

Early identification of adolescents with greater psychosocial needs: an evaluation of the Project P.A.T.H.S. in Hong Kong

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Abstract

The Tier 2 Program of the Project P.A.T.H.S. (Positive Adolescent Training through Holistic Social Programmes) aims to provide tailor-made programs to adolescents with greater psychosocial needs. Based on the subjective outcome evaluation data collected from 196 schools, the program implementers were asked to write down five conclusions in the evaluation reports. Results demonstrated that most of the conclusions pertaining to perceptions of the Tier 2 Program, instructors, and perceived effectiveness of the programs were positive in nature. Nevertheless, there were also conclusions that reflected the obstacles encountered and suggestions for improvements. Congruent with the previous evaluation findings, the current study suggests that the Tier 2 Program was well received by the stakeholders, and the evaluation findings generally suggest that the program was beneficial to the development of the program participants.

Keywords: early identification; positive youth development; program evaluation; secondary data analysis; subjective outcome evaluation.

Introduction

Adolescence is considered as a unique stage in the human developmental process, which encompasses rapid physical, sexual and cognitive growth (1). In many adolescent developmental models, young people face intense social, cognitive and physical challenges during adolescence (2).

For some adolescents, these challenges are surmountable; however, for some, these challenges are real barriers to the successful completion of developmental tasks. Therefore, some adolescents tend to have a greater propensity to engage in risky behaviors that are detrimental to their life success. In Hong Kong, there is an increasing concern about the problem behavior of contemporary youth due to a steady rise in youth participation in and severity of high-risk behaviors such as drug use (3), school violence (4), suicidal behavior (5) and tobacco use (6). Although efforts addressing adolescent problems through prevention interventions and positive youth development programs are desperately essential in Hong Kong, such programs are not well-developed. In comparison to innumerable positive youth development programs in the western countries, predominantly from the USA, positive youth development programs in the Asian context are relatively sparse.

With particular reference to Hong Kong, a promising and territory-wide youth development program is the Positive Adolescent Training through Holistic Social Programmes (Project P.A.T.H.S.) in Hong Kong, which is funded by The Hong Kong Jockey Club Charities Trust, with an earmarked grant of HK\$ 400 million in the initial phase and HK\$ 350 million in the extension phase. The Project P.A.T.H.S. is a two-tier program that aims at promoting positive youth development in junior secondary school students in Hong Kong (7, 8). The Tier 1 Program is a universal positive youth development program involving the participation of Secondary 1–3 students, while the Tier 2 Program is a selective program targeted to students with greater psychosocial needs. To avoid the problem of stigmatization, the term “at-risk” was deliberately avoided in the identification process. To identify students eligible for the Tier 2 Program, the school and the social service agency considered a wide range of information collected from the students, teachers, parents, and/or other relevant parties. Approximately, one-fifth of the students at a school enrolled in the Tier 1 Program would normally be selected to join the Tier 2 Program.

The program implementers, who are mostly social workers for Tier 2 Programs, identify the needs of the selected students and design appropriate programs for them. The programs designed commonly include adventure-based counseling (ABC), service learning programs, mental health promotion programs, parenting programs, mentorship programs, and resilience enhancement programs. A large majority of Tier 2 Programs are tailored to meet the specific needs of students in a particular school, and thus, there is a wide variety of program content and approaches among schools. As a general requirement of the Tier 2 Program, social service agencies need to design programs with reference to the 15 positive

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youth development constructs of the Project P.A.T.H.S. to determine the specific objectives of the program. Previous studies showed that several positive youth developmental constructs were commonly focused upon, including the development of self-concept, behavioral competence, cognitive competence, social competence and prosocial involvement. Overall, most programs adopted experiential learning as the prime approach. An adventure-based counseling approach, and volunteer training and services, were among the top two most popular types of programs (9, 10).

Experiential learning is a major focus in the Tier 2 Program of the P.A.T.H.S. Project. Experiential learning requires the learner to play an active role in the experience and the experience is followed by reflection as a means for processing, understanding, and making sense of it. Advocates of experiential learning believe that placing the learner in a pseudo-real-world scenario or experience facilitates learning. Kolb (11) stressed that learning can be improved if students are challenged by active involvement in the learning process that replicates authentic situations as closely as possible.

As the previous studies indicated, adventure-based counseling is a major program type in the Tier 2 Programs. Developed under the experiential learning model, ABC is seen as a psychotherapeutic technique that integrates elements of experiential learning, outdoor education, therapeutic recreation, and group counseling and personal exploration (12). Therefore, ABC incorporates behavioral, cognitive and affective components in an integrated process of events intended to promote positive change (13). Most importantly, it engages participants in challenging and adventurous activities, and fosters personal qualities such as courage, resilience, responsibility, sense of belonging, mastery, autonomy and altruism (14). The experiential activities in ABC serve as metaphors for real-life issues, and it is postulated that participants who successfully overcome the challenges in the program could transfer their experiences to other life challenges in the present or future (15). Along with the rise in popularity of ABC, there has been an increase in research seeking to determine its efficacy. For instance, Davis-Berman and Berman (16) examined self-efficacy, behavioral difficulties, and locus of control at both post-test and long-term follow-up and found that improvements were maintained over time. Additionally, the literature is consistent in empirically demonstrating that ABC can impact positively on different clientele. A recent study conducted by Bidell (17) found that ABC can be an effective counseling treatment for gay and bisexual men living with HIV/AIDS, and it can produce both short- and long-term gains which included overall improvements in self-esteem/concept, emotional and physical health, as well as social relatedness.

Although ABC may lead to positive developmental outcomes, Cason and Gillis (18), after conducting a meta-analysis of outdoor adventure programming with adolescents, cast the doubt on the validity of quantitative research for the field, the reliability of instruments used for assessing pre- and post-program changes, and the host of unknown variables that may be influencing both positive and negative effects of adventure programming due to the wide variance in find-

ings in different studies. In addition, noteworthy, positive developmental outcomes do not arise from activities alone, yet studies investigating causal links between processes and outcomes have rarely been conducted. Process factors have therefore emerged, which proved to be of central importance, to account for the effectiveness of the ABC programs. Evidently, more studies on the effectiveness of ABC remains to be conducted.

Participation in volunteer training and services is another popular approach in Tier 2 Programs. The engagement of adolescents in volunteering provides an excellent platform for personal development, socialization of prosocial norms and behavior, recognition for positive behavior, and leadership training. It also helps to divert teenagers away from the anti-social tendencies in youth culture in the direction of prosocial activities, and they also benefit personally in identity development (19). While volunteer work often benefits the person who receives the service, there is evidence that helping others is also as beneficial for the donor as it is for the recipient. Results have shown that adolescents who participate in volunteer work have increased levels of empathy and altruism, increased self-efficacy, and fewer problem behaviors (20). Consistent findings were reported in the literature on youth community service activities which indicate that young people who are actively involved in their community have a stronger self-image (e.g., greater self-esteem and self-efficacy) and value themselves more highly than adolescents who do not participate (21). Youth participants in community service programs have also reported improved interpersonal relationships and skills, such as social relatedness, prosocial attitudes and behaviors, sense of community, empathy, nurturance and altruism (22). Local research findings have also showed that volunteerism is related to adolescent psychological well-being (23).

Shek (24) demonstrated the seven common approaches (some of which are not mutually exclusive) adopted by different charitable foundations and funding bodies in vetting applications and allocating funding. These included: (a) ease-based allocation approach where funds are allocated based on convenience; (b) eccentric and erratic allocation approach where funds allocated are not based on consistent and rational principles; (c) echo-based or envy-based allocation approach in which funding allocation is based on a "follow-suit" manner; (d) exposure-based allocation approach which treats funding allocation as a publicity exercise; (e) enthusiasm-based or emotion-based allocation approach which is driven by public sentiments; (f) error-based allocation approach where funds are given to ineffective or programs; and (g) evidence-based allocation approach which is driven by credible scientific evidence. To effectively help those young people who have psychosocial needs, it is imperative to understand the nature of their problems and needs in order to develop an intervention program based on the best available evidence, and systematically evaluate the effectiveness of the implemented program. In the Project P.A.T.H.S., evaluation is strongly emphasized. For the Tier 2 Program, subjective outcome evaluation was conducted.

Methods

Dataset for secondary data analyses

In 2007/08 school year, 196 schools participated in the Secondary Two Level of the Project P.A.T.H.S. in the Full Implementation Phase. A total of 12,490 participants were invited to join the Tier 2 Program, and among them, 11,347 participants were identified by teachers, parents, and/or self-administered questionnaires as students having greater psychosocial needs. The remaining 1,143 participants were the parents and teachers of those identified students. The mean number of participants that joined the Tier 2 Program per school was 63.72 (ranging from 10 to 365), and the average number of sessions provided per school (normally 1.5–3 h per session) was 23.13 (ranging from 5 to 119 sessions). Participants were requested to complete the Subjective Outcome Evaluation Form (Form C) upon completing the Tier 2 Program and a total of 8,485 participants (mean=43.29 participants per school, ranging from 7 to 196) responded to the Form. The overall response rate was 67.97%. The moderately low response rate was due to the following reasons: (a) the early withdrawal of participants from the Tier 2 Program; (b) participants were absent in the last session and did not complete the evaluation form; (c) some schools did not invite the adult participants to respond to the evaluation form.

Form C was designed by Shek et al. (7), with the objective of measuring the perceptions of the Tier 2 Program. The evaluation form consists of seven parts:

- Participants' perceptions of the program, such as program arrangement, quality of service, appropriateness of the program, and interaction among the participants (8 items).
- Participants' perceptions of the workers, such as the preparation of the workers, professional attitude and knowledge, and interaction with the participants (8 items).
- Participants' perception of the effectiveness of the program, such as promotion of problem-solving skills, behavioral modification and positive change (8 items).
- Things that the participants appreciated most (open-ended question).
- Opinion about the workers (open-ended question).
- Things that the participants learned from the program (open-ended question).
- Areas that require improvement (open-ended question).

To facilitate the program evaluation, the research team developed an evaluation manual with standardized instructions for collecting the subjective outcome evaluation data (7). Furthermore, adequate training was provided to the social workers during the 20-h training workshops on how to collect and analyze the data using Form C. Based on the evaluation data collected in each school, the responsible worker in each school was required to complete an Evaluation Report where the quantitative and qualitative findings based on Form C were summarized and described. In the last section of the report, the worker that prepared the report in each school was requested to write down five conclusions pertaining to the program and its effectiveness, which can provide the program implementers an overall picture of the perceived effectiveness of the Tier 2 Program.

Data analyses

Using general qualitative analyses techniques (25), the data were analyzed by two research assistants. There were three primary steps in the data analysis. First, raw codes were developed for words, phrases, and/or sentences that formed meaningful units in each conclusion at the

raw response level. Next, the codes were further combined to reflect higher-order attributes at the category of code level. For instance, the response of "like the program" at the raw response level could be subsumed under the category of "general comments about the program", which could be further subsumed under the broad theme of "responses on views towards the programs" (see Table 1).

In the present qualitative analyses, since the author designed the P.A.T.H.S. Program, he was conscious of his own biases or expectations of the program to be effective. As such, the author did not directly involve in the data analyses. In addition, in order to minimize the possible biases involved, both intra- and inter-rater reliabilities on the coding were calculated. For intra-rater reliability, the two research assistants were primarily responsible for coding 20 randomly selected responses without looking at the original codes given. For inter-rater reliability, another two research staff (one with a PhD degree and one with a Master's degree in Social Work) coded the 20 randomly selected responses 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 were highlighted. First, a general qualitative orientation was adopted. Second, the sources of data (e.g., number of participants) for analyses were described. Third, the issues of biases and ideological preoccupation were addressed. Fourth, inter- and intra-rater reliability information was 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, were considered.

Results

A total of 196 Tier 2 reports were collected. Nevertheless, two schools left the "five conclusions" blank, and three schools submitted more than five conclusions in the reports. As such, there were 987 conclusions in total and 1,722 meaningful units were extracted. Consistent with the previous studies (27), these raw responses were further categorized into four dimensions, including perspectives of the stakeholders on the program (see Table 1), views towards instructors (see Table 2), perceived effectiveness of the program (see Table 3), and difficulties encountered and suggestions for improvement (see Table 4).

Table 1 presents stakeholders' perceptions of the program, and 438 meaningful units were categorized into six major areas, namely "general comments about the program", "program content", "comments on format/content of specific activities", "perceived successful factors", "program implementation" and "others". Most of the responses fell into the category of "general comments" (n=181) in which stakeholders reported that they "liked/were satisfied with the program" (n=41), held "positive views towards program" (n=31) and thought the program was "able to achieve the goal" (n=24). The second largest number of responses were about "comments on format/content of specific activities" (n=81) and about one-fourth were comments about adventure-based and counseling elements or military training. Among the 438 responses, 427 responses were classified as positive (97.49%). The intra-rater agreement percentage on the positivity of the coding was 90%, while the inter-rater agreement percentage was 85%.

The perceptions of the program implementers can be found in Table 2. All the 220 responses in this dimension were

Table 1 Participants' views on the program.

Category	Descriptions	Nature of the response				Total
		Positive	Neutral	Negative	Undecided	
General comments on the program	Liked/satisfied with the program	41				41
	Positive views towards program	31				31
	Satisfied with the quality	11				11
	Satisfied with program format/design	8				8
	Satisfied with the arrangement	17				17
	The program was meaningful	4				4
	Program was able to achieve the goals	24				24
	Low attendance rate			2		2
	Participants' high participation	22				22
	Worth continuing	5				5
	Would join the program again	13				13
Would recommend the program to others	3				3	
Subtotal	179	0	2	0	181	
Program content	Satisfied with program content	11				11
	Comprehensive content	3				3
	Met students' needs	37				37
	Could not meet students' needs			2		2
	Provided positive experiences to students	3				3
	Provided a platform for communication	17				17
Subtotal	71	0	2	0	73	
Comments on format/content of specific activities	Experiential learning	5				5
	Outdoor activities	19				19
	Challenging/diversified activities	18				18
	Adventure-based and counseling elements/military training	22				22
	Volunteer services	7				7
	Groups/workshops/seminars	8				8
	Parent-child activities	2				2
	Subtotal	81	0	0	0	81
Perceived successful factors	Instructors/other adults	17				17
	School administration	8				8
	Participants' factors	13				13
	Program content/design	12				12
	Instructor-student relationship	9				9
	Others	9				9
Subtotal	68	0	0	0	68	
Program implementation	Enrollment	5		1		6
	Good atmosphere	3				3
	Able to complete the whole program	1				1
	Other good implementation practices	8				8
	Neutral comments		3			3
	Other negative views			2		2
Subtotal	17	3	3	0	23	
Others	Other positive views	11				11
Total responses		427	3	7	0	438

positive in nature. Many respondents appreciated instructors' attitude ($n=37$) and instructors' performance ($n=50$). Both the intra-rater and inter-rater agreement percentages on the positivity of the coding were 100%.

Table 3 indicates the responses related to perceived effectiveness of the program. A total of 925 meaningful units could be categorized in several levels, including societal level, familial level, interpersonal level (general interper-

sonal competence and specific interpersonal competence), personal level (general gains, positive self-image, emotional competence, ways to face adversity, beliefs in the future, behavioral competence, moral competence, cognitive competence and experiences/exploration), and others. Most of the responses were about general gains of students at the personal level ($n=196$) in which respondents reported the program had positive impacts on students, enhanced students'

Table 2 Responses to the views towards instructors.

Category	Descriptions	Nature of the response				Total
		Positive	Neutral	Negative	Undecided	
General appreciation	Positive views towards instructors	14				14
	Instructors' attitude	37				37
	Instructors' performance	50				50
	Subtotal	101	0	0	0	101
Specific appreciation	Instructors' skills/delivery strategies	19				19
	Instructor's arrangement	3				3
	Well prepared for the program	17				17
	Built good relationship with students	5				5
	Understood students	6				6
	Devoted	4				4
	Professional	41				41
	Cared about students	16				16
	Attitude and performance enhanced students' learning	6				6
	Subtotal	117	0	0	0	117
Others	Other positive comments	1				1
	Instructors were satisfied with their own performance	1				1
	Subtotal	2	0	0	0	2
Total responses		220	0	0	0	220

development and was helpful to students. Among the 925 responses, 919 were positive in nature which counted to 99.35% of the total responses in this dimension. The intra-rater agreement percentage on the categories of codes was 100% and inter-rater agreement percentage was 95%.

Table 4 shows the responses on the difficulties encountered in the implementation of the program as well as the recommendations to the program. There were 140 responses in this dimension, of which 46 items related to difficulties encountered and 94 were recommendations to the program. The intra-rater agreement percentage on the categories of codes was 95% and inter-rater agreement percentage was 90%.

Discussion

In the current study, we attempted to understand the Tier 2 Program of the Project P.A.T.H.S. through the eyes of the program implementers.

Overall, based on the present findings, the participants were very positive about the Tier 2 Program. A large majority of comments were related to the program, and the experiential aspects of the program. The qualitative data showed that the programs were designed to meet students' needs, and were able to achieve the goals. The program participants particularly appreciated the experiential and adventure-based nature of the activities, which may better meet the needs of this group of students than classroom activities. Gass (28) stressed that "change occurs when people are placed outside of positions of comfort... and into states of dissonance" (p. 4). Similarly, Durgin and McEwen (29) pointed out that removal of bars and walls provides adolescents a feeling of freedom that cannot be replicated in an institutional setting, and so, a natural setting

is likely to be a more effective treatment option for adolescents. Secondly, the characteristics of adventure-based programs are a good fit with the youthful energy and propensity towards risk-taking of adolescents (18). Besides, these types of programs provide young people opportunities for reflection. Without reflection, chances for learning are reduced, as reflection activities help to cement the link between experience and theory. Nevertheless, it is noteworthy that there is a need to understand the long-term sustainability of the program effects.

The Tier 2 Programs had impacts on the interpersonal and personal levels to the students they serve. The program participants commented very enthusiastically about the perceived effectiveness of the programs. One of the greatest benefits of the programs was on the personal level. In the classroom, the teacher is the authority and the dispenser of knowledge, while students are passive recipients. However, the most obvious marker of experiential education is the shift in roles required for both teachers and students. The program implementers act as facilitators of developmental growth, and in doing so, engage their students in some of the decision-making and problem solving that have been the sole responsibility of the teacher in the past. In addition, the Tier 2 Programs also enabled participants to improve interpersonal relationship, including communication or social skills, to increase self-confidence, self-reflection, behavioral competence, problem-solving skills, and the ability to face adversity.

Congruent with the findings of the Tier 1 Program, time constraints, clashes with other activities, or difficulties in motivating students to participate are the most common problems (30, 31). In the recommendations section, the participants suggested that an experiential, adventure-based program using a diversity of activities would be most beneficial to the students in the Tier 2 Program. Activities need to be interesting enough

Table 3 Responses to perceived program effectiveness.

Category	Subcategory	Descriptions	Nature of the response				Total	
			Positive	Neutral	Negative	Undecided		
Societal level		Enhanced social responsibility and participation	40				40	
		Subtotal	40	0	0	0	40	
Familial level		Strengthened the family bonding	8				8	
		Subtotal	8	0	0	0	8	
Interpersonal level	General interpersonal competence	Improved interpersonal relationship	30				30	
		Enhanced adults/instructors and students relationship	19				19	
		Enhanced the relationship with senior form students	1				1	
		Subtotal	50	0	0	0	50	
	Specific interpersonal competence	Improved communication/social skills	79				79	
		Improved conflict-handling skills	11				11	
		Built up (supportive) network	13				13	
		Learned to cooperate with others/team work	62				62	
		Mutual support/trust	8	1			9	
		Appreciated/respected others	13				13	
			Subtotal	186	1	0	0	187
	Personal level	General gains	Positive impacts on students	29				29
			Positive changes of students	38				38
			Program was helpful to students	39				39
Acquired skills/knowledge/applied what learned in daily lives			16				16	
Learned self-help			11				11	
Enhanced development			63				63	
Subtotal			196	0	0	0	196	
Positive self-image		Developed clear and positive identity	26				26	
		Enhanced self-understanding	26				26	
		Enhanced self-efficacy	27				27	
		Enhanced self-confidence	55				55	
		Enhanced self-esteem	19				19	
			Subtotal	153	0	0	0	153
Emotional competence		Enhanced emotional management	14				14	
		Subtotal	14	0	0	0	14	
Ways to face adversity		Cultivated resilience	29				29	
		Enhanced problem solving skills	39				39	
		Subtotal	68	0	0	0	68	
Beliefs in the future		Promoted beliefs in the future	3				3	
		Facilitated goal setting	5				5	
		Cultivated positive/optimistic views	7				7	
		Subtotal	15	0	0	0	15	
Behavioral competence		Promoted self-management/self-determination	8				8	
		Positive impacts on behavior	14				14	
		Enhanced leadership/organization skills	4				4	
		Enhanced learning motivation/skills	10				10	
		Enhanced sense of responsibility	3				3	
	Enhanced persistence	5				5		
	Learned to be self-discipline	5				5		
	Subtotal	49	0	0	0	49		
Moral competence	Promoted moral competence	1				1		
	Subtotal	1	0	0	0	1		

(Table 3 continued)

Category	Subcategory	Descriptions	Nature of the response				Total	
			Positive	Neutral	Negative	Undecided		
	Cognitive competence	Enhanced organizing/analyzing abilities	5				5	
		Enhanced creativity	4				4	
		Enhanced self-reflection	10				10	
		Subtotal	19	0	0	0	19	
	Experiences/exploration	Explored/developed potentials	39				39	
		Provided new/positive/successful experiences	21				21	
		Provided other learning experiences	6				6	
		Subtotal	66	0	0	0	66	
	Others		Students' improvements were recognized by others	9				9
			Beneficial to instructors	7				7
Beneficial to parents			12				12	
Strengthened the school bonding			7				7	
Could not help students/students needed further help					5		5	
Other positive comments			19				19	
Subtotal			54	0	5	0	59	
Total responses			919	1	5	0	925	

Table 4 Responses to encountered difficulties and recommendations.

Category	Subcategory	Descriptions	Total
Difficulties encountered	Program content	The program was not interesting	2
		Students could not integrate the learned skills and knowledge into daily lives	1
		Subtotal	3
	Program implementation	Too many participants	4
		Venue was not suitable	3
		Time factors	9
		Enrollment	1
		Clashed with other school's activities	7
		Participants' factors (e.g., passive, low motivation, low involvement)	10
		Others	9
Subtotal	43		
Recommendations	Program content	Similar activities in the future	6
		Make adjustment to meet the needs of students	5
		More interesting/challenging activities	8
		More activities	9
		Diversified activities	7
		More platform for students' interaction	5
		Improve program content/design	10
		Strengthen the coherence of programs	2
	Subtotal	52	
	Program implementation	Prolong program time/number of sessions	11
		Time issues	8
		Venue (including locations and facilities)	3
		Administrative issues	2
		Workers' improvement/follow-up	6
	Subtotal	30	
Others		Other recommendations	12
		Subtotal	12
Total responses			140

to stimulate interests, to be conducted outdoors if possible, and to involve some significant challenge. In general, these recommendations or principles of good practice were consistent with the other responses to the questionnaire.

Although promising, these findings remain tentative, as there are several limitations. It should be noted that the data used in this study were conclusions about the program drawn by program implementers. Although program implementers are provided with training to summarize the subjective evaluation forms (Form C) completed by participants, it is possible that they will still be biased about the benefits and process of the programs. The significance of this study lies more in the way it has highlighted the factors related to success of the Tier 2 Programs than in its provision of an index of satisfaction or an evaluation of the outcomes of the program.

In the present study, secondary data analyses based on conclusions drawn by the program implementers were analyzed. There are several advantages in asking the program implementers to draw conclusions. To begin with, as they were the coordinator and manager of these programs, they should participate in the evaluation process. Secondly, by involving the program implementers, their different experiences could be systematically documented. In fact, if the program implementers were not satisfied with the program, they could voice their grievances. Lastly, the approach adopted in this study enables the researchers to see the program through the eyes of the program implementers, which can strengthen the ecological validity of the evaluation findings.

As highlighted by Shek et al. (32), evidence-based social work practice was still very primitive in Hong Kong and there were many obstacles ahead. Of course, one good way to promote evidence-based practice is that charitable foundations adopt an evidence-based approach in vetting and funding research proposals and attempts that systematically utilize research findings in understanding the problem areas, developing evidence-based programs and evaluating the effectiveness of the developed programs are duly recognized. The evaluation findings of the Project P.A.T.H.S. are an initiative that attempts to build up such a database in different Chinese communities.

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