

Evaluation findings of Tin Ka Ping P.A.T.H.S. Project implemented in junior secondary schools: Implementers' views

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Abstract

After the Project P.A.T.H.S. was successfully implemented in the pilot stage in four cities in East China, the project was implemented on a full scale basis since 2015-2016 academic year. The present paper outlines the evaluation findings of the first year during the full implementation based on the views of the implementers using the subjective outcome evaluation approach. A total of 144 implementers from 13 secondary schools joined the current research. On the whole, results showed that the implementers were highly satisfied with the implementation regarding program content, their own performance, and program benefits. As expected, perceptions of program content and implementers' own performance were positively associated with and predicted perceived program benefits. Together with previous evaluation findings in Hong Kong and China mainland, the current study suggests that the Project P.A.T.H.S. has been well received by participants and implementers, and it promotes positive development in adolescents in different Chinese communities.

Keywords: Subjective outcome evaluation, Mainland China, program evaluation, adolescents, positive youth development

Introduction

Positive youth development (PYD) programs are intended to promote all-round development among teenagers by providing them opportunities to recognize, utilize and enhance their strengths, which would establish a solid foundation for healthy adjustment which would eventually prevent youth problems, such as substance abuse, juvenile delinquency, and violent crimes (1). The beneficial influence of PYD programs has been widely recognized globally. For instance, sport camps in the United Kingdom (UK) have been shown to promote competence, confidence, and care amongst students

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(2). In South Africa, a narrative-based program was found to promote youth development and it successfully reduced alcohol use and HIV infection among the youngster (3). In a comprehensive review of efficacious youth programs around the world, researchers concluded that implementing preventive and PYD programs effectively is a promising way to reduce adolescent problem behaviors (4).

Although PYD programs are popular among Western countries, systematic and large-scale PYD programs are rarely developed and implemented in Chinese contexts (5). To fill this information gap, a curriculum-based PYD program entitled "Positive Adolescent Training through Holistic Social Programmes" (Project P.A.T.H.S.) was developed and carried out in Hong Kong since 2005-2006 academic year with the financial support of The Hong Kong Jockey Club Charities Trust. This is the first large-scale and holistic PYD program in different Chinese communities. During the past decade, this project has achieved a great success in competence building and problem prevention among Hong Kong adolescents. Specifically, empirical findings showed that the project successfully enhanced multiple developmental assets and well-being (e.g., self-confidence, spirituality, prosocial involvement, and social competence) in students while simultaneously reduced adolescents' engagement in maladaptive behaviors, such as drug abuse, delinquency, and self-harm activities (6-8). Consistently, the program was positively evaluated and regarded as effective by both adolescent participants and program implementers (9-11).

There is also an urgent need to design and launch evidence-based PYD programs in mainland China because there are growing trends of youth problems in China. For example, with rapid economic growth in the past decades in mainland China, materialism became prevalent among Chinese adolescents. According to a research conducted by Ipsos (12), China is now the most materialistic country among 20 countries including the United States, UK, Japan, Korea, and so on. Under this atmosphere, the younger generation in China is becoming more materialistic when compared to the older generation and their counterparts in other countries (13). It is noteworthy that materialism was adversely associated with healthy adolescent development, such as self-esteem,

mental health, and life satisfaction (14). Similarly, an orientation of materialism also exerts negative impacts on students' intrinsic learning motivation, school performance, and developmental outcomes (15). All these findings take place alongside with the growing trends of external and internal problems among the Chinese youths (16).

To promote health development in Chinese adolescents in mainland China, the Project P.A.T.H.S. was adapted and implemented in mainland China in 2011, with financial support from the Tin Ka Ping Foundation. Although the Project P.A.T.H.S. has benefited thousands of secondary students in Hong Kong, its effectiveness in mainland China remains uncertain due to several reasons. First, although the junior secondary school programs adopted in mainland China were based on those implemented in Hong Kong, their applicability is unclear because there are cultural or sub-cultural differences involved.

Second, the pedagogy of Project P.A.T.H.S. was based on experiential learning, which requires teachers to let students learn from their firsthand experience rather than only passively receive knowledge from teachers (17). In particular, it emphasizes reflection since it allows students to introspect challenges and integrate new information to their existing schema (17). Obviously, such a student-centered pedagogy is quite different from the traditional teacher-centered one adopted in China. This stimulating pedagogy requires both teachers and students to make adaptations to their changing roles in the classroom. In this sense, both teachers and students may have difficulties in adjusting to the new teaching and learning styles, which might also potentially affect the effectiveness of the project.

Third, implementing and participating in such a PYD program might require extra working and schooling hours from teachers and students. Given that academic achievement is morbidly emphasized by schools, parents, and the society in China (18), school teachers and students may still have a mindset that the Project P.A.T.H.S. is competing for resource with other academic courses, which might possibly hinder students' academic achievement. Despite the strong evidence that effective PYD programs can actually enhance adolescents' school performance and academic achievement (19), schools might still have

hesitation to devote sufficient effort in implementing the project.

In view of the above issues, a 3-year pilot implementation (i.e., from 2011-2012 to 2013-2014 academic year) was carried out in four secondary schools located in East China and different evaluation strategies were utilized to investigate the implementation effectiveness. Results revealed highly positive findings regarding the program effectiveness in promoting adolescent holistic development (20, 21). These encouraging findings motivated the Foundation to support the project for three more years (2015-2016 to 2017-2018 school years) after one-year of preparation (i.e., 2014-2015 school year).

Although the pilot implementation showed the benefits of the Tin Ka Ping Project P.A.T.H.S. in China mainland, continuous program evaluation should be carried out, not only for the purpose of providing evidence-based support but also informing directions to improve future implementation. To this end, the present study attempted to evaluate program effectiveness in the first year of full implementation (i.e., 2015-2016 academic year). A subjective outcome evaluation method was used, in which data on the views from the program implementers toward three main aspects (program content, implementer's own performance, and program effectiveness) were collected. Program implementers' views should be considered and understood because they directly deliver the program. Moreover, their direct interactions with students allow them to understand the real need and actual change of students. Based on the previous positive evaluation findings (11, 22, 23), we proposed the following hypotheses:

- A majority of the program implementers would show positive perceptions on program content (Hypothesis 1a), their own performance (Hypothesis 1b), and program effectiveness (Hypothesis 1c). In subjective outcome studies, a program is commonly regarded as positive if more than 80% of the respondents respond in the positive direction. We used the same cutoff point in this study.
- Program implementers' satisfaction of program content (Hypothesis 2a) and self-perceived performance (Hypothesis 2b)

would have positive relationships with the perceived program effectiveness.

- Program implementers' evaluation of the program effectiveness would be positively predicted by perceived program content (Hypothesis 3a) and own performance (Hypothesis 3b).

Methods

Program implementers (e.g., teachers) from 13 participating schools were invited to complete a subjective outcome evaluation form for implementers (i.e., Form B) after the program was implemented in 2015-2016 academic year. A total of 144 implementers completed and returned the Form B. Among all the implementers, 80 implemented the program for Secondary 1, 45 for Secondary 1 and Secondary 2, and 19 for Secondary 1, Secondary 2, and Secondary 3. The number of implementers in each school ranged from 5 to 30, with an average of 11 ($SD = 6.79$). An evaluation manual with detailed instructions was given to implementers to guide them to complete the Form B prior to program evaluation. The procedures for collecting data and the related instructions were also covered in the training workshops.

Instruments

The Form B used in the present study has been widely used in prior evaluation studies and proved to be valid and reliable (11, 24). In Form B, six parts were developed to measure implementers' subjective perceptions of several aspects of the program.

First, two subscales were included in Part 1. Each subscale adopted 10 items to measure perceptions of the implementers toward the program content (e.g., impression of the program, classroom atmosphere, and students' participation) and self-performance (e.g., implementers' understanding of the program, involvement, and teaching skills). For each statement, the implementers gave their response on a 6-point Likert scale (1 = strongly disagree, 6 = strongly agree). The higher they rated, the more they agreed to the statement. The two subscales in the first part showed good reliability in the present study (see Table 1).

Table 1. Mean, standard deviation, Cronbach's alphas, and mean of inter-item correlations among variables

	M	SD	Cronbach's α	Mean [#]
Program content (10 items)	5.28	.49	.89	.44
Program implementers (10 items)	5.12	.56	.92	.52
Program effectiveness (16 items)	4.23	.59	.96	.59

Note. [#] Mean inter-item correlations.

Second, 16 items were employed in Part 2 to evaluate the implementers' perceived program effectiveness (e.g., improvement in students' resilience, emotional competence, and social competence). This subscale utilized a 5-point Likert scale (1 = not helpful at all, 5 = very helpful). Similarly, a higher rating in this subscale indicates a higher level of perceived program effectiveness. This subscale also had good reliability as shown in Table 1.

For Part 3 to Part 5, each part only contained one question. The third part asked the implementers to indicate their willingness to recommend the program to students having similar needs on a 4-point Likert scale (1 = definitely will not, 4 = definitely will). Using the same 4-point scale (1 = definitely will not, 4 = definitely will), the fourth part invited the implementers to express their willingness in teaching similar courses in the future. Lastly, the question in the fifth part was designed to assess the implementers' perception of the extent to which the program helped their professional development. Implementers gave their responses on a 5-point Likert scale (1 = not helpful at all, 5 = very helpful).

The sixth part contained three open questions about the most appreciated elements of the program, the areas need improvement, and suggestions for future development. In the present paper, the focus is put on the quantitative data derived from the first five parts.

Data analyses

A reliability test was done to measure the internal consistency of each subscale. Descriptive analyses were then performed to calculate the percentage of favorable responses of each part. We also examined correlations among respondents' views toward program quality, their own performance, and program

effectiveness. Besides, a multiple regression analysis was performed to examine the predictive effect of perceived program qualities and self-perceived performance on the level of perceived program effectiveness.

Results

Using 80% as a cutoff, positive responses toward the program content were found among all items as shown in Table 2. For example, all implementers agreed that the objectives of the program were very clear and the program activities were carefully designed. Moreover, almost all implementers (99.3%) had a very positive overall evaluation on the program and agreed that their students like this program very much.

Similar positive results were found in self-perceived performance (see Table 3). All implementers stated that they were ready to offer help to student when needed. Most of them (99.3%) had a very positive overall evaluation on themselves. Highly positive responses were also found on other items (e.g., professional attitude, involvement, and cared for students).

Table 4 presents the respondents' subjective views on perceived program effectiveness. Overall speaking, respondents gave highly positive responses on all items. More specifically, almost all participants (99.3%) agreed that the program helped their students build a stronger bonding with teachers, classmates and their families, and they perceived their students had a positive attitude to face the future after joining the program. Moreover, near 99% of the implementers indicated that the program strengthened students' ability in expressing emotions, helped students to distinguish between good and bad, and cultivated compassion and care about others.

Table 2. Summary of the program implementers' perceptions toward the program content

	Positive responses (Options 4-6)	
	N	%
1. The objectives of the curriculum are very clear.	144	100.0
2. The design of the curriculum is very good	143	99.3
3. The activities were carefully planned	144	100.0
4. The classroom atmosphere was very pleasant.	142	98.6
5. There was much peer interaction amongst the students	137	95.1
6. Students participated actively during lessons (including discussions, sharing, games, etc.)	141	97.9
7. The program has a strong and sound theoretical support.	141	97.9
8. The teaching experience I encountered enhanced my interest towards the lessons	142	98.6
9. Overall speaking, I have very positive evaluation of the program	143	99.3
10. On the whole, students like this curriculum very much	143	99.3

Note. All items are on a 6-point Likert scale with 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, 6 = strongly agree. Only respondents with positive responses (Options 4-6) are shown in the table.

Table 3. Summary of the program implementers' perceptions toward their own performance

	Positive responses (Options 4-6)	
	N	%
1. I have a good mastery of the curriculum.	136	94.4
2. I prepared well for the lessons	138	95.8
3. My teaching skills were good	137	95.1
4. I have professional attitude	142	98.6
5. I was very involved	141	97.9
6. I gained a lot during the course of instruction	142	98.6
7. I cared for the students	142	98.6
8. I was ready to offer help to students when needed	144	100.0
9. I had much interaction with the students	141	97.9
10. Over speaking, I have very positive evaluation of myself as an instructor	143	99.3

Note. All items are on a 6-point Likert scale with 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, 6 = strongly agree. Only respondents with positive responses (Options 4-6) are shown in the table.

Results of the program implementers' positive responses toward other aspects of the program are shown in Table 5. Most (99.3%) of the respondents indicated that they would recommend students with similar needs to participate in this program. Also, 96.5% of them expressed their willingness to teach similar program again in the future, and agreed that the program promoted their professional growth. In sum, Hypotheses 1a, 1b and 1c were supported by the statistical results.

Table 6 shows the results of Pearson correlation analyses. Both perception of program quality ($r = .58$, $p < .001$) and view toward own performance ($r = .66$, $p < .001$) showed a significant and positive linkage

with the implementers' perceptions of program effectiveness. These results provided support for Hypotheses 2a and 2b.

To further investigate the relationship between perceived program content, self-perceived performance and perceived program effectiveness, a multiple regression analysis was done and the results are depicted in table 7. Both implementers' self-perceived performance ($\beta = .50$, $p < .001$) and perceived program content ($\beta = .20$, $p < .05$) significantly predicted program effectiveness. The two predictors accounted for 45% of the variance of program effectiveness. In short, both Hypotheses 3a and 3b were supported.

Table 4. Summary of the program implementers' perceptions toward the program effectiveness

	Positive responses (Options 3-5)	
	N	%
1. It has strengthened students' bonding with teachers, classmates and their families	143	99.3
2. It has strengthened students' resilience in adverse conditions	141	97.9
3. It has enhanced students' social competence	140	97.2
4. It has improved students' ability in handling and expressing emotions	142	98.6
5. It has enhanced students' cognitive competence	141	97.9
6. Students' ability to resist harmful influences has been improved	141	97.9
7. It has strengthened students' ability to distinguish between the good and the bad	142	98.6
8. It has increased students' competence in making sensible and wise choices	141	97.9
9. It has helped students to have life reflections	141	97.9
10. It has reinforced students' self-confidence	142	98.6
11. It has increased students' self-awareness	142	98.6
12. It has helped students to face the future with a positive attitude	143	99.3
13. It has helped students to cultivate compassion and care about others	142	98.6
14. It has encouraged students to care about the community	139	96.5
15. It has promoted students' sense of responsibility in serving the society	142	98.6
16. It has enriched the overall development of the students	138	95.8

Note. All items are on a 5-point Likert scale with 1 = unhelpful, 2 = not very helpful, 3 = slightly helpful, 4 = helpful, 5 = very helpful. Only respondents with positive responses (Options 3-5) are shown in the table.

Table 5. Summary of the program implementers' positive perceptions on other aspects

Items	Positive responses (Options 3-4)	
	N	%
Willingness to suggest other students to participate in the program ^a	143	99.3
Willingness to teach similar programs in future ^a	139	96.5
The extent to which the program helped implementers' professional growth ^b	139	96.5

Note. ^a A 4-point Likert scale was used, with 1 = definitely will not, 2 = will not, 3 = will, 4 = definitely will. Only respondents with positive responses (Options 3-4) are shown in the table;

^b A 5-point Likert scale was used, with 1 = unhelpful, 2 = not very helpful, 3 = slightly helpful, 4 = helpful, 5 = very helpful. Only respondents with positive responses (Options 3-5) are shown in the table.

Table 6. Correlations among perceptions on program content, implementers, and program effectiveness

Variable	Program effectiveness		
	1	2	3
1. Program content (10 items)	--		
2. Program implementers (10 items)	.74***		
3. Program effectiveness (16 items)	.58***	.66***	--

*** $p < .001$. ** $p < .01$. * $p < .05$.

Table 7. Multiple regression analysis predicting program effectiveness

Predictors		Model	
Program content	Program implementers		
β^a	β^a	R	R ²
.20*	.50***	.67	.45

Note. ^a Standardized coefficients. *** $p < .001$. ** $p < .01$. * $p < .05$.

Discussion

The present research investigated evaluation findings based on implementers' views toward the Tin Ka Ping P.A.T.H.S. Project implemented in mainland China in 2015-2016 academic year. The current study employed a valid and reliable subjective outcome evaluation measurement (i.e., Form B) to assess the implementers' views toward the program implementation. The Form B mainly included three multi-item subscales that assessed implementers' perceptions of the program content, their own performance and program effectiveness, respectively. The information of implementers' willingness to recommend the program to other students, willingness to implement similar programs in future, and the extent the experience promoted teachers' professional growth was also gathered in the present study. The present findings not only demonstrated that the program was effective. It also informed us about the possible factors that contributed to the implementation effectiveness.

Overall speaking, the implementers held positive perceptions of the program implemented in 2015-2016 school year. Notably, over 95% of the respondents gave positive ratings on all aspects of the program content; all of them regarded the curriculum objectives as clear and activities as meticulously designed; over 99% of them perceived that the curriculum was well designed and agreed that students loved the program a lot. In addition, the implementers held favorable views toward their own performance. Nearly or over 95% of them rated themselves as having good performance in all aspects. For instance, over 98% of the respondents perceived that they had professional attitudes, cared for the students, and were willing to offer help to the students.

Regarding perceived program effectiveness, results showed that the implementation of program was effective in cultivating students' myriad positive attributes, such as positive bonding with significant adults and peers, resilience, self-awareness, beliefs in the future, emotional and moral competence, and so on. Implementers' responses to the three questions illustrated in Table 5 reinforced the positive evaluation. Almost all respondents were willing to suggest other students to join the program, and approximately 97% of the implementers wished to teach similar course in future and felt that teaching the program had benefited themselves a lot regarding professional development. All these results coincide with the positive evaluation findings for the P.A.T.H.S. Project implemented in Hong Kong (11, 24), suggesting that the transplanting and adaptation of the project from Hong Kong to mainland China is successful.

Theoretically speaking, the well-designed program content and quality delivery of the content by implementers as well as some supportive external conditions (e.g., policy support) collaboratively ensure the great benefits enjoyed by program participants (25). In line with this argument, perceptions of program content and program implementers' performance were both significantly correlated with and functioned as two significant predictors of perceived program effectiveness. The existing literature suggests that several factors may contribute to the quality of program content and implementers' good performance in delivering program content.

First of all, the curriculum of the project was developed based on PYD theory that maintains adolescents are "assets to be developed" instead of "problems to be solved" (26). Based on this positive view of adolescents, course content was carefully selected to fulfill adolescents' developmental needs

through promoting a wide range of psychosocial competencies, including self-efficacy, emotional competence, spirituality, and resilience (27). In addition to the strong theoretical basis, the curriculum also included a reflective and experiential learning pedagogy, which contends that students can learn by “experiencing, reflecting, thinking, and acting” (17). In line with the active learning philosophy, the center of teaching shifted from teachers to students; the method of teaching changed from merely lecturing to a combination of diverse ones, including group work, role play, debate, and reflection. It is noteworthy that an encouraging learning environment as well as a collaborative atmosphere created by such an inspirational and innovative pedagogy are very helpful in promoting students’ positive learning attitude, student engagement, and learning achievement (28, 29). These two unique features of the program content lay a solid foundation for the success of the program implementation in mainland China.

Besides the solid groundwork linked to program content, the qualified implementer constitutes another indispensable prerequisite of effective program delivery. It was evident that the characteristics of teacher, such as teaching experience and support for students, could significantly affect student learning (30, 31). Theories and empirical findings in the field of program evaluation also revealed that the quality of program implementers was a significant predictor of program effectiveness (5, 32). In view of the critical role of program implementers in program implementation, a series of training program was rigorously designed based on a theoretical framework proposed by Shek and Wai (33) and offered to implementers in the preparation year and during the full implementation phase. As expected, these training programs helped implementers better understand the PYD theory and the curriculum design, cultivate the positive and enthusiastic attitude toward program implementation, and master the required teaching skills (34, 35). Certainly, the comprehensive training enables the implementers to deliver the program effectively, which subsequently guarantees the benefits of the program.

While implementers gained confidence and experience in using experiential teaching method through training programs, positive findings of the present study also demonstrated that adolescents in

mainland China can well adapt to the active learning style. In fact, instead of resisting the active pedagogy, students were actually favored the student-centered approach and were able to actively participate in in-class activities involving interactions, critical thinking, self-reflections, sharing, and expression of personal views. This encouraging conclusion suggests that implementing PYD programs with active and experiential teaching and learning methods is a very promising way to promote holistic development in Chinese adolescents.

Despite the very positive findings, the present study has several limitations. First, our study only considered the implementers’ views. Besides, the sample size ($N = 144$) was not very large. To provide a full picture of program effectiveness and validate the present findings, future studies should involve other informants such as students and increase the sample size. Second, while acknowledging the advantages of subjective outcome evaluation approach, we also admit its inherent disadvantages. For example, reliability of subjective measures is affected by several factors that are hard, if not impossible, to control, such as item order and social desirability. Therefore, future studies could also include objective measures to offset these shortcomings. Third, although the present quantitative findings are very positive, it will certainly be illuminating to include qualitative methods such as focus group interview in future studies, as qualitative evaluation gives insight into the comprehensive picture of program effectiveness as well as mechanisms that underline the positive quantitative findings.

Acknowledgments

The preparation for this paper and the Tin Ka Ping P.A.T.H.S. Project are financially supported by the Tin Ka Ping Foundation.

Ethical compliance

The authors have stated all possible conflicts of interest within this work. The authors have stated all sources of funding for this work. If this work involved human participants, informed consent was received

from each individual. If this work involved human participants, it was conducted in accordance with the 1964 Declaration of Helsinki. If this work involved experiments with humans or animals, it was conducted in accordance with the related

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Submitted: February 03, 2017. *Revised:* March 01, 2017.

Accepted: March 12, 2017.

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