

**Exploring the effectiveness of a positive youth
development program for Secondary One
Students in Macau: A prospective study**

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Abstract

Background: With the rapid changing of the society after the opening of the gaming licensure by government, a well-tested and comprehensive adolescent development program developed in Hong Kong was adopted and modified to be used in Macau. It is expected to help our adolescents achieve a positive growth and be better prepared for future challenges.

Aim: The aim of this study is to examine the effectiveness of the modified positive youth development program for Secondary One Students in Macau. Specifically, two research questions will be asked:

1) Is the positive youth development program effective to promote positive growth for youth in Macau? 2) Is growth related to different factors such as gender, age, family financial condition and parent's marital status?

Method: A mixed research method with a quantitative approach using a pre- and post-tests pre-experimental design and a qualitative approach using a focus group for the participants is carried out. The study population included 232 Secondary One Students in two schools. The pre-test self-reported questionnaire was conducted within 1-2 weeks after the start of the school year before the lessons started. The second data collection occurred after the students finished the program.

Results: The subjective outcome evaluation showed that on the whole 84.0% a high proportion of students were satisfied with the course, 78.5% of them agreed that the design of the curriculum was very good, 81.8% perceived that there was much peer interaction amongst themselves and 91.7% of the participants agreed that the instructor prepared well for the lessons. The objective outcome evaluation showed that overall, 123 (53%) of the participants had significantly improvement on the total scores of the Chinese Positive Youth Development Scale (CPYDS) and the two composite scores. However, there was a slight tendency in the behavioral intention of alcohol drinking and participation in gambling activities. The “happiness of the family life” was found to have significantly difference in the score of CPYDS, which showed to be the factor related to the youth growth. The focus group interviews revealed that both positive and negative feedbacks were obtained from the discussion, however, majority of participants perceived benefits to themselves from the program.

Conclusion: With reference to the principle of triangulation, the present study suggests that based on both quantitative and qualitative evaluation findings, it should be concluded that there is positive evidence supporting the effectiveness of the Tier 1 program of the Hong Kong project which is adopted and modified in Macau. Besides, special attention should be paid to the behavioral intention of alcohol drinking and participation in gambling activities.

Recommendations: Based on the observations from the study, some recommendations are as follows:

- 1) The Macau version of the P.A.T.H.S program should be introduced to all secondary schools for consideration in its implementation.
- 2) Those students who have greater psychosocial needs should be identified and provided with an opportunity of participation in Tier 2 program.
- 3) A follow-up study in these two schools should be conducted to see if there is any change having been provided with the Tier 1 program when the students are promoted to secondary two.
- 4) Prevention programs should be implemented for alcohol drinking and participating in gambling activities.
- 5) Workshop can be organized for program implementers to enhance skills in class discipline and lively presentation.

Introduction

With the recent economical booming in Macau due to the opening of the gaming licensure by the government in 2002, adolescents are greatly tempted by high pay from casinos, which may narrow their views when they are doing their career planning in the secondary school. Therefore, adolescents must be better equipped for their holistic development especially in the face of the rapid changing in society in Macau. A well structured local program can surely help our adolescents maintain a positive growth and be better prepared for future challenges. However, reviews of all recent youth studies and programs for adolescent positive growth and development in Macau showed that there is a lack of theoretically sound and comprehensive program (Anglican Macau Social Service, 2006; Luk, in press).

As there are many ‘working’ models available in the literature and research on positive youth development for adolescent, there are wide variations in the related definitions and many addressed different aspects in their programs (Roth, Brooks-Gunn, Murray, & Foster, 1998; Weissberg & O’Brien, 2004). In this study, positive youth development is simply defined as “the growth, cultivation, and nurturance of developmental assets, abilities, and potentials in adolescents” (Shek, Siu

& Lee, 2007). A review by Catalano, Berglund, Ryan, Lonczak, and Hawkins (2002) on 77 programs on positive youth development in North America found that only 25 programs were successful in terms of positive changes in some objective outcome indicators. However, 15 positive youth development constructs were identified in one or more of the goals of these successful programs. These constructs included 1) promotion of bonding, 2) cultivation of resilience, 3) promotion of social competence, 4) promotion of emotional competence, 5) promotion of cognitive competence, 6) promotion of behavioral competence, 7) promotion of moral competence, 8) cultivation of self-determination, 9) development of self-efficacy, 10) promotion of spirituality, 11) promotion of beliefs in the future, 12) development of clear and positive identity, 13) recognition for positive behavior, 14) providing opportunities for prosocial involvement, and 15) fostering prosocial norms.

Some research findings showed that adolescents in Hong Kong faced high levels of stress in different psychosocial domains and there is an intensification of adolescent problems which demand a positive youth development program for holistic development in adolescents (Shek, 2005, 2006a; Shek & Lam, 2006). With the financial support from the Hong Kong Jockey Club Charities Trust, through a joint research project consisted of five universities in Hong Kong, a well tested and

comprehensive positive youth development program “P.A.T.H.S” has been developed (Shek, 2006b; Shek, Siu, Lee, Cheung, & Chung, 2008; Shek & Ng, 2009; Shek & Sun, 2010). The word “P.A.T.H.S.” denotes **P**ositive **A**dolescent **T**rainin**g** through **H**olistic **S**ocial Programs. There are two tiers of programs (Tier 1 and Tier 2) in this project. Tier 1 program is a universal positive youth development program in which students in Secondary One to Three participate, normally with 20 hours of training of the full program, or at least with 10 hours of training of the core program in the school year at each grade. In Tier 1 program, 15 positive youth development constructs identified from the existing successful programs (Catalano et al., 2002) were incorporated. These constructs are named as Bonding (BO), Social Competence (SC), Emotional Competence (EC), Cognitive Competence (CC), Behavioral Competence (BC), Moral Competence (MC), Self-efficacy (SE), Prosocial Norms (PN), Resilience (RE), Self-determination (SD), Spirituality (SP), Clear and Positive Identity (ID or CPI), Beliefs in the future (BF), Prosocial Involvement (PI), and Recognition for Positive Behavior (PB). All these constructs emphasized on helping students to learn and developing their personal autonomy on moral principles or making independent and critical judgment via a happy, healthy and stimulating teaching and learning process during their period of schooling. Tier 2 program is generally provided for at least one-fifth of the students who have greater psychosocial needs at each grade, in

other words, it is a selective program (Shek & Ma, 2010).

Since “P.A.T.H.S” was developed in Hong Kong and both Hong Kong and Macau share the similar Chinese culture, this positive growth development program was adopted to be used in Macau with the permission obtained from the research team in Hong Kong. Tier 1 program of the “P.A.T.H.S” for Secondary One Students was modified by the Macau research team with some of the content relating to the local terminology, government structure and indigenous customs changed. The revised portion was sent to the Hong Kong team for review to ensure the intact of the originality of the curriculum. With the support from the Education and Youth Affairs Bureau, the Macau version of Tier 1 program of the “P.A.T.H.S” for Secondary One Students was piloted in 2 secondary schools in Macau. The 10-hour core program of Tier 1 program was completed. Evaluation was conducted after the completion of the piloted project to investigate its effectiveness. Beyond the evaluation of the program, other factors affecting the youth growth would also be examined.

The aim of this study is to examine the effectiveness of the positive youth development program for Secondary One Students in Macau. Two research questions will be specifically, asked:

- 1) Is the positive youth development program effective to promote positive growth for youth in Macau?
- 2) Is growth related to different factors such as gender, age, family financial condition and parent's marital status?

Since there is no theoretically sound and comprehensive program in Macau, a well structured, comprehensive youth positive development program is urgently needed to prepare our youth to face the rapid changing society. If the studied program is effective, it can be used as a complimentary course to our formal course in school to help our youth to maintain a holistic growth.

Methods

A mixed research method for the triangulation of data was adopted. A quantitative approach using a pre- and post-tests pre-experimental design and a qualitative approach using a focus group for the participants were adopted.

Participants and Procedures

The study population included all Secondary One Students in the two chosen schools

which would like to join the project after a briefing session conducted by the research team. In this study, the sample size calculation was based on the total scale of the CPYDS results from Shek et al. (2006). A pre-and post one group design was used, and the expected effect size was around 0.22, then a sample size of 166 (each school = 83) students for the study was needed (nQuery Advisor 4.0, 2001). The proposed sample size was adequate for this study to achieve 80% power and 5% significant level. The program was implemented by program implementers including teachers and school social workers who had been trained for 3 days either in Hong Kong or Macau to familiarize themselves with the curriculum and ways of conducting the program.

The two main sources of data included self-reported questionnaire and focus group discussion. The two approaches complemented each other to provide respectively an objective and a subjective assessment of the effectiveness of the program. Data were collected at 2 time-points. The first one was before the program started. The pre-test self-reported questionnaire was conducted within 1-2 weeks after the start of the school year. The second data collection time-point occurred after the students finished the program. The data included a post-test questionnaire and an evaluation Form A, and focus group discussion. Before start of the project, the purpose of the study was

fully explained by the program implementers to the participants and confidentiality of the data collected was repeatedly emphasized. Response to the questionnaire was in a self-administration format and on voluntarily bases, however, adequate time was provided for the participants to complete the questionnaire.

Regarding the focus group discussion, one group interview was conducted respectively for both studied schools. Ten program participants from School A and 6 from School B were randomly selected by the program implementers to join the focus group respectively. The time for the interview took about 1-hour each. The principal investigator conducted the focus group interview with the semi-structured interview guide provided by the Hong Kong research team. The content of the interviews was audio-taped with the consent of the participants. The content was then transcribed by the research assistant and checked for accuracy by the principal investigator. The raw data of the two groups were analyzed together by developing coding. After comparison of all the coding, relevant themes were developed.

Instruments

At pre- and post-tests, the participants were invited to respond to a questionnaire including measures of positive youth development, life satisfaction, adolescent

problem behavior and demographic information. After the completion of the program, an evaluation questionnaire was also completed by the participants to assess their satisfaction with the course and perceived benefits of the program. The measures used in this study were described below.

The Chinese Positive Youth Development Scale (CPYDS)

The Chinese Positive Youth Development Scale (CPYDS) was a self-administrated questionnaire and developed by Shek et al. (2006). It consisted of 15 subscales (90 items) which address the 15 constructs of the program. These subscales include: BO (6 items), SC (7 items), EC (6 items), CC (6 items), BC (6 items), MC (6 items), SE (7 items), PN (5 items), RE (6 items), SD (5 items), SP (7 items), ID or CPI (7 items), BF (7 items), PI (5 items), and PB (4 items). The instrument had a good reliability ($\alpha = 0.91$) and ranged from 0.55 to 0.85 (Shek et al., 2006).

Beyond the total score based on all 15 subscales measuring the positive development, two composite indices were also formed. A summation of 10 subscales including resilience, social competence, emotional competence, cognitive competence, behavioral competence, moral competence, self-determination, self-efficiency, beliefs in the future, and clear and positive identity was used to form a personal development

score in assessing psychosocial competence and strengths. A combination of 5 subscales including the social, emotional, cognitive, behavioral, and moral competencies was used to form the domain of psychosocial competence. If the program is effective, the post-test scores would be significantly higher than the pre-test scores on the related measures.

Life Satisfaction Scale (LIFE)

Life satisfaction is another important indicator of positive youth development (Damon, 2004). The 5-item LIFE was developed by Diener, Emmons, Larsen, and Griffin (1985) to assess one's own global judgment of one's quality of life. The Chinese version was translated by Shek in 2004 with acceptable psychometric properties. A higher LIFE scale score indicates a higher level of life satisfaction.

Behavioral Intention Scale (BI)

The 5-item scale were used to assess the adolescents' behavioral intention to engage in problem behavior, including drinking, smoking, taking drugs, having sex with others, and participation in gambling (Lam, Shek, Ng, Yeung, & Lam, 2005). The scale has a good reliability ($\alpha = 0.84$). A higher BI scale score indicates a higher behavioral intention.

Subjective Outcome Evaluation Form (Form A)

The Subjective Outcome Evaluation Form (Form A) was designed by Shek and Siu (2006). The Form consisted of totally 39 items and 4 open questions which were divided into 5 parts. The first part asked about the view of the participants on the program (10 items). The second part looked at the view of the program implementer including teachers and/or social workers (10 items). The third portion discussed the views of the perceived effectiveness of the program (16 items). The other 3 items asked about the recommendation of the program, tendency to join similar program in future and overall satisfaction with the program. The final part included 4 open questions on things that participants learned, appreciated most, opinion about the instructors and areas for improvement respectively. The Form had a good reliability on 39 items ($\alpha = 0.99$, mean inter-item correlation = 0.80) (Ma & Shek, 2010).

Results

Demographic information

There were totally 239 and 242 students who participated in the pre-test and post-test respectively. Discarding those invalid questionnaires because of the missing

data in several parts, there was still 232 questionnaires that successfully matched with the same student and usable for analysis. Among them, 165 were from School A and 67 from School B, 145 were males and 87 are females, the average age of the participants was 13.7.

The Subjective Outcome Evaluation

The result of the subjective outcome evaluation using Form A showed that on the whole, 84.0%, a high proportion of students, were satisfied with the course, 78.5% of them agreed that the design of the curriculum is very good, 81.8% perceived that there was much peer interaction amongst themselves and 91.7% of the participants agreed that the instructor was well-prepared for the lessons. Details can be seen in Table 1. Furthermore, 74.3% of the students indicated that they would recommend their friends to join this program.

Table 1. Findings from the Subjective Outcome Evaluation

		Percentage of Responses (%)							
		1	2	3	A	4	5	6	B
Your views towards the course(s)									
1	The objectives of the curriculum are very clear.	2.5	2.5	12.4	17.4	27.3	43.8	11.6	82.7
2	The design of the curriculum is very good.	2.1	7.9	11.6	21.6	34.3	37.2	7.0	78.5
3	The activities were carefully planned.	2.5	3.7	20.2	26.4	31.4	32.6	9.5	73.5
4	The classroom atmosphere was very pleasant.	5.8	7.9	19.4	33.1	28.1	27.3	11.6	67.0
5	There was much peer interaction amongst the students.	3.3	4.1	10.7	18.1	28.1	31.8	21.9	81.8
6	I participated actively during lessons (including discussions, sharing, games, etc.).	2.9	7.0	16.9	26.8	34.7	25.2	13.2	73.1
7	I was encouraged to do my best.	2.5	4.5	20.7	27.7	36.8	26.0	9.5	72.3
8	The learning experience I encountered enhanced my interest towards the lessons.	3.7	3.7	15.7	23.1	38.8	29.8	8.3	76.9
9	Overall speaking, I have very positive evaluation of the program.	4.5	7.4	19.4	31.3	38.0	24.4	6.2	68.6
10	On the whole, I like this curriculum very much.	4.5	8.7	18.2	31.4	34.7	23.1	10.7	68.5
Your views towards the instructor(s)									
1	The instructor(s) had a good mastery of the curriculum.	2.5	2.5	14.9	19.9	28.5	39.7	12.0	80.2
2	The instructor(s) was well prepared for the lessons.	2.1	2.1	4.1	8.3	28.9	45.0	17.8	91.7
3	The instructor(s)' teaching skills was good.	4.5	2.5	10.3	17.3	34.3	35.1	13.2	82.6
4	The instructor(s) showed good professional attitudes.	3.3	2.1	9.5	14.9	27.7	39.3	18.2	85.2
5	The instructor(s) was very involved.	2.9	2.9	7.9	13.7	26.9	40.5	19.0	86.4
6	The instructor(s) encouraged students to participate in the activities.	2.5	2.1	6.2	10.8	24.8	41.7	22.7	89.2
7	The instructor(s) cared for the students.	2.1	2.1	6.2	10.4	26.4	41.3	21.9	89.6
8	The instructor(s) was ready to offer help to students when needed.	1.7	2.5	6.6	10.8	21.9	44.6	22.7	89.2
9	The instructor(s) had much interaction with the students.	4.1	3.3	11.2	18.6	31.4	35.1	14.5	81.0
10	Overall speaking, I have very positive evaluation of the instructors.	2.9	3.7	10.3	16.9	20.7	40.1	22.3	83.1

(continued)

Table 1. Findings from the Subjective Outcome Evaluation

Satisfaction of the course(s)		Percentage of Responses (%)							
		1	2	3	A	4	5	6	B
1	On the whole, you are satisfied with this course	1.2	2.5	11.6	15.3	51.7	24.0	8.3	84.0
Remarks: 1=Strongly Disagree, 2= Disagree, 3=Slightly Disagree, 4=Slightly Agree, 5=Agree, 6=Strongly Agree A= Sum of the disagree responses (1+2+3), B= Sum of the agree responses(4+5+6)									

The Objective Outcome Evaluation

As shown in Table 2, the findings revealed that there was a small non-significant increase in the total score of CPYDS in School A but there were significant positive changes in some of the subscales. Positive changes were also found in both personal development and psychosocial competence composite scores. However, the scores of the other two scales, Life Satisfaction (LIFE) and Behavioral Intention (BI), were less so when compared with those of the pretest. In the BI scale, the score of Item 5 with the intention to participate in gambling increased slightly but significantly.

Regarding School B, there was a non-significant deterioration in the total score of CPYDS. The only significant positive change was found in the social efficacy subscale. On the other hand, the scores of the other two scales, Life Satisfaction (LIFE) and Behavioral Intention (BI), worsened when compared with those of the pretest.

The score of Item 1 of BI with the intention of drinking alcohol significantly increased.

When seeing the participants as a whole, there was a slight non-significant deterioration of the total score of CPYDS and the only subscale with significant positive change was social competence. Both the scores of Life Satisfaction (LIFE) and Behavioral Intention (BI) scales worsened when compared with those of the pretest. There were also significant increase in Items 1 and 5 in the behavioral intention to drink alcohol and to participate in gambling from pre- to post-tests.

Table 2.

The Changes in the Program Participants Based on the Scale of CPYDS, LIFE and BI

	Pre-test		Post-test		<i>t</i> value	<i>P</i> value
	Mean	SD	Mean	SD		
School A(n=165)						
CPYDS	4.34	0.54	4.36	0.51	-0.511	0.610
SC subscale	4.21	0.76	4.35	0.68	-2.790	0.006
EC subscale	4.00	0.84	4.19	0.87	-3.014	0.003
CC subscale	4.25	0.76	4.42	0.75	-2.714	0.007
SD subscale	4.60	0.77	4.74	0.73	-2.256	0.025
PD Score	4.23	0.54	4.31	0.52	-2.289	0.023
PC Score	4.24	0.60	4.37	0.54	-3.169	0.002
LIFE	3.96	0.94	3.76	1.02	2.659	0.009
BI	1.34	0.46	1.40	0.45	-2.200	0.029
BI(item 5)	1.24	0.56	1.43	0.79	-3.014	0.003
School B(n=67)						
CPYDS	4.33	0.49	4.22	0.76	1.680	0.098
SE subscale	3.29	0.58	3.63	0.94	-2.696	0.009
LIFE	3.92	1.11	3.46	1.11	2.966	0.004
BI	1.52	0.66	1.65	0.65	-1.786	0.079
BI(item 1)	1.95	1.09	2.27	1.16	-2.828	0.006
TOTAL(n=232)						
CPYDS	4.34	0.52	4.32	0.59	0.555	0.579
SC subscale	4.25	0.75	4.37	0.73	-2.597	0.010
LIFE	3.95	0.99	3.68	1.05	3.923	0.000
BI	1.37	0.53	1.47	0.53	-2.836	0.005
BI(item 1)	1.87	0.98	2.07	1.06	-2.897	0.004
BI(item 5)	1.30	0.68	1.47	0.81	-3.088	0.002

Note: CPYDS= mean of the 15 subscales. SC= Social Competence subscale. EC= Emotional Competence subscale. CC= Cognitive Competence subscale. SD= Self-Determination subscale. SE= Self-Efficacy subscale. PD (Personal Development Score) = mean of 10 subscale excluding Bonding, Prosocial Involvement, Prosocial Norms, Spirituality, and Recognition for Positive Behavior subscales. PC (Psychosocial Competence Score) = mean of social, emotional, cognitive, behavioral, and moral competencies subscales. LIFE= Life Satisfaction Scale. BI= Behavioral Intention Scale. BI (item 1) = Will you drink alcohol in the coming 2 years? BI (item 5) = Will you participate in gambling activities in the coming 2 years?

With specific reference to those participants who obtained higher scores of CPYDS in posttest than the pretest, there were 94 (56%) and 29 (47%) participants in School A and School B respectively. However, in School A, there was still a slightly significant increase in behavioral intention to participate in gambling from pre- to post-tests and to drink alcohol in School B. Overall, 123 (53%) of the participants had improvement. The result showed that there was significant improvement on the total scale of CPYDS and the two composite scores (Table 3).

Table 3. Participants having positive Changes on the Scale of CPYDS.

	Pre-test		Post-test		<i>t</i> value	<i>P</i> value
	Mean	SD	Mean	SD		
School A(n=94)						
CPYDS	4.11	0.44	4.45	0.49	-11.921	0.000
PD	4.01	0.44	4.41	0.49	-12.548	0.000
PC	4.01	0.50	4.46	0.52	-10.538	0.000
LIFE	3.73	0.92	3.86	0.95	-1.339	0.184
BI	1.35	0.47	1.45	0.47	-1.994	0.049
BI (item 5)	1.25	0.60	1.42	0.78	-2.316	0.023
School B(n=29)						
CPYDS	4.38	0.43	4.70	0.48	-7.331	0.000
PD	4.29	0.43	4.65	0.50	-7.190	0.000
PC	4.42	0.57	4.68	0.59	-3.230	0.003
LIFE	4.13	0.96	4.16	0.80	-0.161	0.873
BI (item 1)	1.80	1.01	2.17	1.15	-2.009	0.054
TOTAL(n=123)						
CPYDS	4.18	0.45	4.52	0.49	-13.990	0.000
PD	4.08	0.45	4.47	0.50	-14.483	0.000
PC	4.11	0.54	4.51	0.54	-10.572	0.000
LIFE	3.83	0.94	3.93	0.92	-1.186	0.238
BI	1.37	0.51	1.48	0.51	-2.209	0.029
BI (item 1)	1.93	1.01	2.12	1.02	-2.040	0.044

Note: CPYDS= mean of the 15 subscales. PD (Personal Development Score) = mean of 10 subscale excluding Bonding, Prosocial Involvement, Prosocial Norms, Spirituality, and Recognition for Positive Behavior subscales. PC (Psychosocial Competence Score) = mean of social, emotional, cognitive, behavioral, and moral competencies subscales. LIFE= Life Satisfaction Scale. BI= Behavioral Intention Scale. BI (item 1) = Will you drink alcohol in the coming 2 years? BI (item 5) = Will you participate in gambling activities in the coming 2 years?

Factors related to the youth growth

Based on the general linear model, data on gender, age, financial status, marital status and happiness of family life were collected and used as confounding factors in the analysis of outcomes variables (CPYDS). One of the factors - happiness of the family life - was found to have significant difference in the score of CPYDS, ($F=5,184$, $P=0.001$). When correlation was used to analyze the relationship with the CYPDS posttest score, a positive relationship ($\gamma_s=0.193$, $P=0.000$) with the score, i.e. the happier of their family life, a higher score of the CPYDS was made manifest. Apart from these, the LIFE scale also displayed positive relationship with CPYDS LIFE ($\gamma=0.479$, $P=0.000$).

Findings of the focus group interviews

Ten students from School A participated in one group interview, 4 were males and 6 were females. Three of them were very quiet and seldom responded to interviewer. Six students from School B participated in another group interview, all of them were male students and responsive to the group discussion. The qualitative findings were mainly analyzed in two areas: the general impression of the program and the perceived benefits of the program to themselves. The preliminary analyzes were classified into positive and negative comments of the program. Regarding the general

impression, amongst 10 who gave feedback, 5 claimed feeling bored and the rest described the program as better than the moral class by learning more, not so boring, interesting, and they learned how to interact with others. The activities that aroused their interests were discussion and video. With reference to the perceived benefits, 9 students with positive feedback asserted that after the programme, they started to become more understanding to others, to have more control in one's emotion, to know how to interact with others, to learn from other's faults, and to have more self-confidence (4 of them). There was also a small increase in the sense of responsibility. Some narratives of students were as follows:

“Concerning my emotion, it is not so easy now for me to lose my temper. I try to think from the perspective of others. I am not so impulsive now and it has helped me control my emotion and I practice what I learn in my daily life.” – From a female student of School A.

“By watching the video, I would understand more about the experiences of others, be ready for future life, for example, I have been alerted to the danger of drug addiction, learned to draw upon the merits of others and at the same time avoid repeating the faults of others.” – From a male student of School A

“I am no longer that lazy. I never submitted all my homework before. After completing the lesson on responsibility, at present, I have only failed to submit my

homework 2 times a week.” From a male student of School B

“My self-confidence was enhanced by my teacher during these few lessons. He encouraged us not to give up, do not leave things half done.” From a male student of School B.

Discussion

The Subjective Outcome Evaluation

The findings based on the subjective outcome evaluation showed that the majority of the participants had positive perceptions of program and the instructor, which is consistent with the findings by Shek (2006c). One interesting observation is that a high proportion of the participants agreed that there was much peer interaction amongst themselves, which is different from the formal teaching in the classroom. On the one hand, it may arouse students’ interest in the class as described in the focus group; on the other hand, it creates problems for the instructors especially those new teachers who were not well used to teaching in an informal way. Study by Shek and Sun (2006) found that one of the difficulties encountered in program implementation by teacher is that it is difficult for them to handle poor class discipline, whereas, social

workers may not get acquainted with the students and it is also difficult for them to handle class discipline. Anyway, the subjective outcome evaluation findings in this study provides support for the positive program effects of the Tier 1 program of the P.A.T.H.S. study even it was a 10-hour core program.

The Objective Outcome Evaluation

Regarding the objective outcome evaluation, significant differences between pre- and post-tests were found in terms of several subscales and the composite scores in School A. There may be several possible reasons. First, the program implementers are experienced social workers who may be more familiar with interactive activities. Second, School A is of a strong Christian background which may have some positive effects on their students in moral education. Finally, the general family background of the participants may also affect their personal changes. On the other hand, only one significant positive change was found in School B. Some possible reasons are: the program is run by new teachers who may not have been accustomed to informal teaching; the school was without any religious background and the general academic performance of participants may be lower as compared with that of School A. When seeing the two schools together, significant positive change is found in the social competence subscale which is also an important indicator that has to be developed in

Secondary One Students especially for those who fail to be promoted in their original primary school and who then have to join a new school.

With specific reference to the percentage of participants who got higher scores of CPYDS, 53% of the participants had improvement with significant increases in the total scale of CPYDS and the two composite scores. Suggested by Shek and Ma (2010), at least 20% of students may have greater psychosocial needs at each grade and need a Tier 2 program, therefore, as a pilot study, the program effect in Macau could be regarded as encouraging though the intervention is of a short duration. However, the slight increase in the behavior intention of drinking alcohol and participating in gambling activities deserves our attention. Study by Lou and Shek (2006) found that adolescent drinking is an emergent problem in Hong Kong. Since Hong Kong and Macau are neighbouring cities and share similar youth culture, more action should be taken to prevent adolescent drinking which is becoming a serious problem. Relating to gambling, an opinion study by Lui and Lau (2007) on youth perception of the influences upon Macau after the opening of the gambling licensure showed that adolescents were more willing to work in the gaming industry and its related business. With the booming of economy led by the gaming business, adolescents are more receptive to participation in gambling activities. Another study

by the Anglican Macau Social Services (2010) also found that the older the youth, the greater the participation in the soccer gambling in Macau. Therefore, greater effort should be put in to prevent adolescents who lack precaution from becoming addicted to gambling.

Factors related to youth growth

Since happiness of the family was found to be the most significant factor affecting the growth of the adolescents, more collaboration should be made from school teachers and school social workers to help those students who have family problems which affect their holistic growth.

The focus group interviews

Regarding the general impression of the program, some of the students perceived the program to be boring; however, when compared with their conventional moral or civic class, the program is more interesting because it had discussions and video shows. More peer interaction amongst the students in the class as shown in the subjective outcome and significant increase of the score in the social competence subscale of the CPYDS demonstrated one aspect of the effectiveness of the program even though some of the students perceived it in a negative way. Observation from

Shek (2006c) showed that approximately 15% of the participants failed to perceive the program as effective. It is interesting to note that even though the class may be boring, some students still learned and benefitted from the program. With reference to the perceived benefits of the program, all participants were positive in their feedback. Generally speaking, benefits in both personal levels and interpersonal levels were observed. The focus group observations are generally consistent with both the subjective and objective outcome evaluation findings in this study that the students changed in a positive direction in various developmental domains.

Conclusion

Based on the findings from the subjective and objective outcome evaluations, and the focus group interviews, it can be concluded that there is positive evidence supporting the effectiveness of the adopted and modified Tier 1 program of the Hong Kong P.A.T.H.S. project. Besides, special attention should be paid to the behavioral intention of alcohol drinking and participating in gambling activities.

Recommendations

Based on the observations from the study, some recommendations are made as follows:

- 1) The Macau version of the P.A.T.H.S program should be introduced to all secondary schools for consideration in its implementation.
- 2) Students who have greater psychosocial needs should be identified and provided with the Tier 2 program.
- 3) A follow-up study in these two schools should be conducted to see if there is any change having been provided with the Tier 1 program and when the students are promoted to Secondary Two.
- 4) Prevention programs should be implemented for alcohol drinking and participating in gambling activities.
- 5) Workshops can be organized for program implementers to enhance skills in handling class discipline and lively presentation.

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