

Program implementers' evaluation of Project P.A.T.H.S. in Hong Kong: a study based on different cohorts

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Abstract

A total of 216 schools participated in the Tier 1 Program (Secondary 1, 2 and 3 levels) of Project P.A.T.H.S. (Positive Adolescent Training through Holistic Social Programmes) in the 2008/09 school year. Based on the subjective outcome evaluation findings collected from students and instructors in each grade, the program implementers wrote down five conclusions in their reports. Utilizing secondary data analysis, the conclusions in the reports were further analyzed. Results showed that most of the conclusions concerning perceptions of the program, instructors and effectiveness of the program were positive in nature. There were also conclusions indicating difficulties encountered and recommendations for improvement. The result of the present study is consistent with previous studies using the same method as well as using other evaluation means for the same grades. The findings suggest that the Tier 1 Program is well received by the stakeholders and the program is effective in promoting the holistic development of adolescents.

Keywords: integrative research; Project P.A.T.H.S.; secondary data analysis; subjective outcome evaluation.

Introduction

Adolescence is a critical period of human development in which individuals explore risks and opportunities. Early

adolescence (i.e., Secondary 1 to Secondary 3 students in the Hong Kong context) is the stage when adolescents experience physical changes of puberty, cognitive maturation, rapid expansion of social circle, higher levels of social expectations, and gradual detachment from the family. Issues such as friendship, conflicts with peers, and love affairs heavily affect their development. Shek et al. (1–4) highlighted the characteristics of adolescents ranging from Secondary 1 to Secondary 3 in the Hong Kong community. Secondary 1 students encountered many problems when entering secondary school, but their older counterparts fared no better. Secondary 3 students showed poorer psychological well-being and adaptation skills. They perceived family functioning to be poorer and parental control to be looser. Adolescents experience more stress as they advance in age. In a highly developed city like Hong Kong, adolescents are prone to risks like drugs abuse, alcohol and tobacco uses, Internet addiction and school violence (5). Western countries such as the USA have years of experience in implementing large-scale preventive programs to address adolescents' developmental problems like the Life Skill Training Program (6). However, on the contrary, social service agencies in Hong Kong usually focus on remedial interventions rather than preventive measures when handling youth problems. Shek and Yu (7) reviewed youth programs in Asia in the past two decades and could only identify 11 preventive or positive youth development programs in Hong Kong. Obviously, Hong Kong is immature in neither developing large-scale preventive programs nor evaluating programs in a systematic way. As such, there is a great service need to develop evidence-based preventive and positive youth development programs for youth, because there is evidence supporting evidence-based prevention and youth development programs to deal with adolescents' issues (6, 8–10).

Project P.A.T.H.S. (Positive Adolescent Training through Holistic Social Programmes) is a pioneering, large-scale, research-based project launched in 2005 in Hong Kong. It is funded by The Hong Kong Jockey Club Charities Trust and is divided into two tiers of program. The Tier 1 Program is a universal program for all junior secondary students, whereas the Tier 2 Program is specially designed for participants with greater socio-psychological needs. In the Tier 1 Program, Secondary 1–3 students in the participating schools receive 10 or 20 h training every year in a curriculum-based program which is designed in accordance with 15 positive youth development constructs (11). The 15 constructs are: bonding, social competence, emotional competence, cognitive competence, behavioral competence, moral competence, self-efficacy, prosocial norms, resilience, self-determination, spirituality, clear and positive identity, belief in the future, prosocial

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involvement, and recognition for positive behaviors. These 15 constructs were common features identified by Catalano et al. (12) in successful positive youth development programs. Because teachers and social workers in Hong Kong are not familiar with the concept of positive youth development, program implementers are also provided with 3-day intensive training on the theoretical foundation of Project P.A.T.H.S. as well as practical skills to implement the project in schools and project evaluation methods.

Debate for quantitative-qualitative paradigms has been hot since the 1970s and there is an increasing tendency to combine methods for research purposes, as proposed by Campbell and Fiske (13–17). Triangulation is defined as “the combination of methodologies in the study of the same phenomenon” (p. 291, 18) with advantages such as validation and completeness of results (19). As Ammenwerth et al. (19) stated, “validation of results is obtained when results from one part of the study are confirmed by congruent results from other parts of the study” and completeness of results is increased “when one part of the study presents results which have not been found in other parts of the study” (p. 244). Program evaluation is very important for identification of effective and successful programs for different purposes and different clientele. Although a quantitative or experimental approach is usually employed to evaluate the effectiveness of youth development programs (20), there is a trend to combine both quantitative and qualitative methods in evaluation works.

In line with the basic beliefs of post-positivism, Project P.A.T.H.S. employs the idea of triangulation (21) to evaluate the effectiveness of the program, including triangulation by: (a) data sources (e.g., views of both program implementers and participants); (b) evaluation means (objective outcome evaluation, subjective outcome evaluation, evaluation based on repertory grid tests, and process evaluation); (c) researchers (inter-rater reliability checking); and (d) data types (quantitative data and qualitative data). Among these evaluation strategies, only the subjective outcome evaluations are conducted by program implementers upon the completion of programs; others are conducted by the research team of the project.

The quantitative subjective outcome evaluation data of Project P.A.T.H.S. based on students and instructors gathered from Secondary 1 to 3 levels in the 2008/09 school year are discussed and presented in papers written by Shek and his colleagues (22–24). Results showed that the Tier 1 Program was well received by stakeholders; moreover, program content and instructors were predictors of program effectiveness. Based on both quantitative and qualitative subjective outcome evaluation data collected, the program implementer at each school was required to write down five conclusions regarding their perceptions of the Tier 1 Program after integrating the data and the implementation experiences. As program implementers are important stakeholders of the program, their conclusions are noteworthy. In this study, based on the five conclusions reached by the workers, a secondary data analysis was performed to understand how the program implementers perceived the program and its effectiveness.

Methods

Dataset for secondary data analyses

In the 2008/09 school year, 216 schools joined Project P.A.T.H.S. in the Full Implementation Phase with 197, 198 and 167 schools in Secondary 1, Secondary 2 and Secondary 3 levels, respectively. After completion of the Tier 1 Program, students and program implementers were invited to complete the subjective outcome evaluation questionnaires (Forms A and B). A total of 85,729 students (with an average of 152.52 students per school, ranging from three to 263 students) responded to the Subjective Outcome Evaluation Form for Students (Form A) and 3274 program implementers (teachers and social workers) responded to the Subjective Outcome Evaluation Form for Instructors (Form B).

Form A assesses: (a) participants' perceptions of the program; (b) participants' perceptions of the workers; (c) participants' perception of the effectiveness of the program; (d) participants willingness to recommend the program to other people with similar needs; (e) the extent to which the participants would join similar programs in future; and (f) overall satisfaction with the program. There are also open-ended questions asking about participants' gains from the program, their appreciation of the program, their opinion about instructors, and areas for improvements. Similarly, Form B includes the evaluation of: (a) program implementers' perceptions of the program; (b) program implementers' perceptions of their own practice; (c) implementers' perceptions of the effectiveness of the program; (d) the extent to which the implementers would recommend the program to other students with similar needs; (e) the extent to which the implementers would teach similar programs in future; and (f) implementers' overall satisfaction with the program. Open-ended questions were asked about what the implementers learned in the program, what they appreciated most, difficulties they encountered, and areas that require improvement. The detailed design of Forms A and B can be referred to in recent papers concerning the evaluation of Project P.A.T.H.S. in the school year 2008/09 (22–24).

Based on the evaluation data collected, the responsible worker in each school was required to complete an evaluation report where the quantitative and qualitative findings based on Forms A and B were summarized and described. In the last section of the report, the worker was asked to write down their five most important conclusions regarding the program and its effectiveness, to give an overall picture of the perceived effectiveness of the Tier 1 Program.

Data analyses

The data generated from the five conclusions were analyzed using general qualitative analyses techniques (25) by two research colleagues. The final coding and categorization were further cross-checked by a colleague with a Master's Degree in Social Work. There were three steps in the data analysis process. First, raw codes were developed for words, phrases and/or sentences that formed meaningful units in each conclusion at the raw response level. Second, the codes were further combined to reflect higher-order attributes at the category of code level. For example, the response of “the program content is comprehensive” at the raw response level could be subsumed under the category of “program content” which could be further subsumed under the broad theme of “views toward the program” (see Table 1).

Both intra- and inter-rater reliability on the coding were calculated in order to minimize the possible biases involved. For intra-rater reliability, each of the two research staff, who was primarily responsible for coding, coded 20 randomly selected responses without looking at the original codes. For inter-rater reliability another two research

Table 1 Responses on views toward the program.

Category	Descriptions	Nature of response	S1	S2	S3	Total	
Satisfaction level	Positive impression toward the program	Positive	86	91	82	259	
	Satisfied with the program		98	100	86	284	
	Students were satisfied with their own performance in the program		4	2	1	7	
	Liked the program		51	46	46	143	
	Would join the program again		7	8	8	23	
	Would suggest friends to join the program		3	3	6	12	
	The program is worth continuing		2	0	2	4	
	Neutral impression toward the program	Neutral	4	3	2	9	
	Neutral comments		4	6	10	20	
	Negative comments	Negative	7	9	9	25	
Subtotal	266		268	252	786		
Program content	Satisfied with the program content	Positive	13	13	1	27	
	Comprehensive and systematic content		20	11	13	44	
	Good content/program design		46	17	24	87	
	Clear objectives		38	35	30	103	
	Strong theoretical framework		13	8	9	30	
	Up-to-date and detailed information		0	1	4	5	
	Diversified program content/teaching means		5	11	14	30	
	Interesting/sufficient teaching materials/interactive activities		8	8	29	45	
	Content met students' needs, interests and abilities		12	10	14	36	
	Good design of the games/activities		9	5	3	17	
	Content matched with social environment/real-life situation		0	0	4	4	
	Other positive comments		2	1	7	10	
	Neutral comments	Neutral	8	7	2	17	
	Too much content		Negative	3	0	4	7
	Out-dated content			6	0	0	6
	Overlapping		0	1	3	4	
	Too simple content		8	8	5	21	
	Boring content, teaching format and materials		11	8	8	27	
	Unable to match students' abilities/needs/social environment		2	2	3	7	
	Other negative comments		7	7	7	21	
Subtotal		211	153	184	548		
Program arrangement	Whole-school cooperation	Positive	0	0	2	2	
	Flexible/good program arrangement		19	21	9	49	
	Other positive comments		4	1	0	5	
	Neutral comments	Neutral	4	1	0	5	
	The sessions were too long/too many sessions		Negative	0	2	0	2
	Negative comments			0	3	1	4
Subtotal		27	28	12	67		
Program implementation	Good atmosphere	Positive	17	24	24	65	
	Students' active participation		25	19	20	64	
	Liked the implementation format (groups, discussion, real case sharing)		3	5	3	11	
	Provided a platform for communication/sufficient discussion/reflection time		28	24	19	71	
	Had adequate support from the program		0	2	0	2	
	Interactive		5	3	4	12	
	Good reward system		2	0	0	2	
	Other positive comments		2	2	4	8	
	Neutral comments	Neutral	2	3	2	7	
	Students' inactive participation		Negative	2	1	1	4
	Negative comments			3	0	3	6
	Subtotal		89	83	80	252	
Program format	Positive comments on teaching materials	Positive	27	8	2	37	
	Diversified teaching format		4	7	0	11	

(Table 1 continued)

Category	Descriptions	Nature of response	S1	S2	S3	Total
	Other positive comments		0	1	2	3
	Neutral comments	Neutral	0	0	1	1
	Negative comments on growth puzzle	Negative	0	2	1	3
	Too many tasks or written tasks		1	0	0	1
	Reflection questions too difficult		1	0	0	1
	Subtotal		33	18	6	57
Others	The program was smoothly completed/students could catch up with the progress	Positive	5	2	4	11
	Positive comments		6	1	9	16
	Perceived successful factors to program or students' participation	Neutral	35	10	25	70
	Neutral comments		3	7	0	10
	Negative comments		2	0	0	2
	Subtotal		51	20	38	109
Total responses			677	570	572	1819
Total number of positive responses			564	479	485	1538
Percentage of positive responses			83.31%	84.04%	84.79%	84.55%

S, Secondary.

staff, both with a Doctoral degree and who had not been involved in the data analyses, coded the same 20 randomly selected responses independently without knowing the original codes given at the end of the scoring process.

Following the principles of qualitative analyses proposed by Shek et al. (26), the following attributes of the study regarding data collection and analyses are highlighted. First, a general qualitative orientation was adopted. Second, the sources of data (e.g., number of participants) for analyses are described. Third, the issues of biases and ideological preoccupation are addressed. Fourth, inter- and intra-rater reliability information is presented. Fifth, the categorized data were kept by a systematic filing system in order to ensure that the findings are auditable. Finally, possible explanations, including alternative explanations, are considered.

Results

In the three grades of the 2008/09 school year, a total of 2800 conclusions were drawn from 216 evaluation reports and 6341 meaningful units (2206, 2236 and 1899 for Secondary 1, Secondary 2, and Secondary 3 levels, respectively) were extracted. These raw responses were categorized into several categories, including views of the stakeholders on the program (Table 1), views of stakeholders on the program implementers (Table 2), perceived general and specific effectiveness of the program (Table 3), and difficulties encountered and recommendations toward the program (Table 4).

Regarding the conclusions related to the stakeholders' perceptions of the program, results in Table 1 showed that most of the responses were positive in nature in the areas of satisfaction level, program content, program arrangement, program implementation and program format. Among the 1819 responses in the three grades, 1538 responses were classified as positive (84.55%). A large number of responses showed that students/instructors had positive impressions

toward the program (n=259) and liked the program (n=143). In total, 786 responses (43.21%) fell into the sub-category of "satisfaction level" which implies the stakeholders were in general satisfied with the program. The average intra-rater agreement percentage on the positivity of coding was 98.33% (95% for Secondary 1 level and 100% for both Secondary 2 and Secondary 3 levels), while the inter-rater agreement percentage on the positivity of coding was 91.67% (90% for Secondary 1 level, 95% for Secondary 2 level, and 90% for Secondary 3 level).

Findings in Table 2 showed that program implementers were positively perceived by stakeholders. Among the 1082 responses, 1053 were positive in nature (97.32%). The satisfaction level among stakeholders on instructors' performance was very high. A lot of responses contained descriptions such as "students were satisfied with instructors' performance" (n=315) and "instructors were satisfied with their own performance" (n=234). Moreover, instructors' positive attributes were highly regarded by stakeholders. For example, instructors were commented as having "sufficient preparation/understanding of the program" (n=66), "sufficient mastering of teaching skills" (n=58) and a "professional/sincere attitude" (n=57). Both the average intra-rater and inter-rater agreement percentages on the positivity of the coding were both 96.67% (100% for both Secondary 1 and Secondary 2 levels and 90% for Secondary 3 level).

Table 3 presents the perceived effectiveness of the program to the students. There were a total of 2263 meaningful units that could be categorized in several levels, namely societal, familial, interpersonal and personal. The positive effects of the program were evident: 2191 responses were positive in nature, which accounted for 96.82% of all responses in Table 3. Nearly four-fifths of responses were related to students' personal growth. For instance, the program was perceived to have "enhanced students' development" (n=529),

Table 2 Responses on the views toward instructors.

Category	Descriptions	Nature of response	S1	S2	S3	Total
Satisfaction level	Satisfied with instructors/instructors' teaching	Positive	14	8	12	34
	Satisfied with/appreciated instructors' performance		119	112	84	315
	Other positive comments		12	19	11	42
	Neutral comments	Neutral	1	1	0	2
	Subtotal		146	140	107	393
Views about the instructors	Professional/sincere attitude	Positive	20	20	17	57
	Commitment/involved		20	15	14	49
	Sufficient preparation/understanding of the program		23	30	13	66
	Instructors' attitude and performance influenced students' learning		17	22	23	62
	Cared about students		15	18	9	42
	Friendly/patient		6	5	6	17
	Provided assistance to students		7	13	7	27
	Sufficient mastering of teaching skills		19	20	19	58
	Enhanced students' participation		5	16	5	26
	Neutral comments	Neutral	0	4	0	4
	Instructors' negative attitude hindered students' learning	Negative	0	2	0	2
Insufficient mastering of teaching skills		0	9	0	9	
Subtotal		132	174	113	419	
Others	Instructors were satisfied with their own performance	Positive	82	96	56	234
	Instructors had much interaction with students		2	6	0	8
	Other positive comments		5	4	7	16
	Instructors needed more training	Neutral	0	1	0	1
	Neutral comments		1	7	3	11
Subtotal		90	114	66	270	
Total responses			368	428	286	1082
Total number of positive responses			366	404	283	1053
Percentage of positive responses			99.46%	94.39%	98.95%	97.32%

S, Secondary.

“promoted students’ abilities of differentiating between right and wrong” (n=138), and “enhanced students’ self-understanding” (n=100). On the interpersonal level, 189 responses indicated that the program “promoted students’ communication and interpersonal skills” and 238 responses showed that the program had promoted students’ general interpersonal competence. The average intra-rater agreement percentage on the category of code level was 100%, while the average inter-rater agreement percentage on the category of code level was 96.67% (100% for Secondary 1 level, 95% for both Secondary 2 and Secondary 3 levels).

The difficulties encountered (n=162) and suggestions for improvement (n=1015) are shown in Table 4. Time constraints (n=63) were the major difficulties encountered during program implementation. Nearly 840 recommendations were about program content and implementation, such as suggestions to update the program to meet the needs of adolescents or match up with the social context. It is noteworthy that some suggestions for improvement were contradictory (e.g., increase number of sessions vs. decrease number of sessions). Based on the category of code level, the average intra-rater agreement percentage was 96.67% (100% for Secondary 1, 95% for both Secondary 2 and Secondary 3 levels) and the average inter-rater agreement percentage was 98.33% (100% for both Secondary 1 and Secondary 3 levels, and 95% for Secondary 2 level).

Discussion

In the present study, we tried to analyze the conclusions drawn by the program implementers regarding their perceptions on the Tier 1 Program of Project P.A.T.H.S. in the 2008/09 school year via secondary analyses. As stated before, triangulation uses the findings of one study to support those of others and thus enhance the validation. Consistent with the findings from quantitative data from Forms A and B on the same cohort of students (22–24), the present study supports the effectiveness of the Tier 1 Program in enhancing adolescents’ youth development. Results generally showed that these findings also echo the previous evaluation studies on Project P.A.T.H.S. using the same method (27) as well as using other evaluation methods, such as qualitative analyses of students’ weekly diaries (28), process evaluation (29), focus group evaluation (30), and objective outcome evaluation (31). All the findings showed that the Tier 1 Program of Project P.A.T.H.S. is beneficial to the students’ development.

With the method of triangulation, we can “capture a more complete, holistic, and contextual portrayal of the unit(s) under study” (p. 603, 15). In this study, we have grasped more information about stakeholders’ perceptions of the Tier 1 Program which could not be seen from Form A and B questionnaires, such as the difficulties encountered by implementers and suggestions for improvements to the

Table 3 Responses on perceived program effectiveness.

Category	Subcategory	Responses	Nature of response	S1	S2	S3	Total
Societal level	Social responsibility	Enhanced students' social participation and sense of caring	Positive	13	11	11	35
		Could increase students' sense of responsibility to a very limited extent	Neutral	1	1	1	3
		Subtotal		14	12	12	38
Familial level	Family relationships	Enhanced the relationship between students and their families	Positive	6	14	6	26
		Could not enhance family relationship	Negative	0	1	2	3
		Subtotal		6	15	8	29
Inter-personal level	General interpersonal competence	Improved interpersonal relationship/bonding with others	Positive	18	12	12	42
		Enhanced instructors and students relationship		18	15	22	55
		Enhanced peer relationship		5	6	6	17
		Increased communication between students		5	16	15	36
		Increased communication between instructors and students		14	14	12	40
		Enhanced mutual understanding		8	20	15	43
		No impact on interpersonal relationship	Negative	0	2	3	5
	Subtotal		68	85	85	238	
	Specific interpersonal competence	Promoted communication and interpersonal skills	Positive	77	59	53	189
		Increased sense of compassion and care to others		6	16	14	36
		Enhanced ability of cooperating with others/teamwork		5	6	6	17
		Promoted trust/respect		7	5	2	14
		Improved leadership skills		0	0	1	1
		Subtotal		95	86	76	257
Personal level		General	Enhanced students' development	Positive	194	179	156
	Beneficial to students/enhanced students' general competence			59	72	41	172
	Minimal effect on students		Neutral	1	11	7	19
	Could not enhance students' development		Negative	3	5	10	18
	Subtotal			257	267	214	738
Personal level	Cherishing life	Treasuring of life/promoted spirituality	Positive	4	15	7	26
		Reflection of life		17	28	23	68
		Subtotal		21	43	30	94
	Cognitive competence	Promoted cognitive ability	Positive	3	2	2	7
		Promoted analytical ability		15	19	19	53
		Enhanced self-reflection		5	10	12	27
		Subtotal		23	31	33	87
	Positive self-image	Cultivation of resilience	Positive	22	27	11	60
		Mastering of future		8	9	8	25
		Enhanced self-confidence		9	10	11	30
		Enhanced self-determination		25	24	13	62
		Enhanced self-understanding		49	25	26	100
		Resisted undesirable influence		25	19	9	53
		Promoted self-efficacy		1	1	1	3
Enhanced sense of responsibility			0	4	2	6	
Emotional competence	Enhanced positive identity		1	0	0	1	
	Subtotal		140	119	81	340	
	Promoted emotional control and expression	Positive	34	28	20	82	
Subtotal		34	28	20	82		

(Table 3 continued)

Category	Subcategory	Responses	Nature of response	S1	S2	S3	Total
	Goal setting	Goal setting	Positive	4	1	7	12
		Future planning		1	0	10	11
		Subtotal		5	1	17	23
	Moral competence and virtues	Promoted ability of differentiating between right and wrong	Positive	52	52	34	138
		Cultivated positive virtue/values		12	18	9	39
		Subtotal		64	70	43	197
	Learning	Students gained extra curricular knowledge	Positive	4	8	10	22
		Enhanced learning skills/other learning experiences		2	0	8	10
		Promoted presentation skills		0	5	5	10
		Enhanced students' participation in classroom		2	2	0	4
		Subtotal		8	15	23	46
Others		Beneficial to instructors	Positive	29	22	11	62
		Could apply what learned into daily life		2	1	2	5
		Other positive comments		4	5	14	23
		Neutral comments	Neutral	3	4	4	11
		Have no help on instructors	Negative	1	0	2	3
		Negative comments		0	6	4	10
		Subtotal		39	38	37	114
Total responses				774	810	679	2263
Total number of positive responses				765	780	646	2191
Percentage of positive responses				98.84%	96.30%	95.14%	96.82%

S, Secondary.

program (Table 4). Such information is valuable for further refinement of the project. The use of workers' conclusions as the bases of analyses has three strengths. First, workers' viewpoints are respected and treasured. As one of the primary stakeholders in the process workers' views are very important for evaluation, because they have more expertise and training in evaluation. Second, as workers actually implement the program, they have first-hand experience about the program and the benefits of the program. Finally, involvement of workers can create space for them to voice their dissatisfaction, if any.

Review of literature shows that universal programs can benefit low-risk as well as high-risk persons (9) and long-term, multi-year and multi-component programs can produce long-term benefits (6). According to the Office of Juvenile Justice and Delinquency Prevention (32), "identifying programs that have been proven effective is essential to preventing juvenile violence and delinquency" (p.i) and three criteria for "model" violence prevention programs are set. These include: (a) evidence of a deterrent effect with strong research design; (b) demonstration of a sustained effect; and (c) multi-site replication. As mentioned, Hong Kong lacks large-scale prevention programs or programs with well-designed evaluation systems. Only five programs in Hong Kong identified by Shek and Yu (7) have applied evaluations by experimental or quasi-experimental designs. Obviously, Project P.A.T.H.S. is a ground-breaking, pioneering, positive youth development in Hong Kong which has shown to induce beneficial effects in

the program participants. In future, multi-site studies should be attempted.

Regarding the evaluation method, the present study examines secondary data drawn by program implementers. Secondary analyses "enable data to be analyzed and replicated from different perspectives and in this way provides opportunities for the discovery of relationships not considered in the primary research" (p. 328, 33). The pros and cons of using secondary data have been thoroughly discussed in previous papers of the project (27). In short, it allows researchers to assess a large amount of data with little time and money, but the researcher has no control over the data collected and the data collected may not be useful to answer the question under investigations (33, 34). Therefore, it is valuable to conduct school-based case studies and/or in-depth interviews with instructors and students to provide a supplementary view of stakeholders' perceptions toward the program.

Using the utilization-focused approach (35), the views of the program implementers and the reports they prepare are taken into consideration. In addition to the arguments stated above for including implementers in evaluation, using program implementers as subjects of respondents when evaluating program effectiveness carries great weight because they are professionals inside the implementation process, and are knowledgeable about the program (25). Nonetheless, there are views against the use of program implementers in evaluation, such as insufficient evaluation expertise of the program

Table 4 Responses on encountered difficulties and recommendations to the program.

Category	Subcategory	Descriptions	S1	S2	S3	Total
Encountered difficulties	Content	Too much content	0	0	2	2
		Instructors are not familiar with the content/program	3	0	0	3
		Other difficulties related to program content	6	0	0	6
		Subtotal	9	0	2	11
	Implementation	Had difficulties in preparing/implementing the lessons	0	9	4	13
		High instructor-student ratio affected program effectiveness	0	3	0	3
		Difficulties in classroom management	3	4	2	9
		Students' problem	9	7	6	22
		School administration	3	1	0	4
		Time constraints	18	24	21	63
		Other difficulties	4	5	5	14
		Subtotal	37	53	38	128
	Others	Unfavorable arrangement	2	6	0	8
		Increased teachers' workload	4	0	3	7
		Other difficulties	3	0	5	8
Subtotal		9	6	8	23	
Total responses for encountered difficulties			55	59	48	162
Recommendations	Program content	Content should be more lively, interesting and attractive	41	35	26	102
		Content should be adjusted to suit the needs, interests and abilities of students	28	27	22	77
		Improve/update content of teaching materials	11	6	15	32
		Deepen program content	7	18	12	37
		Improve of the program content	0	11	30	41
		Simplify and condense the program content	6	7	3	16
		Be more applicable to real-life situations	8	33	10	51
		Match up with the social environment	21	21	17	59
		Need diversified content	3	8	8	19
		More real examples/experiential learning	2	4	0	6
		Provide revised supplementary materials	0	3	1	4
		Improve the content of PowerPoint and worksheets	0	2	2	4
		Improve the linkage between program aims and program content	2	1	1	4
		Need clearer objectives	1	2	0	3
		Add specific topics into the program	7	0	0	7
		Other comments related to content	10	2	5	17
		Subtotal	147	180	152	479
Recommendations	Program format	Add more games/activities	39	43	26	108
		Add more multi-media	14	22	17	53
		Need more diversified format	20	15	23	58
		Increase flexibility	3	0	2	5
		Add more interactive format	16	11	22	49
		Flexible discussion topics/prolong discussion and sharing time	6	9	7	22
		Opinion on growth puzzle	4	2	2	8
		Decrease the quantity of worksheets	2	2	0	4
		Enhance students' self-reflection and sharing	4	6	2	12
		Add more stories/case sharing	9	0	0	9
		Improve the arrangement	1	13	3	17
		Set up reward and penalty system	1	0	0	1
		Other comments on program format	1	3	4	8
	Subtotal	120	126	108	354	
	Time arrangement	Match up content and time	13	10	6	29
		Regulate activity time/sessions	6	1	13	20
		Prolong duration of lesson/increase number of sessions	12	14	10	36
Reduce duration of lesson/decrease number of sessions		5	6	3	14	
Other comments on time arrangement		7	15	0	22	
Subtotal	43	46	32	121		
Implementation	Provide more training and assistance to instructors	4	2	1	7	
	Strengthen follow-up and coordination work	0	1	2	3	

(Table 4 continued)

Category	Subcategory	Descriptions	S1	S2	S3	Total
		Consolidate teaching experience systematically	1	1	0	2
		Enhance the collaboration between teachers and social workers	2	0	1	3
		Improve instructor-student ratio	1	1	0	2
		Provide more support to schools	0	1	0	1
		Enhance class discipline/environment	3	4	3	10
		Incorporate into the formal curriculum	0	0	1	1
		Subtotal	11	11	8	30
	Others	Other recommendations	11	6	14	31
		Subtotal	11	6	14	31
Total responses for recommendations			332	369	314	1015

S, Secondary.

implementers or implementers' biases (e.g., cognitive dissonance, rice bowl and revenge arguments). However, this assumption is eliminated because implementers are professionals in both implementing and evaluating the program and thus credibility of the data collection and reports is high. Despite these limitations and in conjunction with other longitudinal evaluation findings (36–38), the present research findings help to build up the database of effective prevention programs in Hong Kong.

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