population [14].

After two (2) weeks of intervention, A2 shows the highest level of awareness while L2 shows the lowest level of awareness; after one (1) month, A2 shows the highest level of awareness while S shows the lowest level of awareness; and after two (2) months, A1 shows the highest level of awareness while S shows the lowest level of awareness. Overall, the participants are fully aware of the facts of HIV after a series of tests. However, there is a significant difference in the level of awareness when it comes to the numeric value of each variable. This shows that behavior changes if being influenced by a stimulus where a person interacts with the environment; and that stimuli pool to make up a specific internal impact to reach the adaptation level. Hence, the healthcare provider should apply specific interventions after a clear assessment tool to reach the target goal of adopting a new daily routine as one of PLHIV [15].

Meanwhile, the medical compliance showed that after two (2) weeks of intervention, L1 and A2 shows the highest level of medical compliance and A1 has the lowest level of medical compliance; after one (1) month, A2 has the highest level of medical compliance while A1 has the lowest level of medical compliance; and after two (2) months, L1 and A2 have the highest level of medical compliance while A1 has the lowest level of medical compliance. Overall, the participants are fully compliant in following the course of treatment and show that the outcome of the intervention of the program has no significant difference although it decreased after one (1) month and slightly increased after two (2) months. There are factors that may affect experimentation. Environmental and social factors may change the situation. Some factors are visible, while others cannot be seen. In some situations, only the effects of these factor changes are evident. However, a person or the interactive role of these factors may also affect how they execute in time and space [16].

Generally, the entire result shows a significant difference between the pre-test and post-tests of interventions on the level of awareness among college students living with HIV after two (2) weeks, after one (1) month, and after two (2) months. A1 shows the

greatest level of significance while S shows no significant numerical value on the level of medical compliance. Consistent monitoring will help them nurture their inner self or realize self-worth. This is the part of their lives that has a slow pace of moving on. They needed authentic support from loved ones and people from all walks of life. Safe-sex education should be provided or taught repeatedly in schools or colleges to realize the love of self, increase self-esteem, and reduce stigma [17].

Furthermore, the entire results of the level of medical compliance show a significant difference between the pre-test and post-tests of intervention among college students positive for HIV after two (2) weeks, after one (1) month, and after two (2) months. A2 shows the greatest level of significance while A1 has the lowest numerical value. Most of them are encouraged to have regular medical and or psychological consultations along with counseling. Different motivational approaches were used by medical personnel through education about positive prevention. Consistent appearance in medical facilities signifies that an evidence-based psychosocial support program is effective. The existing program can be further enhanced by accommodating another technique in support of better psychological well-being leading to continuous access to medical facilities for drug adherence [18]. The personalized assessment tool may also help assess holistically to address a specific need. On this account, the intervention supports the global plan of action to curb HIV/AIDS. The personalized health assessment tool could be of help in monitoring the different aspects of concerns or issues of PLHIV.

Conclusion

Both qualitative and quantitative results showed significant impact in the formulation of a specialized program. The concept of the program is systematically arranged in the module entitled “The All Loving Support-Information Education and Counselling Module.” This tool may aid the local government unit around the globe in addressing concerns among PLHIV regarding the bio-psycho-socio-spiritual aspects as part of their extended program on pre and post HIV screening test counselling. It is assumed that the personalized health assessment tool which is part of the module is effective among PLHIV. Hence, the study shows the general population that PLHIV needs support from the government, people, and family to nurture individual self-awareness.

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