

Subjective outcome evaluation of the Tin Ka Ping P.A.T.H.S. Project in China: View of the students

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Abstract

Utilizing the client satisfaction approach, the present paper reports the program participants' perceptions of a positive youth development program (Tin Ka Ping P.A.T.H.S. Project) in China. Upon completion of the program, altogether 7,289 Secondary 1 and 2 students completed a valid and reliable questionnaire (Form A) to rate on different aspects including program content, program implementers, and program effectiveness. As anticipated, most students evaluated all three aspects positively. Grade differences were observed, with Secondary 1 students reporting higher satisfaction on program content, program implementers, and overall satisfaction than did their Secondary 2 counterparts. Furthermore, perceived program content and implementer quality predicted perceived program effectiveness. In short, the findings underscore the effectiveness of the Tin Ka Ping P.A.T.H.S. Project launched in the academic year 2015-2016.

Keywords: Chinese adolescents; subjective outcome evaluation; Tin Ka Ping P.A.T.H.S. Project

Introduction

Since the beginning of the "Open-Door Policy" in the early 1980s, China has developed rapidly. China has become the world's second largest economy and is forecasted to surpass the United States by 2030 (1). Such an economic growth goes hand in hand with the urbanization of the contemporary Chinese youth communities. Accordingly, how such an economic transition in China has shaped the psychological development of Chinese adolescents attracts growing interest in the research community. For instance, utilizing the cross-temporal meta-analytic data from thousands of Chinese youth, Xin and associates (2, 3) revealed that urbanization level was a significant positive correlate of adolescents' anxiety level, depressive symptoms, and mental illness across

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cohorts, and the mental health of young people in China had deteriorated throughout time.

In view of such a backdrop, the Ministry of Education (4) published "The Outline of Education Guide for Pupil's Mental Health." One key strategy entails the permission for primary and secondary schools to hire mental health teachers to implement mental health education and offer counseling services to the students. There is, nonetheless, still a lack of systematic teaching resources for these mental health teachers regarding how psychosocial competencies of the students can be strengthened. As such, there is an urgent need to develop related curriculum materials based on the positive youth development (PYD) approach. According to Damon (5), problem prevention alone is not enough to promote healthy youth development and it is important to discover and nurture adolescents' strengths, talents, and potentials.

With reference to Hong Kong, adolescents also display problems such as substance abuse, materialism, and bullying (6). Nonetheless, Shek and Yu (7) highlighted the paucity of robustly evaluated, multi-year PYD programs in Hong Kong. Against such a backdrop, a multi-year project entitled "Positive Adolescent Training through Holistic Social Programs" (Project P.A.T.H.S.), funded by The Hong Kong Jockey Club Charities Trust, was launched in 2005. The Project P.A.T.H.S. which comprises two tiers is a comprehensive PYD program tailored for junior secondary-schoolers in Hong Kong. While the Tier 1 Program represents a curriculum-based intervention targeting the general junior secondary-schooler population, the Tier 2 Program was catered to adolescents with greater psychosocial needs. Results from a multitude of evaluation studies (8) corroborate the effectiveness of the Project P.A.T.H.S. over the years in promoting the holistic youth development alongside eradicating risk behavior in junior secondary students in Hong Kong.

Despite the remarkable achievement of the Project P.A.T.H.S., we have to ask whether the related programs can be successfully applied in other Chinese communities (9). Funded by the Tin Ka Ping Foundation, the first phase of the program entitled "Tin Ka Ping Positive Adolescent Training through Holistic Social Program" (Tin Ka Ping P.A.T.H.S.

Project) was embarked on in four schools in East China (Shanghai, Suzhou, Changzhou, and Yangzhou) since 2011. This pioneer project in China was well-received as evidenced by findings derived from both subjective outcome evaluation (10) and objective outcome evaluation studies (11). Accordingly, started from the academic year 2015-2016, the second phase of the Tin Ka Ping P.A.T.H.S. Project targeting both junior and senior secondary schoolers was launched in 30 secondary schools in mainland China. Given the geographical socio-economic differences across provinces, it is necessary to examine if the second phase, which involves schools from both inside and outside East China, would be similarly effective.

Resembling other PYD programs, the Tin Ka Ping P.A.T.H.S. Project emphasizes program evaluation. Shek and Sun (12) outlined five key elements to a successful PYD program, including program, process, policy, people, and place (i.e., the 5Ps). Particularly, the element "people" which encompasses program participants and implementers was identified as one of the most decisive factors of all (12). Thus, utilizing the client satisfaction approach, the present paper is primarily concerned with the program participants' subjective evaluation of the Tin Ka Ping P.A.T.H.S. Project. The client satisfaction approach, which has been adopted cross-culturally in the field of human services (13, 14), permits researchers to examine the participants' perceptions of program effectiveness in a cost-effective manner. For instance, Walsh and Lord (15) adopted the Client Satisfaction Questionnaire (16) to gather participants' views on a social work intervention program. Likewise, utilizing the subjective outcome evaluation approach, Shek and Sun (17) assessed students' perceived effectiveness of a university subject designed to nurture their leadership skills and intrapersonal development.

Nonetheless, Larson and colleagues (18) noted that students, despite being the target recipients of a program, often had their views overlooked when implementers attempted to evaluate program effectiveness. Such a negligence may stem from the stereotype that adolescents are incapable of expressing dissatisfaction in meaningful ways or that they seldom do so because of early dropout (19). While findings from subjective outcome evaluation

studies regarding the Project P.A.T.H.S in Hong Kong are well-documented (e.g., 20, 21), we could hardly say the same about the Tin Ka Ping P.A.T.H.S. Project in China. Therefore, it is imperative that we scrutinize the views of the participants on the different aspects of the program such as program content and implementers of the project and how these aspects would interrelate with each another.

In short, utilizing the client satisfaction approach, this study examined the following research questions and hypotheses with reference to the Tin Ka Ping P.A.T.H.S. Project launched in the academic year 2015-2016:

- How do the program participants evaluate the curricula-based program (i.e., Tier 1 Program)? Based on the findings from previous evaluation studies (10), we hypothesized that a high proportion of the program participants would be satisfied with the program (Hypothesis 1). Specifically, with reference to the previous Hong Kong findings that around four-fifths of the respondents were positive about Tier 1 Program, we expected that at least four-fifths of the current respondents would show positive responses.
- How do perceived program content, implementer quality, and program effectiveness inter-relate with one another? Results from the evaluation studies of the Project P.A.T.H.S. in Hong Kong (20, 21) suggested a significant inter-correlation among these three program facets (Hypotheses 2a, 2b, and 2c).
- Are satisfaction ratings different across grades? Based on previous findings (22), it was predicted that the three aspects of client satisfaction would be inter-related (Hypotheses 3a, 3b, and 3c)?
- Are perceived program content and perceived implementer quality predictive of perceived program effectiveness? Based on previous findings (21, 22), we hypothesized that these two factors would predict perceived program effectiveness (Hypotheses 4a and 4b).

Methods

In the academic year 2015-2016, the curricula-based Tin Ka Ping P.A.T.H.S. Project was implemented in 30 secondary schools in mainland China. Amongst them, eighteen junior secondary schools participated in the current evaluation study. Of these schools, all implemented the program at Secondary 1 (S1 hereafter, equivalent to Grade 7), with three implementing the program also at Secondary 2 (S2 hereafter, equivalent to Grade 8).

To examine the effectiveness of the Tin Ka Ping P.A.T.H.S. Project, students were invited to complete the Subjective Outcome Evaluation Form (the Form A) upon the completion of the program. The program implementers who had attended training workshops over evaluation topics were responsible for data collection. An evaluation manual with standardized instructions on data collection was also distributed to each of the schools concerned. The principles of confidentiality, anonymity and voluntary participation were reiterated upon the administration of the survey. All students provided their consent prior to participation. Altogether 7,289 questionnaires were returned to Research Team. Amongst them, 6,222 were S1 students and 1,067 were S2 students.

Instruments

A well-validated and extensively used (20, 22) instrument (Form A) was adopted to solicit participants' feedback on the program. The Form A contains four parts. Part 1 examined students' overall appraisal of program content such as program objectives, design, and interaction among classmates (10 items). Part 2 assessed students' perception of qualities exhibited by the program implementers via ten items measuring aspects like preparation for lessons, degree of involvement, and professionalism. Items of Parts 1 and 2 were rated on a six-point Likert scale with 1 representing "strongly disagree" while 6 representing "strongly agree." The sixteen-item Part 3 assessed students' perceived program effectiveness via a five-point Likert scale (1 = unhelpful; 5 = very helpful). Part 4 contains three additional items measuring the likelihood of the respondents would recommend the

program to others, participate in a similar program in future, and their overall satisfaction with the program. Additionally, the Form A consists of four open-ended questions on students' experience of the program (e.g., aspects of the program worthy of their appreciation). The focus of the present paper is on the quantitative data collected from the program participants.

Data analyses

The individual data of students were adopted as the units of analysis. Reliability analyses were conducted for three present subscales (i.e., program content, program implementers, and program effectiveness). Descriptive statistical analyses using the percentage of positive responses to each item were conducted to reveal students' perceptions of the various facets of the program (i.e., Hypothesis 1). To test Hypothesis 2, we examined the associations among the three subscales using the Pearson's correlation tests. Additionally, multivariate analysis of variance (MANOVA) was adopted to test whether there were differences in students' subjective program evaluation across grades (i.e., Hypothesis 3). Finally, Hypothesis 4 was examined via several multiple regression analyses.

Results

Results on the reliability of Form A are detailed in Table 1. All three parts each recorded excellent internal consistency as evidenced by the high alpha values (ranged from 0.93 to 0.96). The Cronbach's alpha for all three parts combined (i.e., 36 items) was 0.96.

Tables 2 to 5 show the numbers and percentages of students having a positive evaluation on the program. As most of the respondents showed positive evaluation of all facets of the program, Hypothesis 1 was strongly supported. Table 2 shows the descriptive statistics on students' evaluation of the program content. Results showed that an overwhelming proportion of the sample responded positively. For instance, 93.1% thought highly of the curriculum design, 93.8% appreciated

the clarity of the curriculum objectives, and 92.7% reported that they generally "liked the curriculum very much".

Regarding participants' evaluation of the program implementers (see Table 3), over 92% of the respondents rated positively on all ten items. Some examples included perceived mastery of the curriculum (93.8%), professionalism exhibited (94.0%), preparation for the lessons (94.9%), and overall satisfaction with the implementers (94.9%).

Table 4 details the descriptive statistics on students' ratings regarding perceived program effectiveness. Over 85% of the respondents showed positive ratings on all 16 items. For instance, 91.8%, 93.1%, and 92.4% of the students felt that the program had raised their self-confidence, self-awareness, and social competence, respectively. There were 94.4% indicating that the program had "enriched my overall development." Table 5 presents students' ratings on the three additional items. Over 90% indicated that they would recommend the program to others (94.5%) and participate in a future similar program (93.2%). Furthermore, 94.4% expressed satisfaction with the program. In short, Hypothesis 1 was supported.

Results of the Pearson correlation analyses showed that the three subscales were significantly and positively correlated with one other. Both program content ($r(6,869) = 0.55, p < .001$) and program implementers ($r(6,881) = 0.45, p < .001$) were correlated with program effectiveness. The relationship between subscales program content and program implementer was the strongest ($r(6,954) = 0.59, p < .001$). Hence, Hypotheses 2a to 2c were supported.

Table 6 illustrates the findings of the MANOVA. As expected, results showed that Secondary 1 students had significantly more positive evaluation than did their S2 counterparts on program content ($F = 4.54, p = .033, p\eta^2 = .001$), program implementers ($F = 48.12, p < .001, p\eta^2 = .007$), and the overall score ($F = 7.70, p = .006, p\eta^2 = .001$). However, differences across grade levels were not observed in students' evaluation of program effectiveness ($p > .05$). As such, Hypothesis 3c was not supported.

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

	Secondary 1		Secondary 2		Overall	
	M (SD)	α (Mean [#])	M (SD)	α (Mean [#])	M (SD)	α (Mean [#])
Program Content (10 items)	5.04 (.83)	.92 (.55)	4.99 (.97)	.95 (.66)	5.03 (.85)	.93 (.57)
Program Implementers (10 items)	5.26 (.81)	.95 (.66)	5.08 (1.05)	.97 (.77)	5.23 (.85)	.96 (.68)
Program Effectiveness (16 items)	4.05 (.81)	.96 (.59)	4.07 (.92)	.98 (.72)	4.06 (.83)	.96 (.61)
Total Effectiveness (36 items)	4.67 (.70)	.97 (.46)	4.61 (.67)	.95 (.34)	4.66 (.70)	.96 (.44)

Note. [#] Mean inter-item correlations.

Table 2. Descriptive statistics of the participants' evaluations on the program content

	Respondents with Positive Responses (Options 4-6)					
	Secondary 1		Secondary 2		Overall	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1. The objectives of the curriculum are very clear.	5834	94.2	969	91.2	6803	93.8
2. The design of the curriculum is very good.	5782	93.5	964	90.7	6746	93.1
3. The activities were carefully planned.	5695	92.3	951	89.5	6646	91.9
4. The classroom atmosphere was very pleasant.	5526	89.5	966	90.9	6492	89.7
5. There was much peer interaction amongst the students.	5581	90.5	947	89.2	6528	90.3
6. I participated actively during lessons (including discussions, sharing, games, etc.).	5596	90.6	967	91.1	6563	90.7
7. I was encouraged to do my best.	5575	90.2	921	86.7	6496	89.7
8. The learning experiences I encountered enhanced my interest towards the lessons.	5659	91.6	944	88.8	6603	91.2
9. Overall speaking, I have a very positive evaluation of the program.	5583	90.4	940	88.4	6523	90.1
10. On the whole, I like this curriculum very much.	5756	93.2	955	89.8	6711	92.7

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

Lastly, the results of the multiple regression analyses (see Table 7) demonstrated that students' evaluations of program content (S1: $\beta = 0.42$, $p < .001$; S2: $\beta = 0.32$, $p < .001$; overall: $\beta = 0.43$, $p < .001$) and program implementers (S1: $\beta = 0.25$, $p < .001$; S2: $\beta = 0.07$, $p = .021$; overall: $\beta = 0.20$,

$p < .001$) were significant predictors of their perceived program effectiveness. The overall model explained 32.69% of the variance of perceived program effectiveness. In a nutshell, Hypothesis 4 was confirmed at every grade level and for the entire sample.

Table 3. Descriptive statistics of the participants' evaluations of the program implementers

	Respondents with positive responses (Options 4-6)					
	Secondary 1		Secondary 2		Overall	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1. The instructor(s) had a good mastery of the curriculum.	5839	94.4	951	90.1	6790	93.8
2. The instructor(s) was well prepared for the lessons.	5894	95.4	967	91.7	6861	94.9
3. The instructor(s)' teaching skills were good.	5861	94.9	947	89.8	6808	94.2
4. The instructor(s) showed good professional attitudes.	5830	94.5	961	91.2	6791	94.0
5. The instructor(s) was very involved.	5864	95.0	962	91.2	6826	94.5
6. The instructor(s) encouraged students to participate in the activities.	5880	95.4	983	93.3	6863	95.1
7. The instructor(s) cared for the students.	5851	94.9	942	89.4	6793	94.1
8. The instructor(s) was ready to offer help to students when needed.	5902	95.7	960	91.1	6862	95.0
9. The instructor(s) had much interaction with the students.	5792	93.6	936	88.7	6728	92.9
10. Overall speaking, I have a very positive evaluation of the instructors.	5901	95.5	966	91.6	6867	94.9

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

Table 4. Descriptive statistics of the participants' evaluations of the program effectiveness

The extent to which the course (i.e., the program that all students have joined) has helped you:	Respondents with Positive Responses (Options 3-5)					
	Secondary 1		Secondary 2		Overall	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1. It has strengthened my bonding with teachers, classmates and my family.	5496	88.8	933	87.5	6429	88.7
2. It has strengthened my resilience in adverse conditions.	5610	90.9	984	92.3	6594	91.1
3. It has enhanced my social competence.	5707	92.5	984	92.3	6691	92.4
4. It has improved my ability in handling and expressing my emotions.	5675	92.0	978	91.7	6653	92.0
5. It has enhanced my cognitive competence.	5584	90.6	975	91.5	6559	90.8
6. My ability to resist harmful influences has been improved.	5778	93.8	971	91.1	6749	93.4
7. It has strengthened my ability to distinguish between the good and the bad.	5830	94.5	969	90.9	6799	93.9
8. It has increased my competence in making sensible and wise choices.	5715	92.6	976	91.6	6691	92.4
9. It has helped me to have life reflections.	5549	89.9	941	88.3	6490	89.7
10. It has reinforced my self-confidence.	5676	91.9	969	90.9	6645	91.8
11. It has increased my self-awareness.	5745	93.1	995	93.3	6740	93.1
12. It has helped me to face the future with a positive attitude.	5715	92.7	993	93.2	6708	92.7
13. It has helped me to cultivate compassion and care about others.	5647	91.6	970	91.0	6617	91.5
14. It has encouraged me to care about the community.	5253	85.1	916	85.9	6169	85.2
15. It has promoted my sense of responsibility in serving the society.	5646	91.4	952	89.3	6598	91.1
16. It has enriched my overall development.	5846	94.6	995	93.3	6841	94.4

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

Table 5. Summary of the participants' positive perceptions toward other aspects

Items	Secondary 1		Secondary2		Overall	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Willingness to suggest other students to participate in the program*	5856	95.1	974	91.3	6830	94.5
Willingness to participate similar programs in future*	5795	94.1	942	88.3	6737	93.2
The extent to which the participants were satisfied with the program [^]	5853	95.5	943	88.5	6796	94.4

Note. *A 4-point Likert scale was used (1 = definitely will not, 2 = will not, 3 = will, 4 = definitely will). Only the positive responses (Options 3–4) are shown in this table. [^]A 6-point Likert scale was used (1 = very dissatisfied, 2 = moderately dissatisfied, 3 = slightly dissatisfied, 4 = satisfied, 5 = moderately satisfied, 6 = very satisfied). Only the positive responses (Options 4–6) are shown.

Table 6. Comparison of participants' subjective evaluation of the program by grade levels

	S1 (<i>n</i> = 5,719)		S2 (<i>n</i> = 1,047)		MANOVA	
	Mean	SD	Mean	SD	<i>F</i> -value	<i>p</i> η^2
1) Program Content (10 items)	5.05	0.83	4.99	0.97	4.54 [^]	.001
2) Program Implementers (10 items)	5.27	0.80	5.08	1.05	48.12 ^{***^}	.007
3) Program Effectiveness (16 items)	4.06	0.81	4.07	0.92	0.29 [^]	.000
4) Overall Score (i.e. total of 1 to 3, 36 items)	4.67	0.70	4.61	0.67	7.70 ^{***^}	.001

Note. * $p < .05$; ** $p < .01$; *** $p < .001$; [^] Adjusted Bonferroni value = .0125; $p\eta^2$ = partial eta-squared.

Table 7. Multiple regression analyses predicting program effectiveness by program content and implementers

	β^a		<i>F</i>	<i>R</i> ²
	Program Content	Program Implementers		
Secondary 1	0.42 ^{***}	0.25 ^{***}	1837.94 ^{***}	0.39
Secondary 2	0.32 ^{***}	0.07 [*]	67.91 ^{***}	0.12
Overall	0.43 ^{***}	0.20 ^{***}	1642.14 ^{***}	0.33

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

Discussion

Utilizing the subjective outcome evaluation approach, the present study examined the views of students on the Tin Ka Ping P.A.T.H.S. Project in mainland China. Consistent with the previous findings, results showed that the program was well-received by the majority of program participants. This was evidenced by their positive evaluation of the program content, program implementers, program effectiveness, and their eagerness to recommend this program to others

and to participate in a similar program in future. The overwhelmingly positive client satisfaction findings strongly supported Hypothesis 1. The findings also replicated those of Shek et al.'s (10) study covering the first phase of the project launched in East China, thus corroborating the evidence which supports the success of the Tin Ka Ping P.A.T.H.S. Project across China.

Echoing previous research findings from both East China and Hong Kong, significant inter-correlations among the three major program

dimensions were observed, giving support to Hypotheses 2a to 2c. While no significant difference in program effectiveness was found across grade levels, Secondary 1 participants had a more positive evaluation of program content, program implementers and they also generally felt more satisfied. Nonetheless, judging by the small effect sizes ($\eta^2 < 0.01$ for all cases) associated with all the significant grade effects (see Table 6) and taking into account the overall high satisfaction of the entire sample (see Table 1), one could legitimately conclude that both Secondary 1 and 2 participants were indeed very satisfied with the program in terms of its content, implementers, and effectiveness.

Regarding Hypothesis 4, results of multiple regression analyses indicated that both perceptions of program content and implementers were significant predictors of perceived program effectiveness. These findings resonate with Shek and Sun's (12) argument that "people" and "process" are vital to successful PYD programs. Nonetheless, the fact that the present model could only explain 32.69% of the variance implies that additional factors such as "policy" or "place" might be worthy areas of investigation in future evaluation studies.

There are several strengths of the present paper. Supplementing Shek et al.'s (10) pioneer subjective evaluation study of the first phase of the Tin Ka Ping P.A.T.H.S. Project, the present study adds to the scanty empirical work utilizing the client satisfaction approach in the mainland China context. Additionally, a valid and reliable subjective outcome evaluation instrument (i.e., the Form A) was presently adopted to comprehensively examine the different facets of the program. Lastly, via scrutinizing various prospective predictors of perceived program effectiveness and satisfaction, this paper could help researchers build models regarding subjective outcome evaluation in the mainland China context. Particularly, our results suggested that promotion of perceived effectiveness would hinge on the improvement of the quality of both the program content and its implementers.

There are several limitations of this study. First, as the current analyses were predominantly quantitative, it may be insightful to also examine the open-ended responses to gain an understanding of the feelings of the participants. Second, the present findings may not be representative of the entire school

sample (N= 30) of the Tin Ka Ping P.A.T.H.S. Project as only eighteen of them took part in the current study. Third, impression management (23) may underlie the present overwhelmingly supportive findings. Students may give desirable ratings as to avoid appearing ungrateful for the implementers' hard work. Nevertheless, this possibility can be conveniently ruled out because of the anonymous nature of the present survey (24). Finally, although subjective outcome evaluation has been widely used in the human services domain, it is methodologically superior to incorporate other evaluation methods such as the objective outcome and process evaluation as to reinforce the robustness of the findings. Despite these limitations, the present findings suggest that the Tin Ka Ping P.A.T.H.S. Project launched in the academic year 2015-2016 could be regarded as a success.

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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 animals, it was conducted in accordance with the related institutions' research ethics guidelines.

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