Quantitative evaluation of the revised training program Project P.A.T.H.S. in Hong Kong

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Abstract

In the extension phase of Project P.A.T.H.S. (Positive Adolescent Training through Holistic Social Programmes) in Hong Kong, potential implementers received 20 h of training (7 h of e-learning and 13 h of interactive training). Subjective outcome evaluation was conducted to evaluate the training workshops conducted in the first year of the extension phase based on the responses of 812 participants. The subjective outcome evaluation form was found to be internally consistent. Percentage findings showed that the respondents had favorable perceptions of the training program including its content, trainers, participants themselves and arrangements. The participants also felt that they had acquired knowledge, positive attitudes and skills related to the implementation of the program. The findings showed that the revised training program was effective in helping the participants to acquire the necessary knowledge, attitudes, and skills in the implementation of the program.

Keywords: positive youth development; Project P.A.T.H.S.; subjective outcome evaluation; training program.

Introduction

There are many studies showing that adolescent risk behavior has intensified in the past decades. For example, Shek

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et al. (1) pointed out that the related adolescent developmental issues include substance abuse, mental health problems, economic disadvantage and family-related problems. In response to these issues, adolescent prevention and positive youth development programs have been developed to reduce adolescent risk behavior and promote positive youth development. For example, with reference to the National Registry of Evidence-Based Programs and Practices (NREPP) of the Substance Abuse and Mental Health Services Administration (SAMHSA), an updated database for prevention/intervention programs that focus on children (0–12 years), adolescent (13–17 years), and young adult (18–25 years) can be identified. The Office of Juvenile Justice and Delinquency Prevention (OJJDP), US Department of Justice also establishes a Model Programs Guide (MPG) database which offers scientifically proven programs that address a range of youth issues (including mental health, substance abuse, delinquency, academic problems, family functioning and educational programs) as well as ratings of these programs.

While it is encouraging to note the gradual accumulation of evidence-based intervention programs targeting adolescent risk behavior, scientifically credible programs will not work if they are poorly implemented. Intuitively speaking, if a well-validated program is implemented by a worker without passion for adolescents, it is doomed to fail. Surprisingly, although there are many attempts to develop evidence-based youth prevention and positive youth development programs, research on training programs designed for the potential program implementers is scarce (2–5). As pointed out by Shek and Wai (6), research on training for programs implemented is much less than the research on the development of adolescent prevention programs. Systematic training provided for the potential program implementers is important for several reasons. First, if the workers do not identify the usefulness of the program, the program will not be successful. For example, Norland et al. (7) showed that even with the help of prevention curricula and in-service training, few teachers agreed they could make a difference in persuading students not to take drugs. The teachers believed that teaching about drugs and alcohol was a "relatively ineffective mode of prevention to student drug use" (p. 104). Second, training is important because teachers' perceived efficacy was found to positively affect student well-being and the program outcomes (8). As such, teachers should be helped to promote their self-efficacy in teaching positive youth development programs. Third, through systematic training, potential program implementers can acquire the necessary knowledge and skills for the successful implementation of the program. This can help to minimize the chance of committing a type III error, i.e., correctly concluding that the prevention program is ineffective

for the wrong reason (9–12). Tortu and Botvin (13) pointed out that the lack of implementers' training could be the reason for its ineffectiveness. Rohrbach et al. (14) also showed that even the rates among trained teachers in adopting, implementing and maintaining the program were "highly variable and surprisingly low" (p.249). Hence, systematic training for the potential program implementers is very important.

What do we expect the program participants to achieve in training programs? Basically, we expected that several things could be acquired via training. First, that through systematic training, program participants could gain the basic knowledge about the program to be implemented. Obviously, without adequate understanding of the program to be implemented, fidelity and program adherence would not be high. Second, we expected that the potential program implementers would develop positive attitudes through the training programs. For example, it is not uncommon to find that teachers attend training workshops because they are forced to do so. In this circumstance, it is important to help "frustrated' teachers develop positive attitudes about the program. Otherwise, their morale will be very low. Third, through training programs, participants are assisted to reflect on their values, such as their passion for young people and reason for teaching the program. Finally, participants can learn the skills that are necessary for the successful implementation of the program. For example, with reference to the notion of reflective practice which is strongly emphasized in helping professions, such as education and social work, participants are encouraged to reflect after implementing the components of the program. These are common outcomes to be expected from systematic training programs designed to implement positive youth development programs.

With reference to the worrying trends and phenomena related to the development of adolescents in Hong Kong (e.g., adolescent mental health problems and abuse of psychotropic substances), positive youth development programs promoting psychosocial competencies of adolescents are desperately needed. However, systematic and multi-year positive youth development programs are scarce in Hong Kong. To promote holistic development among adolescents in Hong Kong, The Hong Kong Jockey Club Charities Trust approved HK$400 million in 2004 to launch a project entitled "P.A.T.H.S. to Adulthood: A Jockey Club Youth Enhancement Scheme". The acronym P.A.T.H.S. stands for "Positive Adolescent Training through Holistic Social Programmes". Other than developing the Chinese and English versions of the curriculum-based program, the research team also provides training for teachers and social workers who implement the program and carries out longitudinal evaluation of the project. Within the project, 15 positive youth development constructs are covered, particularly in the Tier 1 Program, including: promotion of bonding, cultivation of resilience, promotion of social competence, promotion of emotional competence, promotion of cognitive competence, promotion of behavioral competence, promotion of moral competence, cultivation of self-determination, promotion of spirituality, development of self-efficacy, development of a clear and positive identity, promotion of beliefs in the future, provision of recognition for positive behavior,

provision of opportunities for prosocial involvement, and fostering pro-social norms (15).

Since its inception the program has been evaluated rigorously, with systematic documentation of its materials and evaluation findings (16–20). The project has further gained recognition in the international academic and professional communities through organization of an international symposium, publication of evaluation results in various international refereed journals, and related pilot projects outside Hong Kong including in Shanghai, Macau and Singapore. In view of the support and recognition from the education sector and the stakeholders, as well as the proven effectiveness of Project P.A.T.H.S. by different modes of evaluation, The Hong Kong Jockey Club Charities Trust decided in 2008 to earmark an additional amount of HK$350 million to implement the project for another cycle from school years 2009/10 to 2011/12 to help the participating schools consolidate the implementation experiences.

To help the potential program implementers implement the program in a successful manner, systematic training programs were designed. In the initial phase of the project, 3-day programs with 20 h of training for the potential implementers of the program in each grade were designed. Based on the systematic evaluation of the training programs, it was concluded that the training programs were effective in preparing the potential implementers for program implementation (21–23).

To promote the long-term sustainability of the training program, there was a change in the training format in the extension phase of the project. Instead of have a 3-day training program for each grade, a 7-h e-learning program and a 2-day interactive workshop were used for each grade. This change was made because it was the intention of the researchers to use e-learning training when the project is completed. Obviously, consistent with the practice in the initial phase, there is a need to evaluate the program. In the extension phase, subjective outcome evaluation was used where quantitative and qualitative data were collected. At the end of training, the participants were invited to respond to a standardized questionnaire with 31 items and two open-ended questions. As there was a change in the training program, there is a need to evaluate the revised training program for Project P.A.T.H.S. in Hong Kong. There were several purposes of this study. First, psychometric properties of the subjective outcome evaluation form used in the training workshops were examined. Second, profiles of the responses of the participants to the subjective outcome evaluation were examined.

Methods

Participants and procedures

In the first year of the extension phase of Project P.A.T.H.S., 40 workshops were conducted with 812 participants attending the revised training workshops. Among these 2-day workshops, there were 16 workshops for the Secondary 1, 12 workshops for the Secondary 2, and 12 workshops for the Secondary 3 programs. At the last session of each training workshop, all participants were invited to respond to a structured but anonymous questionnaire as a form of

subjective outcome evaluation. This questionnaire focuses on the perceptions of the participants toward the program content, activities format, program instructors, self-performance and administrative arrangement. All participants responded to all items in the evaluation form in a self-administration format. Provisions were also made for open-ended responses to enable respondents to make comments of appreciation or provide suggestions on matters not covered by the close-ended questions with pre-defined answers. Adequate time was given for the participants to complete the questionnaire. A total of 721 questionnaires were completed and collected. The overall response rate was 88.8%.

Instruments

A feedback questionnaire with 31 rating items was used to assess the participants' satisfaction with the training program, the instructors, as well as their views toward their own performance. There are several sections in the subjective outcome evaluation questionnaire outlined as follows:

1. Participants' basic demographic information.
2. Participants' perceptions of the training program, including the program objectives, design, activities format, and interaction among the participants (16 items).
3. Participants' perceptions of the instructors, including the understanding of the course, teaching skills and professional attitude (five items).
4. Participants' perceptions of their own performance, including involvement during program, application of their learning, and having confidence in the project implementation (four items).
5. Participants' perceptions of the administrative arrangement, such as program enrolment, hospitality, venue and facilities (six items).
6. Things that the participants appreciated most (open-ended question).
7. Aspects of the program that require improvement (open-ended question).

Results

The questionnaire consisted of 31 items with a six-point Likert scale (1=strongly disagree to 6=strongly agree). Reliability analysis shows that the scale was internally consistent (α=0.96 for the total scale). Besides, all sub-scales on the training program (16 items), instructors (five items), participants' own performance (four items), and administrative arrangement (six items) were also reliable. The α values and mean inter-item correlation are presented in Table 1.

Several observations can be highlighted from the quantitative findings based on the closed-ended questions (31 items). First, the participants generally had a very positive perception of the program contents and activities format of the training program (Table 2), including cultivation of participants' positive attitude to adolescent development (98%, n=707), strengthening of the participants' understanding of positive youth development (98%, n=708), encouragement of instructors to do their best (98%, n=708), promotion of the participants' understanding of Project P.A.T.H.S. including its basic philosophy, design, implementation and evaluation (98%, n=705), enhancement of participants' understanding of

Table 1 Mean and standard deviations among the variables by grade.

	Secondary 1		Secondary 2		Secondary 3		Overall	
	M (SD)	α (Mean[a])	M (SD)	α (Mean[a])	M (SD)	α (Mean[a])	M (SD)	α (Mean[a])
Participants' perceptions of the training program (16 items)	4.90 (0.54)	0.94 (0.51)	4.96 (0.55)	0.96 (0.60)	5.03 (0.55)	0.95 (0.54)	4.95 (0.55)	0.95 (0.54)
Participants' perceptions of the instructors (five items)	5.27 (0.69)	0.94 (0.76)	5.17 (0.69)	0.95 (0.80)	5.54 (0.53)	0.93 (0.74)	5.33 (0.66)	0.94 (0.77)
Participants' perceptions of their own performance (four items)	4.81 (0.53)	0.81 (0.54)	4.94 (0.52)	0.86 (0.62)	4.89 (0.43)	0.73 (0.42)	4.87 (0.50)	0.81 (0.53)
Participants' perceptions of the administrative arrangement (six items)	4.90 (0.47)	0.79 (0.43)	4.88 (0.56)	0.86 (0.58)	4.91 (0.58)	0.88 (0.58)	4.90 (0.53)	0.85 (0.52)
Participants' overall satisfaction (31 items)	4.95 (0.46)	0.95 (0.39)	4.98 (0.51)	0.97 (0.51)	5.07 (0.45)	0.96 (0.41)	4.99 (0.47)	0.96 (0.43)

[a]Mean inter-item correlations. M, mean.

Table 2   Summary of the views of the participants toward the contents and activities format of the training program.

Participants' views toward the contents and activities format of the training program[a]	Respondents with positive responses (options 4–6)[b]							
	S1		S2		S3		Overall	
	n	%	n	%	n	%	n	%
It has strengthened my understanding of the nature of adolescent development	313	97	184	98	205	97	702	97
It has helped me to cultivate a positive attitude to adolescent development	318	98	183	98	206	98	707	98
It has strengthened my understanding of positive youth development, including its concept, design and research	318	98	184	98	206	98	708	98
It has helped me to understand Project P.A.T.H.S., including its basic philosophy, design, implementation and evaluation	315	98	184	98	206	98	705	98
It has strengthened me to understand the content of the Tier 1 Program	319	99	184	98	207	98	710	98
It has helped me to acquire the attitude, knowledge and skills that are conducive to the successful implementation of the Tier 1 Program	313	97	181	97	206	98	700	97
It has helped me to establish self-help support network and shared teaching experiences among the program participants	307	95	181	97	201	95	689	96
The training methods and activities are appropriate (e.g., lecture, games, group discussion)	311	96	183	98	204	97	698	97
Training time is appropriate	290	90	170	91	198	94	658	91
It has met my expectation	293	91	181	97	204	97	678	94
Overall speaking, I am satisfied with the training program	306	95	183	98	207	98	696	97
There was much peer interaction amongst participants	308	95	184	98	204	97	696	97
Instructor(s) encouraged participants to do their best	315	98	184	98	209	99	708	98
I think participants are satisfied with the training program	304	95	182	97	208	99	694	97
It has promoted self-reflection	307	95	182	97	206	98	695	96
It has helped me to recognize factors affecting teaching	303	94	182	97	206	98	691	96

[a]All items are on a six-point Likert scale with 1=strongly disagree, 2=disagree, 3=slightly disagree, 4=slightly agree, 5=agree, 6=strongly agree. [b]Only respondents with positive responses (options 4–6) are shown. S1=Secondary 1 level; S2=Secondary 2 level; S3=Secondary 3 level.

the Tier 1 Program (98%, n=710), and strengthening of the participants' understanding of the nature of adolescent development (97%, n=702). In particular, 97% of the respondents (n=696) cherished the peer interaction amongst participants and 97% of the respondents (n=694) perceived that other participants were also satisfied with the training program.

Second, as indicated in Table 3, most of the participants (98%, n=703) perceived the instructors in a positive and encouraging manner. About 99% (n=717) of the respondents thought that the instructors showed good and professional attitudes; 98% (n=705) of respondents perceived that the instructors had good mastery of the training curricula, and that their

teaching was clear and easy to understand (98%, n=704). Third, regarding the performance of the program participants during the training process, a high proportion of the respondents had positive evaluation of their own performance (98%, n=706) in the training program (Table 4). For instance, most of the participants perceived that they participated actively during discussion (97%, n=700). In addition, they reflected that they are willing to apply the specific skills and theories learned from the training program (98%, n=707) and having confidence in program implementation after attending the training program (96%, n=689). Finally, as shown in Table 5, the participants had good evaluation of the administrative

Table 3   Summary of the views of participants toward program instructors.

Participants' views toward program instructor(s)[a]	Respondents with positive responses (options 4–6)[b]							
	S1		S2		S3		Overall	
	n	%	n	%	n	%	n	%
The instructor(s) had good mastery of the curriculum	313	97	181	97	211	100	705	98
The instructor(s) understood the needs of participants	307	95	178	95	209	99	694	96
The instructor(s) showed good professional attitude	321	99	185	99	211	100	717	99
The instructor(s)' teaching was clear and easy to understand	313	97	181	97	210	100	704	98
Overall speaking, I have positive evaluation of the instructor(s)' teaching performance	310	96	182	97	211	100	703	98

[a]All items are on a six-point Likert scale with 1=strongly disagree, 2=disagree, 3=slightly disagree, 4=slightly agree, 5=agree, 6=strongly agree. [b]Only respondents with positive responses (options 4–6) are shown. S1=Secondary 1 level; S2=Secondary 2 level; S3=Secondary 3 level.

Table 4   Summary of the views of participants toward themselves.

Participants' views toward themselves[a]	Respondents with positive responses (options 4–6)[b]							
	S1		S2		S3		Overall	
	n	%	n	%	n	%	n	%
I participated actively during discussion	311	96	181	97	208	99	700	97
I am willing to apply the specific skills and theories learnt from this training program	316	98	183	98	208	99	707	98
After attending the training program, I had confidence in program implementation	306	94	181	98	202	96	689	96
Overall speaking, I am satisfied with my performance	315	97	183	98	208	99	706	98

[a]All items are on a six-point Likert scale with 1=strongly disagree, 2=disagree, 3=slightly disagree, 4=slightly agree, 5=agree, 6=strongly agree. [b]Only respondents with positive responses (options 4–6) are shown. S1=Secondary 1 level; S2=Secondary 2 level; S3=Secondary 3 level.

arrangement, most of them were satisfied with the administrative arrangement provided (98%, n=708) and the reception provided by the training team (98%, n=705). The participants also appreciated the workshop assigned (98%, n=702) and the venue facilities (98%, n=709).

Discussion

The subjective outcome evaluation findings based on the responses of the potential program implementers in the first year of the extension phase of Project P.A.T.H.S. are presented in this study. In terms of evaluation, the current feedback from the training participants indicated that the training program for the first year of the extension phase of Project P.A.T.H.S. in Hong Kong had been successfully implemented. Generally, the program participants had positive perceptions of the training program and the instructors. More importantly, the participants perceived that they had self-reflections and enhanced understanding of adolescents in the process. Taken as a whole, the subjective outcome evaluation findings suggest that the training program was very successful in helping the participants to acquire knowledge and develop positive attitudes towards the program.

Subjective outcome evaluation is commonly used in different human services professions, such as social work, education and healthcare (24, 25). While it enjoys the advantages of

ease of administration and data analyses as well as capturing the views of the participants, its lack of scientific credibility is a common criticism leveled against this approach of evaluation (26). Obviously, development of an objective subjective outcome evaluation tool is a useful strategy. In the original phase of Project P.A.T.H.S. in Hong Kong, research findings show that the subjective evaluation tool was internally consistent. Despite a change in the format of training workshops from 3 days to 2 days, the present findings again showed that the subjective outcome evaluation form was internally consistent.

Another important observation is that although there is a change in the format of the training programs (i.e., from a 3-day interactive workshop to a 2-day interactive workshop plus 7 h of e-learning), the patterns of findings are more or less the same in the two modes of training. In other words, a reduction of 7 h of interactive training does not seem to have much adverse impact on the effectiveness of the training program. In fact, there were overwhelmingly positive perceptions of the content and effect of the training program, and these findings are comparable to those based on the original phase. As there are few studies on the differential effects of different modes of training, the present study could be regarded as a meaningful addition to the literature.

This study has three strengths. First, it investigated different aspects of subjective outcome, including views toward the training program, training instructors, self-evaluation,

Table 5   Summary of the views of participants toward administrative arrangements.

Participants' views toward administrative arrangement[a]	Respondents with positive responses (options 4–6)[b]							
	S1		S2		S3		Overall	
	n	%	n	%	n	%	n	%
Information obtained before attending the workshop	314	97	180	97	201	96	695	97
Workshop assigned	317	98	182	98	203	97	702	98
Location of the workshop	276	85	155	83	182	87	613	85
Reception provided by training team (e.g., traffic arrangement, refreshments etc)	318	98	184	99	203	97	705	98
Facilities of the venue	320	98	185	99	204	97	709	98
Overall speaking, I am satisfied with the administration arrangements	321	99	183	98	204	97	708	98

[a]All items are on a six-point Likert scale with 1=strongly disagree, 2=disagree, 3=slightly disagree, 4=slightly agree, 5=agree, 6=strongly agree. [b]Only respondents with positive responses (options 4–6) are shown. S1=Secondary 1 level; S2=Secondary 2 level; S3=Secondary 3 level.

arrangements and overall satisfaction, and all these scales were found to be reliable. Second, as there are only a few systematic evaluation studies on training programs training in both the international and local contexts, the present study provides a significant contribution to the literature. Third, this study used a reliable measure of subjective outcome evaluation. Finally, the findings give some insights into the effectiveness of the revised training program.

However, there are three limitations of this study. First, since the present findings are based on quantitative data of subjective outcome evaluation, further integration with other qualitative findings is desirable in order to obtain a full picture. In fact, analyses of the open-ended questions in this study would be helpful. Second, it is noteworthy that there is no direct comparison of the training program of the original phase and the revised program in the extension phase. It would be helpful if an experimental study could be conducted in future to look at the effect of interactive vs. non-interactive nature of the training program. Third, the present findings can possibly be explained in terms of demand characteristic (i.e., tendency to work as a "good" and "cooperative informant") and group pressure (i.e., participants tended to give positive evaluation in a group context). Nevertheless, as the responses were anonymous, this alternative explanation is not likely to be true. Another possible explanation of the positive findings is regarding the random responses (i.e., the participants did not respond seriously). This explanation could also be dismissed as the entire scale was internally consistent and its reliability was good.

Despite these limitations, the present study has provided some initial quantitative evaluation findings suggesting that the revised training program in Project P.A.T.H.S. is effective in helping the potential program implementers to implement the program in an effective manner. These findings are important as far as the development of evidence-based positive youth development programs is concerned (27, 28).

Acknowledgments

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