Evaluation of the Project P.A.T.H.S. Based on the Client Satisfaction Approach: View of the Students

Daniel T.L. Shek PhD, FHKPS, SBS, JP 1,2,3,4,* , Moon Y.M. Law BSW, MSW, DSW Candidate, RSW 1,2

1 Department of Applied Social Sciences, The Hong Kong Polytechnic University, Hong Kong, P.R. China
2 Centre for Innovative Programs for Adolescents and Families, The Hong Kong Polytechnic University, Hong Kong, P.R. China
3 School of Social Development, East China Normal University, Shanghai, P. R. China
4 Kiang Wu Nursing College of Macau, Macau, P. R. China

Abstract

Study Objectives: Based on several data sets collected from 2009/10 to 2011/12 school years, this study examined the views of 242,705 students participating in the Tier 1 Program in the extension phase of the Project P.A.T.H.S. in Hong Kong.

Design: Students responded to a validated client satisfaction measure after completion of the program. Analyses were based on the reports submitted by the schools participating in the project.

Results: High proportions of the students viewed the program, implementers, and benefits of the program in a favorable light. Compared with students in lower grades, students in higher grades showed relatively lower satisfaction ratings, although the differences were small. Perceived qualities of program and instructor predicted perceived effectiveness of the program.

Conclusion: The Tier 1 Program was received favorably by the students. Perceived qualities of the program and the program implementers predicted perceived program effectiveness. The findings are consistent with those reported in the initial phase of the project.

Key Words: Project P.A.T.H.S., Positive youth development, Subjective outcome evaluation, Client satisfaction, Hong Kong

Introduction

Adolescent developmental issues such as mental health problems, addiction, violence, and unemployment are intensifying in the global context.1 Adopting an ecological understanding of these problems, risk factors on different levels (such as hopelessness on the personal level and family problems on the family level) contribute to the development of such issues. At the same time, protective factors at different levels (such as self-efficacy on the personal level and family cohesion on the family level) have also been found to delay the onset and development of adolescent developmental issues. One strategy to protect adolescents from developing risk behavior is to strengthen their psychosocial competencies. Unfortunately, validated and effective youth development programs in the global context are limited.2

To promote the holistic development of young people in Hong Kong, The Hong Kong Jockey Club Charities Trust initiated the Project P.A.T.H.S. (Positive Adolescent Training through Holistic Social Programmes) in Hong Kong with an earmarked grant of HK$400 million (approximately equal to US$45 million) in 2004. The primary objective of the project is to develop positive youth development programs for junior secondary school (Grade 7 to Grade 9) students in Hong Kong. The project consists of 2 tiers of program. For the curriculum-based program (i.e., the Tier 1 Program), researchers from 5 universities in Hong Kong (the research team) developed curricula for junior secondary school students (Grade 7 to Grade 9) based on positive youth development constructs commonly identified in the successful programs in the field.3 Students in the participating schools join either the 10-hour or the 20-hour curriculum-based programs. For the Tier 2 Programs, students in the Tier 1 Program who are identified as having greater psychosocial needs receive training addressing their specific problems.4

In the initial phase, the project was implemented in over 280 schools in Hong Kong from the 2006/07 to the 2008/09 academic years, serving more than 213,000 students. Systematic evaluation based on multiple evaluation strategies revealed that the program was effective in promoting holistic development in the program participants. In view of the overwhelming success of the initial phase of the project, The Hong Kong Jockey Club Charities Trust decided to fund the project for another cycle from 2009/10 to 2011/12 school years, with an additional earmarked grant of HK$350 million (approximately equal to US$45 million). As a randomized controlled group trial was conducted in the initial phase of the project and there were only 3 years in the extension phase, no randomized group trial was conducted for the extension phase. However, subjective outcome evaluation using the client satisfaction approach based on the perspectives of the program participants and implementers was still carried out.

Subjective outcome evaluation or the client satisfaction approach is widely used in the human services settings such as pediatrics, psychiatry, rehabilitation, and counseling.5–7 Although there are criticisms about the use of subjective outcome evaluation, such as the argument that satisfaction with the program does not imply effective changes in the clients, the ability to capture the views of the participants is...
an attractive advantage under this approach. Research findings have shown that subjective outcome evaluation converged with objective outcome evaluation which underscores the potential role of subjective outcome evaluation in program evaluation. For example, based on pretest and posttest data, Shek8 showed that satisfaction ratings at the end of the program were significantly related to posttest scores and different positive youth development scores. The studies by Trotter9 and Richardson et al10 similarly showed that client satisfaction was related to objective outcome evaluation.

Subjective outcome evaluation tools have also been commonly used to evaluate education programs. Kim et al11 used a self-administered questionnaire to compare students taking distance education programs and students taking on-campus programs in terms of graduate satisfaction. While graduates from on-campus program and those from the distance education program did not differ in terms of the overall level satisfaction, students graduating from the on-campus program rated the levels of faculty-student and student-student interaction significantly higher than those who graduated from the distance learning program. Summers et al12 examined differences between online distance education and traditional classroom learning for an introductory undergraduate statistics course. Results showed that there was no significant difference between the online learning mode and traditional face-to-face instructional contact in terms of student performance. However, students who took the online course were less satisfied on different dimensions when comparing with those who enrolled in the traditional face-to-face class. Palmer and Holt13 used the Experiences of Learning Online (ELO) survey to measure students’ perception of studying online subjects. Results showed that perceptions of online learning depended on student confidence to learn online, their understanding of the expected learning outcomes, and how they gauged their own performance.

The client satisfaction approach has also been widely used to understand the experiences of students in different professional programs. Espeland and Indrehus14 used both the 25-item Course Experience Questionnaire (CEQ) and the 26-item Nursing Clinical Facilitators Questionnaire (NCFQ) to measure how nursing students perceived the nursing programs and clinical practice. Although a majority of the students were dissatisfied with the quality of the nursing program, they were satisfied with the clinical practice. Based on the responses of students to the Student Experience of Learning and Teaching (SELT) in an engineering program, Walker and Palmer15 examined the relationships among final grades, ratings of student satisfaction, and the students’ perceived understanding of the course materials. Results showed that students’ course ratings were associated with their level of understanding of the course materials and those who revealed their identity gave higher ratings. Using the Student Experience Questionnaire covering different domains (eg, degree program satisfaction, study motivation, tutorial attendance, regular study behavior and the perceptions of faculty contacts), Suhre et al16 investigated the relationship between satisfaction, academic achievement, persistence/dropout, and the related gender differences in
Dutch Law students. Results showed that degree of satisfaction with the program was related to academic performance of the students. Low satisfaction with the program impaired students’ study behavior and motivation as well. Serenko used a self-administered survey to examine student satisfaction with university music programs. Results showed that the quality of the program, which was marginally affected by its perceived value, influenced student/customer satisfaction. Prior student expectations had no impact on program quality. Students’ level of satisfaction towards the program was also related to their loyalty to the program and whether they perceived the program positively. Emanuel and Adams developed the Quality Instructors Service to Students (QISS) Questionnaire to assess students’ perceived quality of instructional services. Results indicated that “reliability” and “responsiveness” were perceived to be the most crucial indicators by the students in terms of instructional services.

Some studies have also been conducted to assess the psychometric properties of subjective outcome evaluation tools. Shafer and Temple conducted 2 studies using the Family and Youth Satisfaction Surveys to gauge how clients viewed their services received. While the Youth Services Survey for Families focused on the parents of children receiving services, the Youth Services Survey focused on children receiving services. From factor analyses in both studies, 5 major constructs (outcome, satisfaction, cultural sensitivity, participation, and access) were extracted. Both scales also showed satisfactory reliability and validity. Based on the 29-item Scale of Perception of Services, Nuviala et al examined whether users were satisfied with sport activities and the psychometric properties of the scale. Results showed that the measure possessed acceptable psychometric properties. Adolescents who took part in organized sport activities evaluated the program positively and the rate of involvement was positively related to positive assessment.

The purpose of this study was to examine subjective outcome evaluation based on the perspective of the program participants in the extension phase of the Project P.A.T.H.S. Nine sets of data were used. In each year of the extension phase, students in Secondary 1, Secondary 2, and Secondary 3 levels joined the program and 3 sets of data at each level were collected in 3 years. Basically, 4 research questions were addressed:

1. What is the evaluation of the program participants who joined the Tier 1 Program of the Project P.A.T.H.S. in Hong Kong in the extension phase of the project?
2. Are there any grade differences in subjective outcome evaluation? Based on previous findings, it was predicted that senior year students would have relatively less favorable perceptions of the program, instructor, and benefits.
3. What are the inter-relationships among the different dimensions of subjective outcome evaluation, including perceived program quality, perceived instructor quality and program benefits? Based on previous findings, it was expected that the different dimensions of subjective outcome evaluation would be significantly inter-related.
4. What are the relationships between perceived program qualities, implementer qualities, and perceived effectiveness of the program? Based on previous studies, it was hypothesized that both program quality and implementer quality would have positive predictive relationships with perceived program effectiveness.

Table 2
Mean, Standard Deviations, Cronbach Alphas, and Mean of Inter-item Correlations among the Variables by Grade

<table>
<thead>
<tr>
<th></th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Total effectiveness (36 items)</td>
<td>4.11 (.27)</td>
<td>.99 (.80)</td>
<td>4.00 (.29)</td>
<td>.99 (.83)</td>
</tr>
<tr>
<td>Program implementers (10 items)</td>
<td>3.55 (.27)</td>
<td>.99 (.92)</td>
<td>3.43 (.30)</td>
<td>.99 (.93)</td>
</tr>
<tr>
<td>Program content (10 items)</td>
<td>4.42 (.31)</td>
<td>.98 (.86)</td>
<td>4.32 (.32)</td>
<td>.99 (.90)</td>
</tr>
</tbody>
</table>

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. S1: Secondary 1 level; S2: Secondary 2 level; S3: Secondary 3 level.
**Table 4**

Descriptive Statistics of the Program Participants’ Perceptions toward the Program Implementers

<table>
<thead>
<tr>
<th>Respondents with positive responses (Options 4-6)</th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>n (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. The instructor(s) had a good mastery of the curriculum</td>
<td>73,987 (88.09)</td>
<td>71,874 (87.05)</td>
<td>65,387 (88.10)</td>
<td>211,248 (87.74)</td>
</tr>
<tr>
<td>2. The instructor(s) was well prepared for the lessons.</td>
<td>75,056 (89.39)</td>
<td>72,723 (88.09)</td>
<td>65,958 (88.86)</td>
<td>213,737 (88.78)</td>
</tr>
<tr>
<td>3. The instructor(s)’ teaching skills were good.</td>
<td>74,036 (88.31)</td>
<td>71,225 (86.36)</td>
<td>64,936 (87.55)</td>
<td>210,197 (87.41)</td>
</tr>
<tr>
<td>4. The instructor(s) showed good professional attitudes.</td>
<td>74,960 (89.36)</td>
<td>72,907 (87.92)</td>
<td>65,969 (88.93)</td>
<td>214,836 (88.74)</td>
</tr>
<tr>
<td>5. The instructor(s) was very involved.</td>
<td>75,532 (90.04)</td>
<td>73,245 (88.78)</td>
<td>66,600 (89.82)</td>
<td>215,377 (89.54)</td>
</tr>
<tr>
<td>6. The instructor(s) encouraged students to participate in the activities.</td>
<td>75,233 (89.70)</td>
<td>72,899 (88.36)</td>
<td>66,090 (89.12)</td>
<td>214,222 (89.06)</td>
</tr>
<tr>
<td>7. The instructor(s) cared for the students.</td>
<td>73,857 (88.09)</td>
<td>71,449 (86.62)</td>
<td>64,993 (87.62)</td>
<td>210,299 (87.44)</td>
</tr>
<tr>
<td>8. The instructor(s) was ready to offer help to students when needed.</td>
<td>75,159 (89.64)</td>
<td>72,879 (88.38)</td>
<td>66,208 (89.28)</td>
<td>214,246 (89.10)</td>
</tr>
<tr>
<td>9. The instructor(s) had much interaction with the students.</td>
<td>72,797 (86.78)</td>
<td>70,588 (85.57)</td>
<td>64,903 (87.08)</td>
<td>207,288 (86.46)</td>
</tr>
<tr>
<td>10. Overall speaking, I have very positive evaluation of the instructors.</td>
<td>75,159 (89.51)</td>
<td>73,130 (88.55)</td>
<td>66,431 (89.51)</td>
<td>214,720 (89.18)</td>
</tr>
</tbody>
</table>

Note: All items are on a 6-point Likert scale with 1 = strongly disagree, 2 = disagree, 3 = slightly agree, 4 = slightly agree, 5 = agree, 6 = strongly agree. Only respondents with positive responses (Options 4-6) are shown in the table. S1: Secondary 1 level; S2: Secondary 2 level; S3: Secondary 3 level.

### Methods

**Participants and Procedures**

In the extension phase of the Project P.A.T.H.S. (2009 to 2012 school years), 247 schools with up to 263,482 students joined the program. The data were collected from all participating schools across 3 grade levels across 3 years (Secondary 1 level: 667 schools, Secondary 2 level: 620 schools, and Secondary 3 level: 537 schools). Secondary 1, 2, and 3 levels in the education system in Hong Kong corresponded to Grade 7, 8, and 9 in the North American system. Detailed background information of participating schools for the extension phase of the Project P.A.T.H.S. is presented in Table 1.

The participants were invited to respond to a Subjective Outcome Evaluation Form for Students (Form A) after the completion of the Tier 1 Program. School, parental and student consents were obtained. The data collection was carried out at the last lesson of the Tier 1 Program by program implementers of the participating schools. All participants responded to all scales in the evaluation form in a self-administered format. From 2009 through 2012, a total of 242,705 questionnaires were collected (84,619 for the Secondary 1 level, 83,247 for the Secondary 2 level, and 74,839 for the Secondary 3 level). The overall response rate was 92.11%. As students responded to the questionnaire in an anonymous manner, it was not possible to compare the consenting students and non-consenting students in terms of the background demographic characteristics.

### Instruments

The Subjective Outcome Evaluation Form for Students (Form A) was used to access participants’ view toward the program. The evaluation has several parts as listed below:

- 10 items were used to assess participants’ perceptions of the program
- 10 items were used to assess the students’ perceptions of the program implementers
- 16 items were used to assess students’ perceived effectiveness of the program

- 1 item regarding recommendation of the program to other people
- 1 item regarding whether the student would join similar programs in the future
- Overall satisfaction with the program
- Four open-ended questions on things they have learned, things they appreciate, views on the instructor, and areas of improvement

An evaluation manual with standardized instructions was developed to help workers to collect the data. In the training workshops for the workers, they were given training on the collection and analyses of the Form A data. For the quantitative data, an Excel file containing the frequencies and percentages associated with the different ratings for an item would be prepared by the workers. When the schools submitted the reports, they were also requested to submit the soft copy of the consolidated data sheets. Based on the consolidated data sheets, data reported by individual schools were aggregated to construct an overall profile. For example, frequencies of responses for a response option of an item were aggregated across reports to produce an overall picture about the frequencies across the schools. The strategy was used in the previous studies of the subjective outcome evaluation of the project.[2,22]

Reliability analysis showed that the Form A was internally consistent (alpha for the 10 items on program content = .99; alpha for the 10 items on program implementers = .99; alpha for the 16 items on perceived benefits = 1.00; alpha for the 36 items measuring program effectiveness = .99). The findings are shown in Table 2.

### Data Analyses

Descriptive profiles based on percentage analyses were constructed. For the 3 domains on program qualities, implementer qualities, and program effectiveness, the composite score of each domain was computed by dividing the total score by the number of items in that domain. This is justified because previous finding showed that the 3 dimensions were intrinsic to Form A.[2,23] Pearson correlation analysis was used to examine the inter-relationships among the 3 domains of the scale. Several analysis of variance
followed by post-hoc comparisons were used to assess the differences in the subjective outcome measures across grade levels. To explore the predictors of perceived effectiveness of the program, multiple regression analysis was conducted.

**Results**

Descriptive statistical analyses using percentages showed that the responses to the items were generally positive. Regarding the perceptions toward the program, most of the participants gave positive responses (Table 3). Similarly, high proportions of respondents also had very positive evaluation of the program implementers. For example, 89.54% of the participants perceived that the program implementers were very involved (Table 4). Regarding perceived effectiveness of the program (Table 5), more than four-fifths of the respondents perceived that the program promoted their development in various aspects, such as overall development (86.30%). As far as global satisfaction is concerned, 86.91% of the participants indicated that they were satisfied with the program. Interestingly, while roughly four-fifths (80.18%) of the participants would recommend the program to their friends who have similar needs, only 70.18% of them would join similar programs in the future (see Table 6).

To examine differences in the perceptions of the program quality, program implementers, and program effectiveness across levels, several ANOVAs were performed with different subjective outcome measures (ie, program, instructor, and benefits) as dependent variables and grade levels (ie, Secondary 1 to 3 levels) as an independent variable. Significant results were found in program content (F(2,1821) = 16.83, P < .001), program implementers (F(2,1821) = 26.28, P < .001), program effectiveness (F(2,1821) = 30.39, P < .001), and the overall program effectiveness (F(2,1821) = 27.99, P < .001).

Post-hoc analyses using Bonferroni adjustment showed that Secondary 1 students (M = 4.42) scored higher than Secondary 2 students (M = 4.32) students (P < .001) on perceived program ratings. Secondary 1 students (M = 4.42) were also higher than Secondary 3 students (M = 4.35; P < .001) on perceived program content ratings. Secondary 1 students (M = 4.70) also rated more positively than Secondary 2 (M = 4.58) and Secondary 3 students

<table>
<thead>
<tr>
<th>The extent to which the course (ie, the program that all students have joined) has helped you:</th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It has strengthened my bonding with teachers, classmates and my family.</td>
<td>69,098 (82.30)</td>
<td>66,252 (80.38)</td>
<td>60,653 (81.79)</td>
<td>196,003 (81.48)</td>
</tr>
<tr>
<td>2. It has strengthened my resilience in adverse conditions.</td>
<td>70,701 (84.26)</td>
<td>67,841 (82.36)</td>
<td>61,736 (83.28)</td>
<td>200,278 (83.31)</td>
</tr>
<tr>
<td>3. It has enhanced my social competence.</td>
<td>71,926 (85.81)</td>
<td>68,828 (83.68)</td>
<td>62,730 (84.68)</td>
<td>204,484 (84.73)</td>
</tr>
<tr>
<td>4. It has improved my ability in handling and expressing my emotions.</td>
<td>71,351 (85.16)</td>
<td>68,484 (83.23)</td>
<td>62,397 (84.27)</td>
<td>202,232 (84.22)</td>
</tr>
<tr>
<td>5. It has enhanced my cognitive competence.</td>
<td>71,445 (85.48)</td>
<td>68,473 (83.25)</td>
<td>62,136 (83.91)</td>
<td>202,054 (84.16)</td>
</tr>
<tr>
<td>6. My ability to resist harmful influences has been improved.</td>
<td>73,037 (87.23)</td>
<td>70,293 (85.46)</td>
<td>63,612 (85.94)</td>
<td>206,942 (86.23)</td>
</tr>
<tr>
<td>7. It has strengthened my ability to distinguish between the good and the bad.</td>
<td>73,476 (88.08)</td>
<td>70,934 (86.23)</td>
<td>64,260 (86.76)</td>
<td>208,640 (87.04)</td>
</tr>
<tr>
<td>8. It has increased my competence in making sensible and wise choices.</td>
<td>73,172 (87.35)</td>
<td>70,136 (85.28)</td>
<td>63,648 (85.98)</td>
<td>206,956 (86.22)</td>
</tr>
<tr>
<td>9. It has helped me to have life reflections.</td>
<td>70,895 (84.65)</td>
<td>68,544 (83.35)</td>
<td>62,760 (84.81)</td>
<td>202,199 (84.25)</td>
</tr>
<tr>
<td>10. It has reinforced my self-confidence.</td>
<td>70,010 (83.61)</td>
<td>66,546 (80.93)</td>
<td>60,471 (81.71)</td>
<td>197,027 (82.10)</td>
</tr>
<tr>
<td>11. It has increased my self-awareness.</td>
<td>70,909 (84.72)</td>
<td>67,695 (82.37)</td>
<td>61,906 (83.66)</td>
<td>200,510 (83.59)</td>
</tr>
<tr>
<td>12. It has helped me to face the future with a positive attitude.</td>
<td>71,596 (85.50)</td>
<td>68,630 (83.48)</td>
<td>62,825 (84.90)</td>
<td>203,051 (84.63)</td>
</tr>
<tr>
<td>13. It has helped me to cultivate compassion and care about others.</td>
<td>71,339 (85.23)</td>
<td>68,806 (83.71)</td>
<td>62,757 (84.78)</td>
<td>202,902 (84.25)</td>
</tr>
<tr>
<td>14. It has encouraged me to care about the community.</td>
<td>69,603 (82.30)</td>
<td>66,940 (81.45)</td>
<td>61,262 (82.77)</td>
<td>197,805 (82.45)</td>
</tr>
<tr>
<td>15. It has promoted my sense of responsibility in serving the society.</td>
<td>70,724 (84.45)</td>
<td>67,751 (82.36)</td>
<td>61,718 (83.35)</td>
<td>200,193 (83.39)</td>
</tr>
<tr>
<td>16. It has enriched my overall development.</td>
<td>72,916 (87.09)</td>
<td>70,275 (85.46)</td>
<td>63,885 (86.33)</td>
<td>207,076 (86.30)</td>
</tr>
</tbody>
</table>

**Table 5** Descriptive Statistics of the Program Participants’ Perception towards the Program Effectiveness

*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. S1: Secondary 1 level; S2: Secondary 2 level; S3: Secondary 3 level.

Secondary 2 students (M = 4.32) students (P < .001) on perceived program ratings. Secondary 1 students (M = 4.42) were also higher than Secondary 3 students (M = 4.35; P < .001) on perceived program content ratings. Secondary 1 students (M = 4.70) also rated more positively than Secondary 2 (M = 4.58) and Secondary 3 students
(M = 4.61) on program implementer (P < .001 on both cases). For perceived program effectiveness, Secondary 1 students (M = 3.55) rated more positively than Secondary 2 (M = 3.43) and Secondary 3 students (M = 3.44) (P < .001 on both cases). Finally, Secondary 1 students (M = 4.11) rated more positively than Secondary 2 students (M = 4.00, P < .001) and Secondary 3 students (M = 4.02, P < .001). Taken as a whole, Secondary 1 students had more favorable perceptions of the program, instructor, and benefits than did Secondary 2 and Secondary 3 students. Nevertheless, it is noteworthy that the evaluation was generally positive across different grades.

Pearson correlation analyses showed that both program content (r = .84, P < .01) and program implementers (r = .75, P < .01) were strongly associated with program effectiveness. These positive relationships were consistent across all grade levels (Table 7).

Table 7
Correlation Coefficients on the Relationship between Program Components and Program Effectiveness by Grade

<table>
<thead>
<tr>
<th>Variable</th>
<th>S1</th>
<th>S2</th>
<th>S3</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program content (10 items)</td>
<td>.82</td>
<td>.85</td>
<td>.85</td>
<td>.84</td>
</tr>
<tr>
<td>Program implementers (10 items)</td>
<td>.75</td>
<td>.74</td>
<td>.75</td>
<td>.75</td>
</tr>
</tbody>
</table>

P < .01.

Table 8 presents multiple regression analysis results. Consistent with the hypothesis, results showed that views toward the program were positively associated with program effectiveness (Secondary 1: ß = .83, P < .001; Secondary 2: ß = 1.00, P < .001; Secondary 3: ß = 1.09, P < .001). However, contrary to our expectation, views towards the program implementers were negatively associated with program effectiveness (Secondary 2: ß = -.16, P < .01; Secondary 3: ß = -.26, P < .001). Combining the data across 3 grades, perception of program (ß = .95, P < .001) and implementers (ß = -.12, P < .001) were predictive of program effectiveness. This model explained 71% of the variance of program effectiveness.

Discussion

Systematic evaluation is a hallmark of the Project P.A.T.H.S. in Hong Kong. Through the use of different evaluation strategies, the effectiveness of the program was assessed in the initial phase. The evaluation strategies included objective outcome evaluation, subjective outcome evaluation, secondary data analyses of the final reports, process evaluation, interim evaluation, focus group evaluation based on students, focus group evaluation based on program implementers, case studies, student diaries, management information from the Co-Walker scheme, and repertory grid test evaluation. Evaluation findings based on different methods and different stakeholders revealed that the P.A.T.H.S. Program was effective in promoting the holistic development of the students who had joined the program.

This study examined the subjective outcome evaluation data collected from program participants in the extension phase of the Project P.A.T.H.S. in Hong Kong. Besides investigating how the program, implementers, and effectiveness of the Tier 1 program of the Project P.A.T.H.S. were perceived in different cohorts of students, correlates of subjective outcome evaluation were also examined. This study has several unique characteristics. First, a large sample of students was employed. Second, the data were collected over a period of 3 years. Third, the predictors of perceived program effectiveness were examined in 9 data sets. Finally, a validated measure of subjective outcome evaluation for the participants was employed.

As far as the question of how the students perceived the program, the present study showed that the program, instructors, and program effectiveness were perceived positively by the program participants. These observations are consistent with the previous findings obtained in the initial phase of the Project P.A.T.H.S. in Hong Kong. For example, Shek and Sun examined client satisfaction data in 206,313 participants and concluded that the most of the program participants had positive perceptions of the program, instructors, and the benefits of the program. The findings are also consistent with the findings based on the Co-Walker scheme of the project. As validated positive youth development programs are lacking in different Chinese contexts, the present study is an important addition to the literature.

In line with the previous findings, Secondary 1 students had more favorable perceptions of the program, instructor, and benefits than did Secondary 2 and Secondary 3 students. Several factors may account for this observation. First, in contrast to the didactic approach in primary schools, the Tier 1 Program adopts an experiential approach. Hence, Secondary 1 students might find it novel and interesting. Second, with the focus on positive youth development, the Tier 1 Program might help Secondary 1 students to adjust better to the new secondary school life, hence producing more favorable effects. Third, as students in Secondary 2 and Secondary 3 levels are in the typical "rebellious age," they may become more critical and skeptical, hence leading to the observed findings. Nevertheless, although there were significant grade effects, the differences between grades in terms of the mean scores were not substantial. In fact, an examination of the mean scores showed that students at different grades evaluated the program in a positive manner. The practical implication of the findings is that there is a need to understand further the experiences of students in different grades when the programs are refined in future. Besides, assuming that novelty is an important factor influencing client satisfaction, there is a need to step up novelty elements in the curricula of the senior years. One possibility is to have greater student involvement in the design of the curriculum materials.
As predicted, the 3 dimensions of the subjective outcome evaluation (ie, perceived program qualities, perceived implementer qualities, and perceived program effectiveness) were significantly related. Multiple regression analyses further revealed that program and implementer composite scores significantly predicted perceived program effectiveness. However, while perceived program quality was positively related to perceived program effectiveness, perceived implementer quality was negatively related to perceived program effectiveness. The odd findings on the effect of program implementers have been reported in the previous literature. For example, based on the findings of 9 data sets, Shek and Sun 4 showed that while perceived implementer qualities positively predicted perceived effectiveness in Secondary 1 students, perceived implementer qualities were negatively related or unrelated to perceived effectiveness in Secondary 2 and Secondary 3 students, respectively. 36

There are 2 possible explanations for this “odd” result. First, the use of aggregated data instead of individual data may account for the findings. In the present study, the units of analyses were schools instead of individual program participants. Researchers have pointed out the problems of analyses were schools instead of individual program participants. If re-

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acknowledgements

The preparation for this paper and the Project P.A.T.H.S. were financially supported by The Hong Kong Jockey Club and the Charities Trust.


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