

A Study of Evaluation Methods and Results of an HIV/AIDS Education Program in a Selected Chinese University

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Abstract: *Human Resource Development (HRD) is a process of problem-defining and problem-solving. Not only does HRD focus on improving the performance of individuals and organizations, but it also leads to the development of organizations. Universities are the organizations that need long terms development. A selected Chinese university has received an award in HIV/AIDS education and prevention. It is an outstanding organization in HIV/AIDS education. Therefore, to explore their evaluation methods and results of an HIV/AIDS education program allows other universities to reconsider their evaluation system, as well as the HIV/AIDS education plan. This research is a qualitative study applying Single-Case Study strategy. The objectives include: 1) to explore the evaluation methods regarding the success of HIV/AIDS education activities at the university. 2) to explore the evaluation results towards HIV/AIDS education activities in the university. Semi-structured interview and structured interview were applied to interview one doctor, six health education instructors and nine students in this university. The research results highlighted that applying questionnaires to test Knowledge, Attitude and Practices (KAPs) was effective evaluation methods of HIV/AIDS education in a selected university. Moreover, employing interviews could assist the instructors to make a deeper understanding of the education results and opinions from the students.*

Keywords: evaluation methods; evaluation results; selected; Chinese university; HIV/AIDS education

Introduction

HRD is a process to improve the performance, learning and effectiveness of individuals, and/or organizations (Swanson& Holton's, 2009). There are three main components of HRD: Training and Development (T&D), Organizational Development (OD), and Career Development (CD) (Ju, 2019). HRD process involves five phases, these are: analyze, propose, create, implement, and assess (Swanson, 2008). All of the phases in the HRD process have important relationships with each other to achieve the expected goals.

In the early 2000s, people who used drugs were the highest risk group for HIV/AIDS in the countryside and the urban areas of China (UNAIDS, 2017). To prevent the epidemic of HIV/AIDS, Chinese universities have organized HIV/AIDS education for university students since 2002 (YNCDC, 2017). In China, a Normal university is kind of university that teaches students to be professional teachers (Shi, 2013). A selected university organized instructor training, public activities, and investigations about HIV/AIDS and it successfully held "Drug control and HIV/AIDS prevention training among university teachers in Yunnan province" many times in the past decade (Shi, 2013). A selected university has received an award for HIV/AIDS education. It is an outstanding university in HIV/AIDS education and prevention. Therefore, the researchers believes that analyzing evaluation methods and results of the HIV/AIDS education

program in a selected university could help other universities/ institutions to understand their advantages and disadvantages. It could also assist the universities/ institutions to develop the more effective plans for their HIV/AIDS education.

Statement of problems

HIV /AIDS education is one of the important courses in Chinese universities that aims to protect students from becoming infected with HIV/AIDS. To promote HIV/AIDS education in Chinese universities, there are many pieces of research exploring the teaching activities and teaching methods towards HIV/AIDS education in Chinese universities. However, they still lack of assessment or evaluation part of HIV/AIDS Education Programs provided in Chinese universities.

Significance of the Problems

Universities are organizations which need long term development. Following the evaluation methods of HIV/AIDS education in this university could be fully used as an HRD assessment guideline for other universities. The assessment results could assist other universities to consider new revision of their HRD process and education plans in HIV/AIDS education. Therefore, in this study, the researchers intends to explore the evaluation methods and results of HIV/AIDS education in this awarded Normal University.

Research objectives

1. To explore the evaluation methods regarding the success of HIV/AIDS education activities at a selected Chinese university.
2. To explore the evaluation results towards HIV/AIDS education activities in a selected Chinese university.

Research questions

1. How does a selected Chinese university evaluate the success of its HIV/AIDS education activities?
2. What are the evaluation results of HIV/AIDS education in a selected Chinese university?

Literature review

1) Theories regarding the HRD process

Human Resource Development (HRD) is a process of problem-defining and problem-solving. The subsets of HRD include personnel training and development (T&D), and organizational development (OD). Swanson (2008) highlighted that OD focuses on helping organizations to improve their performance and achieve the desired goals with the support of these three core theories: primarily psychological, systems, and economic theories. OD is a planned system that aims at the performance of individual, group, process, and organization (Lynham, 2000c). There are five phases of organizational development, these are: analyze and contract; diagnose and feedback; plan, design and develop; implement; and evaluate, and institutionalize (Lynham, 2000c). The five phases could be presented below (Lynham, 2000c; Swanson, 2008):

First of all, it is necessary to analyze the performance problem and the need for change. The analysis can provide evidence of the existence of the problem and the need for solution

methods. In addition, the analysis provides opportunities to identify and optimize the “match” among the needs, value, and expertise of the organization.

The second phase is diagnosing the performance and providing feedback to the performance system. To diagnose the performance, multiple data collection methods, such as questionnaires, surveys, interviews, observations, and organization records are used to develop the performance requirement and the change needs. After diagnosing the performance, feedback that includes relevance, timeliness, and comparability, effectiveness, appropriateness, clarity, and participation has to be developed.

The third phase is to plan, design and develop an intervention plan to address the performance requirement regarding individual, group, process, and organization. During the development of the plan, many kinds of intervention processes can be discussed and selected according to the performance requirement.

The fourth phase is to implement the intervention plan for the performance requirement.

The last phase is to evaluate the success of the intervention plan and to institutionalize the plan to achieve long-term performance requirements. Multiple evaluation methods would be applied to evaluate the effectiveness in terms of performance, learning, and satisfaction.

This research project concentrate on the last phase of the HRD process. To evaluate the success of HIV/AIDS education program in a selected Chinese university could assist the university to achieve long-term performance requirements.

2) The evaluation methods of HIV/AIDS education in Chinese universities

To evaluate HIV/AIDS education in Chinese universities, instructors and experts from HIV/AIDS Education Departments organized many kinds of evaluation activities. One of the most famous evaluation methods is Knowledge, Attitudes, and Practices (KAPs) test. KAPs test has been used in many universities as a pretest method when organizing HIV/AIDS education. Yu et al (2015) organized KAPs test as a pretest before conducting HIV/AIDS education among university students in Chengdu city. The test results displayed that the KAPs level between medical students and non-medical students had a significant difference, and the attitudes and practices level of all students had to be improved. Another pretest which was applied by He et al (2016) announced that the undergraduate students have poor knowledge of HIV/AIDS and a low level of safe sex practices. Wang (2015) evaluated HIV/AIDS education and safe sex education needs among a group of university students. He agreed that Chinese university students were lacking knowledge about HIV/AIDS and they prefer to learn safe sex knowledge through plenty of resources. Yan et al (2016) highlighted that KAPs of HIV/AIDS among graduated students had to be enhanced when they tested 309 graduated students in Shanghai city by questionnaires. The research results displayed that the KAPs level of HIV/AIDS between undergraduate students and graduate students were not significantly different. The researchers suggested sexual health education and HIV/AIDS education should be organized to not only the undergraduate students but also graduated students and foreign students.

In addition, applying KAPs test is also popular in the other countries when conducting evaluation activities toward HIV/AIDS education program. For instance, Reis et al (2011) evaluated the effects of sex education in promoting sexual and reproductive health in Portuguese university students by applying questionnaires to 3278 students. The results showed high-risk behavior rates among students who had sex education were decreased. Nubed and Akoachere (2016) evaluated the KAPs level towards HIV/AIDS of senior secondary school students in Cameroon. The findings showed that people with adequate knowledge were more likely to

display positive attitudes towards PLHIV, but it does not mean that they will always follow safe sex practices.

The evaluation results show that some of the HIV/AIDS education patterns in Chinese universities significantly improved the HIV/AIDS-related knowledge of university students (Liang, 2017; Lv and Peng, 2014; Quan, et al, 2018). First of all, the students' knowledge, attitudes about HIV/AIDS prevention and their condom use rates have improved after HIV/AIDS education. For instance, Liang (2017) claimed that after HIV/AIDS education by microfilm model, the evaluation of the freshmen in a university reflected that the awareness rate of HIV/AIDS-related knowledge of the microfilm group increased significantly and the attitude rates of "to show a spirit of inclusion to homosexuals" had significantly improved. Lu and Zhao (2016) also mentioned that using role-play in HIV/AIDS education could encourage all the students to participate in acting and watching, which could improve their desire to learn during the acting process.

It could be seen that the KAPs test is a valuable evaluation method in HIV/AIDS education. By applying the KAPs test, the evaluators could have a general understanding of what the students need to learn and what did they learn in the HIV/AIDS education. It could assist the educators to revise and put forward a better HIV/AIDS education method. However, if the researchers would like to explore the factors, reasons, and backgrounds which affect the attitudes and practices among university students, interviews would be highly suggested for the study.

Research Design and Methodology

This study follows a qualitative approach applying single-case study strategy. According to the answers of philosophy and research questions proposed by Maykut and Morehouse (1994), the researchers need to collect multiple forms of evidence by using the actual words from different individuals, the researchers needs to develop a good relationship with the participants when conducting qualitative research.

In this study, the purpose is to understand the evaluation methods and results of HIV/AIDS education in a selected Chinese university. The suitable data collecting techniques employed in this study would be in-depth interview. Hennick et al (2011) summarized that the objective of qualitative research is to gain a detailed understanding of underlying reasons; the data in qualitative research are words collected by in-depth interviews. Creswell (1998) suggested to apply single-case study strategy when developing an in-depth analysis of a single case or multiple cases. Yin (2014) agreed that single-case study strategy is an appropriate strategy if the case is a critical, extreme or unusual, common, revelatory, or longitudinal case (Yin, 2014). In this study, the selected Chinese university is a critical single-case because it received an award in HIV/AIDS education.

Participants

The sampling methods in this research includes purposive sampling and snowball sampling. In qualitative research, the researcher chose the participants based on the belief that they were experts in their workplace and they could provide valuable information (Marshall and Rossman, 2011). Purposive sampling method allows the researchers to identify informants who could provide rich information (Johnson and Christensen, 2004). Snowball sampling method helps the researchers to link one participant to the next (Given, 2016). In this study, doctors from university hospital, health education teachers and students who received HIV/AIDS education are considered as the people who can provide rich information. Therefore, the participants have been selected by the following criteria: 1) they should be instructors who undertake HIV/AIDS

education activities to university students; 2) the selected students should have well received HIV/AIDS education.

In this study, the researcher stopped recruiting new participants until the information became repeat data. The participants include: one doctor in the university hospital, six health education teachers, as well as nine students in grade 4.

Data collection instruments

In this study, the interview guide of the in-depth interview has been designed following these steps (Patton, 1990; Maykut and Morehouse, 1994; Berg, 1998): a) make a list of their research questions; b) write down research objectives reviewing the relationship between each research question; c) review related literature to see some variables or useful interview questions; d) consider how each research question could be generated into behavior questions, opinion questions, feeling questions, sensational questions, knowledge questions, demographic questions; e) think about whether each interview question includes essential questions, extra questions, throw-away questions and probing questions; f) get all interview questions checked by technique experts, other researchers or people sharing similar characteristics to the target participants; g) practice using the interview guide with people who share the same characteristics with the target participants before going to do the fieldwork.

Data collection process

The researchers has collected data with the following steps that are suggested by Creswell (1998): Gaining access and making rapport with the gatekeeper and participants. In order to get permission from a selected university, the researchers visited the university president to present the official document from Burapha University, the objectives and the planning details of this research. When the researchers got the permission, they contact the potential participants by email to ask for their willing to join this study. The researchers applied purposive sampling and snowball sampling to collect data. Before interview, the researcher made appointments with the participants at a convenient time and place. During the interview, the researcher used audio recording device and mobile phone to record the conversation. The audio recording device and mobile phone have been used to record the conversation. The researcher spent around 45 to 60 minutes to interview each participant privately. After interviews, all data were stored in a confidential format in the computer.

Data Analysis

The data analysis approach in this study is conventional content analysis. Hsieh and Shannon (2005) suggested that conventional content analysis is generally used with a study design whose aim is to describe a phenomenon. When using conventional content analysis, relevant research findings are addressed in the discussion section. ATLAS.ti was applied as the computer-assisted tool to manage and analyze the data. The steps of case study data analysis followed suggestions given by Marshall and Rossman (2006), Yin (2011), and Creswell (1998): step 1 transcribing interview conversations into text formats; step 2 applying ATLAS. ti software to code the "level 1" data as close as the original ideas of the participants; step 3 classifying the codes into different themes and explaining each theme in longer sentences; step 4 summarizing themes into categories and developing a theoretical construct; step 5 comparing and recoding the categories and themes; step 6 describing the case and its context directly and develop generalizations based on research objectives.

Trustworthiness

To ensure the quality standards in qualitative research, this study employed these trustworthiness criterions: 1) spending around 60 minutes to interview each participant privately

and develop a good rapport with the participants. It is believed that spending hours interviewing participants, and then revisiting participants could help the researcher to develop a good relationship and trust with the participants (Prasitrathasin, 2011). 2) collecting data from different instructors and students. As explained by Creswell and Miller (2000), “*Triangulation is defined to be a validity procedure where researchers search for convergence among multiple and different sources will be employed and exercised in this study of information to form themes or categories in a study*” (p.126). 3) providing detailed information explaining how the study is conducted. Shenton (2004) agreed that qualitative researchers need to enhance the level of transferability by providing readers with descriptive data. 4) presenting findings together with similar outcomes found from other related studies, Shenton (2004) claimed that presenting findings similar shown in previous related studies could examine the research. and 5) including verbatim in the final report to present the voices of participants. According to Jonson and Christensen (2004), “*When writing the research report, using many low-inference descriptors is also helpful so that the reader can experience the participants’ actual language* (p.252).”

Ethical Protocol

Shenton (2004) explained the researchers should ensure the participants willing to take part in the project and acknowledging their right to withdraw from the study.

Lincoln and Guba (1989) highly recommended qualitative researchers to ask their participants to read through transcripts, dialogue or findings presented in the report to review if the researchers have correctly interpreted their meanings or messages.

To prevent potential bias and harm in this study, the researcher used the following items of ethical consideration.

1. Getting approval of research design, methods and data collection instruments from the EDU ethical research committee.

2. Explaining the research objectives, research design and informants’ rights to participates, as well as their rights to withdraw from the study. Only the informants who accept to join the study became the participants of this study.

3. Before the interview, the researcher formally introduced herself, explaining the objectives, research design and the rights of participants to refuse to answer some questions.

4. The researcher asked for permission to record the interview and confirm to them that no one except the researcher would listen to their voices.

5. After coding and analyzing the information, the researcher sent the findings section of the full paper displaying all quotations to the participants to request them to check the accuracy.

Research results

Table 1 Research Finding

	Codings of research question one	Codings of research question two
Themes	<ul style="list-style-type: none"> ● Receiving evaluation from HIV/AIDS-related departments in Yunnan province ● Being evaluate by HIV/AIDS education team in the university 	<ul style="list-style-type: none"> ● The KAP level of HIV/AIDS of the students ● The effects to university and students

Table 1 Continued

	Codings of research question one	Codings of research question two
Categories	<ul style="list-style-type: none"> ● Receiving evaluation from the Education Department and the HIV/AIDS Association ● Observing the reaction of students during HIV/AIDS lessons and activities ● Interviewing students about HIV/AIDS lessons and activities ● Using questionnaires to test KAPs level toward of the students 	<ul style="list-style-type: none"> ● The increase of knowledge rates of HIV/AIDS of the students ● The changes of attitude toward HIV/AIDS of the students ● The increase in the number of HIV/AIDS test rates of the students ● Students positively participate in HIV/AIDS related activities ● Receiving a list of awards of in HIV/AIDS prevention and education methods

Addressing research question one “How does a selected university evaluate the success of its HIV/AIDS education activities”?

To evaluate the HIV/AIDS education in a selected university, experts from departments related to HIV/AIDS education have been send to supervise the process of HIV/AIDS education. The HIV/AIDS education team in this university applied classroom observation, KAPs test, interviewing students and students’ assignment as the assessment methods.

1) Receiving an evaluation from departments related to HIV/AIDS education in Yunnan province

To evaluate the HIV/AIDS education activities in this university, departments related to HIV/AIDS education in Yunnan province, such as the Education Department and HIV/AIDS Association send people to supervise the process of HIV/AIDS education. According to “*the evaluating report of HIV/ AIDS education and drug prevention (2018)*” from the Education Department of Yunnan province, the evaluation team consisted of experts from the Medical University and Yunnan Normal University. By applying qualitative and quantitative research methods, the evaluation team observed the construction and equipment in Yunnan Normal University; checked the policies, teaching/ activity arrangements and education reports of the HIV/ AIDS education; interviewed teachers in the HIV/ AIDS education and prevention team. There are some examples of quotations below: //...*There has some survey and evaluation in the Education Department of Yunnan province. The education department would send some persons to supervise HIV/AIDS education in our university...T3//...For example, the Education Department and the HIV/AIDS Association evaluated our work. They mainly evaluate our publicity and education works. We have to make reports of our works in the whole year...T6//*

2) Using observation, assignments, interviews and questionnaires as the evaluation methods by HIV/AIDS education team in this university

The assessment methods of HIV/AIDS education team in this university are as follows: Firstly, observing the reaction of students during HIV/AIDS lessons and activities. The activity format would be updated every year. This depends on the number of students participating in the activities. Secondly, collecting feedback about satisfaction levels toward HIV/AIDS lessons and activities through interviews and assignments of the students. For example, the doctor who conducted sexual health courses asked students to write their feelings toward a class, as well as their suggestions for this course. Thirdly, evaluating KAPs level about HIV/AIDS of the students by applying questionnaires. Fourthly, the Mental Health Center conducted an interview event about the students' knowledge toward HIV/AIDS, as well as their practice level of safe sex and the usage rates of blood test kits. More than 100 students participated in the interview event. When asked how the *instructors* evaluate their knowledge of HIV/AIDS, the students highlighted that during Sexual Health Course, they have to submit assignments based on what they learned in the class, attending KAPs test and Q&A competition, and sharing their suggestions about this lecture with the teachers. The quotations could be reviewed below:

//...During the Situation and Policy course, the instructor used to organize an online test about HIV/AIDS knowledge and attitudes among university students...T4//...Every year, we make some improvements based on the responses and feedback of students. ...T2//...The university has students survey every year and then asks the them to submit an assignment, then listen to students' feelings and suggestions...St6//...We have to do questionnaires before class. After class, we have to attend Q&A competition and share our feelings...St9//

Addressing research question two “What are the evaluation results of HIV/AIDS education in a selected university”?

The evaluation results of HIV/AIDS education activities in a selected Chinese University are outstanding. Firstly, the university has received a list of awards of in HIV/AIDS education and prevention. Secondly, the KAPs level among university students have been significantly improved.

1) Receiving a list of awards of in HIV/AIDS education and prevention

First of all, this university received a list of awards of HIV/AIDS-related activities in the past years, including the Best Organization of HIV/AIDS Prevention in Yunnan Province, the first prize of Curriculum Design Competition in Yunnan Normal University. Several students won the first prizes in the National TV Speech Contest of HIV/AIDS, the National Teaching Ability Competition in HIV/AIDS Education, and the National Science and Technology Works Competition of University Students. When undertaking a project promoting HIV blood test kit in universities, this normal university also received several praise. As a university that received many awards, this university was invited to do a presentation at the Chinese HIV/AIDS Academic Conference. The evidence could be reviewed below: *//... We received a lot of praise in a project of promoting HIV blood test kit in universities. Our education team was invited to do a presentation at the Chinese HIV/AIDS Academic Conference...T6 //... We received a list of awards, such as the Best Organization of HIV/AIDS Prevention in Yunnan Province, the first prize of Curriculum Design Competition in Yunnan Normal University. ...T5//*

2) Improving the KAPs level among university students

The evaluation results of the KAPs level among university students proved that HIV/AIDS education in this university positively affects students. The knowledge level about HIV/AIDS of students has been increased after they attended HIV/AIDS education. The students' attitude towards people who live with HIV/AIDS, HIV/AIDS epidemic situation, the transmission ways of HIV/AIDS and safe sex has been changed. They prefer to practice safe sex

and they would always express their respect of people who live with HIV/AIDS. With the health awareness of students having increased significantly, the number of students who actively ask for counseling, participating in HIV/AIDS-related activities, such as blood testing has been positively increased. For instance, peer education groups include more than one thousand volunteer students in recent years. At the same time, they realized the importance of safe sex practice. They would insist on safe sex practices after education. Some quotations can be reviewed below:

//...I had an experience of HIV/AIDS activity before. I remember that there might be more than 100 people in the classroom, but not many people would like to join in the blood test. After education by the instructor, 30% of people test themselves...St5//...Our knowledge of safe sex has improved, attitudes towards people living with HIV/AIDS has been changed, and the use of condoms has become more frequent...St4//...For safer sex, it is always important. Then, I think I will not show discrimination to people living with HIV/AIDS, I will treat them just like ordinary people...St7//

In conclusion, evaluation is the way to know the success of a program/ courses/ activities. There are two ways to evaluate the success of HIV/AIDS education program in a selected university. The first way is receiving an evaluation from departments related to HIV/AIDS education in Yunnan province. The second way is using observation, assignments, interviews and questionnaires as the evaluation methods by HIV/AIDS education team in this university. The evaluation results show that the selected university is excellent in HIV/AIDS education and prevention. For instance, this university received a list of awards of HIV/AIDS-related activities in the past years. The number of students who attended blood tests have been increasing. The results of questionnaires show the KAPs level of the students have been significantly improving.

Discussions

The research results and the achievements can be discussed below:

1) To evaluate the success of HIV/AIDS education program in a selected Chinese university, multiple evaluation methods have been applied to evaluate the effectiveness in terms of performance, learning, and satisfaction. The experts in the Education Department and HIV/AIDS Association of Yunnan province supervised the processes of HIV/AIDS education. The participants emphasized that the evaluation methods in the university include submitting assignments; answering questionnaires, as well as attending Q&A competition and interviews.

By comparing with relevant research, it could be seen that applying questionnaires to test KAPs is the common method for evaluating HIV/AIDS education in Chinese universities. Chen et al (2015) applied questionnaires to test the KAPs level of university students before and after sexual health and HIV/AIDS education. Huang et al (2016) tested the KAPs about HIV/AIDS among university students of 15 provinces and cities. Feng et al (2016) used questionnaires to compare the KAPs about HIV/AIDS of students in two medical universities.

Moreover, KAPs test also has been frequently applied as pretest methods in HIV/AIDS education. For instance, Peng et al (2014) evaluated peer education of HIV/AIDS in five universities. The evaluation results suggested that applying peer education could effectively increase the KAPs of HIV/AIDS among university students, reduce their fear and discrimination towards HIV/ AIDS, and supported the volunteer students to be well-trained peer educators in HIV/ AIDS education. He et al (2017) agreed that the KAPs of HIV/AIDS among university students were significantly increased after peer education. The researchers highlighted that peer education is a practical and effective education method when conducting HIV/AIDS and safe sex education. Quan et al (2018) also conducted KAPs test at the end of HIV/AIDS education. The

research results showed that peer education had been an effective education method in promoting HIV/AIDS education in Chinese universities.

2) The evaluation results displayed that a selected university successfully achieved the goals of HIV/AIDS prevention of the Education Department in Yunnan province. The university received a list of awards in HIV/AIDS education and prevention. The knowledge and attitudes towards HIV/AIDS, as well as the safe sex practices among university students have been increased.

As Liang (2017) and Lv (2014) mentioned in their studies, the knowledge, attitudes toward HIV/AIDS prevention and the condom use rates among university students have been improved after HIV/AIDS education. Furthermore, the students who ask for consulting have significantly improved (Quan et al, 2018). According to the previous researches, it is hard to improve the attitudes towards safe sex and HIV/ AIDS. As a result, the practice rates of safe sex were difficult to be improved. Currently, there was very little research which applied a qualitative research method to evaluate HIV/ AIDS education. However, interviews and assignments provide the teachers with the chance to listen to the students' voices, to understand the reasons behind their opinions, and to hear their suggestions. The voices and suggestions could assist HIV/ AIDS educators to put forward more effective teaching methods.

3) In addition, the students in this study also provided some suggestions to the researcher about HIV/ AIDS education at Yunnan Normal University. For one thing, this university should make HIV/ AIDS education as long-term education. It means the university should organize HIV/AIDS education activities more frequently, as well as offering blood test activities on the campus. For another thing, the teaching content should concentrate more about helping students to set up healthy awareness and lifestyle than repeating the scientific knowledge of HIV/ AIDS. Furthermore, the HIV/ AIDS education and prevention team should figure out different teaching methods to motivate students to participate in HIV/AIDS education activities. Then, last but not least, the university should enhance HIV/AIDS activities publicity so that the students would be better informed about these activities in advance.

Conclusion

In conclusion, by studying the evaluation methods and results of HIV/AIDS education in a selected university, the researchers found that the selected university have to receive evaluations from the experts team in Yunnan province. The HIV/AIDS education team in this university applied classroom observation, questionnaires, interviews and students assignment to analyze the effects of HIV/AIDS education. The research results also show that the KAPs level among university students have been significantly improved. Moreover, applying questionnaires to test KAPs is the general evaluation methods in HIV/AIDS education, and applying interviews could assist the educators to develop a deeper understanding of the opinions and suggestions from the students. In addition, the students offered some effective suggestions to enhance HIV/AIDS education. The suggestions would also available for other universities to develop their HIV/AIDS education program. The researchers believe that following the evaluation methods of HIV/AIDS education in an excellent university which could be valuably used as a guideline for the other universities to consider new revision of their education plans in HIV/AIDS education.

Recommendations

This case study was undertaken not only to understand the education methods and results of HIV/AIDS education in an outstanding university, but also to expand possible benefits that may be derived from the findings in this study. Some potential research that could be recommended:

Firstly, the target students of this research only include undergraduate students in a selected university. The students who participated in this study are undergraduate students in grade 4. The researcher believes that it is necessary to organize some studies exploring how to increase sexual health attitude and safe sex practices among foreign students and postgraduate students in Chinese universities. According to Shen, et al (2015) and Yan, et al (2016), the KAPs level of HIV/AIDS among foreign students and postgraduate students in Chinese universities were not higher than Chinese undergraduate students. With the number of foreign students and postgraduate students increasing fast in Chinese universities, the researchers believe that it is very important to explore the effective education methods of sexual health and HIV/AIDS education among foreign students and postgraduate students.

Secondly, this study only focus on the evaluation phase in HRD process. HRD aims to improve the performance of individuals and organizations. The subsets of HRD include personnel training and development (T&D) and organizational development (OD). To accomplish the HRD process in this university, the researcher highly recommended some research related to analyze, feedback, plan, develop, and implement in HRD process should be organized in the future.

Thirdly, when applying interview and observation techniques to collect data in this study, the researcher realized that listening to the voices of students and observing their reactions in the class are effective methods to evaluate HIV/AIDS education in Chinese universities. Using interviews could provide more opportunities for students to share their opinions and suggestions and observation could assist the researcher to know the education effects directly. Therefore, when exploring suitable education methods or evaluating teaching results, interview and observation are highly suggested as the data collection method in qualitative research.

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