

USING BLOCK CURRICULA: A NEW APPROACH TO IMPROVE HIV AND AIDS PRE-SERVICE TRAINING IN HAI PHONG – VIET NAM

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ABBREVIATIONS

HP	Hai Phong
MC	Medical College
MU	Medical University
HIV/AIDS	Human Immunodeficiency Virus /Acquired immune deficiency syndrome or acquired immunodeficiency syndrome
SOW	Scope of Work
KAS	Knowledge, Attitudes and Skills
PI	Pathfinder International
SMS	Secondary Medical School
SBIRT	Screening, assessment, brief intervention, referral and treatment.
MOH	Ministry of Health.
MCQ	Multiple Choice Question
TU	Technical Update
NGO	Non-Government Organization
VCT	Voluntary Counselling and Testing
IUD	Intravenous Drug User
PAC	Provincial AIDS Control Committee
RH	Reproductive Health
PLWHA	People Living With HIV/AIDS

SUMMARY

Introduction: *Hai Phong has the highest HIV prevalence rates in Viet Nam. Most of newly infected HIV cases in Viet Nam are IDUs. Currently curricula for medical and nursing students are primarily theory-based, taught in a highly fragmented fashion and have limited HIV/AIDS content. As a result, graduated students face difficulty in responding to the needs of HIV-related services in general health settings.* **Methods:** *Since 2007, Pathfinder International/Viet Nam supported the development and implementation of comprehensive, skills-based curricula for HIV/AIDS care and treatment services at Hai Phong Medical University (MU) and Medical College (MC). Technical assistance includes development of HIV/AIDS curricula, technical updates, and establishment of and strengthen practicum sites at teaching hospitals and within the community.* **Results:** *Three- and four-week rotations were designed and used in both Hai Phong MU and MC. Feedback received from nursing and medical students in the 2008-09 and from teachers and preceptors was used to improve curricula. To date, 384 medical and 659 nursing students have been taught newly revised HIV/AIDS curricula. Scores analysis showed that knowledge levels of students improved significantly. From 53.5% to 89% in general HIV/AIDS, from 32.5% to 81% in drug abuse among nursing students at baseline and end-rotation assessment are examples.* **Conclusions:** *(1) comprehensive skills-based curricula allow students to practice HIV/AIDS care, treatment, and counseling skills, work directly with, understand the issues and counseling needs of IDUs and PLWHA and therefore their knowledge, attitude and skills improved, (2) remaining challenges include time and coordination limitations of instructors to train on HIV/AIDS related clinical skills.*

Key words: *Medical Education, HIV/AIDS, Curriculum, Pre-service training, Medical students, Nursing students*

1. Introduction

Vietnam is among the countries that have the fastest growing HIV pandemics in the world. Figures for Vietnam show HIV infection rates of more than 20 percent among injecting drug users in most provinces. Disturbingly, the high rates of HIV infection among sex workers previously noted in the south of the country have now been found in the north (15 percent of sex workers in Hanoi are estimated to be HIV-positive). HIV cases have been reported in all 64 provinces, with the highest infection cases in Ho Chi Minh, Ha Noi, Hai Phong, Son La and Thai Nguyen. Among other reasons, intravenous drug use continues to be the major contributor to the rapid spread of the disease. All health facilities, at the grassroots, provincial and central levels, have encountered HIV/AIDS patients, and in the future, health facilities will receive a growing number of HIV/AIDS cases.

Hai Phong is one of the biggest cities in Vietnam and has one of the highest HIV infection rates in the country. According to the statistics reported by the Hai Phong

Department of Health, as of July 20, 2007, there are 8,236 persons living with HIV/AIDS, among whom 3,829 have progressed to AIDS (comprised 46.82% of HIV positive cases). There have been 2,579 deaths (69.83% of AIDS patients). All 100% of communes reported having people living with HIV/AIDS in their localities. There is growing concern in Hai Phong of a generalized epidemic, given the rising proportion of HIV positive women (representing 10.5% of 100 cases in 2000 and 34.2% in 2006/7). Injecting Drug Users (IDUs) represent 61% of all HIV positive individuals in Hai Phong. HIV infection among sex workers is highly correlated with injecting drug use. Among street-based sex workers in Hai Phong, only 3% of sex workers without a history of injection are HIV positive compared to 55% of those who have ever injected.

To fight the epidemic, a concerted and coordinated effort is required of all sectors, including government and non-governmental agencies, mass organisations, academic and research institutions, and the society as a whole. The training and education sector, especially medical education and training institutions, will play a key role through the contribution of trained/graduated doctors, nurses and midwives, pharmacists, and other concerned staff.

Building on its extensive experience with medical education reform in Viet Nam, Pathfinder International has implemented a project entitled HIV Prevention in Pre-service Training: Building a Comprehensive Curriculum at Hai Phong Medical University and Medical College with Potential to Scale up to Eight Medical Faculties in Vietnam. The objective of this project has been to provide high quality, technically sound, skills-oriented HIV prevention education, with a focus on substance abuse prevention, relapse prevention and addictions counseling in Hai Phong Medical University and Secondary Medical School. The project is expected to have two Intermediate Results, including the production of an HIV prevention education curriculum for Medical University and Secondary Medical School, and a supportive policy environment for curriculum uptake on a wider scale.

The evaluation was conducted in both HP MU and MC, after two years of project implementation with the following objectives:

- To evaluate the KAS of faculty members and preceptors (health staff involved in teaching students) of the two schools who were involved in teaching the HIV/AIDS block curricula in comparison with the findings of the baseline survey, and in comparison with required HIV KAS.
- To evaluate the KAS of students who recently completed the HIV/AIDS blocks in both Hai Phong MC and MU, in comparison with related findings of baseline survey, and in comparison with required HIV KAS.
- To describe the current curricula and teaching/learning materials used for HIV/AIDS block teaching.

- To evaluate the roles of clinical and community field teaching sites to provide an effective environment for HIV/AIDS teaching.

Comment on the sustainability of the project's achievements in HP MU and MC and the possibility to scale up the curricula to other medical schools in Vietnam.

2. Methods

2.1. Qualitative study

A number of qualitative research methods were utilized to maximize the rigor and quality of information. The team conducted in-depth interviews with 31 stakeholders, one focus group discussion with eight nursing students and one focus group discussion with eight medical students. The evaluation team also observed the teaching/learning environment.

In-depth interview: 31 in depth interviews were conducted at the two schools with senior managers and faculty. Preceptors and managers of practicum sites were interviewed at their own institutes.

Focus group discussion: two focus group discussions were conducted, one with eight medical students and one with another eight nursing students, who had studied or had been studying HIV/AIDS prevention and substance abuse subjects.

Observation: the evaluation team directly observed the working and teaching environment of all visited practical sites and classrooms to supplement information from interviews and observed two MC teachers' theory teaching in lecture halls.

Literature review: the following project documents were reviewed: teaching plans, training materials, project documents, MU and MC reports of project implementation activities, bulletins during the evaluation process and reports from PI on this project.

2.2. Quantitative study

For the quantitative assessment, a self-administered questionnaire was used to assess the knowledge and attitude of students and teachers participated in this survey. All interviewed teachers who taught the HIV/AIDS curricula were asked to fill in the questionnaires.

51 second year nursing students in the MC and 39 sixth year medical students in the MU were selected randomly from the previous year's class of students. This survey was used to measure a change in the KAS of students, teachers and preceptors between the results of the baseline survey and the end of the project. All teachers of the MU and the MC who teach theory or/and practice in this topic and were available at the time of the evaluation, were invited to participate in the evaluation. In total, there were six MC teachers and five MU teachers.

3. Results

Table 1. *Outputs summarized from each element of the project*

Elements of project	Outputs from HIV/AIDS prevention project
Curriculum development	<p>A list of required KAS for HIV/AIDS prevention was developed for both medical and nursing students</p> <p>Two HIV/AIDS curricula (including drug abuse) covering 25 lessons in 4 weeks for medical students and 11 lessons in 3 weeks for nursing students were finalized and published.</p> <p>Curricula were approved and disseminated to all faculties, submitted for approval from MOH</p>
Technical updates	<p>178 turns of faculty, teachers and preceptors of both schools received technical updates and strengthening their teaching capacity (on HIV/AIDS topic and teaching/learning methods). Topics include:</p> <ul style="list-style-type: none"> +on drug and substance abuse, +HIV prevention, communication strategies against stigma and discrimination, +adolescents and HIV, substance abuse amongst adolescents, effective intervention when working with adolescents, +screening techniques for alcohol and drug use, brief intervention, and referral and treatment (SBIRT).
Field teaching sites upgraded	<p>Expand field teaching sites: 19 practicum sites for both schools.</p> <p>9/12 selected field teaching sites for both schools have been supported equipment for teaching and learning</p> <p>23 preceptors have been updated with knowledge and skills practiced at those sites</p>
No. of students studied HIV/AIDS block	<p>Year 2008-09: 123 medical students of MU, and 297 nursing students of MC</p> <p>Year 2009-2010: 259 medical students of MU, and 362 nursing students of MC (As of Mar 2010)</p>
Ethic curriculum development and	<p>The ethics curriculum has been finalized and was first used in school year 2008-2009.</p>

teaching	Year 2008-09: 259 medical students learned ethics curriculum. Year 2009-2010: 225 Y5 medical student have been taught with this curriculum.
Other teaching learning materials	Multiple methods are applied In Hai Phong Medical University, there are 425 questions totally developed. Hai Phong MC has developed 175 question

3.1. Baseline Assessment and dissemination of the findings

In 2007, before the implementation of this project, a baseline assessment was conducted to measure the existing situation of teaching and learning on HIV/AIDS related topics. Key gaps that were identified, include:

- Students of both schools were found to have very limited knowledge of HIV/AIDS, especially related to drug abuse, addiction and relapse.
- Almost all faculty members who taught HIV-related topics had participated in HIV/AIDS training courses, but their knowledge and skills varied considerably. Traditional teaching methods such as lecturing were the main methods used by faculty members of both schools. Practice on counseling skills was mainly through observation.
- The HIV/AIDS curriculum of these institutions focused mainly on theory, with little information about prevention and care related to drug abuse, relapse prevention or counseling skills. HIV/AIDS topics were taught across different departments, but no close linkage existed to allow for a comprehensive program. Students had a very short practicum rotation in the infectious disease department of the Viet Tiep Hospital, where they were exposed to the practice of care and treatment for people living with HIV/AIDS.
- Practicum sites were not diversified and had limited facilities. The staff typically has no up to date technical knowledge.

3.2. A new teaching module developed

A list of essential KAS in HIV/AIDS, drug abuse, addiction and relapse was developed. Based on this list, the faculty members of the two schools developed comprehensive HIV/AIDS prevention curricula (including drug abuse) covering 25 lessons for medical students and 11 lessons for nursing students. Both schools agreed to teach the HIV/AIDS curriculum as a block curriculum, devoting 4 weeks at HP MU and 3 weeks at HP MC. Block teaching allows for a more logical construction of curricula

and a more intense learning experience. The block curriculum also includes clinical practicum time in hospitals and time spent in the community. Up until the evaluation in early 2010, the curricula were taught twice, to total of 969 students who received training in this new topic.

The work overloading of teachers was mentioned as a challenge by interviewees; however, the teachers have recognized the benefit of being involved in the project activities. For example

“We have to work hard to prepare our teaching/learning materials, but this is a good opportunity for us to be retrained in active teaching methods and improve our skills to prepare teaching and learning materials as well as active teaching skills” MC Teacher.

The strong commitment of the leaders of both schools toward the training program is an essential element for the success of each project. In addition, the involvement of the training departments in arranging the modules contributed to the project’s success.

The content of the module was considered by teachers and preceptors of both schools to be appropriate and necessary for medical and secondary nursing students. The structure of the modules provided comprehensive and systematic learning in HIV/AIDS prevention and substance abuse. However, teachers and training managers of HP MU recognized that there was a minor overlap of this module with infectious and Tuberculosis subjects in some topics. This problem did not occur in the MC because related topics were removed from the teaching plans.

“This module provides comprehensive contents on HIV/AIDS, which is useful preparation for students for their future careers.” – MU Teacher

“I like this module. It includes all the knowledge and skills from virology to prevention to treatment. It is easy for us to understand and apply in our practicum.” – MU student

The effectiveness of this module was proved by the test results on KAS of HIV/AIDS topics before and after the intervention. Students attained a significantly higher grade compared to the same tests done before the intervention (see “Impact on Students” for details).

3.3. Establishing new practicum sites

The use of block teaching in the HIV/AIDS module is new to the two schools. The module is quite different from other subjects, which focus only on hospital or community practicum sites, because this module includes theory and practical lessons in hospitals and at community sites. Practical lessons in hospitals were organized in the two current practical hospitals of schools – Infectious Department of Viet Tiep General

Hospital and Hai Phong Tuberculosis. Some criteria used for selecting the hospitals to become a clinical practicing site include not being a great distance from the MU, having enough patients for teaching/learning, meeting the minimum equipment requirements and the willingness of staff to receive and train students.

At the community level, the two schools have communicated and jointly established some new practicum sites in HIV/AIDS clinics, and health centers. There are 19 practicum sites for both schools. These sites provided necessary skills for students in this module such as counseling before and after informing laboratory test results, communication with HIV/AIDS patients and drug users, household visits and so on.

3.4. The technical/teaching capacity of teachers had been improved through technical updates on HIV/AIDS topics and teaching methods

3.4.1 Increasing and updating knowledge of teachers

A series of technical updates related to HIV/AIDS and active teaching methodologies were organized for 178 faculty members who were involved in teaching the HIV/AIDS block at both schools. The topics that were covered included: substance use and abuse, HIV prevention and communication strategies to address stigma and discrimination, understanding of adolescents with HIV and adolescent substance use, effective interventions in working with adolescents; and principles and techniques of alcohol and substance abuse screening, brief intervention, referral, and treatment (SBIRT), as well as critical skills to work with students such as coaching, providing feedback, supervision skills and skills to support students during their learning at community practicum sites.

Results from self-administered questionnaires for teachers’ knowledge on HIV/AIDS prevention and substance abuse revealed that after two years of project implementation, the teachers’ knowledge has increased significantly.

At the beginning of project, the teachers’ knowledge on HIV/AIDS prevention and counseling was low; few of them could correctly answer topic-related questions, but their knowledge after the intervention increased, particularly related to counseling and HIV/AIDS prevention.

Table 2. Changes of participating teachers’ knowledge on HIV/AIDS

	Baseline survey	Final Evaluation
	(n=12)	(n=11)
What type of cell in the body does HIV attach to?		
• Correct answer	6	11

<ul style="list-style-type: none"> • Incorrect/ NA 	6	0
What is the lifecycle of HIV?		
<ul style="list-style-type: none"> • Correct answer 	4	10
<ul style="list-style-type: none"> • Incorrect/ NA 	8	1
What are the risk factors of HIV?		
<ul style="list-style-type: none"> • Correct answer 	6	9
<ul style="list-style-type: none"> • Incorrect/ NA 	6	2

3.4.2. Improve teachers' teaching skills

During the courses on active teaching methodologies, 41 teachers learned how to teach HIV/AIDS prevention in an active way, making students the center of the learning experience environment. Teachers were asked to prepare their presentations and perform trial teaching. Thorough guidance by international consultants as well as the PI group, together with comments from peers was said to help teachers apply new teaching skills more effectively. None of the participating teachers reported difficulties with teaching this module. However, the application of new theory teaching methods was limited at the MU due to large numbers of medical students in each class.

Overall, the updates and training courses were highly appreciated by the teachers involved. Junior teachers felt that they could gain significant knowledge and skills, which were new to them, while more senior teachers felt that these courses brought new and updated knowledge on HIV/AIDS prevention.

Table 3. Teachers' self-assessment on their teaching capacity

Contents	Baseline survey	Post-intervention
HIV/AIDS teaching capacity (%)		
Good	39.4	9.1 (1/11)
Very good	32.5	72.7 (8/11)
Excellent	9.8	18.1 (2/11)
Improvement in teaching methods (%)		
Good	28.5	9.1 (1/11)
Very good	35.7	81.8 (9/11)
Excellent	3.6	9.1 (1/11)

A good example of improved teaching skills, reported by students in focus group discussions, was the application of new technologies (power point presentations) with

good illustrated pictures, and of the seminars with real HIV/AIDS patients and drug-addicted people. The students' comments are in line with those of the evaluators who observed class teaching. Two teachers of the MC were observed during their theory teaching. They had well-prepared hand-outs and power point presentations. The lectures were clear and easy to understand with time set aside for questions.

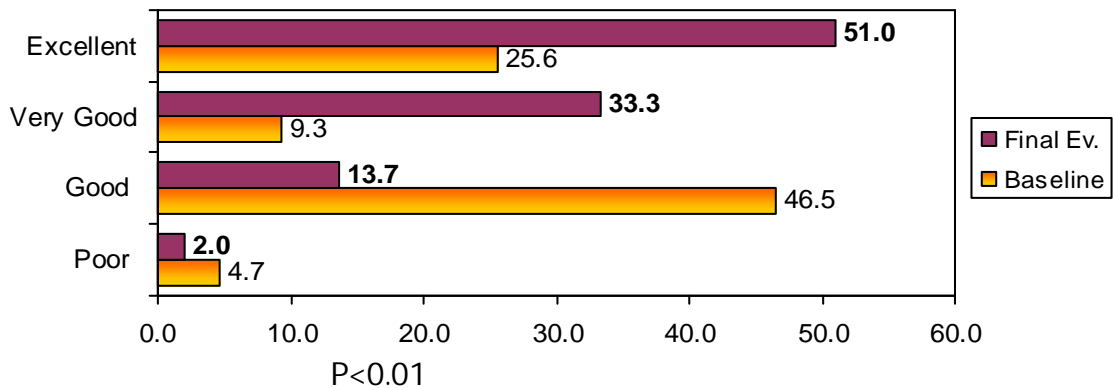


Figure 1. Students' feedback on HIV/AIDS teaching before and post-intervention of project in HP MU & MC

3.4.3. Attitude towards teaching the HIV/AIDS module

One of the essential findings is that most teachers recognized the importance of new module and thought that it was very necessary for medical and nursing students to learn and prepare for their future career. They were enthusiastic to participate in necessary activities to create and implement the new module. However, while teachers of the MU recognized the benefit for their career, some teachers in the MC said that it brought a greater burden of work for them as they had to prepare lessons and develop training materials throughout the process.

"I enjoyed this project. We attended a lot of training courses and workshops... I cannot remember names of all of them. We obtained the knowledge and skills in teaching and coaching students, the teaching/learning materials have been revised and modified many times, it is time consuming but the documents' quality becomes better with every revision and modification" MC Teacher.

3.4.4. Coaching skills

With support from this project, both the MU and the MC expanded their HIV/AIDS clinical teaching for their students to many field teaching sites in addition to their teaching hospitals. These HIV/AIDS related teaching sites have received support from different projects and therefore they have capable staff, some equipment and sufficient client load for students to practice with.

The preceptors of these field teaching sites attended training workshops on

HIV/AIDS related knowledge and skills, either organized by the project or by other HIV/AIDS projects/programs. The project provided a good platform for them to refresh and enhance their knowledge and skills through working with the students. More importantly, these preceptors have been trained on how to teach and coach students at the practicum sites.

“It is interesting to give guidance to students in our center. I have no difficulty in teaching since I had participated in a number of training courses on HIV/AIDS counseling and presentations...” – Young female preceptor

Some preceptors had extensive experience on HIV/AIDS topics; they had even worked as resources for other workshops. Leveraging them as resources for further training courses for young teachers may be good strategy.

“I participated in teaching students for a number of years. In addition, I was invited a few times to provide lectures in HIV/AIDS courses for health staff in Hai Phong and other provinces under different projects....” – senior female preceptor

3.5. Impacts on students

3.5.1. Improved knowledge on HIV/AIDS prevention and substance abuse

In the evaluation, 90 students (51 nursing students and 39 medical students) filled in the self-administered questionnaires. The results show that after receiving training on HIV/AIDS, students’ knowledge on HIV/AIDS such as virology, risk factors, reducing of risks and HIV prevention improved markedly.

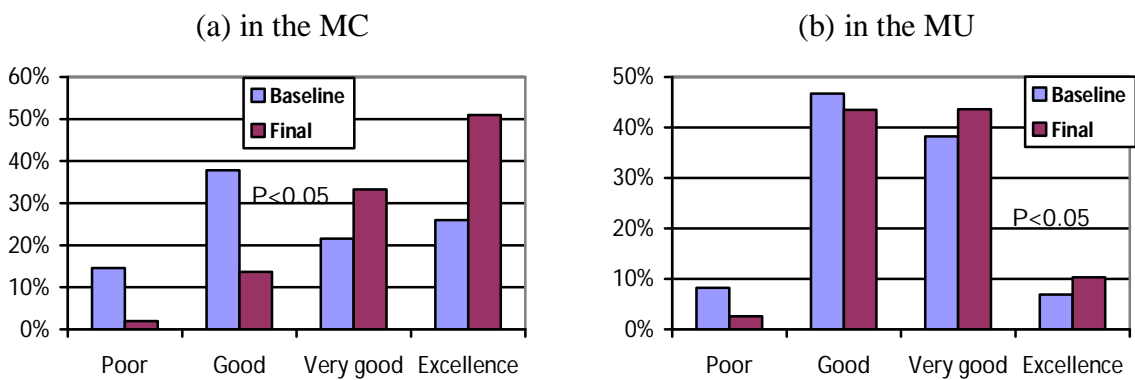


Figure 2. Students’ knowledge on HIV comparing the baseline survey and post-intervention

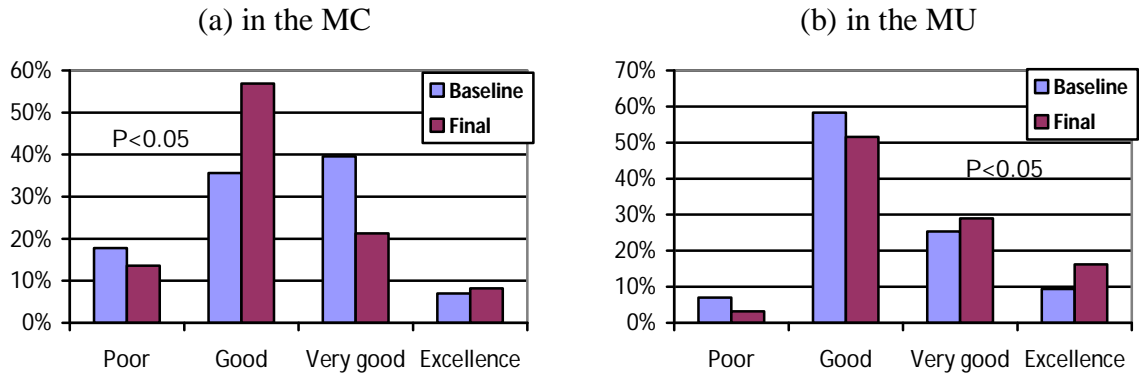


Figure 3. Students' knowledge on risk factors of HIV/AIDS comparing the baseline survey and post-intervention

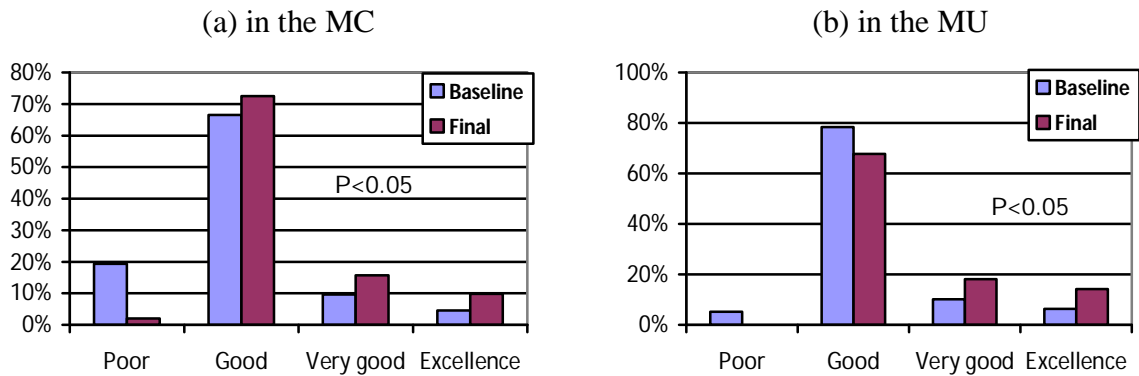


Figure 4. Students' knowledge on how to reduce risks of HIV/AIDS comparing the baseline survey and post-intervention



Figure 5. Students' knowledge on general and HIV/AIDS counseling comparing the baseline survey and post-intervention

With regards to the change in students' knowledge on HIV/AIDS, risk factors, and reduction of HIV risk infection, the proportion of students with better results is higher (significant difference of $p < 0.05$) in the post-intervention group compared to the baseline survey. The changing of students' knowledge on counseling in general and HIV/AIDS counseling specifically before and after project intervention activities was not as significant as other topics even though the data showed a higher rate of 'good' and 'excellent' and lower rate of 'poor' knowledge levels.

3.5.2. Skills achieved in this module

In this evaluation the skills of the students were not measured directly. The reason for this limitation was that it was not practical to make observations on students' skills during the time of evaluation. However, an alternative approach was taken to evaluate the students' achieved skill by a self-reporting method.

Students reported that they had learned different kinds of counseling services, including counseling for HIV/AIDS patients before and after blood tests and counseling for addicted people, among others. These were new skills they had not studied or practiced before and that not been included in the curriculum before. They recognized that these skills were very useful and practical because they could use them to protect themselves, to provide counseling to their family members, friends, and neighbors, especially given that substance abuse and HIV/AIDS are very hot issues in every community. They felt confident in their abilities to provide these counseling services after completion of this module.

3.5.3. New attitude towards HIV/AIDS and addicted people

Discussions with students revealed that all of them thought this was a very useful topic for their career. One positive aspect of this module, according to students, is that it gave them the chance to communicate with HIV/AIDS patients and addicted people. This communication happened both in theory classes, where addicts and HIV/AIDS patients were invited to come and share their experiences, and at community practicum sites. After completing the module, students report that they no longer fear or discriminate against HIV/AIDS patients and addicted people.

"It is interesting to freely talk to HIV-infected and addicted people about their problems in a community setting. We understand more about them, sympathize with them and do not fear them as before." – Medical student

Students were also happy with the course as they did not have to pay for the training materials and lecturers' presentations which had more pictures than other topics.

The success of this module is demonstrated not only by how much knowledge the students gain on HIV/AIDS prevention and substance abuse but more importantly in their improved skills and changing attitude.

Students now feel confident in their counseling skills, which they could use to protect themselves and advise their family, friends, and neighbors. Talking to HIV/AIDS and addicted people at community practicum sites helped students gain a sympathetic view of these vulnerable groups and to not discriminate against them.

Practice time in the hospital was not effective for medical students because of the large number of medical students allocated to each practice time leaving the students with significantly fewer opportunities for practice.

3.6. Teaching plan and training materials

3.6.1. Teaching plan

Teaching plans were co-developed by the teachers, training managers, international consultants and PI team. Overall, the teaching plans of the HIV/AIDS prevention and substance abuse module in medical and nursing programs were structured clearly with detailed and necessary information. The following information can be found in the teaching plans of both schools:

- Learning objectives;
- Required reference materials for students
- Teachers/faculty in charge
- Procedures for dividing students into groups and practicum rotations
- Timetable and venue for theory lessons
- General objectives of practicum
- Timetable for practicum in hospitals and at community practicum sites
- Preceptors who would be in charge of each community practicum site
- Knowledge and skills, including compulsory and optional skills to be attained in each practical sites
- Procedures for assessing students' knowledge and skills and calculating their final scores

As the teachers and coordination team mentioned, the plans were clear and easy for them to implement because they played a main role in developing them.

3.6.2. Teaching materials

Two textbooks were compiled and prepared for medical and nursing students to use, even though they were only in photocopy format and not printed yet. The teachers

acknowledged that these textbooks were very useful for them as they covered comprehensive HIV/AIDS prevention and substance abuse topics and the textbooks' contents were good and easy for students to understand.

The students had the same comments on the textbooks, which they found very useful for them to learn with and later to use as reference material for their career. The students also reported that the figures in the textbooks helped them to digest the content more easily.

Some preceptors were invited to provide comments on the textbooks while they were being written. They all agreed that these were good textbooks for students as they provided up-to-date and adequate contents in an easy to understand writing style.

The process of compiling these textbooks was a systematic one. First, the two schools discussed and agreed upon topics to teach to the medical and nursing students. Teachers and training managers were then involved in compiling the textbooks with technical support from PI. Drafts were then sent to experts and preceptors for review and comments, and returned for revision. As well, feedback was provided at the end of each time of block implementation by students and teachers who were involved in teaching students. This feedback was then incorporated into revised versions.

As well as the textbooks, other documents developed included KAS in HIV/AIDS prevention and substance abuse for medical students and nursing students and lesson plans for all of the lectures. These documents were prepared well and played important roles during the process of compiling the textbooks and lecturing.

Over the course of just two years, essential and necessary materials were sufficiently developed to provide tools for implementing the new module. These materials proved themselves to be good tools for teaching and learning.

4. Discussion

4.1. Remaining Challenges

There were a number of challenges involved in implementing the project, including time constraints in the curriculum, key staff members being overloaded and busy with many jobs, increasing medical student enrolments, and budgetary constraints.

The schools have to follow a curriculum framework for medical and nursing program issued by Ministry of Education and Training and Ministry of Health, the subjects and timetable of which were quite inflexible. For example, the medical program under this framework has 320 credits and they are all allocated to subjects of schools' departments. Arranging a new block in the existing program is not easy. The medical university decided to allocate 3 weeks of community practice for this module in

the last year of the in medical program and therefore students don't have any time to practice other areas in community. Teaching hospitals being overcrowded by a large number of students are another challenge. In the medical college, leaders of the school decided to take out time for related lessons from other departments such as Obstetrics and Gynaecology department and Paediatrics department for this new module. This way seems more realistic. However, the current coordination role of the training department should be shifted to one professional department soon to ensure the sustainability of the module.

The first batch of medical students who studied the new module included more than one hundred and there were no problems in dividing them in community practical sites. However, due to the increasing number of students enrolled, the second batch included around 250 and it is expected that next year there will be around 400 students. If the number of practical sites is not expanded, then the number of students in each site will increase significantly, obviously affecting the quality of practice and bringing burden to the existing practical sites.

Teachers and faculty of the two schools were usually busy with an overload of work or had some other "more interesting" things to do. This issue is related to the low official payment for the teachers, and therefore they have to seek other jobs that bring supplemental incomes. Some teachers at the medical college did not fully appreciate the systematic working method of the project, which was time-consuming, and they said it required too much of their time.

The medical college managers raised the conflict between increasing payment/wages for teaching this module and the school's fixed income overall. This issue should be considered by the schools themselves to make sure implementation could continue.

4.2. Sustainability

The sustainability of the project has been considered by the leaders of both schools. Each school has its own context; however they both confirmed that they could continue running the HIV/AIDS prevention and substance abuse module.

There are several external and internal elements that support the sustainability of this module. First, HIV/AIDS is well recognized as a pandemic, which draws a numerous attention of different organizations and countries. The number of people infected with HIV continues to rise in most parts of the world, despite the implementation of prevention strategies. Vietnam is not staying out of this situation; therefore, accelerating the fresh training of HIV/AIDS in medical schools is needed. Second, National Strategy on HIV/AIDS prevention issued in 2004 brought out the needs of having HIV/AIDS training in medical program as well as training programs for other health professionals.

Internally, the most important element for the sustainability is strong commitment of leaders of two schools. Other elements include teaching capacity of teachers in HIV/AIDS, the schools' capacity in arranging practical sites for students, availability of comprehensive training materials and very importantly what students have shown to achieve after two years of the project.

However, in order to uphold this module in the two schools, the stakeholders of the project should take into account the current challenges, especially how to organize the module in the whole training program. The best solution is to extend the project for another phase and continue the support for at least two years to solve the main existing problems.

4.3. Possibility to scale up to other medical schools

There are some good reasons for this module to be scaled up in other medical schools. They include the success that two schools have experiences in applying the module in their training program, the capacity of their teachers, and the availability of a number of products from this project that could be used in other schools. Another reason, shown through what the students have taken this module have proven to achieve, is that they could change their attitude towards HIV/AIDS patients as well as could learn counselling skills.

Additionally, the attention of MOH in having HIV/AIDS training in medical program as well as training programs for other health professionals indicated in National Strategy on HIV/AIDS prevention issued in 2004 could be the good legal basis for scaling up this module.

There was significant involvement of relevant stakeholders in this project implementation. During the project life, whenever possible, stakeholders from other medical universities/colleges have been invited to participate in training/workshops in order to keep them informed and updated. This would help them not only by updating their knowledge and skills but also preparing them for scaling up later on.

Nevertheless, before expanding to other schools, these two pilot schools and the project implementers should work more on how to organize the module in the whole training program.

5. Conclusion

The project objectives focused on one of the important health problems of health care system in Vietnam.

Engagement of schools' leaders, managers and staff is an important factor for ensuring the success and sustainability of the project.

The systematic design of the project ensures the objectives are achieved.

The two schools invited other resource people (preceptors), who provided their professional expertise from their participation in other HIV/AIDS projects, to coach students and expand their working capacities.

Community practicum sites, which were newly established by this project, could be a good model for students to learn not only about HIV/AIDS specifically but also proper communication skills with patients in general.

There were some challenges that need to be considered in order to maintain and expand the results of the project.

This model can be expanded to other MU and MC/SMS

6. Recommendations

The HIV/AIDS module provided a good model for applying a new teaching subject that generates a high learning demand. Based on major findings from this evaluation, there are several recommendations for various stakeholders.

6.1. Ministerial and central levels

6.1.1. As stated in National Strategy on HIV/AIDS Prevention, HIV/AIDS will be formally taught at health science institutions for their students by the year 2010. Vietnam Administration of HIV/AIDS Control and Department of Science and Training should work together on how HIV/AIDS related issues can be taught formally and effectively at these medical training institutions.

6.1.2. The HIV/AIDS block curricula, implemented at both HP MU and MC should be used to teach other medical and nursing students.

6.1.3. The HIV/AIDS curricula developed by the two institutions should be approved as the standard curricula by the National Curriculum Committee after they have been carefully reviewed and revised by experts.

6.2. Hai Phong MU and MC

6.2.1. The MU should work more on organizing the module in the whole program curriculum, for example considering it as another specialty subject such as tuberculosis, infectious diseases, and ophthalmology, etc. In this case, instead of having all students study theory or practice at the same time, students can be divided in classes and rotate studying theory and practice. The MU should establish the sustainable coordination unit for this module soon.

6.2.2. The MC should also maintain this module along with other regular subjects.

6.2.3. The number of community practicum sites should be expanded for the MU to serve the increasing number of students in the future. In case it is difficult, the

school should find a way to organize the students to ensure that the same number of students is at each site and that the number does not exceed the optimal levels.

6.2.4. Some overlapping topics of the curriculum for medical students, such as infectious diseases and tuberculosis, could be removed and combined with the HIV/AIDS module. This is also the suggestion made by the relevant departments/faculties and coordination group. The two schools should review their current curriculum and appropriately and logically rearrange the scheduling for related subjects.

6.2.5. The schools should have regular activities or rewards to acknowledge preceptors for their teaching students, in order to ensure their long-term enthusiasm. Supervision and monitoring in field sites, including students' feedback, should be improved in order to have immediate adjustments at the practicum sites to ensure all students can practice with good coaching by preceptors.

6.3. Other medical training institutions and other stakeholders

6.3.1. When HIV/AIDS is officially approved as a required specialty for pre-service training, other medical universities and colleges should consider adapting the curricula developed and used by these two schools after reviewing and adjusting them for their individual needs and situations.

6.3.2. For effectiveness, the replication strategies should include updating knowledge for teachers and preceptors, strengthening teaching methodologies, developing teaching/learning materials, selecting and expanding clinical teaching sites, etc as done in this project.

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