

**Final Report of Project**

Project No. : 2007 / 0340

**Part A**

Project Title: School-based Mental Health Enhancement Programme in Hong Kong

Name of Organization/School: Hong Kong Jockey Club Centre for Suicide Research and Prevention, The University of Hong Kong

Project Period: From Feb 2009 (month/year) to Sep 2011 (month/year)

**Part B**

*Please read the **Guidelines to Completion of Final Report of Quality Education Fund Projects** before completing this part of the report.*

Please use separate A4-size sheets to provide an overall report with regard to the following aspects:

1. Attainment of objectives
2. Cost-effectiveness – a self-evaluation against clear indicators and measures
3. Deliverables and modes of dissemination; responses to dissemination
4. Activity list
5. Difficulties encountered and solutions adopted

*\*The report should be signed by the supervisor of the school/the head of the organization or the one who signed the Quality Education Fund Agreement for allocation of grant on behalf of the organization.*

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**Table 1: Attainment of Objectives**

Objective statement	Activities related to the objective	Extent of attainment of the objective	Evidence or indicators of having achieved the objective	Reasons for not being able to achieve the objective, if applicable
<p>Objective 1: To implement a school-based mental health programme to raise awareness on mental wellbeing, as well as to reduce the prevalence of depressive symptoms and enhance mental wellbeing amongst young adolescents.</p> <p>Objective 2: To evaluate the effectiveness of the programme via a randomised controlled trial design.</p>	<p>Activity 1: A school-based mental health enhancement programme study was conducted in thirteen secondary schools from 2008 to 2011. Questionnaires were given three times within a year to students to measure their mental health literacy in 10 intervention schools and 3 as controls. And 2 of the 10 intervention schools acted as a control group (i.e. one form of students acted as intervention group while another form acted as control group)</p> <p>Activity 2: A focus group study was conducted in one of the schools at the beginning of programme implementation to learn about students' opinions and to evaluate instructors' performance.</p> <p>Activity 3: Held meetings to evaluate performance criteria and outcomes with school executives and teachers in-charge before programme implementation and after program completion.</p> <p>Activity 4: Class visits to schools which also participated in Phase II on the next academic year</p>	<p>Fully achieved</p>	<ol style="list-style-type: none"> <li>1. Around 3,400 students have benefited from this programme.</li> <li>2. Research report shows that both quantitative and qualitative findings of the intervention groups suggested a successful programme delivery to enhance students' mental health literacy and to moderately improve their attitude towards mental illnesses.</li> <li>3. Positive feedback from participated school students and teachers</li> <li>4. Well received by the general public (verbal feedback from seminars and training workshop)</li> <li>5. Successful transfer of knowledge – continuity of the program in four partner schools and school curriculum program implementation in the year 2012-2013 in two of its lower forms.</li> </ol>	<p><i>Not applicable</i></p>



	(Teacher-led to monitor teachers' adaptability to the programme and to offer support if necessary.			
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## 2. Project Impact on

### i) Learning Effectiveness

Details of the learning effectiveness of this Programme can be found in Annexe.

### ii) Professional Development

Teachers and school representatives who were involved in this programme acquired different life-skills to cope with difficulties in daily lives. They admitted that they are always enthusiastic to teaching but are overloaded with administrative duties. The increasing number of student suicides has created more stress in maintaining a harmonious school environment. Not only have they learned knowledge on mental health, stress and depression, they understand that they could apply a cognitive behavioural approach to prevent and intervene their personal and students' bumps.

### iii) School Development

The project team had been providing assistance to schools to develop a tailored class-based programme to cater to school motto and activities promotion. We kept close contact with schools which need help to administer their own programme. Some schools are carrying on this programme in their curriculum.

Apart from participated schools, our project team introduced this innovative and meaningful programme to school representatives and policy makers in seminars and international conference as one of the major purposes to knowledge exchange – the know-how of organizing mental health enhancement programme from mental health professionals to schools in Hong Kong and its challenges.

### 3. Cost-effectiveness

- The project can be completed within the budget approved.
- Unit cost for the direct beneficiaries = HK\$1,914,214.90/3,450 students and teachers = HK\$554.84
- Sustainability: continuity of the programme in four partner schools without additional resource
- teaching manuals and other materials (i.e. presentation slides, videos, supplementary readings) and other deliverable (student manuals) can be used and reused in other schools who will participate in this programme in the future.

**Table 3: Budget Checklist**

Budget Items <i>(Based on Schedule II of Agreement)</i>	Approved Budget (a)	Actual Expense (b)	Change [(b)-(a)]/(a) +/- %
Staff Cost	1,662,960.00	1,584,046.19	-4.75%
General Expenses	337,040.00	330,168.71	-2.04%

**Table 4: Dissemination Value of Project Deliverables**

Item description (e.g. type, title, quantity, etc.)	Evaluation of the quality and dissemination value of the item	Dissemination activities conducted (e.g. mode, date, etc.) and responses	Is it worthwhile and feasible for the item to be widely disseminated by the QEF? If yes, please suggest the mode(s) of dissemination.
Student manual (1 <sup>st</sup> ed) – 5000 cps	High quality	Online available for public download and reference. 5000 printed copies for schools and other educators.	Yes. Any feasible mode of dissemination.
Teachers' manual – 1000 cps	High quality	Online available for public download and reference. 1000 printed copies for school teachers and other educators.	Yes. Any feasible mode of dissemination.
Themed Postcards (4 styles)	High quality	distributed to 13 schools in printed copies	Yes, printed and online.
Themed memo pads	High quality	distributed to 13 schools in printed copies	Yes, printed.
Themed folders – 5000 pcs	High quality	distributed to 13 schools in printed copies	Yes, printed.
Teaching slides and videos in CD-ROM – 100 cps	High quality	Distributed to school teachers in hardcopies. Teaching presentation slides are also available online for public's reference.	Yes. Any feasible mode of dissemination.



3-in-1 USB and laser pointer pen for teachers – 150 pcs	High quality	Distributed to 13 schools teachers.	Yes, It facilitates teaching flow.
Student manual (2 <sup>nd</sup> ed) – 1000 cps	High quality	Distributed to one partner school which continues taking up our programme. The new edition has also uploaded online for public's reference.	Yes. Any feasible mode of dissemination.
Supplementary Teachers' Reading – 500 cps	High quality	Distributed to 13 schools teachers.	Yes. Any feasible mode of dissemination.
Edited Teaching slides and videos in CD-ROM – 20 cps	High quality	Distributed to 4 schools which continue implementing our programme in 2011 and onwards.	Yes. Any feasible mode of dissemination.
Appreciation Stand for participated schools – 13 pcs	High quality	Distributed to 13 schools teachers.	No. To participated schools only to show our appreciation.

**Table 5: Activity List**

Types of activities <i>(e.g. seminar, performance, etc.)</i>	Brief description <i>(e.g. date, theme, venue, etc.)</i>	No. of participants				Feedback from participants
		schools	teachers	students	others <i>(Please specify)</i>	
Teachers' Training	Aug 23, 2010 Kowloon Tong Education Services Centre	~24		-		
Focus group meeting	Dec 18, 2009	1	-	6	1 moderator	Transcript of participated school students feedback (see appendices)
Outing	Sep 25, 2010 Visit to Cathay Pacific City for Goal Setting Workshop	-	~30		-	

Seminar for School principals & Teachers'	Jun 8, 2011 Seminar on "student suicide – early identification and intervention" at Kowloon Tong Education Service Centre (see appendix)	~500			School representatives found this programme highly appreciated and applicable to their school curriculum. Some (including primary and secondary schools) showed interest in participating in this programme despite the teaching project had been completed.
School interview for Liberal Studies	Summer 2011 Received two students' invitation to an interview regarding student mental health enhancement programme and student crisis, at CSPR, HKU	1	2	2	Received thank you note from interviewers.
International Conference	Sep 13-17, 2011 International Association of Suicide Prevention (IASP) 26 <sup>th</sup> International Congress oral presentation on preliminary findings, at Beijing China	~1000 international delegates including policy makers, researchers, psychologists, psychiatrists, physical doctors, social workers and government officials			It was an excellent opportunity to share the experience of this innovative QEF funded project to the international mental health professionals/researchers community. Audiences were excited to learn about the programme concept and results presented.
School principals & Teachers' seminar	Nov 30, 2011 教育局訓育及輔導組「促進學生情緒精神健康」研討會, at Kowloon Tong Education Service Centre	~250			School representatives were very concerned about upper primary school student suicides which happened recently. Some school representatives wished this QEF funded programme could try targeting upper primary school students (i.e. in P.4-6).
Individual school meetings	March-Oct 2011, at partner schools	~15-20 school principals and teachers			School representatives expressed mental health of teachers and students is important and they hoped to do more for their benefits. However, they had met difficulties in adding programme teaching slots without keeping their students to stay behind after school hours.
Activities performed between Feb 2009 and December 2010 were reported in the progress report.					

## 6. Difficulties encountered and solutions adopted

- Partner schools had difficulties offering timeslot for this programme during school hours.
  - Various solutions can be adopted:
    - ◆ Teachings were taken place in the last school period where students and their parents were told to stay behind school no more than 15 minutes.
    - ◆ Teachings were taken place during home-room period.
    - ◆ Teachers were taken place within school hours with shrunken timeline (e.g. 2 modules within 45 minutes)
    - ◆ Teachings were taken place within school hours with extended timeline (e.g. 6 months for 12 modules).
- Some other interested schools that were willing to participate in the programme, but school curriculum were so tight to fit in our modules.
  - To implement our programme, schools are strongly encouraged to have earlier school activity planning. Modules could be taught separately accordingly. For example, twelve modules could be taught in three series in different grades: Module 1-4 for Form 1 students and 4-7 for Form 2 students and 8-12 for Form 3 students.
  - It is also suggested that the teaching content can combine with mental health studies in the curriculum.
- Partner school teachers were concerned whether they have the knowledge to teach mental health topics.
  - This project offered training workshops in summer for teachers to acquire special knowledge and skills about stress and mental health illnesses such as depression. Teaching materials including teachers' manual, teaching presentation slides and videos were all prepared to facilitate teaching.
  - Project coordinator and the team provided assistance and teaching support to schools with class visit and meetings to maintain quality and to offer feedback when necessary.
  - Another supplementary reading about Cognitive-behavioural therapy and depression was published to strengthen teachers' knowledge in this therapeutic approach as well as prevalence on depression in Hong Kong Youth.

### **Suggestions for future projects**

1. It is strategic and crucial to develop the teacher-led related programmes (i.e. in-school teachers instructing mental health programmes) to build capacity and to strengthen students' mental health literacy in their own schools.
2. It is also important to explore the opportunity to further develop this Programme to train education departments or teaching schools students for training in-school teachers in an attempt to sustainability.
3. The change in participants' behaviours is yet to be realised in a short period of time, It is anticipated that mental health education should be incorporated into regular curriculum to endure knowledge and availability for the Programme.
4. Also see Annexe p. 22-23 for more discussions and recommendations



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## ANNEXE

### EXECUTIVE SUMMARY OF SCHOOL-BASED MENTAL HEALTH ENHANCEMENT PROGRAMME IN HONG KONG

The Programme effectiveness was evaluated by quantitative and qualitative data collected from both the intervention and control groups. A total of 3,398 questionnaires were administered to the students between Form 2 and 4 at measuring the efficacy of the Programme in promoting mental health. A focus group was also conducted with the participants to learn their feedbacks of the Programme.

The intervention Programme was divided into two phases: 1) Professional-led and 2) Teacher-led. In professional-led instructors were the mental health professionals who were trained to introduce the mental health knowledge to intervention schools learners in the first phase. While in-school teachers had experience of teaching through observations in class and trainings, in the second phase, they implemented and administered the curriculum becoming the teacher-led group. It was encouraged, but not mandatory that they participate in the second phase (i.e. teacher-led) as well.

To measure the effectiveness of the Program, participants were invited to fill out questionnaires. The same sets of questionnaire were given to each intervention group (i.e. professional-led and teacher-led) students in three different timeframes, namely pre-test (T0), post-test (T1) and follow-up (T2).

Significant improvement in the intervention groups has been noted in the following aspects:

- Mental health knowledge was sharply increased, in both professional-led and teacher-led study groups
- Respondents' attitudes about statements "*Mental illness is an illness like any other*" and "*less emphasis should be placed on protecting the public from people with mental illness*" were improved over time. They became more positive about mental illnesses
- Respondents' states of depression and stress were maintained within normal level. The increased knowledge of depression and stress which were emphasised in the Programme could have raised the awareness of the intervention groups.
- Respondents, who used control-oriented coping strategies when encountering problems, can significantly be reinforced by in-school teachers (i.e. teacher-led).
- Participants appreciated what was taught in the Programme and suggested smaller classes to promote learning.

Recommendations:

- It is strategic and crucial to develop the teacher-led related programmes (i.e. in-school teachers instructing mental health programmes) to build capacity and to strengthen students' mental health literacy in their own schools.
- It is also important to explore the opportunity to further develop this Programme to train education departments or teaching schools students for training in-school teachers in an attempt to sustainability.
- The change in participants' behaviours is yet to be realised in a short period of time, It is anticipated that mental health education should be incorporated into regular curriculum to endure knowledge and availability for the Programme.



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## EFFECTIVENESS OF THE PROGRAMME

The Programme effectiveness was evaluated by quantitative (Part I) and qualitative (Part II) data collected from both the intervention and control groups. The data was aimed at measuring the efficacy of the Programme in promoting mental health knowledge, attitudes towards mental illnesses, states of depression, anxiety and stress, and coping strategies. A focus group was also conducted with the participants to learn their feedbacks of the Programme. This annexe summarises and evaluates students' knowledge and attitudes on mental health.



## Part I –Quantitative Measurement

### Research Design

#### *Intervention and Control Groups*

To measure statistical outcomes, participants were invited to fill out questionnaires. The same sets of questionnaire were given to each intervention group (i.e. Professional-led and Teacher-led) students in three different timeframes, namely pre-test (T0), post-test (T1) and follow-up (T2). T0 was given to students prior to receiving the Programme, whereas T1 was given within two weeks after completion of the Programme, and T2 is given as a follow-up measurement four months after T1. Also, control group students were invited to fill out the same questionnaire in similar timeframes.

#### *Professional-led and Teacher-led*

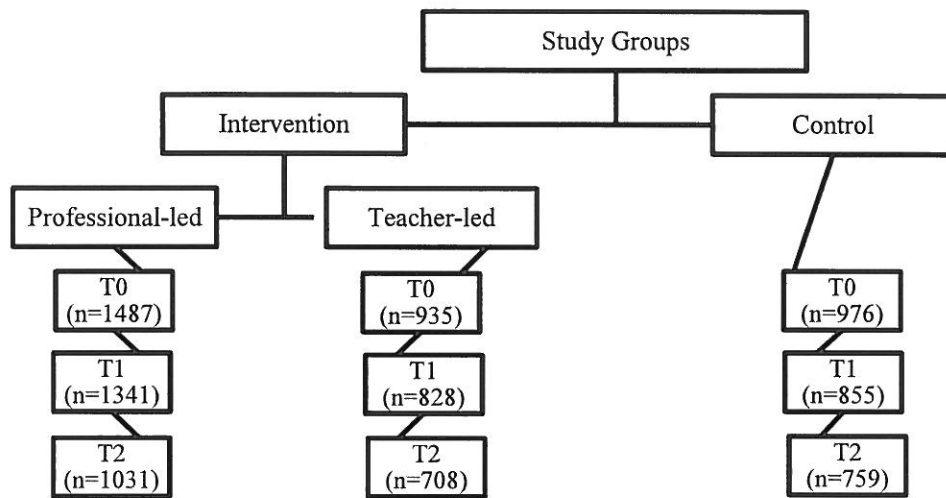
The Programme was divided into two phases: Professional-led and Teacher-led. In the first phase, professional instructors<sup>1</sup> were sent to the participated schools to provide in-class instruction to students. In this case, teachers would also attend to observe. In the second phase, in-school teachers were trained to implement and administer the curriculum. For those intervention schools who participated in the first phase (i.e. Professional-led), it was encouraged, but not mandatory that they participate in the second phase (i.e. Teacher-led) as well.

A flow chart in Fig 1 also explains the study's organisation and the total number of individuals who participated the Programme in different study timeframes.

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<sup>1</sup> Instructors were Masters of Counselling degree holders or above and professionally trained by our Training Consultant (a.k.a. Registered Clinical Psychologist) in the Programme to deliver mental health knowledge and related skills to participated school teachers and their students.

Figure 1 Flow chart of study organisation



## Demographics

Between 2009 and 2011, 3,398 students from 13 different schools studying in Form 2 to 4 participated in our Programme. The students participated into 3 different groups: 1) professional-led; 2) teacher-led; and 3) control. Amongst these schools, 1487 students (798 males and 674 females) and 935 students (449 males and 482 females) participated in our professional-led and teacher-led intervention groups respectively. Additionally, 976 students (634 males and 340 females) were in the control group. (Table 1)<sup>2</sup>

Table 1 Number of respondents in three timeframes, by study groups and gender

Instructor	Gender	Timeframe			Drop out (%) <sup>3</sup>
		T0 (n)	T1 (n)	T2 (n)	
Professional-led	Male	798	689	502	37.1
	Female	674	643	523	22.4
	Unknown	15	9	6	60.0
<b>Subtotal</b>		<b>1487</b>	<b>1341</b>	<b>1031<sup>4</sup></b>	
Teacher-led	Male	449	382	312	30.5
	Female	482	444	394	18.3
	Unknown	4	2	2	50.0
<b>Subtotal</b>		<b>935</b>	<b>828</b>	<b>708</b>	
Control group	Male	634	551	504	20.5
	Female	340	303	254	25.3
	Unknown	2	1	1	50.0
<b>Subtotal</b>		<b>976</b>	<b>855</b>	<b>759</b>	
<b>Total</b>		<b>3398</b>	<b>3024</b>	<b>2498</b>	

*NOTE: Unknown means respondents who did not disclose their gender in the questionnaire.*

<sup>2</sup> A total of 21 participants did not disclose their gender in the questionnaire.

<sup>3</sup> Any individual who recorded as absent during assessment date(s), he/she would then be excluded from the latter assessment(s). Therefore, usual drop outs can be found in different timeframes.

<sup>4</sup> Two schools dropped out from T2 as assessment time conflicted with school break (i.e. summer holiday in July and August)



## Mental Health Knowledge

### Methods

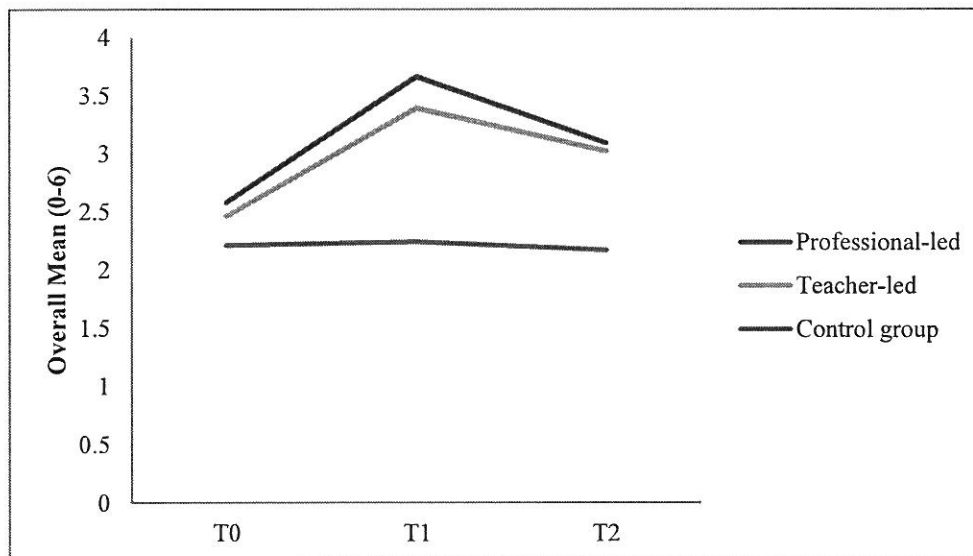
Six multiple choices questions were asked in the questionnaire to examine students' mental health knowledge which had been taught in the Programme. Respondents were asked to choose the correct answer amongst four options. For any correct answer, respondents would score one point and zero for incorrect answers. Therefore, they could score a maximum of 6-points and minimum of 0-points in the section. The overall mean scores of the individuals were measured and reported in the three study timeframes.

The intervention effect was also tested by fitting a generalised estimating equation (GEE) model. Instructor group was treated as a moderating variable. The significance of the intervention effect was evaluated by the parameter estimate for the interaction term timeframe\*instructor group. A *p*-value less than 5% indicated that the intervention effect was significant. Age and gender were adjusted by including these correlates in the GEE model as confounding variables.

### Outcomes

While there were no observed change in the control group, intervention groups (i.e. professional-led and teacher-led) knowledge was significantly and sharply increased.

Figure 2 Mental health knowledge mean scores in three timeframes, by study groups



*The intervention effect was significant ( $p < 0.05$ ).*

## Attitudes towards People with Mental Illnesses

### Methods

The 6 items were derived from the 40 items of the Community Attitudes Towards the Mentally Ill (CAMI) survey and were translated into Traditional Chinese. Respondents were asked to what extent they agreed or disagreed with a series of statements which expressed equal numbers of positive and negative views about mental illness.

The scale points were modified and were: 1= disagree strongly, 2= disagree slightly, 3 = neither, 4=agree slightly and 5=agree strongly. Respondents were asked to select the degree to which they agreed with the 6 items.

The overall mean score was calculated for each of the 6 items for the Professional-led intervention group, the Teacher-led intervention group and the control group. The figures show the statement in each item and the mean score for the three timeframes (T0, T1 and T2).

The intervention effect was also tested by fitting a generalised estimating equation (GEE) model. Instructor group was treated as a moderating variable. The significance of the intervention effect was evaluated by the parameter estimate for the interaction term timeframe\*instructor group. A *p*-value less than 5% indicated that the intervention effect was significant. Age and gender were adjusted by including these correlates in the GEE model as confounding variables.

### Outcomes

Responses to Item 1 (*“There is something about people with mental illness that makes it easy to tell them from normal people”*) improved exceptionally for both groups, particularly in the Professional-led intervention group (Fig. 3).

For Item 2 (*“Mental illness is an illness like any other”*), attitudes significantly improved over time (Fig. 4). An increased knowledge on mental illness acquired in the Programme could have inspired respondents to see less of the difference between mentally ill and normal people, which could have led to less negative attitudes towards people with mental illnesses. The changes of these two attitudes are more significant in the intervention groups than the control group.

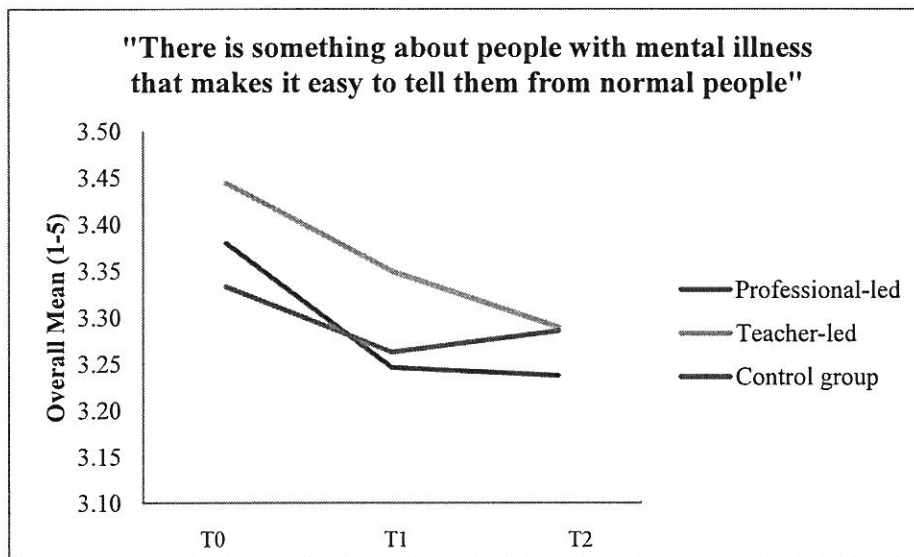
Both intervention group respondents were markedly more positive for Item 3 (*“less emphasis should be placed on protecting the public from people with mental illness”*) (Fig. 5). For Item 4 (*“We need to adopt a far more tolerant attitude toward people with mental illness in our*



society”), attitudes in both intervention groups did not have any change during the study period (Fig. 6).

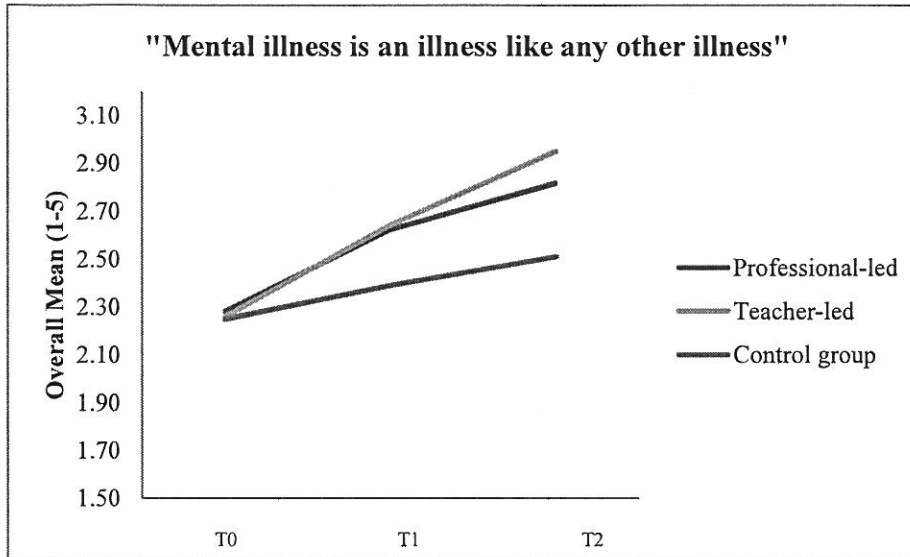
However, and interestingly, a negative change can be observed in Item 5 (“*People with mental illness don’t deserve our sympathy*”). Attitudes in all groups were significantly deteriorated (Fig. 7). An increased knowledge on showing empathy instead of sympathy to people was emphasised in Programme lessons, which could have led students to value empathy much more than sympathy in this respect. For Item 6, respondents in the Teacher-led intervention group were more negative in their attitudes (“*Locating mental health facilities in a residential area downgrades the neighbourhood*”) (Fig. 8). Because these two items are negatively phrased and placed at the end of the list, respondents might have chosen the higher scores as the patterns for filling in the 1-4 items.

Figure 3 Item 1 longitudinal trend, Professional-led, Teacher-led and Control group



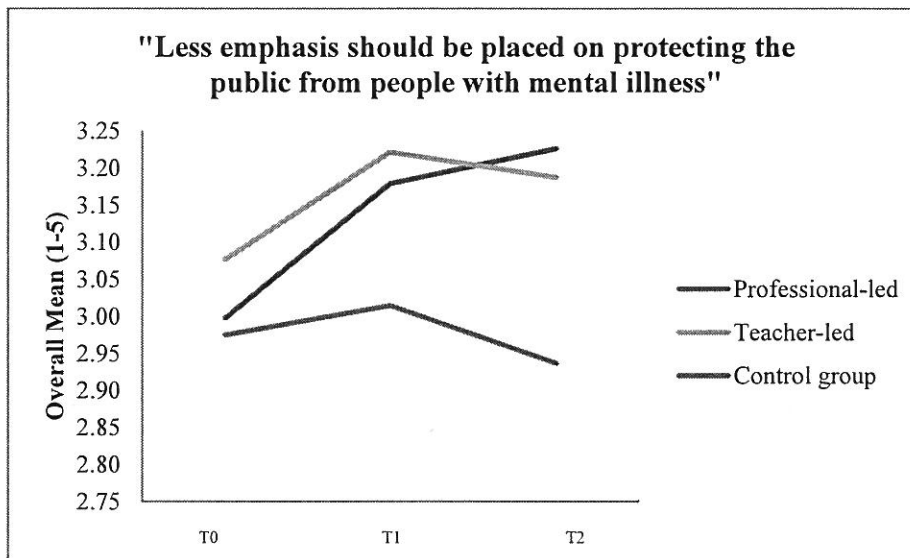
The intervention effect was insignificant ( $p > 0.05$ ).

Figure 4 Item 2 longitudinal trend, Professional-led, Teacher-led and Control group



The intervention effect was significant ( $p < 0.05$ ).

Figure 5 Item 3 longitudinal trend, Professional-led, Teacher-led and Control group

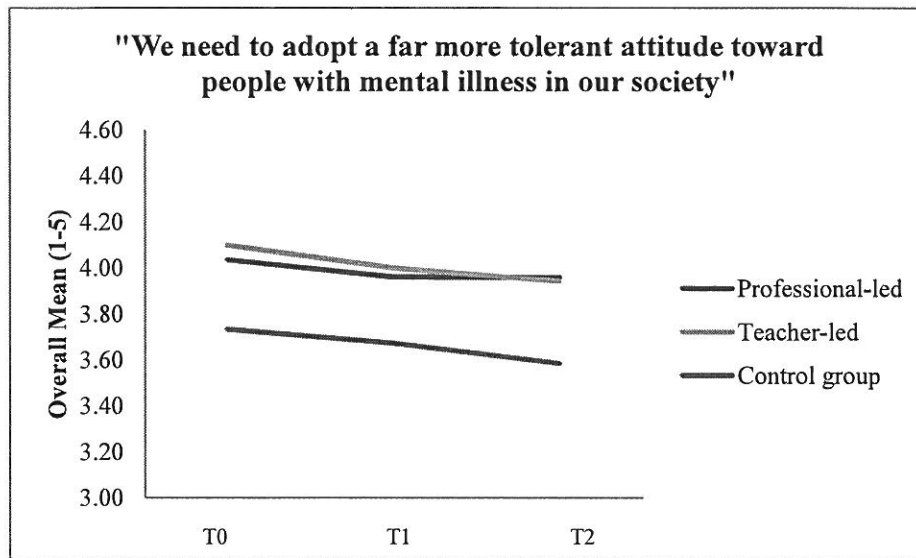


The intervention effect was significant ( $p < 0.05$ ).



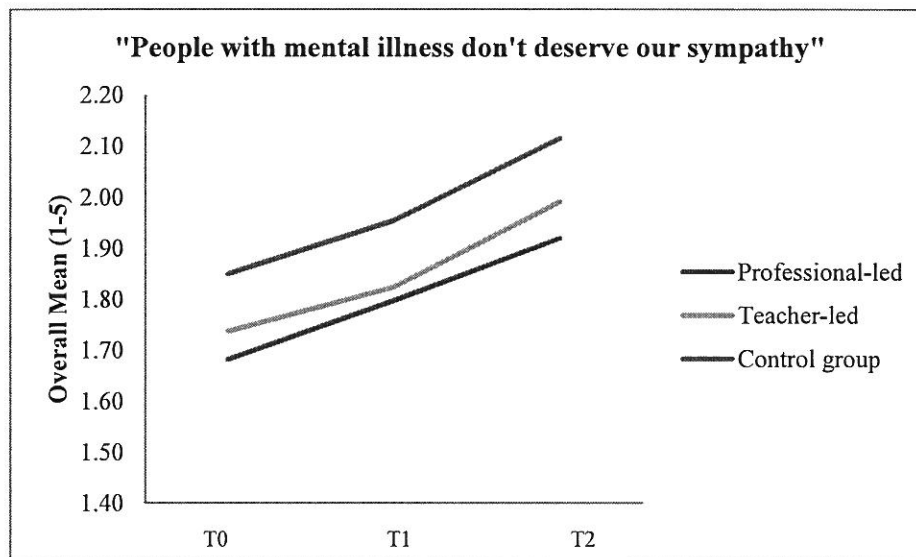


Figure 6 Item 4 longitudinal trend, Professional-led, Teacher-led and Control group



The intervention effect was insignificant ( $p > 0.05$ ).

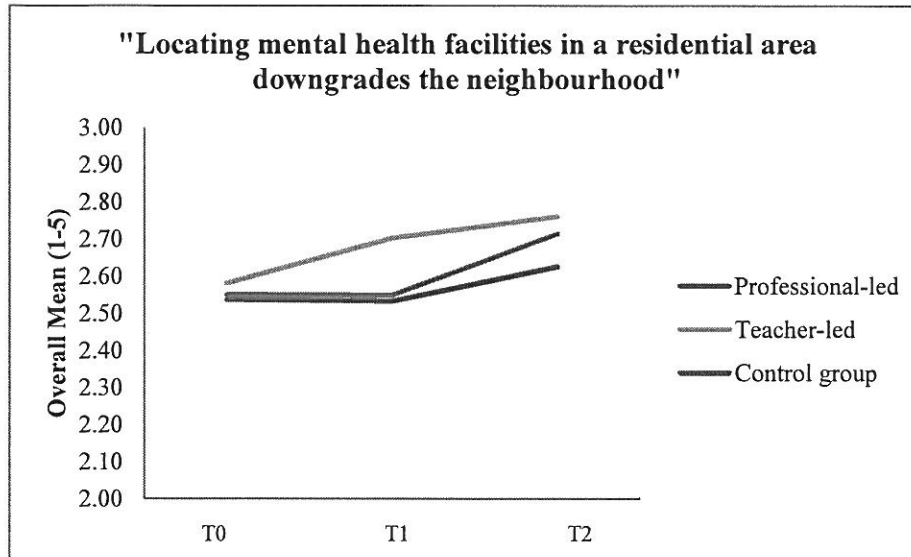
Figure 7 Item 5 longitudinal trend, Professional-led, Teacher-led and Control group



The intervention effect was insignificant ( $p > 0.05$ ).



Figure 8 Item 6 longitudinal trend, Professional-led, Teacher-led and Control group



*The intervention effect was insignificant ( $p > 0.05$ ).*



## Depression Anxiety and Stress Scale (DASS)

### *Methods*

The Depression Anxiety and Stress Scale – 21 items (DASS21) is a half-length version derived from its full scale of the 42 items. DASS21 is a set of three self-report scales designed to measure three subscales (i.e. the negative emotional states of depression, anxiety and stress). Each of the three DASS21 scales contains 7 items. Full scale of Traditional Chinese DASS21 was adopted in the questionnaire (Lovibond & Lovibond, 1996).

The scale points were: 0= not applicable, 1= applied to me to some degree, 2 = applied to me to a considerable degree, 3=applied to me very much, most of the time. Respondents were asked to select the degree of how the 21 statements applied to them over the past week. According to Lovibond & Lovibond scoring manual 2<sup>nd</sup> (1996), scores obtained on the DASS21 were multiplied by 2 to calculate the final score. Hence, the scores can be comparable to the full scales. Interpretation of cut off scores is suggested in Table 2.

The overall mean scores of the individuals were measured and reported in the three study timeframes.

The intervention effect was also tested by fitting a generalised estimating equation (GEE) model. Instructor group was treated as a moderating variable. The significance of the intervention effect was evaluated by the parameter estimate for the interaction term timeframe\*instructor group. A *p*-value less than 5% indicated that the intervention effect was significant. Age and gender were adjusted by including these correlates in the GEE model as confounding variables.

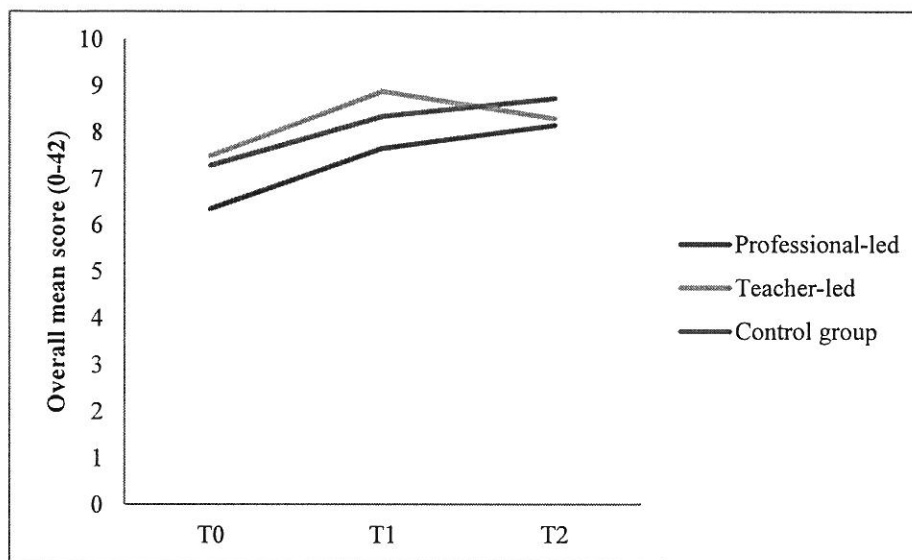
Table 2 DASS severity ratings (Lovibond & Lovibond, 1996)

	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely severe	28+	20+	34+

Outcomes- Depressive state

Respondents in both intervention and control groups show a significant increase between the three timeframes (Fig. 9). The leap can be markedly observed in from T0 (pre-test) to T1 (post-test). However, respondents' scores are within the normal range (i.e. 0-9). The intervention groups showed insignificant different from that of one control group. The increased knowledge of depression which was emphasised in the Programme could have raised the awareness of the intervention groups. It could have led to the increase in the scores over time.

Figure 9 DASS21 Depressive state mean scores in three timeframes by study groups



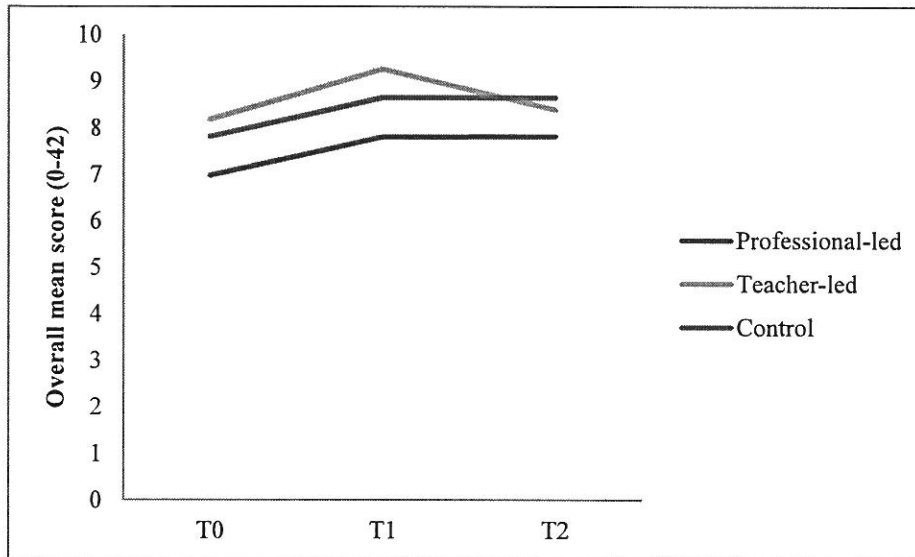
*The intervention effect was significant ( $p < 0.05$ ).*

*NOTE: Results found in the DASS21-depression state could be due to environmental events and circumstances in school settings (e.g. examinations, competitions and peer-arguments) which would have induced negative emotions.*

Outcomes- Anxiety state

The result is insignificant (Fig. 10). Therefore, no anxiety change of state can be suggested. Further research has to be done to find out more.

Figure 10 DASS21 Anxiety state mean scores in three timeframes by study groups



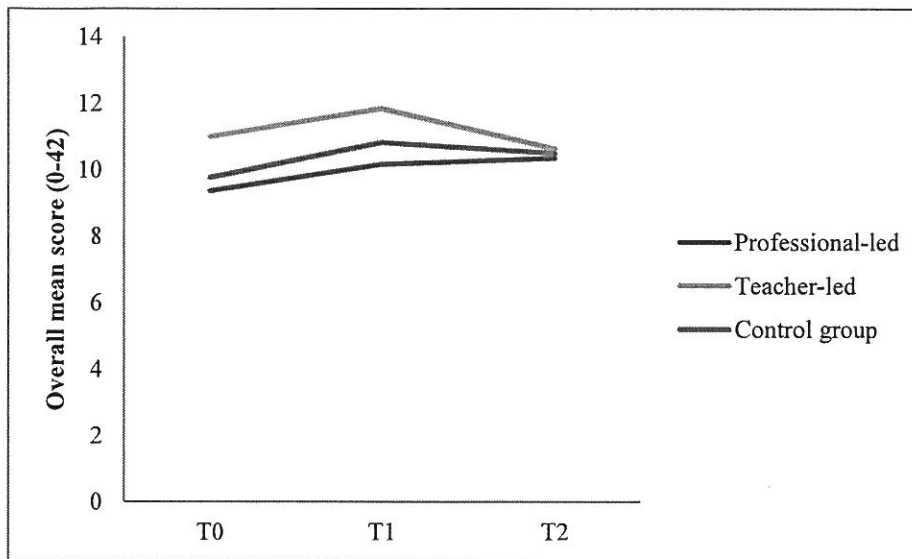
*The intervention effect was insignificant ( $p > 0.05$ ).*

Outcomes- Stress state

Respondents in both intervention and control groups show a slight significant increase between the three timeframes (Fig. 11). The rise can be markedly observed T0 (pre-test) to T1 (post-test). However, respondents' scores are within the normal range (i.e 0-14). The intervention groups showed insignificant different from that of one control group. The increased knowledge of stress which was discussed in the Programme could have raised the awareness of the intervention groups, especially in the Teacher-led phase. It could have led to the increase in the scores over time.



Figure 11 DASS21 Stress state mean scores in three timeframes, by study groups



*The intervention effect was significant ( $p < 0.05$ ).*

*NOTE: Results found in the DASS21-stress state could be due to environmental events and circumstances in school settings (e.g. examinations, competitions and peer-arguments) which would have induced negative emotions.*



## KIDCOPE - Coping strategy

### Methods

The KIDCOPE is a brief screening measure of coping strategies for children and adolescents (Spirito, Stark & Williams, 1988). It contains 11 items on which helps identifying respondents' coping strategies. They are distraction, social withdrawal, cognitive restructuring, self-criticism, blaming others, problem solving, emotional regulation (emotional outburst or relaxation), wishful thinking, social support and resignation. Two key constructs namely Escape-oriented coping and Control-oriented coping can be measured from the 10 strategies.

The 5-point scale was: from 0= never used to 4= frequently used. Respondents were asked to rate how frequent they use the suggested statements when encountering problems. The full scale of Traditional Chinese Kidcope was adopted. The overall mean scores of the individuals were measured and reported in the three study timeframes.

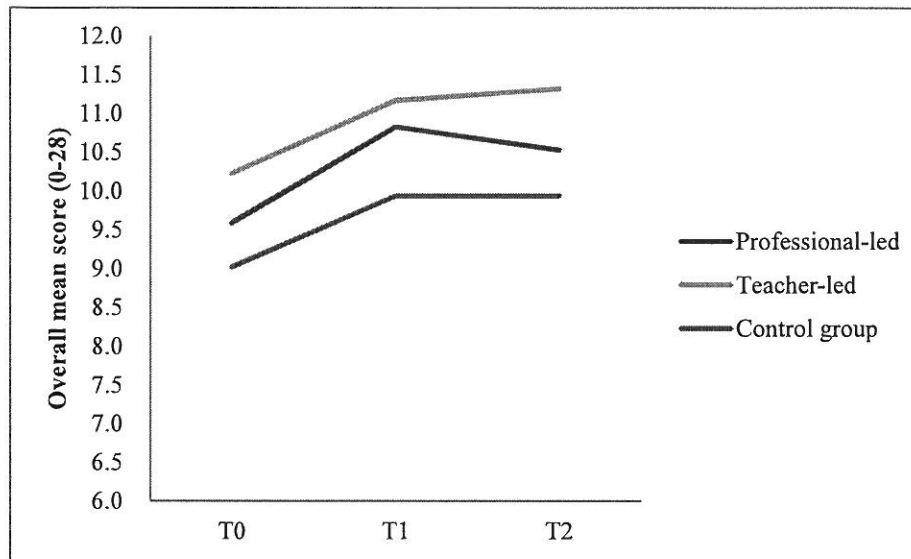
The intervention effect was also tested by fitting a generalised estimating equation (GEE) model. Instructor group was treated as a moderating variable. The significance of the intervention effect was evaluated by the parameter estimate for the interaction term timeframe\*instructor group. A *p*-value less than 5% indicated that the intervention effect was significant. Age and gender were adjusted by including these correlates in the GEE model as confounding variables.

### Outcomes - Escape-oriented coping

Escape-oriented coping strategies include distraction, social withdrawal, self-criticism, blaming others, wishful thinking, resignation and emotional outburst. All three study groups reflect insignificant parallel growth across timeframes (Fig. 12). Henceforth, the Programme cannot suggest any change in terms of respondents' coping strategy. Further research has to be done to find out more.



Figure 12 KIDCOPE Escape-oriented coping style mean scores in three timeframes, by study groups

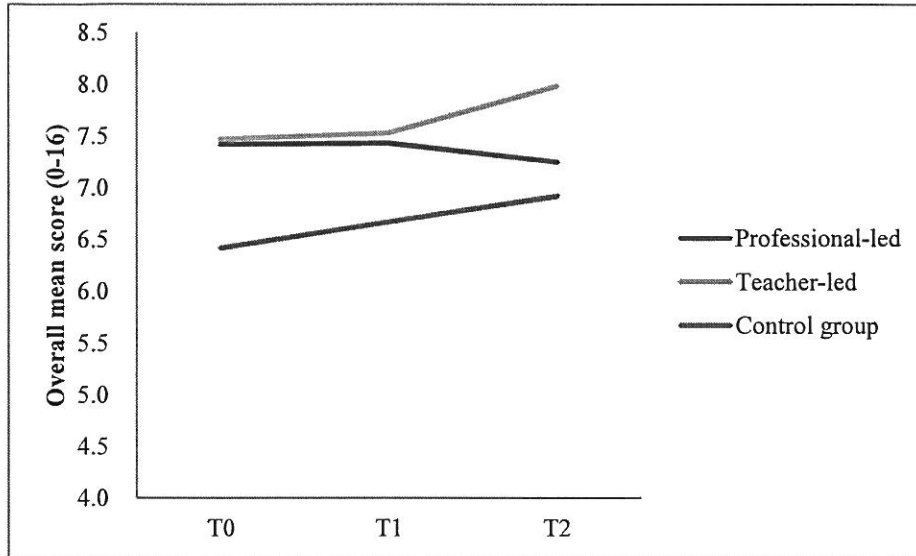


*The intervention effect was insignificant ( $p > 0.05$ ).*

#### Outcomes- Control-oriented coping

Control-oriented coping strategies include cognitive restructuring, problem solving, social support and relaxation. Teacher-led group performed significantly better than professional-led, while it remained stationary across timeframes (Fig. 13). This suggests the effectiveness of teacher-instruction group in improving respondents' coping strategy than professional-instruction.

Figure 13 KIDCOPE Control-oriented coping style mean scores in three timeframes, by study groups



*The intervention effect was significant ( $p < 0.05$ ).*



## Part II -- Qualitative measures

A focus group was conducted in the Fall of 2009 with six Form 2 students. One moderator, who was one of our project officers, held the group. In a 60-minute discussion, different issues were reviewed. It was audiotaped and was then transcribed.

The focus group discussion was aimed to understand the views of the intervention group on how they see our mental health enhancement programme in terms of knowledge, and learning and delivery.

### Outcomes

#### Knowledge

The students appreciated what they learned in the Programme. Besides improving their knowledge on depression, they found that the skills discussed were useful to apply to their daily lives. They were more sensitive to their own emotions during heated arguments and stressful moments, thus were able to impose techniques to calm themselves more quickly. Participant C reflected that the Programme made him understand more about his own emotions; whereas Participant D and E recalled modules on *Stress* and *Goal Settings* were specifically helpful. (Appendix I)

#### Learning and Delivery - Homework

Homework (i.e. worksheet attached in the student manual) was not found to be particularly useful in reflecting student's learning. Participant C found it boring and F thought that doing homework was unnecessary. (Appendix II)

Participant A concerned her personal life stories which were written in homework could be read by the other classmates as they were passed along during collection process. Participant B suggested submitting homework via email to protect individual privacy. Also, there was an increased demand for group discussions to apply what they learned. Participant C and F thought that more discussions on life examples raised could help digesting materials they learned, rather than filling in their own examples in worksheets. (Appendix II)

#### Learning and Delivery - Parental Involvement

Moreover, the students hoped that their parents could also join the Programme together with them in order to adopt skills in communications, anger management and conflict management. (Appendix III)



### Learning and Delivery - Instruction

In terms of the methods of instruction, students preferred attending classes in small groups (6-10 students in a group) to shorten the time allotted for the sharing of personal experiences. Participant A found personal sharing in front of the whole class embarrassing. Participants also preferred sharing personal issues with trusted acquaintances which were usually their home-room teacher or school social workers. In other words, teaching of the QEF programme does not necessarily need to be through a visiting-instructor. (Appendix IV)

### Learning and Delivery - E-learning elements

Students suggested e-learning modules to give more flexibility for learning time and location. Participant E preferred having more games and videos to replace content reading. Instead of animated videos, C wanted to watch videos acted by real people. He explained that this could increase learners' concentration to pay more attention to the scenes. Participant A mentioned that discussions can be done on an online platform (a.k.a. forum). It is believed to encourage interaction. However, the suggested module does have a technological constraint on families who do not have access to the internet nor possess the necessary computer skills. (Appendix V)

Furthermore, students' feedback can be found on their reflection sheet which is enclosed in their student manual. The positive feedback on the reflection sheet echoes those of the focus group discussion. Some reflection sheets are enclosed in Appendix VI.



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### Part III – Discussions and Recommendations

Both quantitative and qualitative findings of the intervention group suggest a successful programme delivery to enhance students' mental health literacy and to moderately improve their attitude towards mental illnesses. In addition, the enhanced knowledge could have raised intervention group students' awareness in mental health issues, which can be observed in the psychological scales results e.g. CAMI and DASS-21. The outcomes of teacher-led group also revealed that in-school teachers can deliver teaching materials more effectively to students.

Although intervention group students fell between normal ranges of emotion severity from the assessment, more attention is needed on students' negative emotions which could be induced by school circumstances (e.g. examinations, competitions and peer-arguments). Despite information collected on understanding students' coping strategies (i.e. KIDCOPE) to behavioural change of the intervention group is yet to be realised, in-school teachers were found to be influential to reinforce control-oriented coping strategies. Moreover, research has to be done to find out more and mental health education should be incorporated into regular curriculum to endure knowledge and availability for the Program

Students had shown concerns in regards to revealing their personal experiences during lessons. Some found it embarrassing and preferred to disclose these experiences in small groups to their trusted acquaintances.

Overall, participants appreciated what was taught in the Programme and suggested smaller classes to promote learning. They showed interest in learning the modules and found the learned skills applicable to daily life. They would like to be taught with their parents to minimise family conflicts and to enhance communications. Given the limited time available in school, students also hoped that we can develop an e-learning platform with interactive discussions, games and videos.

In a view of the findings about the significant positive changes (i.e. mental health knowledge and attitude) observed in the intervention groups, it is strongly recommended that similar classroom mental health teaching programme should be offered regularly to build school capacity and to strengthen students' mental health literacy at the same time. Apparently, resources should then be allocated appropriately to enhance these related trainings for students.



To ensure the sustainability and continuity of these programmes, we urge to provide teachers with sufficient trainings – the train the trainers programmes, so that they can empower their students with the knowledge and skills they learned. It is also important to explore the opportunity to further develop this Programme to train education departments or teaching schools students for training in-school teachers in an attempt to sustainability.

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