BGCA 香港小童群益會 The Boys' & Girls' Clubs Association of Hong Kong

Family 愛+人 健健康康 開開心心 和和氣氣 Health Happiness Harmony 賽馬會和諧社會計劃 A Jockey Club Initiative for a Harmonious Society

SCHOOL OF PUBLIC HEALTH THE UNIVERSITY OF HONG KONG 香港大學公共衞生學院

FAMILY: A Jockey Club Initiative for a Harmonious Society

愛+人：賽馬會和諧社會計劃

Report Series
Community-based Projects

家添好動好戲 FUN

Family Interactive Drama with Exercise and Fun Project

FAMILY Health, Happiness and Harmony - 3Hs

家庭健康、快樂、和諧 - 家有康和樂

Best Science • Best Practice

最好的科學・最好的實踐

Evidence-based & Evidence generating

實証為本・提証為人

Positive Psychology

正向心理學

捐助機構 Funded by:

香港賽馬會慈善信託基金
The Hong Kong Jockey Club Charities Trust
同心同步同進 RIDING HIGH TOGETHER

3Hs • HEALTH • HAPPINESS • HARMONY • 家有康和樂 • 健康 • 快樂 • 和諧

TABLE OF CONTENTS

PROJECT TEAM

Project Title:
3Hs Family Drama Project II: Family Interactive Drama with Exercise and Fun

Funder:
The Hong Kong Jockey Club Charities Trust

Organisers:
The Boys' and Girls' Clubs Association of Hong Kong in collaboration with School of Public Health, The University of Hong Kong

Project Working Group (The Boys' and Girls' Clubs Association of Hong Kong):
Mr. TSUI Hon Ming, Supervisor (Eastern District & Kowloon City)
Mr. CHAN Pik Fai, Supervisor (Corporate Development)
Ms. FUNG Yuen Ting, Ada, Project Officer
Ms. CHEUNG Hao Lin, April, Assistant Project Officer
Ms. NG Ka Yan, Natalie, Administrative Assistant

Project Working Group (FAMILY Project):
Ms. WAN Ngai Teck, Alice, Project Administrator
Dr. LAI Yuen Kwan, Agnes, Research Officer
Ms. LAU Chieh Grace, Team Coordinator
Ms. CHAN Yan Tung, Jamie, Research Assistant
Ms. DENG Yuanjie, Sasha (till Feb 28, 2017)
Ms. LEUNG Ho Ting, Sally, Research Assistant (till Dec 23, 2016)
Ms. ZHOU Jingwen, Research Assistant (till Aug 31, 2016)

Participating Schools:
Aberdeen St. Peter's Catholic Primary School
Alliance Primary School, Tai Hang Tung
Alliance Primary School, Whampoa
Asbury Methodist Primary School
Baptist Lui Ming Choi Primary School
Baptist Rainbow Primary School
Bishop Ford Memorial School
Canossa Primary School (San Po Kong)
CCC Chuen Yuen First Primary School
CCC Yuen Long Chun Kwong School
Chan Sui Ki (La Salle) Primary School
Ching Chung Hau Po Woon Primary School
Christian Alliance H C Chan Primary School
Diocesan Girls' Junior School
Diocesan Preparatory School
ELCHK Faith Love Lutheran School
Farm Road Government Primary School
Five Districts Business Welfare Association School

Fung Kai Liu Yun Sum Memorial School
GCCITKD Cheong Wong Wai Primary School
Good Counsel Catholic Primary School
Hennessy Road Government Primary School (Causeway Bay)
HHCKLA Buddhist Wong Cho Sum School
HKFYG Lee Shau Kee Primary School
Hoi Pa Street Government Primary School
Holy Angels Canossian School
Hong Chi Lions Morninghill School
Hong Kong Baptist Convention Primary School
Hong Kong Baptist University Affiliated School Wong Kam Fai Secondary and Primary School
Hong Kong Student Aid Society Primary School
Ka Ling School of The Precious Blood
Kam Tsin Village Ho Tung School
Kowloon Tong Bishop Walsh Catholic School
Kowloon Tong Government Primary School
Kowloon True Light Middle School (Primary Section)
Kwong Ming School
Kwun Tong Government Primary School
Leung Kui Kau Lutheran Primary School
Lingnan University Alumni Association (Hong Kong) Primary School
LST Yeung Chung Ming Primary School
Ma On Shan St. Joseph's Primary School
Methodist School
Mui Wo School
Ng Wah Catholic Primary School
North Point Government Primary School
North Point Methodist Primary School
Our Lady Of China Catholic Primary School
Pak Tin Catholic Primary School
Pentecostal Gin Mao Sheng Primary School
Pentecostal Yu Leung Fat Primary School
PLK Fong Wong Kam Chuen Primary School
PLK Fung Ching Memorial Primary School
PLK Horizon East Primary School
PLK Tin Ka Ping Primary School
PLK Women’s Welfare Club (WD) Fung Lee Pui Yiu Primary School
PLK Wong Wing Shu Primary School
Pok Oi Hospital Chan Kwok Wai Primary School
Precious Blood Primary School (South Horizons)
Pui Kiu Primary School
Pui Tak Canossian Primary School
QES Old Student's Association Primary School
SKH Fung Kei Primary School
SKH Kei Lok Primary School
SKH Kei Oi Primary School
SKH Tak Tin Lee Shiu Keung Primary School
SKH Yan Laap Memorial Primary School
SRBCEPSA Lee Yat Ngok Memorial School
San Wui Commercial Society School
Shak Chung Shan Memorial Catholic Primary School

Shau Kei Wan Government Primary School
Shek Lei Catholic Primary School
Shek Lei St. John's Catholic Primary School
Shun Tak Fraternal Association Ho Yat Tung Primary School
Shun Tak Fraternal Association Wu Siu Kui Memorial Primary School
South Yuen Long Government Primary School
St. Charles School
St. Patrick's School
St. Paul's Convent School (Primary Section)
Tai Po Government Primary School
Tai Po Old Market Public School
Tak Sun School
Taoist Ching Chung Primary School
Taoist Ching Chung Primary School (Wu King Estate)
The Mission Covenant Church Holm Glad Primary School
The Salvation Army Centaline Charity Fund School
The Salvation Army Lam Butt Chung Memorial School
Tin Shui Wai Government Primary School
Tsang Mui Millennium School
Tsz Wan Shan St Bonaventure Catholic Primary School
Tung Chung Catholic School
TWGHs Hok Shan School
TWGHs Leo Tung-hai LEE Primary School
TWGHs Yiu Dak Chi Memorial Primary School (Yuen Long)
Wong Tai Sin Catholic Primary School
Wong Tai Sin Government Primary School
YOT Tin Ka Ping Primary School
Yan Chai Hospital Choi Hin To Primary School
Yan Chai Hospital Law Chan Chor Si Primary School
Yuen Long Long Ping Estate Wai Chow School
Yuen Long Po Kok Primary School

FAMILY Project Team, School of Public Health, The University of Hong Kong:

Principal Investigator (3Hs Family Drama Project II: Family Interactive Drama with Exercise and Fun):

Dr. HO Sai Yin, Daniel, Associate Professor, Community Medicine and Public Health Practice, School of Public Health, The University of Hong Kong

Co-Investigator (3Hs Family Drama Project II: Family Interactive Drama with Exercise and Fun):

Professor LAM Tai Hing, Sir Robert Kotewall Professor in Public Health; Chair Professor of Community Medicine, School of Public Health, The University of Hong Kong; Principal Investigator, FAMILY Project

Project Administrator:

Ms. WAN Ngai Teck, Alice

Research Officers:

Dr. FABRIZIO Cecilia (till Aug 31, 2015)
Dr. LAI Yuen Kwan, Agnes

Post-Doctoral Fellows:

Dr. CHU Ting Wai, Joanna (till Jun 30, 2016)
Dr. HO Chun Yip, Henry (till Jul 31, 2017)
Dr. LEE Ka Yiu, Kyle (till Sep 17, 2015)
Dr. NG Yin Lam, Danice (till Oct 10, 2015)
Dr. SHEN Chen

Team Coordinators:

Ms. LAU Chieh Grace
Ms. YUEN Cheuk Yam, Edith (till Mar 4, 2015)

Senior Research Assistant:

Ms. WANG Xin (till Jul 3, 2015)

Research Assistants:

Ms. CHAN Yan Tung, Jamie
Mr. CHENG Ka Man
Ms. CHAN Ka Ying (till Mar 2, 2017)
Ms. DENG Yuanjie, Sasha (till Feb 28, 2017)
Ms. HO I Tong, Hermia (till Apr 7, 2016)
Mr. KING Chie Yung, Jackie
Ms. KWOK Cheuk Ting, Joanna (till Aug 3, 2015)
Ms. LEE Letitia
Ms. LEUNG Ho Ting, Sally (till Dec 23, 2016)
Ms. MA Ke
Ms. NG Yuen Kiu
Ms. SUEN Man Tung, Michelle
Mr. YAU Yue Chi (till Aug 13, 2016)
Ms. ZHOU Jingwen (till Aug 31, 2016)
Ms. ZHOU Yi (till Sep 1, 2017)

PREFACE (1)

Joining our community partners to build a harmonious society

Demographic shifts, economic upheavals and changing societal norms and values are steadily creating new processes and relationships within families, as is immigration across borders. As a result, family structure in society is becoming more complex and diverse, creating many areas of discord in family life.

To address these evolving challenges, The Hong Kong Jockey Club Charities Trust earmarked funding of HK$250 million in 2007 to launch a citywide project titled “FAMILY: A Jockey Club Initiative for a Harmonious Society” (the FAMILY Project), in collaboration with the School of Public Health of The University of Hong Kong. Approaching the issue from a public health perspective, the project is aimed at devising suitable preventive measures and strengthening the message of FAMILY Health, Happiness and Harmony (“the FAMILY 3Hs”) for better holistic family health.

Over the past ten years, a wide range of community partners have come together to implement more than 20 community-based intervention programmes under the FAMILY Project. At the same time, diversified, interactive capacity training workshops have been organised for social service practitioners to help them promote the FAMILY 3Hs and holistic FAMILY health more effectively. Altogether, the FAMILY Project has directly benefited over 350,000 members of the public.

In addition, we have published a series of practice manuals and project reports to share the valuable data and experiences collected for the FAMILY Project from household surveys and community-based programmes. These serve as useful resources for policy makers and social service providers to help foster a more harmonious community.

The “3Hs Family Drama Project (Phase 2)” was successfully implemented in more than 120 primary schools across 18 districts in Hong Kong in 2015, in partnership with The Boys’ and Girls’ Clubs Association of Hong Kong (BGCA). Its aim was to promote the FAMILY 3Hs through the active involvement of primary school students, their parents and teachers. Through this report, we hope to demonstrate that simple interventions with primary school students can be effective in promoting physical health at school and community levels, and enhance family well-being.

On behalf of The Hong Kong Jockey Club Charities Trust, I would like to express my deepest gratitude to the FAMILY Project Team of the School of Public Health of The University of Hong Kong, BGCA, Committee on Home-School Co-operation as well as Drama Gallery and all collaborating schools involved in the project. It is our partners’ incredible support that has made the project such a success, and is helping to spread the FAMILY 3Hs and FAMILY holistic health messages to everyone in the community.

Mr. Leong CHEUNG

Executive Director, Charities and Community, The Hong Kong Jockey Club

PREFACE (2)

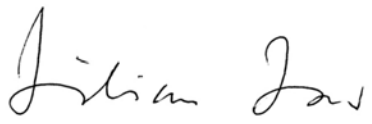
The year 2016 marks the 80th anniversary of The Boys' and Girls' Clubs Association of Hong Kong (BGCA). To meet the purpose of "Nurture the Young, Create the Future", we continue to provide a wide range of professional services for children, adolescents and families to nurture a healthy and happy new generation.

The "Family" plays a crucial role in the healthy development of children. Funded by The Hong Kong Jockey Club Charities Trust (HKJCCT), BGCA and the School of Public Health of The University of Hong Kong (HKU-SPH) launched the "3Hs Family Drama Project II - Family Interactive Drama with Exercise and Fun" in 2014. Through this initiative, we have promoted the messages of FAMILY 3Hs (Health, Happiness and Harmony) and FAMILY Holistic Health among our youngsters, their families and the community. Throughout these two years, we conducted over 100 musical drama shows in primary schools across the territory with an audience of over 30,000 persons. By adopting a cohesive approach, we have spread and reinforced the 3Hs messages via various channels including community-based drama shows performed by students, Physical Exercise Fun Days and Train-the-Ambassador Programme for Health Ambassadors on healthy diet and "Zero-time Exercise".

The 3Hs Family Drama Project II integrates the five health concepts of "Zero-time Exercise", "2 servings of fruits and 3 servings of vegetables a day", "Less junk food", "Less salt and less sugar" and "More praise and less criticism" into the drama performance, which is enjoyable, easy to understand and effective. The children and parents can keep these tips and principles in their mind and put them into practice in their daily life. The observable positive impact of the project was confirmed by research findings. We have witnessed students sang along with the key characters in the drama shows and better grasped the concept and knowledge of the 3Hs messages.

We thank HKJCCT for funding and invaluable advice that made the project a success and HKU-SPH for the creative spark, the great coordination, and the expert evaluation research. We thank all the participating schools, parents and students for joining with us this fun-filled journey. We are also indebted to the project staff team for their amazing efforts and commitments.

Last but not least, we are sure that this report would serve as an important record on key messages and experiences of the project to be shared with the public and stakeholders. With concerted efforts from all parties, we envision a better future for our next generation.



Ms. LAW Suk Kwan, Lilian, JP

Executive Director

The Boys' and Girls' Clubs Association of Hong Kong

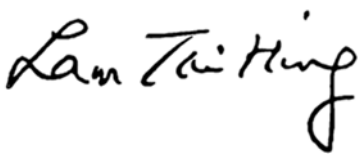
PREFACE (3)

We are most grateful to The Hong Kong Jockey Club Charities Trust which initiated and donated HK$250 million to fund and launch a citywide project entitled “FAMILY: A Jockey Club Initiative for a Harmonious Society”, in collaboration with the School of Public Health of The University of Hong Kong (HKU-SPH). Since 2008, the FAMILY Project has successfully completed many community-based and public education projects to develop cost-effective preventive measures to promote FAMILY Health, Happiness and Harmony (3Hs).

3Hs Family Drama Project II: Family Interactive Drama with Exercise and Fun (FDP II), led by The Boys' and Girls' Clubs Association of Hong Kong (BGCA), in collaboration with the HKU-SPH FAMILY Project Team, is one of the major intervention projects under FAMILY Project. Learning from the success of 3Hs Family Drama Project, this expanded and improved project included the School Drama Tour, Physical Exercise Fun Day, community drama shows by primary school students, Train-the-Ambassador Programme and booster programme with innovative ways of promoting interaction between the performers and the audience, and among family members. In the school tour, the audience very much enjoyed the show and interacted with the performers, answering questions and singing enthusiastically. The musical drama performance was a highly attractive, effective, and enjoyable means to convey health messages to primary school students who also brought the DVD back home to enjoy the show with their parents. The project was very well-received by the schools, the students and their parents. The School Drama Tour to 100 primary schools had 30,734 student and other audience.

FDP II has been completed with great success and its benefits have been extended from service workers to the participants and their families. The model and experiences have been disseminated within BGCA, in school settings and beyond. I wish that this report can be shared with the community partners and other stakeholders, and the messages and strategies of promoting healthy lifestyle and positive family relationship can be spread across the territory, which will lead to better personal well-being, family relationship, and FAMILY 3Hs.

On behalf of the HKU-SPH FAMILY Project Team, I express my sincerest gratitude to BGCA, Drama Gallery, Committee on Home-School Co-operation and all collaborating schools and other parties for their professionalism, commitment, and hard work. We are particularly pleased with the student actors and actresses for their wonderful performances in the community drama tour. We all enjoyed the shows very much and have learnt a lot.



Professor LAM Tai Hing

Principal Investigator, FAMILY: A Jockey Club Initiative for a Harmonious Society

Sir Robert Kotewall Professor in Public Health

Chair Professor of Community Medicine, School of Public Health, The University of Hong Kong

FAMILY: A JOCKEY CLUB INITIATIVE FOR A HARMONIOUS SOCIETY

Background

To help build a more harmonious society, The Hong Kong Jockey Club Charities Trust invited the School of Public Health, Li Ka Shing Faculty of Medicine, The University of Hong Kong (HKU) to collaboratively launch a project entitled FAMILY: A Jockey Club Initiative for a Harmonious Society ("FAMILY Project") with funding of HK$250 million. The project aims to identify the sources of family problems, to devise, implement and evaluate preventive measures, and to promote FAMILY Health, Happiness and Harmony (3Hs) through a territory-wide household survey, intervention projects and public education.

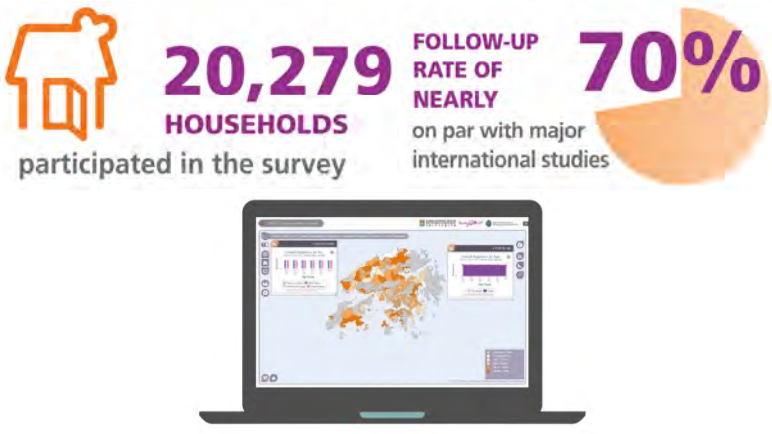
The project

The project comprises three components:

1. Social barometer

a) Territory-wide Household Survey

The FAMILY Cohort, a population-based cohort study focusing on the family as a unit, was carried out from 2007 to 2014. It aimed to identify the source of domestic problems and derive preventive responses that are complementary, wide-reaching, pervasive and cost-effective. Survey findings can provide useful information to relevant organisations for the planning of future programmes and initiatives.



b) Hong Kong Family and Health Information Trends Survey (HK-FHInTS)

During 2009 to 2017, the FAMILY Project Team has conducted one Hong Kong population cross-sectional telephone survey almost every year to assess changes in family and health information seeking behaviours among the general public and the impact of the Project's programmes in promoting FAMILY 3Hs. Six surveys were completed in 2009, 2010, 2012, 2013, 2016 and 2017 respectively, with extensive media coverage which have helped raise public awareness of FAMILY 3Hs messages.

2. Intervention and community-based programmes

The FAMILY Project Team has been working closely with government departments and numerous social service and related organisations to develop and implement interventions to strengthen family relationships across generations throughout Hong Kong. These include intervention projects to enhance family and parent-child relationships; school-based projects to spread FAMILY 3Hs to hundreds of schools; and community-based projects with Social Welfare Department, Department of Health and various NGOs to promote 3Hs to entire district and the community. The study methods and results of these projects have been shared with the government, NGOs and community service workers and the general public.

The seven intervention projects were:

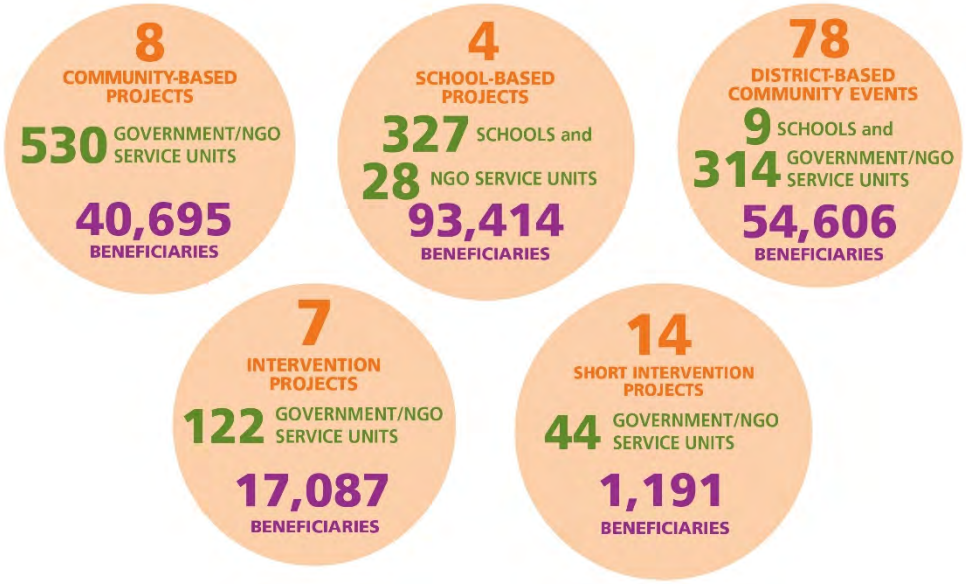
- H.O.P.E. (Hope Oriented Parents Education for Families in Hong Kong) Project
- Harmony @ Home Project
- Effective Parenting Programme
- Happy Transition to Primary One
- Share the Care, Share the Joy
- Boosting Positive Energy Programme
- Be Healthy, So Easy: FAMILY Education Project

The four school-based intervention programmes were:

- FAMILY Goes Green
- 3Hs Family Drama Project
- 3Hs Family Drama Project II: Family Interactive Drama with Exercise and Fun
- More Appreciation and Less Criticism Project

The eight community-based engagement projects were:

- Happy Family Kitchen I & II Projects
- Learning Families Project
- Enhancing Family Well-being Project
- Happy Family Kitchen Movement Project
- Community Health Campaign: Fitter Families Project
- Holistic Health Family Project
- Family Holistic Health Community Promotion Project



All of the project interventions were designed using a public health framework, so they were brief, preventive, cost-effective, and targeted a large number of people at the same time. The community-science partnership between academia, government departments and NGOs also ensured that the projects were developed by practitioners who understood the needs of the Hong Kong people, delivered by key community stakeholders, and conducted with scientific rigour to generate evidence for future social health programmes and policies.

3. Health communication and public education

Apart from engaging different community stakeholders in various intervention projects, the key messages of the FAMILY Project were spread far and wide into the community to promote positive family values and harmonious relationships. FAMILY Health, Happiness and Harmony (3Hs) and FAMILY

Holistic Health messages have been disseminated to the general public through various channels to raise public awareness and create a positive environment for family participation. These have been complemented by community-based projects and community-wide events to promote FAMILY 3Hs all around Hong Kong.

Train-the-Trainer and Ambassador Programmes

From April 2015 to January 2017, a number of Train-the-Trainer and Ambassador workshops have been organised to train community leaders, teachers, social service workers and volunteers as Health Ambassadors, or health role models so that they can enjoy the benefits, then promote the benefits to others. Trained Health Ambassadors have helped with the implementation of community-based programmes, led simple physical activities to targeted audiences and promoted knowledge of healthy living to participants and the community.

Health promotion events

The FAMILY Project Team has actively co-organised and participated in various community events with social service units and community organisations, with the aim of promoting FAMILY 3Hs messages by means of exhibitions, game booths and talks, etc.

Updated in November 2017

EXECUTIVE SUMMARY

Riding on the success of the 3Hs Family Drama Project organised during March 2012 to October 2013, The Boys' and Girls' Clubs Association of Hong Kong (BGCA) and the FAMILY Project collaborated again and launched the 3Hs Family Drama Project II – Family Interactive Drama with Exercise and Fun. In addition to the School Drama Tour, the new elements included the training of Health Ambassadors, Physical Exercise Fun Days, and more community-based drama shows performed by students.

The objectives of the project were to investigate: (1) students' and parents' feedback and ratings on the family drama programme (live drama, DVD, and worksheets); (2) teachers' feedback and ratings on the family drama programme (live drama); (3) students' feedback and ratings on the Physical Exercise Fun Day programme; (4) the effects of the family drama programme on students' health knowledge, students' health behaviours, parent-child interactions, and FAMILY Health, Happiness and Harmony (3Hs); and (5) the effects of the Physical Exercise Fun Day programme on students' physical activities.

With a revised script after adding Zero-time Exercise (ZTEx), the musical drama toured to 100 primary schools from December 2014 to December 2016 and 30,734 students participated. 9,793 students from 28 schools learned ZTEx after the shows. 11 Physical Exercise Fun Days were organised with an attendance of 3,528. 261 parents, teachers, volunteers and BGCA service workers were trained as Health Ambassadors in 11 workshops, and 481 BGCA Health Compeition 51 participants were trained in 12 workshops. 1,942 participants joined in 10 community shows by students. A total of 8,744 students from 50 schools completed the programme evaluation and 1,354 parents from 11 schools and 560 teachers from 86 schools completed the satisfaction survey.

This research adopted a cluster randomised controlled trial design. Participating schools were randomly assigned into three groups. Group A watched a 60-minute drama performance and had activities at school, Group B watched a 60-minute drama performance. Both groups were given a DVD of the performance and worksheets. Students were encouraged to watch the DVD with family. The weekly worksheets comprised questions designed to reinforce messages in the drama or DVD and to ensure that the students and parents incorporated the health concepts into daily practice over 1 month with the help of the checklists. Group C, a waitlist control group, received the intervention upon the completion of the study.

The results showed that most of the students who watched the musical drama agreed or strongly agreed that the songs were nice (79.5%), the interaction of the programme was fun (73.7%) and more than 60% would recommend the programme to other primary school students. Approximately 70% of them expressed they would eat more fruits and vegetables per day and express gratitude verbally to their family members. From parents' perspective, 62.0%-62.4% of them reported that their families became healthier, happier and more harmonious after joining the project. 50.7% of students who participated in the Physical Exercise Fun Day, 50.7% did more moderate to vigorous exercise than before. 88.9% of teachers strongly agreed or agreed the students would share the health message of the drama show to their parents. Qualitative findings also supported the programme

effectiveness. Many participants described the changes they have made to improve their eating and physical activity and family relationships.

Putting school-based drama performed by students on the community stage had marvellous effects on the FAMILY 3Hs behaviours of the student performers, while increasing the public's receptiveness to FAMILY Holistic Health messages with fun. The appeal of physical exercise was also enhanced by the introduction of ZTEx to students, Health Ambassadors and the public.

The encouraging results of these projects showed that a musical drama performed by professional actors and the students themselves, accompanied with family-viewing DVDs, worksheets and activities provided a powerful and effective method for improving healthy living habits and family communication among primary students and their families. The interactive musicals with student actors and popular sing-along songs radiated a warm and enthusiastic atmosphere, helping people of all ages embrace 3Hs-enhancing practices into their daily lives. The project has created a valuable work model for the education, social and health service sectors for monitoring FAMILY 3Hs from schools to the community.

CHAPTER 1 INTRODUCTION

1.1 Background

Good communication between parents and children is a crucial element for FAMILY Health, Happiness and Harmony (3Hs). However, communication within Hong Kong families is inadequate partly due to the busy urban lifestyle, which is also associated with an unhealthy diet and physical inactivity.

The ideal family provides happiness, care, security, protection, sharing and support for its members. Good family support is essential for the all-rounded development of children and good family communication is also very important to the healthy growth of children. However, surveys have found that many children in Hong Kong do not have a healthy lifestyle. A survey by the Leisure and Cultural Services Department in 2012 found that among the 2,723 children respondents, nearly 30% of boys and almost 23% of girls aged 7 to 12 years were overweight while 8% of boys and 10% of girls were underweight [1]. According to a survey by The Boys' and Girls' Clubs Association of Hong Kong (BGCA) in 2004, 33% of the 1,107 primary school student respondents did not routinely eat breakfast, while 65% of them did not exercise adequately [2]. Apart from research results, we can also observe in our daily environment that children tend to eat unhealthy snacks frequently and spend too much time surfing the internet, using or playing with tablets and smartphones. We believe that we can do something and must take steps to enhance their motivation to live healthily.

The 3Hs Family Drama Project (FDP I) aimed at promoting students' health behaviours and parent-child interactions by means of an interactive drama show and take-home worksheets, and related activities. Through these interventions, "Zero-time Exercise" (ZTEx), "Negative-time Exercise", and healthy diet were promoted to enhance the FAMILY 3Hs. ZTEx refers to simple movements, stretching and any other physical activity which can be done with zero money, zero time and zero equipment (3 Zeros). Negative-time Exercise refers to exercises which can save time, such as walking faster.

Riding on the success of the FDP I organised during March 2012 to October 2013, BGCA and the FAMILY Project collaborated again and launched the 3Hs Family Drama Project II – Family Interactive Drama with Exercise and Fun (FDP II), which was an expanded and improved project with more activities to benefit more people.

This project was funded by The Hong Kong Jockey Club Charities Trust, led by BGCA and the School of Public Health, The University of Hong Kong (HKU-SPH), and supported by the Committee on Home-School Co-operation.

The School Drama Tour, with a revised script with FAMILY Holistic Health messages and ZTEx added, was organised for 100 primary schools, touring around all 18 districts across the territory. New elements were injected into the FDP II, including the training of Health Ambassadors, organising Physical Exercise Fun Days and more community-based drama shows performed by students, so as to spread the 3Hs messages to schools and families and to benefit more people.

The project was implemented in 100 primary schools during December 2014 to December 2016. The effects of the programme were evaluated by the FAMILY Project Team. Participating students, teachers and parents in FDP II were invited to complete surveys for programme evaluation. Primary 3-5 students from 42 schools completed 3 surveys (T1, T2 and T3) for outcome evaluation, 8 schools completed process evaluations, 11 schools completed the survey for parent evaluation, 10 schools completed 2 surveys (T1 and T2) for Physical Exercise Fun Day evaluation and 86 schools completed teacher evaluation. All questionnaires were designed and analysed by the the FAMILY Project Team to measure FAMILY 3Hs and satisfaction towards the programme.

1.2 Project objectives and aims

The objective of the evaluation was to investigate:

1. Students' and parents' feedback and ratings on the family drama programme (live drama, DVD and worksheets);
2. Students' feedback and ratings on the Physical Exercise Fun Day programme;
3. Teachers' feedback and ratings on the family drama programme (live drama);
4. The effects of the family drama programme on students' health knowledge, students' health behaviours, parent-child interactions, and FAMILY 3Hs; and
5. The effects of the Physical Exercise Fun Day programme on students' physical activities.

The aims of the FDP II were as follows:

1. To enhance FAMILY 3Hs with special focus on FAMILY Holistic Health;
2. To involve parents and teachers (through Parent-Teacher Associations (PTAs) and district school heads associations) as change agents so that they could change their own habits and influence others after joining this project. The goal was to ensure that a large number of people benefitted from this project by becoming healthier and more health-conscious in their daily lives; and
3. To promote the importance and practice of ZTEx, Negative-time Exercise, and healthy diet among the child participants, their family members, and school teachers.

1.3 Literature review

1.3.1 Family system theory

Family system theory comes from the work of individuals like Ackerman [2], Jackson [3], Minuchin [4] and Bowen [5] and others [6]. A primary concept in family system theory is that families are systems of interconnected and interdependent individuals. It focuses on the interactions among family members and the shared responsibility for the events that occur within the family system. The individual in the system is not only affected by family issues, but also affects the formation and maintenance of those issues [7]. To understand the individual, we must understand the family system of that individual. People cannot be understood in isolation. The family is not just a collection of individuals. It is a whole larger than the sum of its parts.

Family system theory provides a framework for observing and understanding the general characteristics of human relationships, individual functioning within the nuclear family, and ways in which FAMILY 3Hs with a special focus on FAMILY Holistic Health are transmitted to the next generation, as well as the transmission of behavioural patterns over multiple generations [8]. Additionally, the family system is a sub-system within larger systems, such as the community [9], which interact with and influence one another and contribute to the maintenance of particular patterns of behaviour.

1.3.2 Family communication: relationship schemas, definition, and patterns

Communication is a key factor in creating mutual understanding among members of a family. Family communication can affect how and what kind of relationships we make with others in our lives. Fletcher *et al.* [10] point out that most beliefs relevant to close relationships fall into four categories: intimacy, including love, trust, respect and affection; passion, including vitality and sex; individuality, including equity and independence; and external factors including personal security and children. Koerner *et al*. [11] confirm that these four areas include all relevant beliefs about families that make up family relationship schemas.

According to the research on family communication patterns [12], a family member generally uses two orientations, i.e. conversation and conformity, to guide relational cognition and related interpersonal communication behaviours. Conversation orientation refers to the degree to which a family encourages a communication climate where all members participate, while conformity orientation refers to the degree to which a family emphasises consistency of attitude and belief among its members [13].

Despite the wide recognition of the importance of communication for family relationships, the research on family communication presents some challenges. One of the most detailed elaborations on the role of communication in human interactions comes from Watzlawick *et al.* [14], who define a family as a rule-governed system whose members are continuously in the process of negotiating or defining the nature of their relationship. Olson and Barnes [15] define family communication as the act of making information, ideas, thoughts and feelings known among members of a family unit.

1.3.3 Social Learning Theory

Social Learning Theory posits that individual behaviour is determined by the tripartite relationship among cognitive factors, environmental factors and behaviours through observation and imitation. Imitation is one of the important factors in children's learning. Social Learning Theory maintains that an individual's health behaviours are learnt from others through operant conditioning and observing role models [16].

While growing up, children receive feedback from others regarding their own behaviours. Based on this feedback, they begin to develop standards for judging behaviour and seek models who match these standards [17]. Children who grow up in healthy, happy and harmonious families may learn and imitate healthy behaviours, and then repeat them through life.

The FDP II involved parents and teachers as change agents so that they could develop healthy habits and be good models and influence children. This influence may be transmitted by children to their peers, extending the positive effects of the project and enhancing health and health-consciousness in daily life.

CHAPTER 2 PROJECT DESIGN AND METHODS

2.1 Research design and target populations

2.1.1 Research design

The project was implemented in 100 primary schools during June 2015 to June 2016. The effects of the programme were evaluated by the the FAMILY Project Team. Participating students, teachers and parents in FDP II were invited to complete surveys for programme evaluation. All questionnaires were designed to measure FAMILY 3Hs and satisfaction towards the programme. Primary 3-5 students from 42 schools completed three outcome evaluation surveys, eight schools completed process evaluation, 11 schools completed the survey for parent evaluation, ten schools completed two surveys for Physical Exercise Fun Day evaluation and 86 schools completed teacher evaluation (Table 2.1). Ethics approval was obtained from the Institutional Review Board of The University of Hong Kong/Hospital Authority Hong Kong West Cluster.

Table 2.1 Schools participated in the programme evaluation

	No.	School names	Group
Outcome evaluation	1	SKH Fung Kei Primary School 聖公會奉基小學	A
	2	Our Lady of China Catholic Primary School 天主教佑華小學	A
	3	Shun Tak Fraternal Association Wu Siu Kui Memorial Primary School 順德聯誼總會胡少渠紀念小學	A
	4	Yuen Long Po Kok Primary School 元朗寶覺小學	A
	5	YOT Tin Ka Ping Primary School 仁愛堂田家炳小學	A
	6	Wong Tai Sin Catholic Primary School 黃大仙天主教小學	A
	7	Yuen Long Long Ping Estate Wai Chow School 元朗朗屏邨惠州學校	A
	8	Pok Oi Hospital Chan Kwok Wai Primary School 博愛醫院陳國威小學	A
	9	Taoist Ching Chung Primary School (Wu King Estate) 道教青松小學（湖景邨）	A
	10	Yan Chai Hospital Law Chan Chor Si Primary School 仁濟醫院羅陳楚思小學	A
	11	Shak Chung Shan Memorial Catholic Primary School 天主教石鐘山紀念小學	A
	12	ELCHK Faith Love Lutheran School 基督教香港信義會信愛學校	A
	13	Pentecostal Yu Leung Fat Primary School 新會商會學校	B
	14	Canossa Primary School (San Po Kong) 嘉諾撒小學（新蒲崗）	B

	No.	School names	Group
	15	Farm Road Government Primary School 農圃道官立小學	B
	16	Shau Kei Wan Government Primary School 筲箕灣官立小學	B
	17	Kam Tsin Village Ho Tung School 金錢村何東學校	B
	18	Baptist Rainbow Primary School 浸信會天虹小學	B
	19	Tsz Wan Shan St Bonaventure Catholic Primary School 慈雲山聖文德天主教小學	B
	20	SKH Kei Lok Primary School 聖公會基樂小學	B
	21	Tsang Mui Millennium School 曾梅千禧學校	B
	22	Pak Tin Catholic Primary School 白田天主教小學	B
	23	HHCKLA Buddhist Wong Cho Sum School 香海正覺蓮社佛教黃藻森學校	B
	24	Lingnan University Alumni Association (Hong Kong) Primary School 嶺南大學香港同學會小學	B
	25	Yan Chai Hospital Choi Hin To Primary School 仁濟醫院蔡衍濤小學	B
	26	San Wui Commercial Society School 新會商會學校	B
	27	PLK Women's Welfare Club (WD) Fung Lee Pui Yiu Primary School 保良局西區婦女福利會馮李佩瑤小學	B
	28	Tak Sun School 德信學校	B
	29	Hong Kong Baptist University Affiliated School Wong Kam Fai Secondary and Primary School 香港浸會大學附屬學校王錦輝中小學	B
	30	Ka Ling School of The Precious Blood 寶血會嘉靈學校	C
	31	Bishop Ford Memorial School 福德學校	C
	32	CCC Chuen Yuen First Primary School 中華基督教會全完第一小學	C
	33	Precious Blood Primary School (South Horizons) 海怡寶血小學	C
	34	PLK Fong Wong Kam Chuen Primary School 保良局方王錦全小學	C
	35	The Mission Covenant Church Holm Glad Primary School 基督教聖約教會堅樂小學	C
	36	Ching Chung Hau Po Woon Primary School 青松侯寶垣小學	C
	37	Holy Angels Canossian School 天神嘉諾撒學校	C
	38	TWGHs Hok Shan School 東華三院鶴山學校	C
	39	PLK Horizon East Primary School 保良局志豪小學	C
	40	LST Yeung Chung Ming Primary School 樂善堂楊仲明學校	C

	No.	School names	Group
	41	Aberdeen St. Peter's Catholic Primary School 香港仔聖伯多祿天主教小學	C
	42	South Yuen Long Government Primary School 南元朗官立小學	C
Process evaluation	1	SKH Tak Tin Lee Shiu Keung Primary School 聖公會德田李兆強小學	N/A
	2	Tai Po Government Primary School 大埔官立小學	N/A
	3	QES Old Student's Association Primary School 伊利沙伯中學舊生會小學	N/A
	4	Kowloon True Light Middle School (Primary Section) 九龍真光中學（小學部）	N/A
	5	Wong Tai Sin Government Primary School 黃大仙官立小學	N/A
	6	Christian Alliance HC Chan Primary School 香港九龍塘基督教中華宣道會陳元喜小學	N/A
	7	PLK Wong Wing Shu Primary School 保良局黃永樹小學	N/A
	8	Pui Kiu Primary School 培僑小學	N/A
Physical Exercise Fun Day	1	SKH Fung Kei Primary School 聖公會奉基小學	A
	2	Yuen Long Long Ping Estate Wai Chow School 元朗朗屏邨惠州學校	A
	3	Our Lady of China Catholic Primary School 天主教佑華小學	A
	4	Farm Road Government Primary School 農圃道官立小學	B
	5	Tsz Wan Shan St. Bonaventure Catholic Primary School 慈雲山聖文德天主教小學	B
	6	Pak Tin Catholic Primary School 白田天主教小學	B
	7	Bishop Ford Memorial School 福德學校	C
	8	The Mission Covenant Church Holm Glad Primary School 基督教聖約教會堅樂小學	C
	9	TWGHs Hok Shan School 東華三院鶴山學校	C
	10	Aberdeen St. Peter's Catholic Primary School 香港仔聖伯多祿天主教小學	C

2.1.2 Target population

With the encouraging results and the experience gained in the FDP I, and the strong network with primary schools built in the past, new elements were included in FDP II, including the Train-the-Ambassador Programme. To enhance the sustainability and further disseminate the key concepts of this project, Health Ambassadors and volunteers were trained up to lead simple physical activities. They helped implement most of the programmes and encouraged more people to join the booster programmes. After training, these Health Ambassadors,

together with BGCA's service workers, continued to serve their communities and schools to promote the importance of physical activities and healthy diet. For the School Drama Tour, community-based drama shows, Physical Exercise Fun Day, DVD and handbook, the targets were primary school students, parents, teachers and volunteers. Table 2.2 shows the number of schools and people involved.

Table 2.2 Number of schools and people involved in each project component

Project component	Numbers of target populations
TTA	261 Health Ambassadors, including parents, teachers, volunteers and BGCA service workers 481 BGCA Health Competition 51 participants
School Drama Tour	100 primary schools in Hong Kong 30,734 primary school students Around 1,018 parents and 1,196 teachers 200-300 volunteers
Community-based drama shows	1,942 public audience 240 volunteers 41 students as actors / actresses
Physical Exercise Fun Day	10 schools completed the main study and 1 school completed the pilot study 3,528 students in total 96 volunteers
Booster programme	660 students
DVD and Handbook of Family Holistic Health	30,000 students and their family members (it is estimated that the DVDs can reach 100,000 family members)
Website and social media	The public as a whole

2.2 Methods

This research adopted a cluster randomised controlled trial (cRCT) design, with both qualitative and quantitative methods. Participating schools were randomly assigned into three groups. Group A watched a 60-minute drama performance and had activities at school, Group B watched a 60-minute drama performance. Both groups were given a DVD of the performance and worksheets. Students were encouraged to watch the DVD with family. The weekly worksheets comprised questions designed to reinforce messages in the drama or DVD and to ensure that the students and parents have incorporate the health concepts into daily practice over 1 month with the help of checklists. Group C, a waitlist control group, received the intervention upon the completion of the study. In addition, in-depth qualitative data regarding the effectiveness of the intervention were obtained through eight focus group discussions and telephone interviews.

Baseline (T1) information of students was collected before viewing the drama show. T2 and T3 were conducted at 1 month and 3 months after baseline, respectively. The questionnaires were self-administered in classrooms under the supervision of teachers. Students from Group A and Group B who participated in the physical fitness surveys were given a simple equipment (handgrip) to encourage physical activities at home.

Table 2.3 Summary of items in all surveys

	Targets	Immediately after viewing live drama			
Process evaluation	Students	Personal information			
		Background sociodemographic information			
		Feedback and ratings of the programme			
		Brief small group discussions			
	Teachers	Feedback and ratings of the live drama			
	Targets	**Items**	**T1 Survey**	**T2 Survey**	**T3 Survey**
Outcome evaluation	Students	Personal information	√	√	√
		Background socio-demographic information	√		
		Health knowledge	√	√	√
		FAMILY 3Hs	√	√	√
		Parent-child interaction	√	√	√
		Health behaviours	√	√	√
		Paternal and maternal interactions	√	√	√
		Participation and ratings of the programme[ab]		√	
		Satisfaction towards live drama and DVD[ab]		√	
		Satisfaction towards worksheets[ab]		√	
		Subjective changes on FAMILY 3Hs			√
	Parents	Personal information		√	
		Background socio-demographic information		√	
		Health knowledge		√	
		FAMILY 3Hs		√	
		Parent-child interaction		√	
		Health behaviours		√	
		Subjective changes on FAMILY 3Hs		√	
		Participation of the programme[ab]		√	
		Telephone interviews[ab]		√	

	Targets	Items	T1 Survey	T2 Survey	T3 Survey
Physical fitness evaluation	Students	Simple physical fitness assessments	√	√	
		Participation and ratings of the programme[ab]		√	
		Satisfaction towards physical diary[ab]		√	
		Subjective changes on physical activities		√	

[a] Only for intervention schools (Groups A and B)

[b] Process evaluation items within the outcome evaluation questionnaire

Data were analysed using SPSS 24.0 and STATA. Categorical data were analysed with Pearson's chi-square tests. Effect size (Cohen's d) was calculated to assess the magnitude of change between pre-test and post-test (ES), and sub-group differences in stratified analyses (ESG). An effect size of 0.2 or below was defined as a small effect, 0.5 a medium effect and 0.8 a large effect. General Linear Model (GLM) was used to investigate the effect of the programme on students' health behaviours and 3Hs of the families. Logistic regression was used to investigate the effect of the programme on parent-child interactions. Potential confounders such as sociodemographics and baseline data were adjusted for. Agreement ratios were calculated by dividing proportion of agreed or strongly agreed by the percentage of students who disagreed or strongly disagreed. The level of statistical significance was set at $p<0.05$.

CHAPTER 3 OUTCOME EVALUATION OF INTERVENTION PROGRAMMES

3.1 School-based drama shows (students' and parents' evaluation)

3.1.1 Introduction

A drama company was commissioned to produce a School Drama Tour with 100 musical drama shows based on the show in the FDP I with modifications and improvements. Actor-audience interaction to facilitate participation was the key component. There were several choices of content for schools. If they could arrange more time, the project service workers would arrange more warm-up, debriefing and interactive sessions for them. The students, parents and teachers were taught to sing the theme songs together to let them have more understanding about the lyrics and the contents and lead them to do some ZTEx after the drama show. For all those parents who could not join the drama show, a DVD of the show, together with the Handbook of Family Holistic Health was provided to them and they were invited to surf the project website and Facebook page for health tips and join the booster programme. Parents and students who had watched the live show could also have the DVD and join the booster programme.

Table 3.1 Drama show rundown of short drama and long drama

Time allocation	Short drama	Long drama
60 mins before the performance started	Set up of the stage and preparation of the performance by the crew and actors	
15 mins before the performance started	Project officer/project assistant officer help in arrangement of the performance with the school coordinator	
10 mins	Introduction of the project/the show Warm-up with the audience	
35 mins	Drama performance: Lok-lik's family (樂力之家)	
30 mins	N/A	Promotion of ZTEx
15 mins	Conclusion Introducing the worksheet and the booster programme	Conclusion Introducing the worksheet and Online Award Scheme

3.1.2 Recruitment

The evaluation aimed to recruit at least 9,000 students in 18 districts across the territory. Primary 3 to 5 students who were able to communicate in Cantonese were recruited. A total of 30,734 students watched the school-based drama shows, and 7,059 students and 1,354 parents participated in outcome evaluation; the parents only joined the T2 (1-month) survey.

Details of attendance status and valid questionnaires received in each group are shown in Figure 3.1.

Figure 3.1 CONSORT diagram

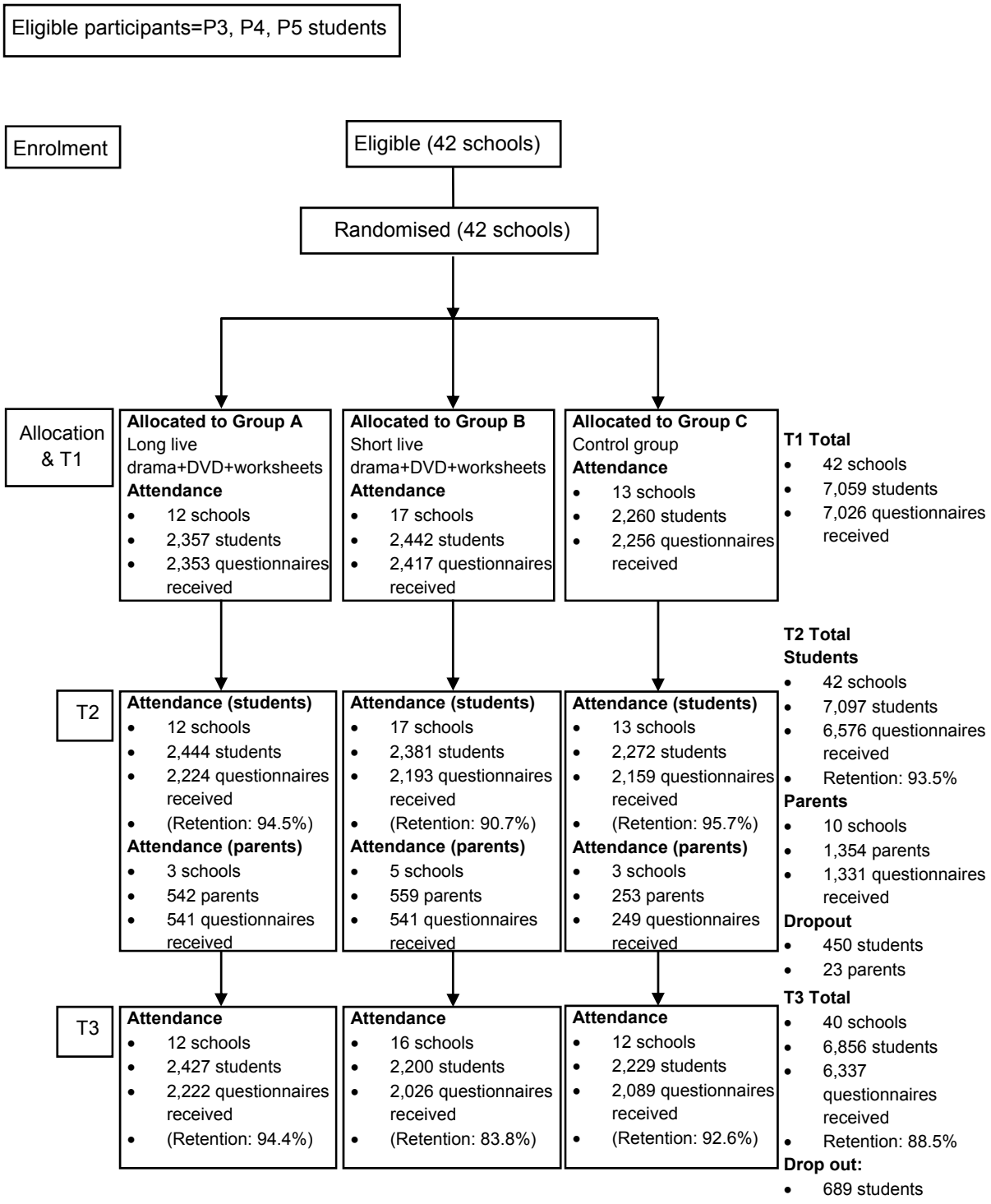


Figure 3.1 shows the CONSORT flow diagram of school-based drama project in each randomised group. There were 42 schools enrolled in the research section from 100 schools, which were randomly allocated into three groups at baseline. All the schools were blinded to assignment. Schools in Group A (long drama intervention group), Group B (short drama intervention group) and Group C (control group) then recruited participants from eligible grades to participate in the study.

3.1.3 Statistical analysis

The baseline characteristics of the participants were compared using frequencies and percentages for categorical variables and mean and standard deviations for continuous variables.

Three assessments (T1 pre-intervention, T2 at 1 month and T3 at 3 months after) were conducted to evaluate the effects of the intervention programme. In the assessments, students were asked to complete a two-page questionnaire to measure the changes in physical activity, diet, parent-child interaction and 3Hs of families, knowledge and attitude towards the family drama. Parents were asked to complete a two-page questionnaire at T2 survey to measure the physical activity, diet, parent-child interaction and 3Hs of families, knowledge and subjective changes. The effectiveness of the intervention, as well as the level of participation and ratings for the intervention was evaluated.

To examine the effectiveness of the intervention, outcome changes of Groups A and B (intervention groups) were compared with Group C (control) at 1 month and 3 months post-intervention, using mixed model to account for the changes within the same group, as well as between groups (ΔA vs. ΔC; ΔB vs. ΔC).

The test/re-test reliability of the 3Hs and family drama data was examined by repeating the questionnaire in a random sub-sample. Analysis was done on an intention-to-treat (ITT) basis.

All analyses were performed with SPSS 24.0 and STATA. A *p*-value of less than 0.05 was considered statistically significant and effect size (Cohen's d) was computed to measure the size of difference. A positive effect size indicated an increase in the mean score of the outcome, while a negative effect size indicated a decrease. An effect size of 0.2 to 0.5 was considered as a small effect, 0.5 to 0.8 as a medium effect, and 0.8 or above as a large effect.

3.1.3.1 Baseline demographic characteristics

A total of 7,059 students participated in the outcome evaluation of FDP II. Of these, 7,026 completed the baseline surveys (T1), 6,576 completed the second wave of surveys (T2), and 6,337 completed the third wave of surveys (T3). These differences in numbers were attributed to the refusal of some participants to complete the survey or to participants dropping out of the programme. Thus, for each variable at each wave, only valid samples were analysed. Nevertheless, considering the retention rate was relatively high (more than 80% for the entire group), analysis on missing cases were not conducted.

Table 3.2a shows that the baseline characteristics of the students were similar in the three groups. The mean age was 9.2 years (SD=1.00). Most participants were living with their

father and mother (82.5% and 89.9%, respectively) and their parents were in marriage (81.4%). 45.4% students reported having two bedrooms at home.

Table 3.2a Baseline characteristics of students

Variable	Group A	Group B	Group C	*p*-value[a]
	n (%)	n (%)	n (%)	
Sex[b]				
Male	1,277 (54.3)	1,390 (57.6)	1,126 (50.0)	<0.001***
Female	1,074 (45.7)	1,024 (42.4)	1,128 (50.0)	
Age (years)[c]				
	M=9.2; SD=0.98	M=9.1; SD=0.99	M=9.4; SD=1.00	<0.001***
Grade[d]				
P3	700 (29.7)	920 (38.1)	579 (25.7)	
P4	875 (37.2)	820 (33.9)	841 (37.3)	<0.001***
P5	778 (33.1)	677 (28.0)	836 (37.1)	
Marital status of parent(s)[e]				
In marriage	1,844 (80.1)	1,954 (82.9)	1,803 (81.1)	
Separated/Divorced	264 (11.5)	217 (9.2)	261 (11.7)	
Dad died	31 (1.3)	36 (1.5)	36 (1.4)	0.095
Mum died	8 (0.3)	10 (0.4)	9 (0.4)	
Parents died	0 (0.0)	1 (0.0)	2 (0.1)	
Others	155 (6.7)	140 (5.9)	117 (5.3)	
Living status[f]				
Living with father	1,903 (80.9)	2,044 (84.6)	1,850 (82.0)	
Living with mother	2,068 (87.9)	2,206 (91.3)	2,041 (90.5)	
Living with brother(s)	839 (35.7)	879 (36.4)	776 (34.4)	
Living with sister(s)	852 (36.2)	832 (34.4)	886 (39.3)	
Living with grandma	619 (26.3)	532 (22.0)	561 (24.9)	0.001**
Living with grandpa	368 (15.6)	297 (12.3)	298 (13.2)	
Living with domestic helper	263 (11.2)	540 (22.3)	254 (11.3)	
Living with other relative(s)	297 (12.6)	220 (9.1)	267 (11.8)	
Living with others	73 (3.1)	45 (1.9)	66 (2.9)	

Variable	Group A	Group B	Group C	*p*-value[a]
	n (%)	n (%)	n (%)	
Number of bedroom(s)[g]				
None	160 (6.9)	124 (5.2)	150 (6.7)	<0.001***
1 bedroom	218 (9.4)	208 (8.7)	244 (10.9)	
2 bedrooms	1,060 (45.6)	1,055 (44.2)	1,044 (46.7)	
3 bedrooms	645 (27.7)	723 (30.3)	621 (27.8)	
4 bedrooms	165 (7.1)	168 (7.0)	127 (5.7)	
≥5 bedrooms	78 (3.4)	111 (4.6)	50 (2.2)	

[a] *p*-values generated from Pearson chi-square test: ** $p<0.01$; *** $p<0.001$
[b] n=7,019; [c] n=7,024; [d] n=7,026; [e] n=6,883; [f] n=7,026; [g] n=6,951

1,354 parents participated in the project and 1,331 completed the second wave of surveys (T2). Table 3.2b shows that the demographic characteristics of parents. Most parents in each group were the student's mother (76.3%, 73.4% and 74.1% in Groups A, B and C, respectively) and aged 30 to 49 years (87.9%, 89.3% and 86.5 in Groups A, B and C, respectively). About half of the participants lived in a residence that had two bedrooms (49.5%). More than half of the families reported middle economic status (51.2%), and more than 40% had a household monthly income from HK$10,000 to HK$19,999 (40.6%). More than 60% participants were employed (61.2%).

Table 3.2b Baseline characteristics of parents

Variable	Group A	Group B	Group C	*p*-value[a]
	n (%)	n (%)	n (%)	
Parent role[b]				
Father	120 (23.7)	135 (26.6)	62 (25.9)	0.55
Mother	387 (76.3)	373 (73.4)	177 (74.1)	
Age group (years)[c]				
≤29	6 (1.1)	10 (1.9)	7 (2.9)	0.20
30-39	239 (45.3)	231 (43.8)	110 (45.1)	
40-49	225 (42.6)	240 (45.5)	101 (41.4)	
50-59	46 (8.7)	28 (5.3)	21 (8.6)	
≥60	12 (2.3)	19 (3.6)	5 (2.0)	

Variable	Group A	Group B	Group C	*p*-value[a]
	n (%)	n (%)	n (%)	
Number of bedroom(s)[d]				
None	19 (3.5)	31 (5.8)	15 (6.0)	<0.001***
1 bedroom	51 (9.5)	72 (13.4)	51 (20.4)	
2 bedrooms	254 (47.3)	293 (54.6)	109 (43.6)	
3 bedrooms	182 (33.9)	124 (23.1)	67 (26.8)	
4 bedrooms	24 (4.5)	13 (2.4)	6 (2.4)	
≥5 bedrooms	7 (1.3)	4 (0.7)	2(0.8)	
Family economic status[e]				
Low	44 (8.4)	67 (12.7)	33 (13.7)	0.007**
Mid-low	137 (25.4)	165 (30.5)	78 (31.2)	
Middle	304 (56.3)	243 (44.9)	115 (47.7)	
Mid-high	35 (6.7)	47 (8.9)	13 (5.4)	
High	6 (1.1)	4(0.8)	2 (0.8)	
Household monthly income[f]				
≤$9,999	65 (12.6)	84 (16.2)	41(16.7)	<0.001***
$10,000-$19,999	172 (33.3)	226 (43.5)	123 (50.0)	
$20,000-$29,999	133 (25.8)	88 (16.9)	46 (18.7)	
$30,000-$49,999	93 (18.0)	65 (12.5)	23 (9.3)	
≥$50,000	53 (10.3)	57 (11.0)	13 (5.3)	
Work status/Industry[g]				
Manager and administrative staff	38 (7.4)	25 (4.8)	7 (2.9)	<0.001***
Professional staff	28 (5.4)	37 (7.0)	7 (2.9)	
Clerical support staff	40 (7.8)	25 (4.8)	13 (5.4)	
Assistant professional	10 (1.9)	9 (1.7)	0 (0.0)	
Service and sales	81 (15.7)	82 (15.6)	46 (19.0)	
Technology and related	7 (1.4)	9 (1.7)	7 (2.9)	
Machine operator and assembler	12 (2.3)	5 (1.0)	3 (1.2)	
Unskilled workers	9 (1.7)	19 (3.6)	14 (5.8)	
Other industry	79 (15.3)	118 (22.5)	55 (22.7)	
Housewife	127 (24.6)	126 (24.0)	50 (20.7)	
Unemployed	77 (14.9)	58 (11.0)	38 (15.7)	
Retired	8 (1.6)	12 (2.3)	2 (0.8)	

[a] *p*-values generated from Pearson chi-square test: * $p<0.01$; ** $p<0.001$

[b] n=1,254; [c] n=1,300; [d] n=1,324; [e] n=1,293; [f] n=1,282; [g] n=1,283

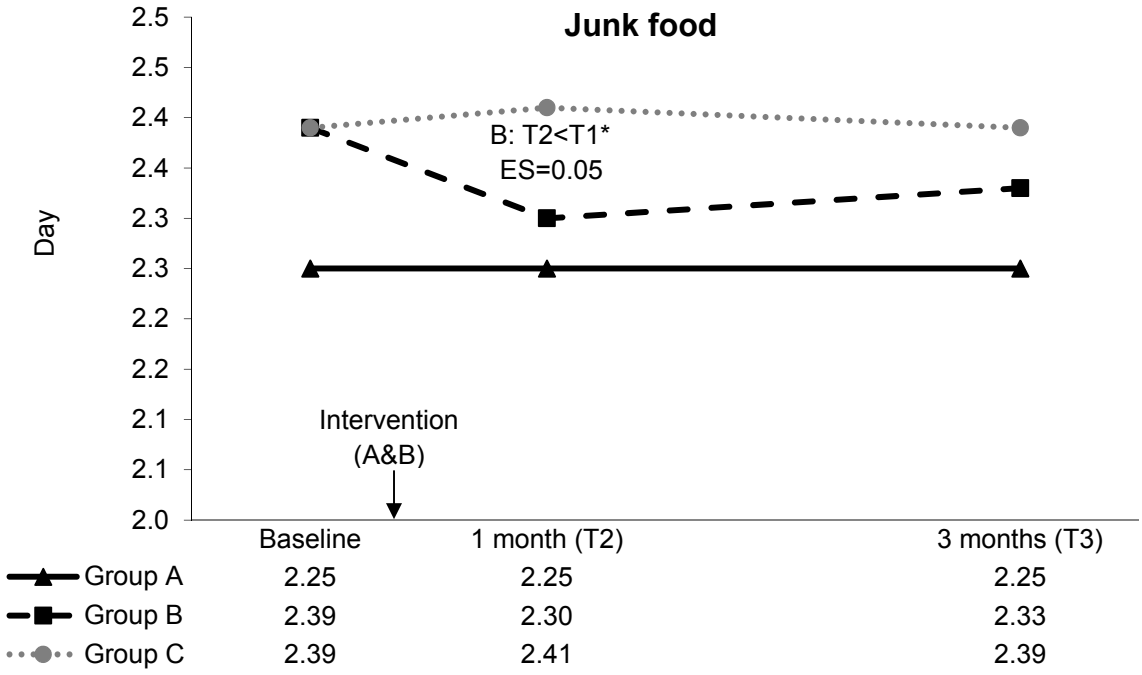
3.1.3.2 Outcome of students' health behaviours

Students reported the number of days in the past 7 days on which they consumed snacks, soda, at least two servings of fruits, at least three servings of vegetables, did ZTEx, and moderate to vigorous physical activities for at least 60 minutes.

GLM was used to assess changes in health behaviours between the intervention and control groups. The health behaviour was the outcome variable and group status (intervention vs. control) was the predictor. Adjustments were made for sex, age and baseline (T1) value of the outcome variable, and school clustering effect.

Figure 3.2 shows the number of days on which students consumed junk food significantly decreased (ES=0.05, p=0.028) from T1 to T2 in Group B. The changes in Group A and Group B compared to Group C showed no significant difference.

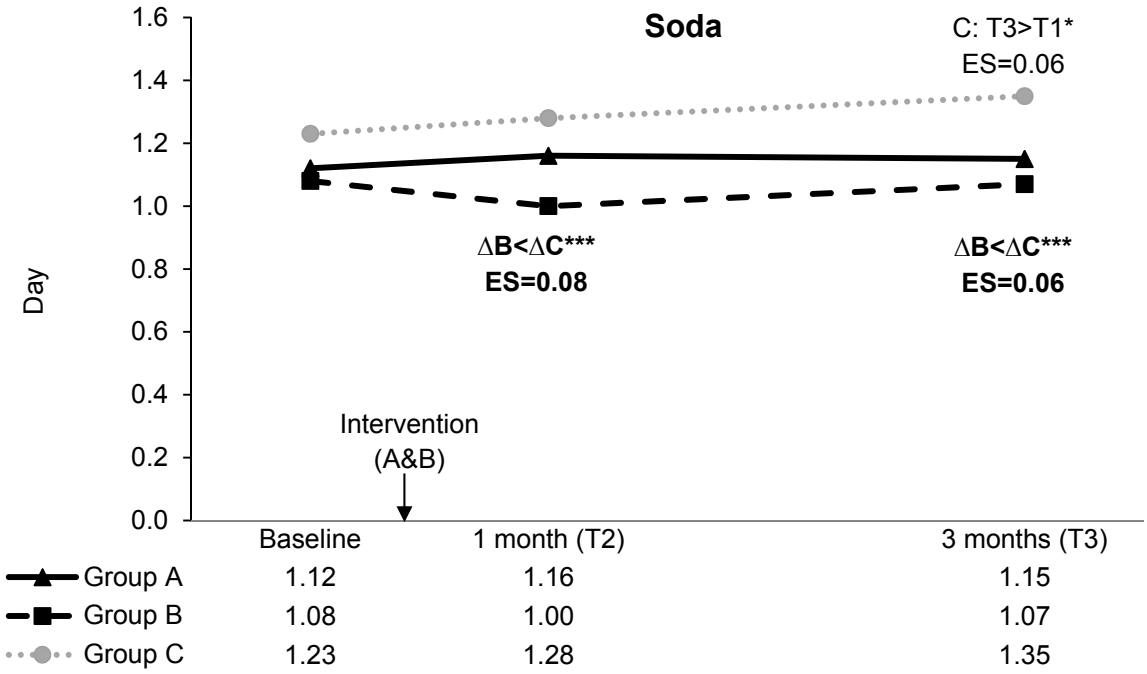
Figure 3.2 Number of days in the past 7 days on which students consumed junk food (0-7 days)



* p<0.05
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80
Adjusting for sex, grade and baseline value. Clustering effect of school was taken into account.

Figure 3.3 shows a significant increase in the number of days students consumed soda in Group C (ES=0.06, p=0.02). Compared to Group C, Group B showed significantly greater decrease at T2 and T3 (ES=0.08, p<0.001 and ES=0.06, p<0.001, respectively), showing effectiveness of the short drama intervention with small effect size.

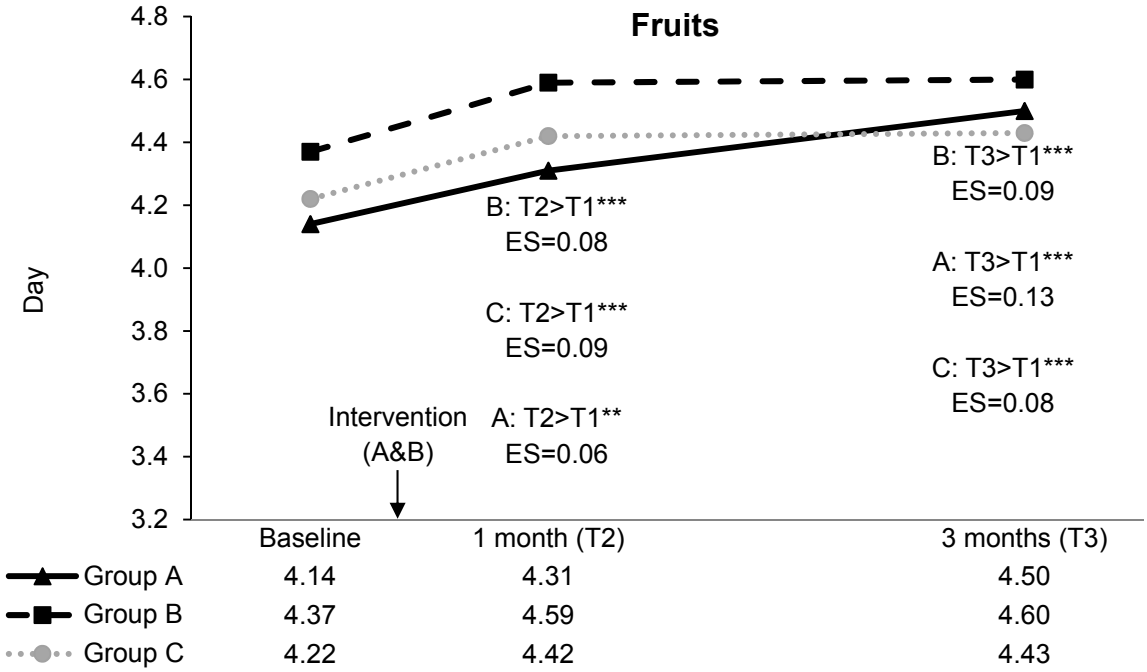
Figure 3.3 Number of days in the past 7 days on which students consumed soda (0-7 days)



* p<0.05; *** p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80
Adjusting for sex, grade and baseline value. Clustering effect of school was taken into account.

Figure 3.4 shows all groups had significant increases (all $p<0.05$) in the number of days on which students consumed at least two servings of fruits from T1 to T2 and from T1 to T3 with small effect size (ES=0.06-0.13). The changes in Group A and Group B compared to Group C showed no significant difference.

Figure 3.4 Number of days in the past 7 days on which students consumed at least two servings of fruits (0-7 days)

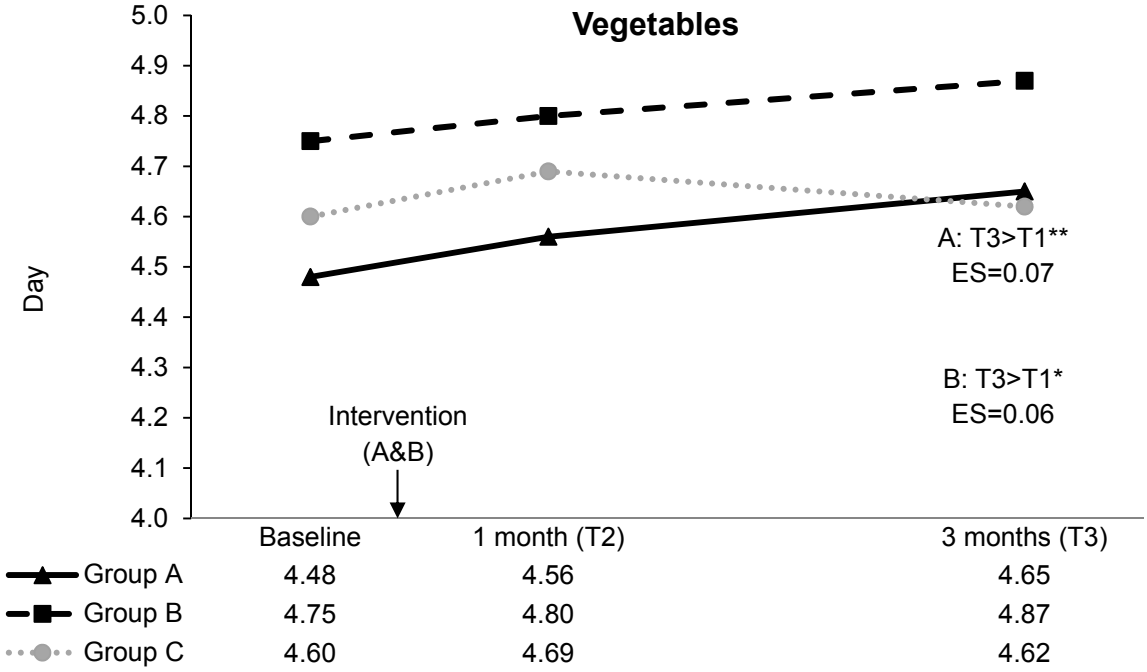


** $p<0.01$; *** $p<0.001$
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80
Adjusting for sex, grade and baseline value. Clustering effect of school was taken into account.

Figure 3.5 shows a significant increase in consuming at least three servings of vegetables from T1 to T3 in both Group A and Group B with small effect size (ES=0.07, *p*=0.003 and ES=0.06, *p*=0.012, respectively).

The changes in Group A and Group B compared to Group C showed no significant difference.

Figure 3.5 Number of days in the past 7 days on which students consumed at least three servings of vegetables (0-7 days)

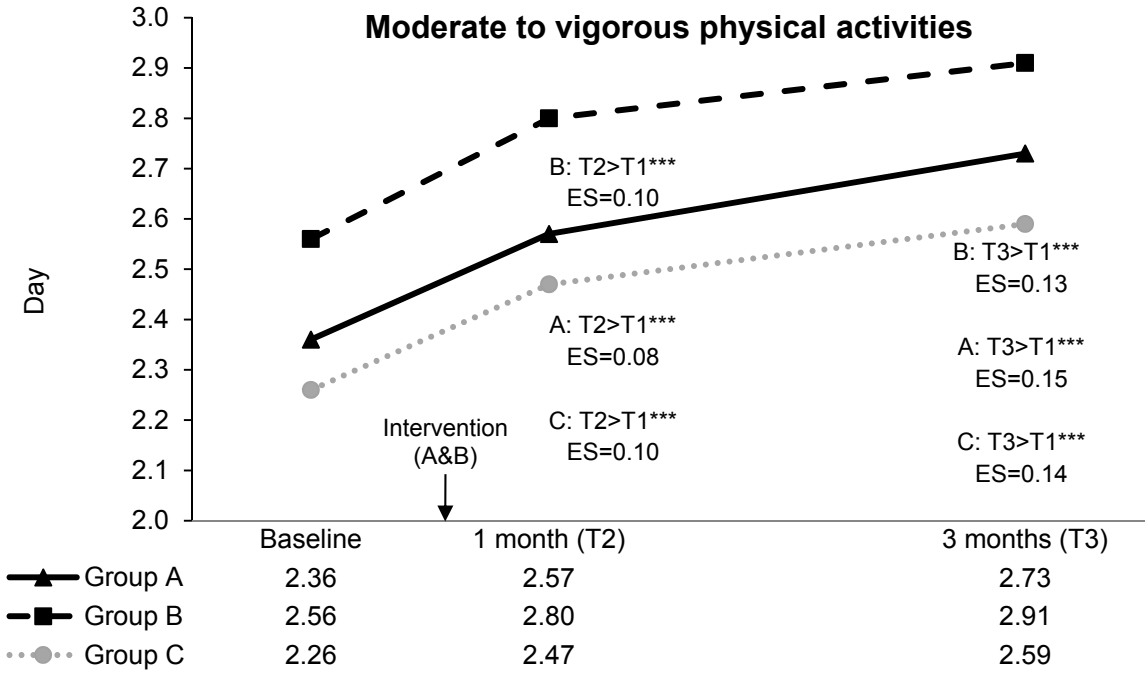


* *p*<0.05; ** *p*<0.01
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80
Adjusting for sex, grade and baseline value. Clustering effect of school was taken into account.

Figure 3.6 shows significant increases in the number of days students did moderate to vigorous physical activities for at least 60 minutes from T1 to T2 and from T1 to T3 in all three groups with small effect size (ES=0.08-0.15, p<0.001).

The changes in Group A and Group B compared to Group C showed no significant difference.

Figure 3.6 Number of days in the past 7 days on which students performed moderate to vigorous physical activities for at least 60 minutes (0-7 days)



*** p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80
Adjusting for sex, grade and baseline value. Clustering effect of school was taken into account.

3.1.3.3 Knowledge of health

Students were asked four questions about health knowledge:

Question 1: In general, do potato chips contain salt?

Question 2: Can the body weight be affected by sugary beverages?

Question 3: Can the body weight be affected by fewer movements and sedentary behaviours?

Question 4: How many cubes of sugar are in a can of cola (350ml)?

Figure 3.7a shows no significant difference between Group A and C and between Group B and C (all $p>0.05$).

Logistic regression was used to assess changes of the above questions between the intervention and control groups. The change in the occurrence was the outcome variable and group status (intervention vs. control) was the predictor. Adjustments were made for sex, grade, baseline (T1) value of the outcome variable, and school clustering effect.

An event with OR>1 (OR=odds ratio) indicated that it was more likely to occur in the intervention group (Group A and Group B) than control group (Group C), whereas an event with OR<1 indicated that it was less likely to occur in the intervention group than the control group. An odds ratio of below 1.3 was defined as a small effect, 1.3 to 2.0 a medium effect and above 2.0 a large effect [18].

Figure 3.7a Baseline results for the knowledge of salt, sugary beverage, sedentary behaviours and sugar

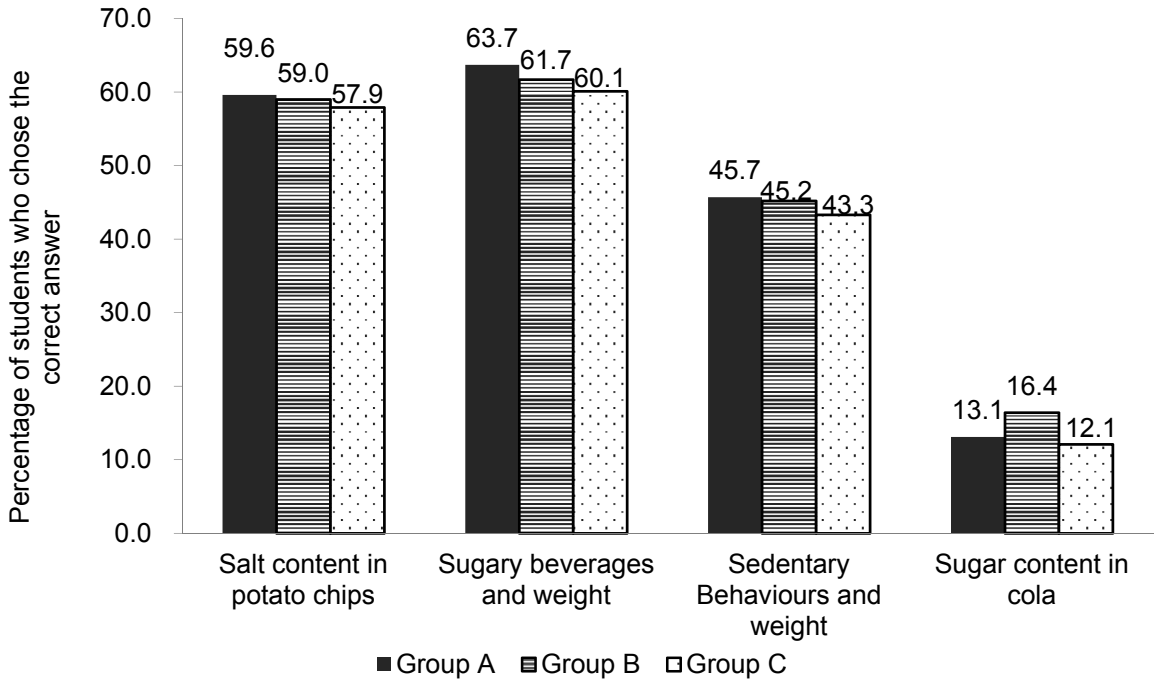
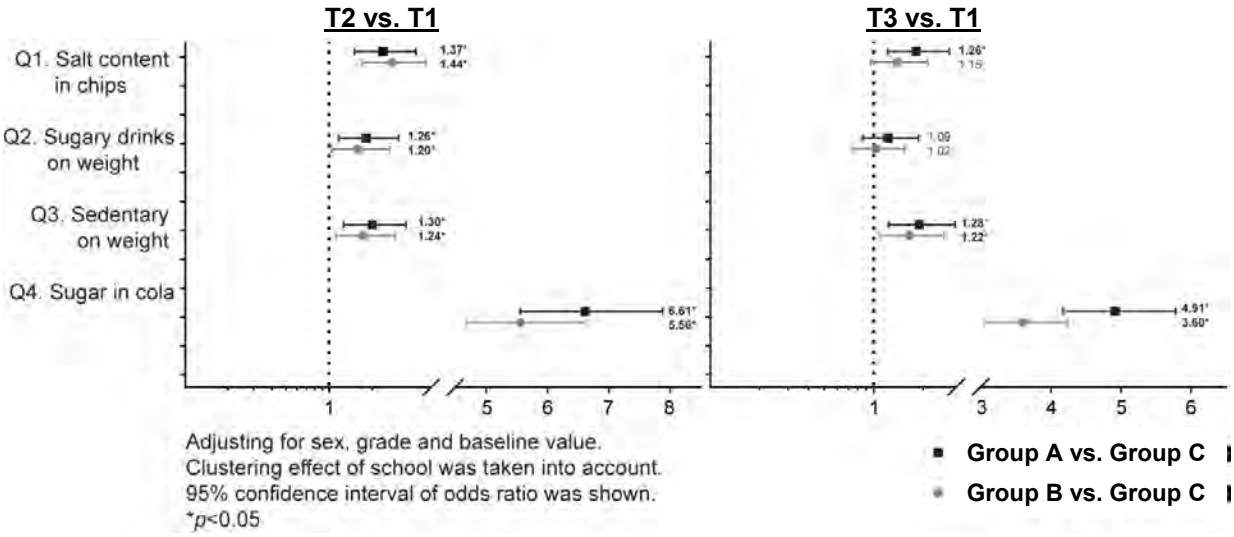


Figure 3.7b shows at T2 and T3, significantly more students in Group A understood the salt content of potato chips, the effect of being sedentary on body weight, as well as cola's sugar content than in the control group, with small to large effect size. Significantly more Group A students understood the effect of sugary beverages on body weight than the control group at T2 compared to baseline, with small effect size.

Additionally, from T1 to T2 and T1 to T3, significantly more students in Group B understood the effect of being sedentary on body weight and cola's sugar content than the control group. Significantly more Group B students understood the salt content of potato chips and the effect of sugary beverages on body weight than the control group from T1 to T2, with small to medium effect size.

Figure 3.7b Odds ratio for the knowledge of salt, sugary beverage, sedentary behaviours and sugar (T2 vs. T1, T3 vs. T1)



3.1.3.4 Parent-child interactions

Students were asked if the seven events listed below occurred in the past 7 days:

Event 1: Dad praised me.

Event 2: Mum praised me.

Event 3: I praised dad.

Event 4: I praised mum.

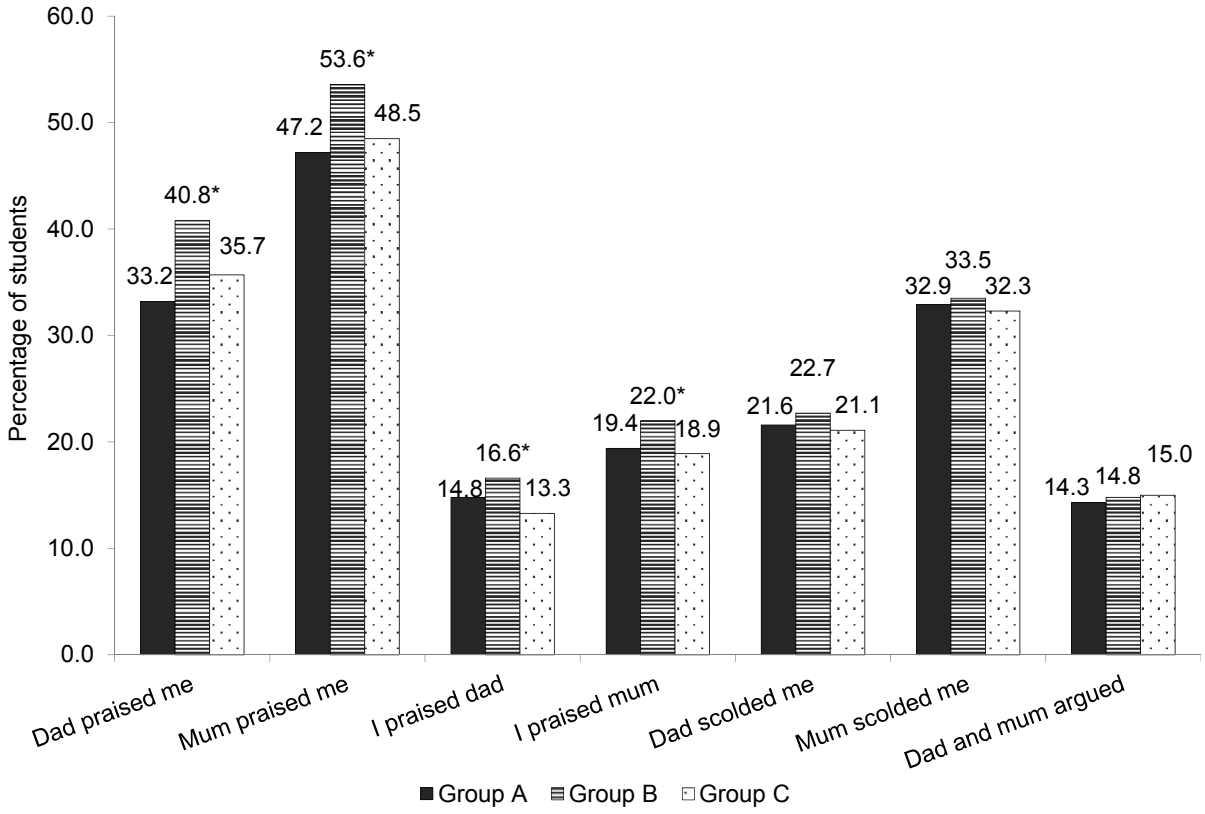
Event 5: Dad scolded me.

Event 6: Mum scolded me.

Event 7: Dad and mum argued.

Figure 3.8a shows no significant differences between Groups A and C (all $p>0.05$). But Group B showed significantly greater percentages than Group C in Event 1, Event 2, Event 3, and Event 4 ($p<0.001$, $p=0.001$, $p=0.002$, and $p=0.009$ respectively), with small effect size.

Figure 3.8a Baseline results of praising, scolding and parental conflicts

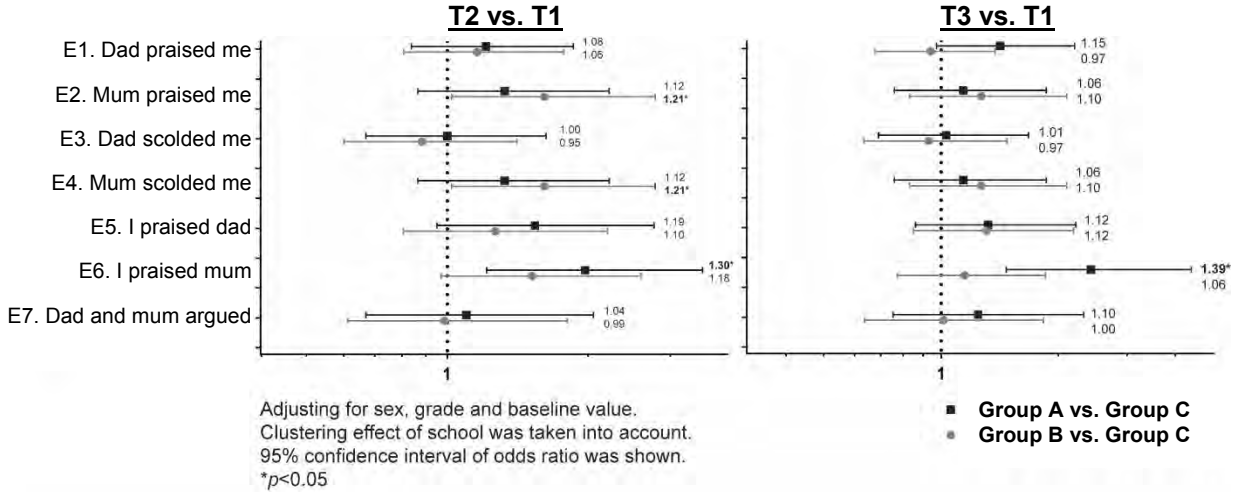


* $p<0.05$ (compared with Group C)

Figure 3.8b shows significantly more students in Group A praised mum than in the control group at T2 and T3, with medium effect size.

Significantly more Group B students were praised and scolded by mum than the control group at T2, with small effect size.

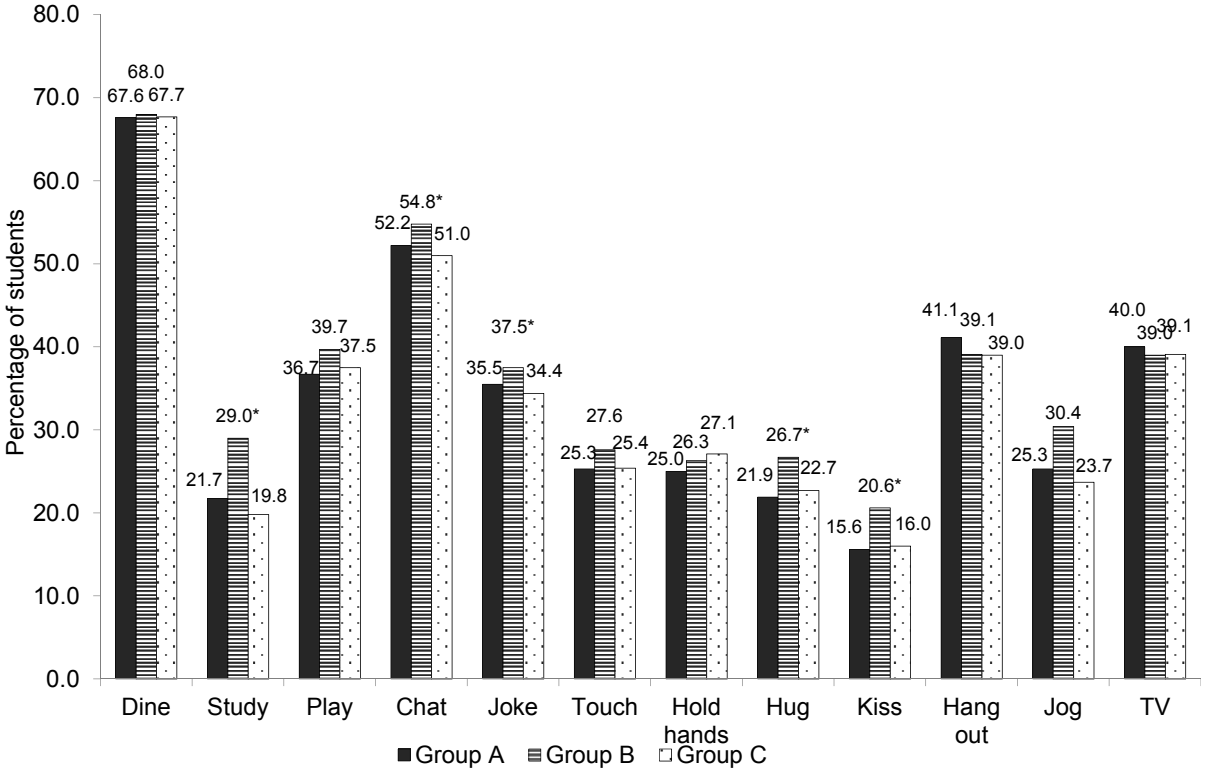
Figure 3.8b Odds ratio for praising, scolding and parental conflicts (T2 vs. T1, T3 vs. T1)



Parental involvement in day-to-day activities and the level of parent-child intimacy were assessed using a list of parent-child interactions such as dining, studying, playing, chatting, holding hands, and hugging. Students reported whether each interaction occurred in the past 7 days with their father and mother, separately.

Figure 3.9a shows no significant difference between Groups A and C in parent-child intimacy with the father. However, Groups B showed significantly greater percentages than Group C in the items “Study”, “Chat”, “Joke”, “Hug”, “Kiss” and “Jog”, with small to medium effect size.

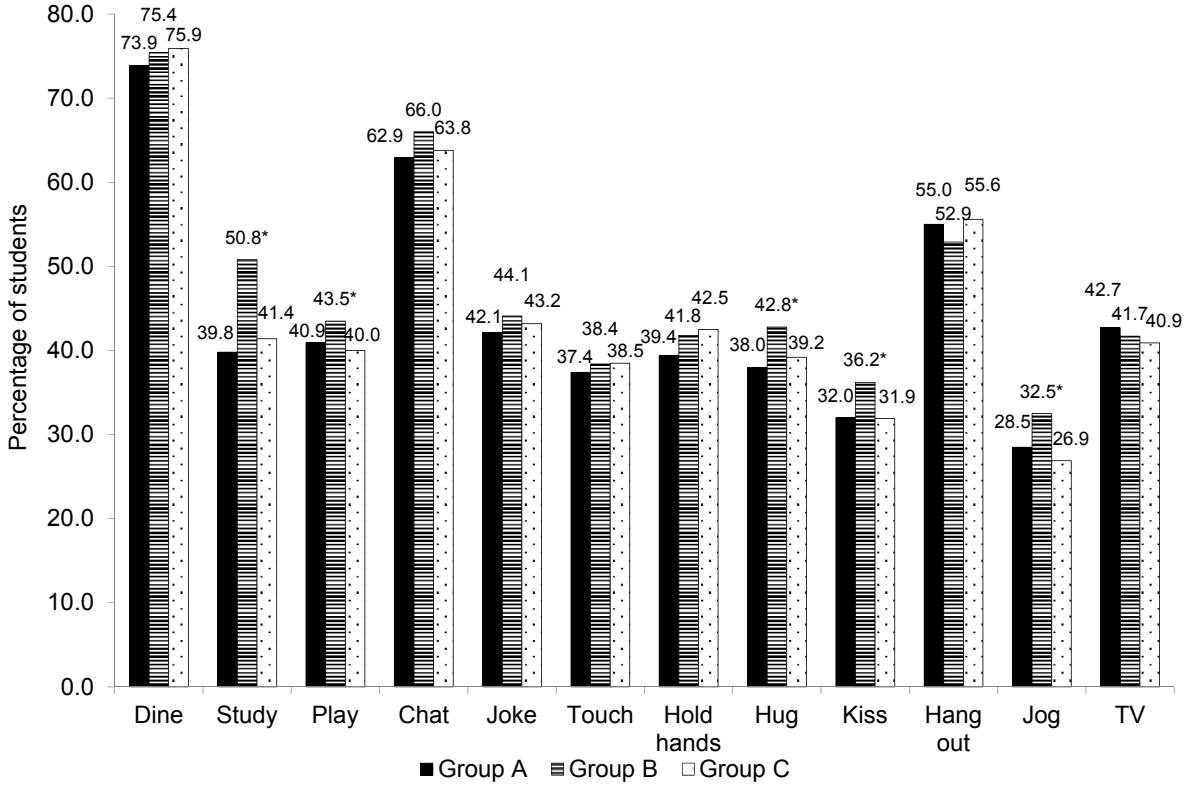
Figure 3.9a Baseline results of paternal interactions



* $p<0.05$ (compared with Group C)

Figure 3.9b shows no significant difference between Groups A and C in parent-child intimacy with the mother. However, Group B showed significantly greater percentages than Group C in the items “Study”, “Play”, “Hug”, “Kiss”, and “Jog”, with small effect size.

Figure 3.9b Baseline results of maternal interactions



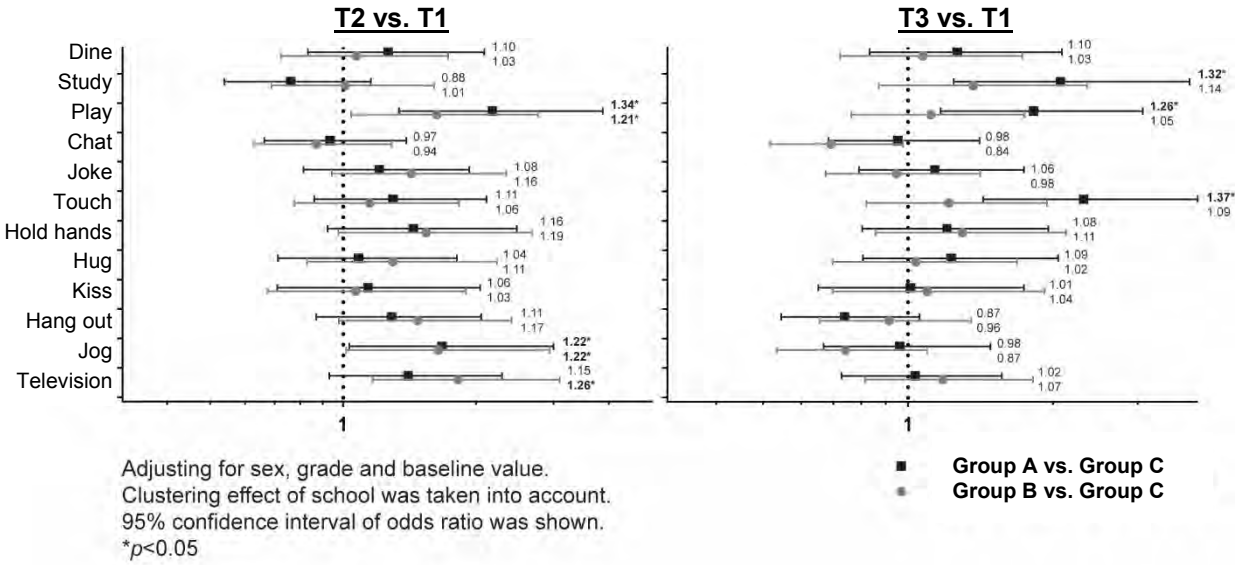
* $p<0.05$ (compared with Group C)

Figure 3.10a showed significantly more students in Groups A and B played and jogged with dad than in the control group from T1 to T2, with small to medium effect size.

Significantly more Group A students studied and played with dad and were touched by dad than in the control group from T1 to T3, with small to medium effect size.

Significantly more Group B students watched television with dad than in the control group from T1 to T2, with small effect size.

Figure 3.10a Odds ratio for paternal interactions (T2 vs. T1, T3 vs. T1)

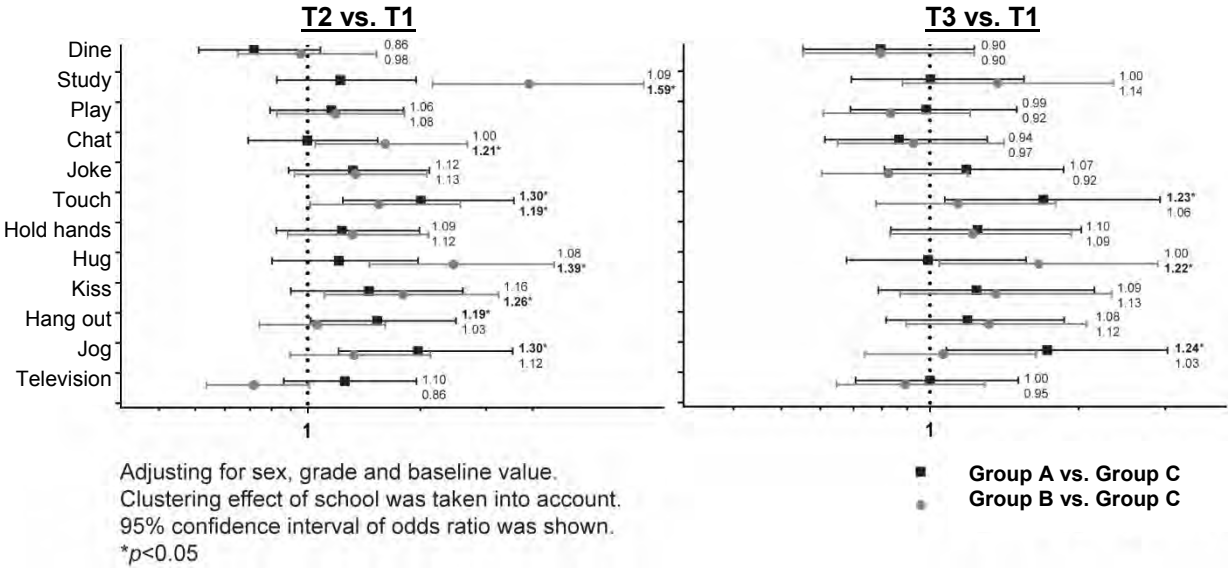


Adjusting for sex, grade and baseline value.
Clustering effect of school was taken into account.
95% confidence interval of odds ratio was shown.
*p<0.05

Figure 3.10b shows significantly more students in Group A were touched by mum and jogged with mum than in the control group from T1 to T2 and T1 to T3. Significantly more Group A students hung out with mum than in the control group from T1 to T2.

Significantly more Group B students hugged mum than in the control group from T1 to T2 and T1 to T3. Significantly more Group B students studied and chatted with mum, and were touched and kissed by mum than in the control group from T1 to T2. The effect size was small except for the items “Study” and “Hug”, which had medium effect size from T1 to T2.

Figure 3.10b Odds ratio for maternal interactions (T2 vs. T1, T3 vs. T1)



3.1.3.5 Self-reported personal health, FAMILY happiness and FAMILY harmony of the families

Health, happiness and harmony, are interrelated and influenced by many factors including those described previously in this report, such as health behaviours, mutual appreciation, and parent-child interactions. Self-reported health, in particular, is a simple and useful overall assessment of physical and mental health. FAMILY 3Hs were assessed using the following items:

- Self-reported personal health (1 item, score range: 1-5):
  Overall, you rate your health condition as:
  Responses: 1=Poor, 2=Fair, 3=Good, 4=Very good, 5=Extremely good

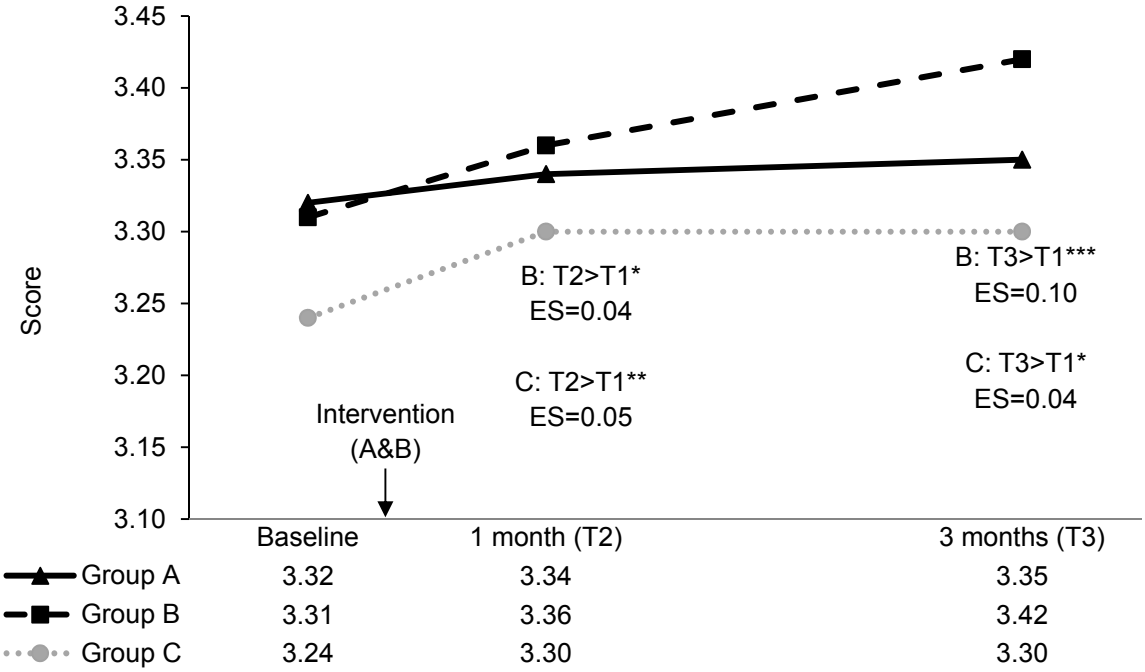
- Self-reported FAMILY happiness (1 item, score range: 1-4):
  Overall, you think your family is:
  Responses: 1=Completely unhappy, 2=Not so happy, 3=Happy, 4=Very happy

- Self-reported FAMILY harmony (1 item, score range: 1-5):
  My family is harmonious.
  Responses: 1=Strongly disagree, 2=Disagree, 3=No comment, 4=Agree, 5=Strongly agree

GLM was used to assess changes in students' self-reported FAMILY happiness and FAMILY harmony between the intervention and control groups. The change in self-reported FAMILY happiness and FAMILY harmony was the outcome variable and group status (intervention vs. control) was the predictor. Adjustments were made for sex, grade, baseline (T1) value of the outcome variable, and school clustering effect.

Figure 3.11 shows significant increases in students' self-reported personal health from T1 to T2 and from T1 to T3 in Groups B and C, with very small effect size. However, no significant difference was observed between Groups A and C and Groups B and C.

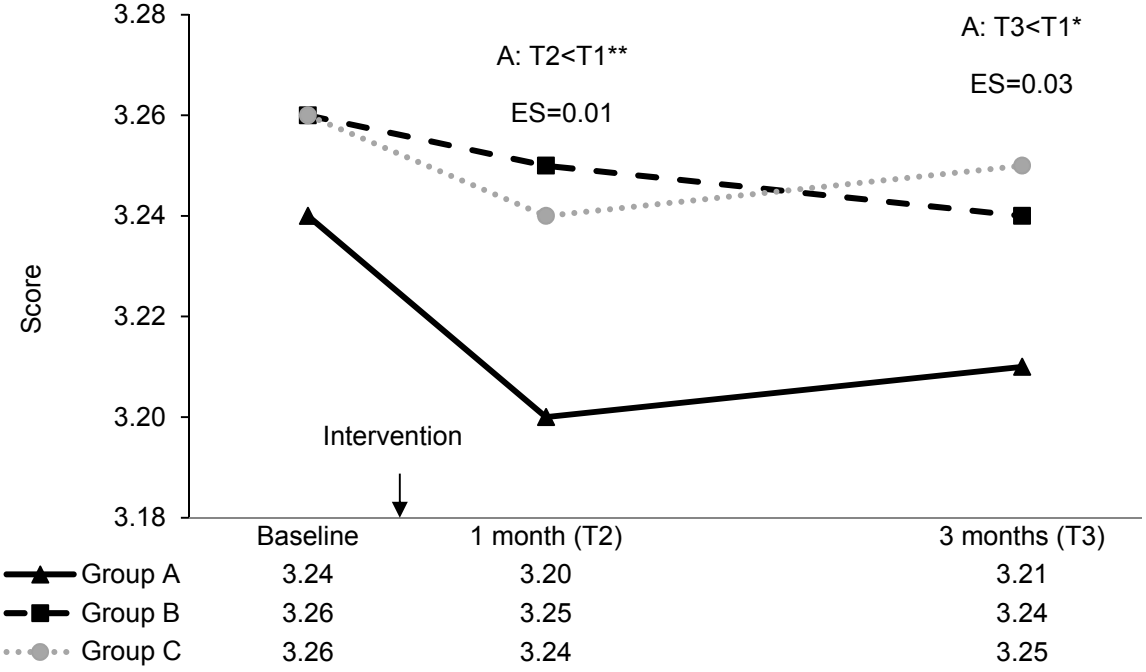
Figure 3.11 Students' self-reported personal health (1-5)



*p<0.05; **p<0.01; ***p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80
Adjusting for sex, grade and baseline value. Clustering effect of school was taken into account.

Figure 3.12 shows significant decreases in students' self-reported FAMILY happiness from T1 to T2 and T1 to T3 in Group A, with very small effect size. However, no significant difference was observed between Group A and C and Group B and C.

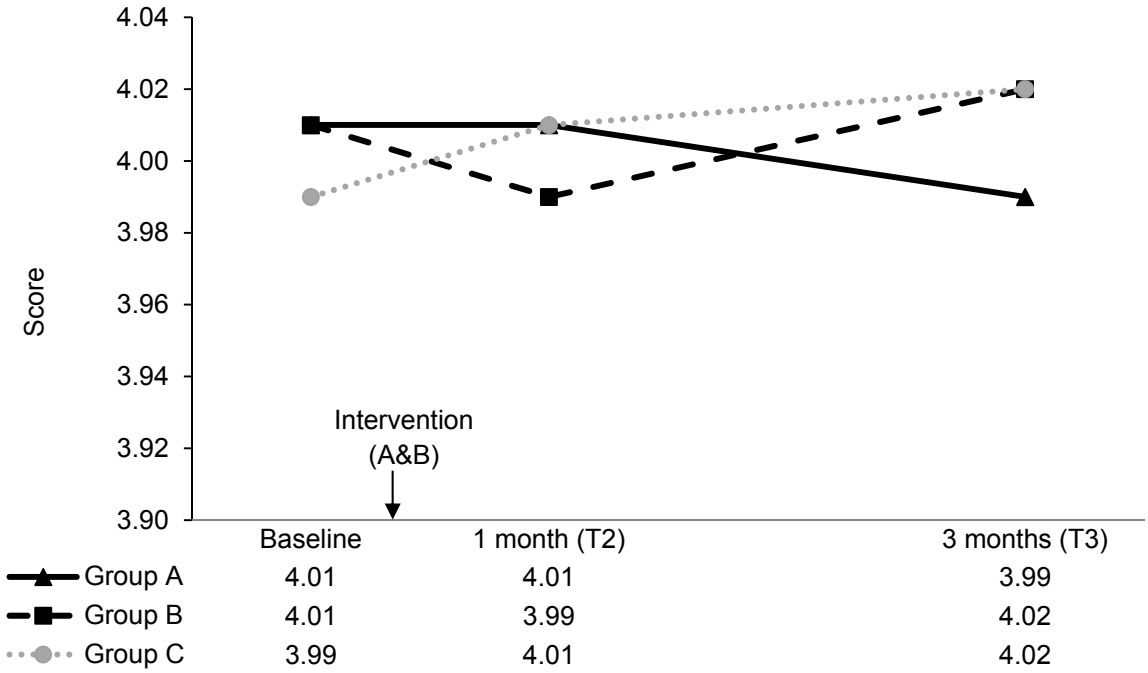
Figure 3.12 Students' self-reported FAMILY happiness (1-5)



*p<0.05; **p<0.01
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80
Adjusting for sex, grade and baseline value. Clustering effect of school was taken into account.

Figure 3.13 shows no significant increase in students' self-reported FAMILY harmony in all three groups.

Figure 3.13 Students' self-reported FAMILY harmony (1-5)



Adjusting for sex, grade and baseline value. Clustering effect of school was taken into account.

In T3, intervention students (Groups A and B) reported perceived changes on FAMILY happiness and FAMILY harmony after joining the programme. For both groups, over 60% of students agreed or strongly agreed that self-reported personal health, FAMILY health and harmony had improved. (Figure 3.14)

The large agreement ratios in Group A (range: 4.21 to 5.61) and Group B (range: 3.72 to 5.23) showed that over four times and three times as many Group A and Group B students agreed as those who disagreed on the items of Happier, and More harmonious, and over five times as many intervention students agreed as those who disagreed on the item of Healthier, which indicated very large effect size (Table 3.3).

Figure 3.14 Subjective change in self-reported personal health, self-reported FAMILY happiness and harmony

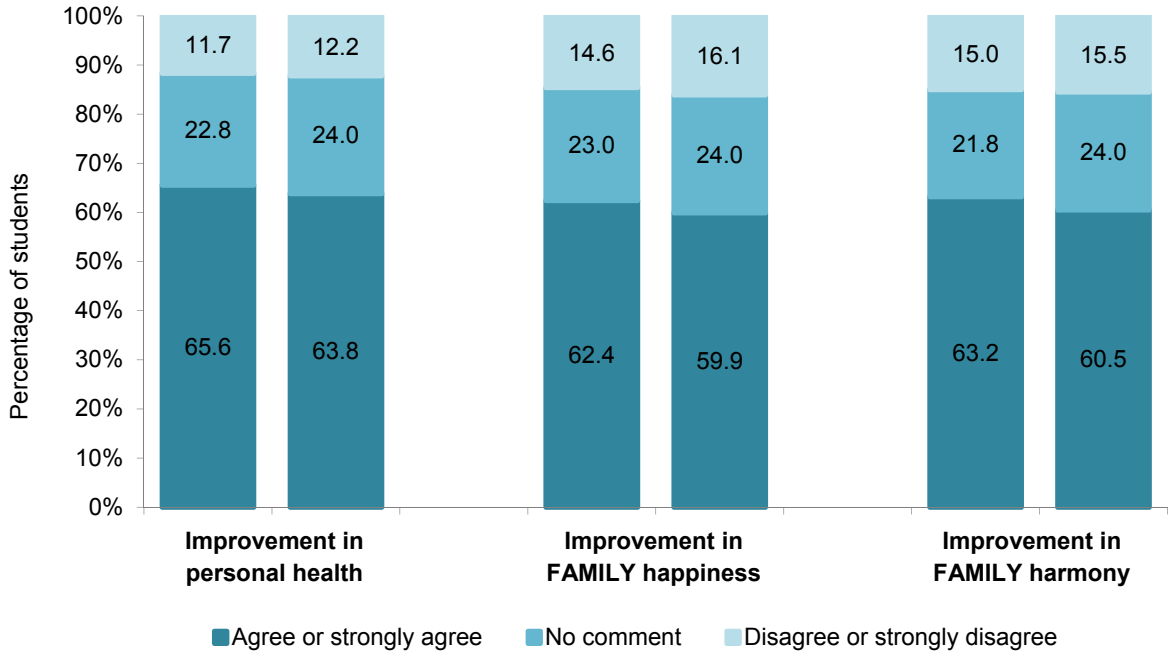


Table 3.3 Agreement ratios* of subjective change in self-reported health, self-reported FAMILY happiness and harmony

	Agree/strongly agree (%)	Disagree/strongly disagree (%)	Agreement ratio*
Group A			
Improvement in personal health	65.6	11.7	5.61
Improvement in FAMILY happiness	62.4	14.6	4.27
Improvement in FAMILY harmony	63.2	15.0	4.21
Group B			
Improvement in personal health	63.8	12.2	5.23
Improvement in FAMILY happiness	59.9	16.1	3.72
Improvement in FAMILY harmony	60.5	15.5	3.90

*Agree/strongly agree % divided by disagree/strongly disagree %

3.2 Physical Exercise Fun Day

3.2.1 Introduction

Physical Exercise Fun Days with game booths were held in ten schools (n=1,727) to further promote the importance of physical health and simple physical activities. Students took part in these game booths and they were asked to complete several easy physical activities and physical fitness assessments such as a hand grip dynamometry test, planking, and squatting. The ten schools were chosen randomly for project evaluation purpose.

Table 3.4 Outline of outcome evaluation for Physical Exercise Fun Days

Target	Outcome evaluation (Effectiveness of drama programme)		
	Group A (long drama)	Group B (short drama)	Group C (control)
Students	• Physical fitness assessments • T1, T2 (after surveys) • 3 schools, n=754	• Physical fitness assessments • T1, T2 (after surveys) • 3 schools, n=413	• Physical fitness assessments • T1, T2 (after surveys) • 4 schools, n=560

3.2.2 Statistical analysis

3.2.2.1 Baseline demographic characteristics of participants

A total of 3,528 students participated in the Physical Exercise Fun Day evaluation of FDP II. Of these, 1,727 completed the baseline surveys, 1,666 completed the second wave of surveys. These differences in numbers were attributed to the refusal of some participants to complete the survey or participants dropping out of the programme. Thus, for each variable at each wave, only samples with data were analysed. Nevertheless, considering the retention rate was quite high (more than 80% for the entire group), missing data analysis was not conducted.

Table 3.5 shows that the basic characteristics of the students were similar in the two groups (intervention groups vs. control group). There were slightly more male students than female students, the mean age was 9.3 years (SD=0.97), and more than 40% students were from Primary 4.

Table 3.5 Background characteristics of students

Variable	Overall	Intervention groups	Control group
	n (%)	n (%)	n (%)
Sex			
Male	914 (52.9)	606 (51.9)	308 (55.0)
Female	813 (47.1)	561 (48.1)	252 (45.0)
Age			
	M=9.3; SD=0.97	M=9.2; SD=0.94	M=9.4; SD=1.00
Grade			
P3	475 (27.5)	320 (27.4)	155 (27.7)
P4	774 (44.8)	527 (45.2)	247 (44.1)
P5	478 (27.7)	320 (27.4)	158 (28.2)

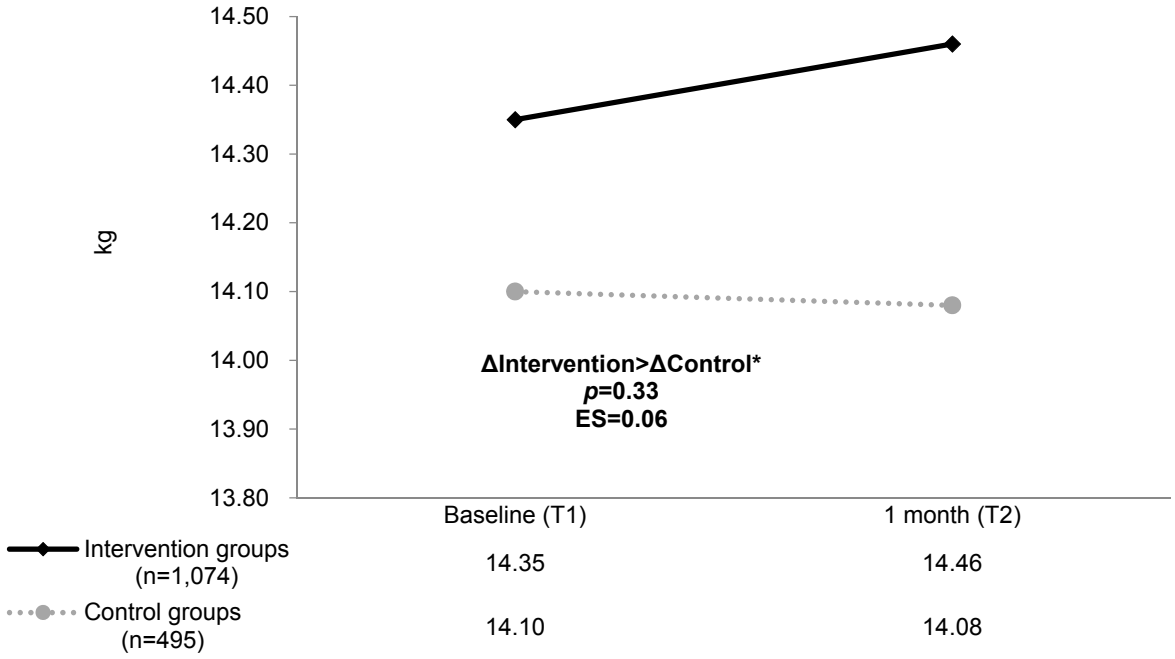
3.2.2.2 Students' physical fitness assessment

Students' physical fitness assessments, including hand grip strength test, planking, and squatting, were tested by BGCA staff and the FAMILY Project Team.

GLM was used to assess changes in these items between the intervention and control groups. The change in fitness assessment result was the outcome variable and group status (intervention vs. control) was the predictor. Adjustments were made for sex, age and baseline (T1) value of the outcome variable, and school clustering effect.

Figure 3.15 shows slight increases in right hand grip strength from T1 to T2 in the intervention groups and slight decreases in the control group. However, no significant difference was observed between the within-group differences.

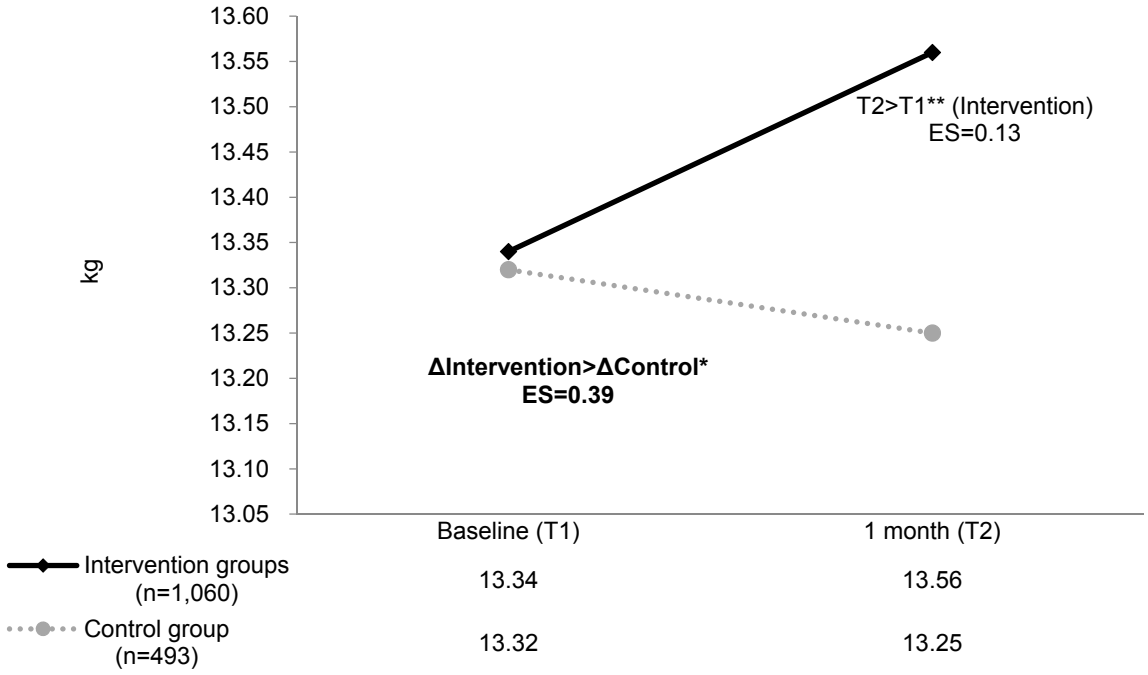
Figure 3.15 Right hand grip strength (kg)



*p<0.05
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80
Adjusting for sex, grade and baseline value. Clustering effect of school was taken into account.

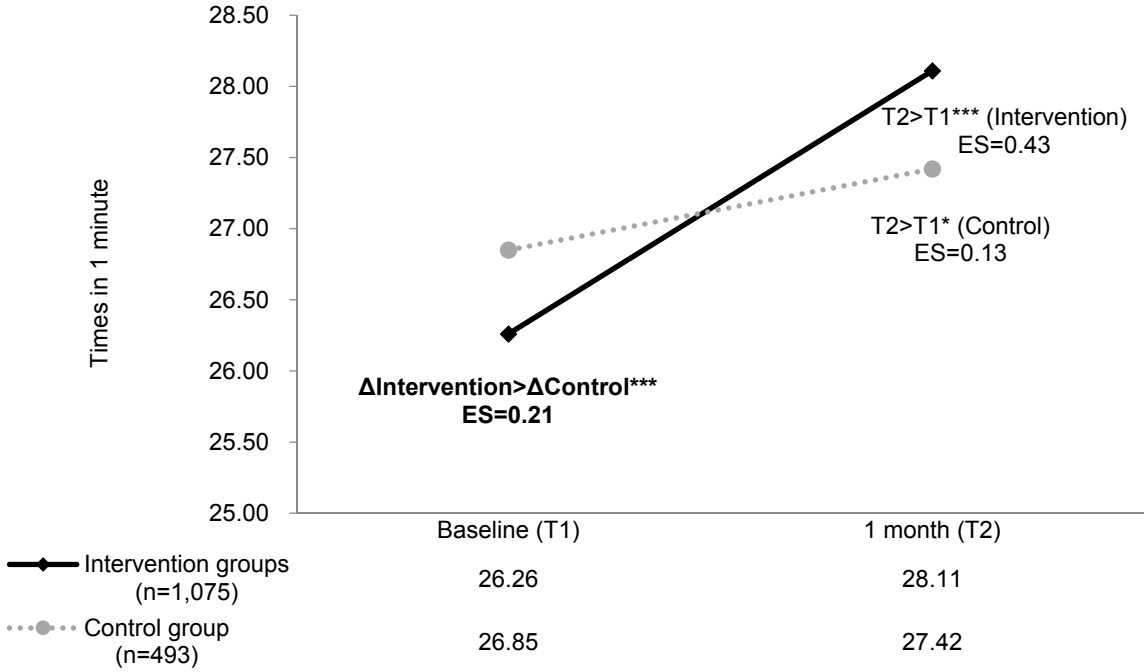
Figure 3.16 shows significant increases in the left handgrip strength from T1 to T2 in the intervention groups (p=0.003). Significantly greater increase was observed for intervention groups compared with the control group (ES=0.39, p=0.023).

Figure 3.16 Left hand grip strength (kg)



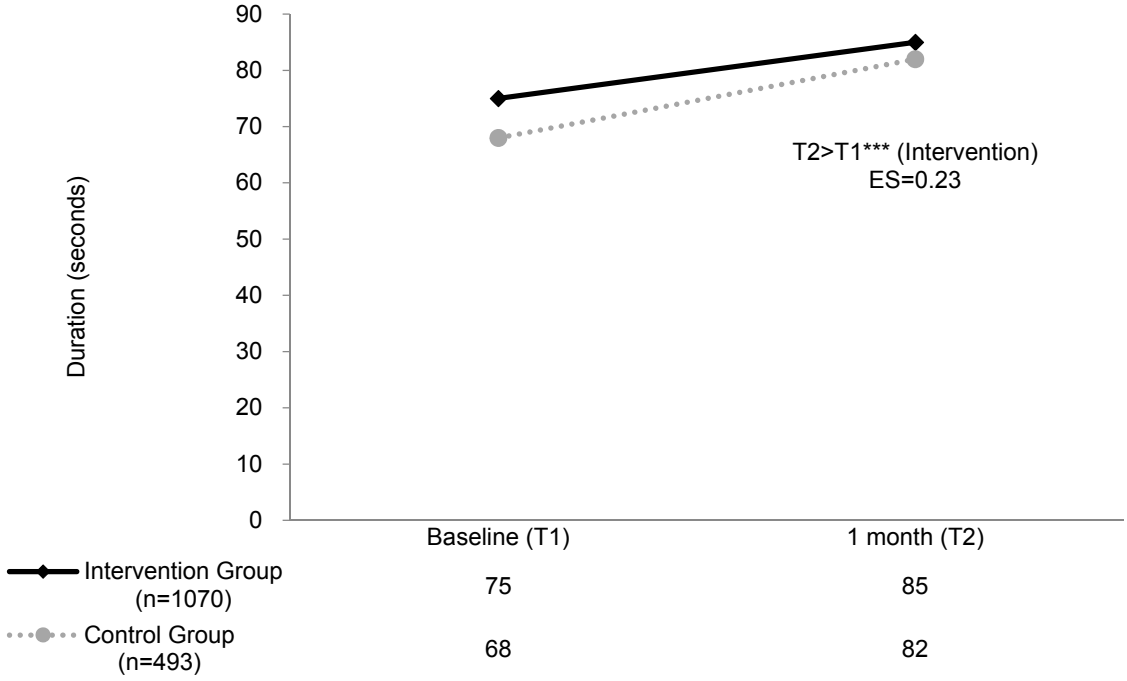
*p<0.05; **p<0.01
ES=Effect Size (Cohen's d): small=0.20; medium=0.50; large=0.80
Adjusting for sex, grade and baseline value. Clustering effect of school was taken into account.

Figure 3.17 shows significant increases in the number of squats from T1 to T2 in both intervention and control groups (all $p<0.05$). Significantly greater increase was observed for intervention group when compared with control group (ES=0.21, $p<0.001$), with small effect size.



*$p<0.05$; ***$p<0.001$
ES=Effect Size (Cohen's d): small=0.20; medium=0.50; large=0.80
Adjusting for sex, grade and baseline value. Clustering effect of school was taken into account.

Figure 3.18 shows significant improvements in duration of planking only from T1 to T2 in intervention groups (p<0.001). However, no significant difference was observed between the within-group differences.



***p<0.001
ES=Effect Size (Cohen's d): small=0.20; medium=0.50; large=0.80
Adjusting for sex, grade and baseline value. Clustering effect of school was taken into account.

CHAPTER 4 PROCESS EVALUATION

4.1 Introduction

Process evaluation is a method widely used in identifying the practicable components, the effective population, the feasible conditions of and satisfaction towards an intervention. Moreover, process evaluation is also useful in identifying potential areas for improvements that can be made to enhance programme effectiveness.

The opinions of students, parents and teachers were assessed with both quantitative (questionnaire surveys) and qualitative (focus group and telephone interviews) measures. The aims of the interviews were to explore the opinions and experiences related to the project from the perspective of programme participants. To reduce the burden on individual schools and subjects, and to cover more detailed questionnaire items, students were selected from schools that didn't participate in the outcome evaluation. Such information is useful in evaluating programme effectiveness and for improving future project design.

4.2 Methods

4.2.1 Data collection

Students who were included in the outcome evaluation group completed process evaluation questions within the questionnaire of outcome evaluation in T2 survey. Students who were not included in the outcome evaluation group were invited to complete a two-page questionnaire and to attend a focus group interview immediately after watching the live drama show. Parents in the intervention group were invited to complete a brief telephone interview 1 month after the drama show. All teachers who watched the live drama were invited to complete a one-page brief questionnaire immediately after watching the live drama.

Table 4.1 Outline of process evaluation

Target	Process evaluation (satisfaction towards the programme)	
	Quantitative	Qualitative
Students (without outcome evaluation)	Questionnaire • Time: Immediately after watching live drama • Participants: 8 schools, 1,685 students • Result: 1,680 questionnaires received	Focus group • Time: Immediately after watching live drama • Participants: 8 schools, 47 students Brief telephone interviews • Time: 1 month after watching live drama • Participants: 4 schools, 23 students

Target	Process evaluation (satisfaction towards the programme)	
	Quantitative	Qualitative
Students (within outcome evaluation)	Questions within the questionnaire of outcome evaluation • Time: T2 • Participants: 42 schools, 7,058 students • Result: 7,026 questionnaires received	N/A
Parents	N/A	Brief telephone interviews • Time: 1 month after watching the drama • Participants: 4 schools, 12 parents
Teachers	• Time: Immediately after watching the live drama • Participants: 86 schools • Result: 560 questionnaires received	N/A

Participation in the focus group and telephone interviews was voluntary, and written consent was collected from each participant before the discussion began. All personal information collected was kept confidential and was used for research purposes only. The interviews were semi-structured. An open-ended interview guide was provided for the moderator/interviewer and questions were designed according to the objectives of the project.

All focus group interviews lasted for about 20 minutes and were conducted in a quiet venue arranged by the participating schools. Each focus group interview was managed by one moderator and one note-taker. Telephone interviews lasted for 10-15 minutes and were conducted in a quiet office room. All the interviews were conducted in Cantonese and audio-taped.

4.2.2 Data analysis

To maximise the data quality, all focus group interviews were transcribed verbatim in Cantonese to capture every nuance of expression unique to the dialect. At least 10% of the transcripts were double-checked against the tape recording. The transcripts were analysed by thematic content analysis, following the guidelines recommended by Morse and Field [19]. Each transcript was analysed sentence by sentence and coded for the respondents' meanings. Open coding was performed where codes were arranged into different categories, and then further integrated into various themes. Data comparison within and between groups was also conducted. Data generated from the focus group interviews and telephone interviews were managed using the software NVivo 11.0.

4.3 Results

4.3.1 Students' satisfaction and feedback on quantitative evaluation

4.3.1.1 Students who did not participate in the outcome evaluation (immediately after watching live drama show)

A total of 1,685 students (without outcome evaluation) participated in the process of quantitative evaluation while 1,680 completed the questionnaire. Table 4.2 shows the basic characteristics of the students who completed the questionnaire and focus group interview. The mean age was 9.2 years (SD=0.91). Most participants were living with their father or mother (83.3% and 90.5%) and their parents were in marriage (82.5%). More than 40% participants lived in a flat with two bedrooms (46.1%).

Table 4.2 Demographic characteristics of students who completed the quantitative evaluation (n=1,680)

Variables	n (%)
Sex	
Male	821 (50.5)
Female	806 (49.5)
Age (years)	
	M=9.2, SD=0.91
Grade	
P3	497 (30.1)
P4	636 (38.5)
P5	519 (31.4)
Marital status of parent(s)	
In marriage	1,321 (82.5)
Separation/Divorced	152 (9.5)
Dad died	18 (1.1)
Mum died	8 (0.5)
Parents died	1 (0.1)
Others	102 (6.4)

Variables	n (%)
Living status	
Living with father	1,376 (83.3)
Living with mother	1,495 (90.5)
Living with brother(s)	631 (38.2)
Living with sister(s)	591 (35.8)
Living with grandma	410 (24.8)
Living with grandpa	244 (14.8)
Living with domestic helper	221 (13.4)
Living with other relative(s)	158 (9.6)
Living with others	53 (3.2)
Number of bedroom(s)	
None	62 (3.8)
1 bedroom	119 (7.3)
2 bedrooms	749 (46.1)
3 bedrooms	517 (31.8)
4 bedrooms	116 (7.1)
5 bedrooms or above	63 (3.9)

Figure 4.1 shows that the great majority liked the programme (86.7%). Most agreed or strongly agreed that the songs (79.5%) and drama (88.7%) were nice, and 73.7% agreed or strongly agreed that the interaction of the programme was funny. More than 85% students wanted to watch a new show next time, more than 60% would recommend the programme to other primary school students, and, more than 80% understood the theme of the programme.

Figure 4.1 Students' ratings on the satisfaction towards the programme

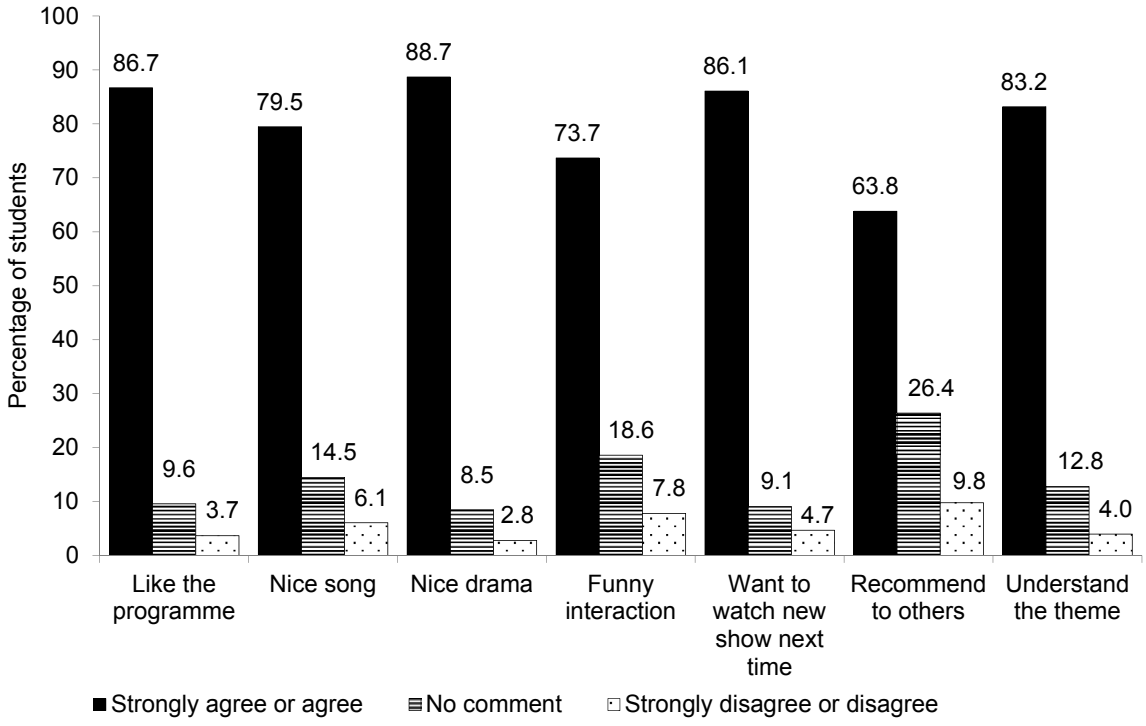


Table 4.3 shows that on a scale of 0 to 10 (where “0=least useful” to “10=most useful”), eating more fruits (M=8.10, SD=2.58) and vegetables (M=8.03, SD=2.64) were rated as the two most useful items of the content. Less criticism for family members (M=6.77, SD=3.55) was the only item for which the mean score was lower than 7. The mean score of the other six items about less salt and sugar or more exercises were over 7.

Table 4.3 Mean score of ratings on the usefulness of programme contents[a] (n=1,680)

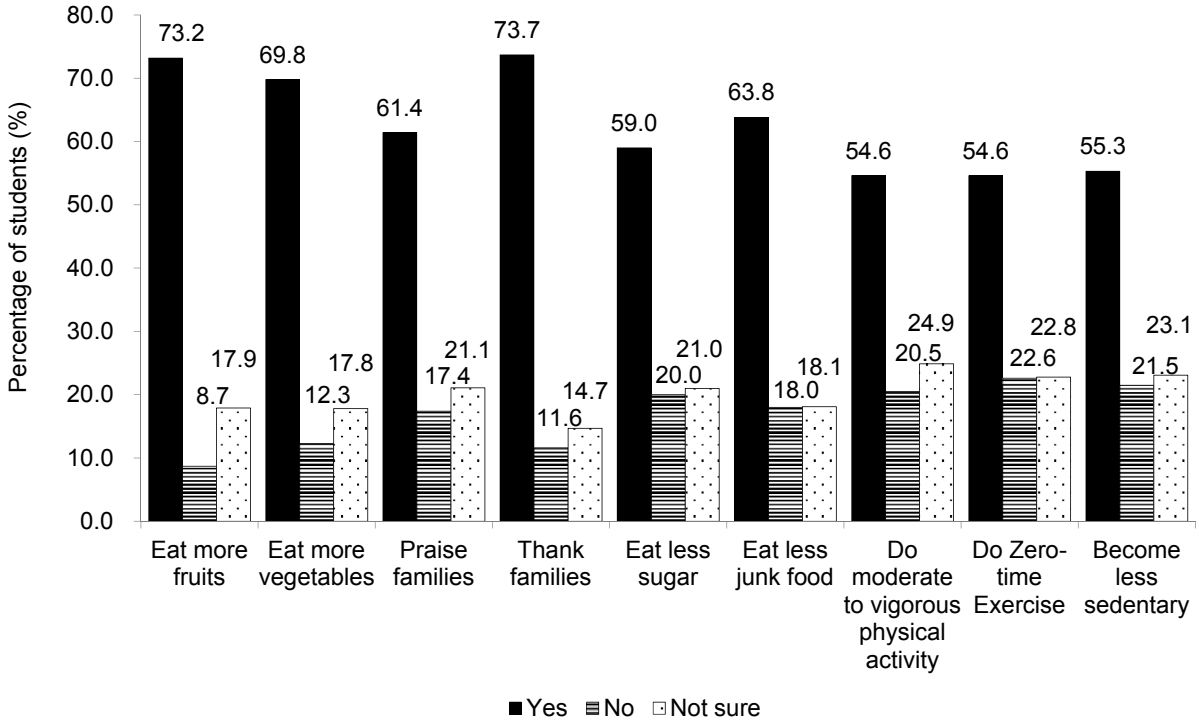
Contents	Mean	SD
More fruits	8.10	2.58
More vegetables	8.03	2.64
More praise	7.23	3.05
Less criticism	6.77	3.55
Less salt	7.44	3.17
Less sugar	7.16	3.23
Less junk food	7.14	3.26
More moderate to vigorous physical activity	7.70	2.92
More Zero-time Exercise	7.18	3.36

[a] 11-point Likert scale: “0=least useful” to “10=most useful”

The students were also asked if they would do the things (listed below) in the future after watching the live drama (Figure 4.2). About 70% students would eat more fruits and vegetables per day, as well as say “thanks” to their family members. More than 60% student would praise family members more and eat less junk food. More than one-half of students would eat/drink less high-sugar food/beverage, perform more physical activities, and become less sedentary.

a) Eat at least two servings of fruits per day;
b) Eat at least three servings of vegetables per day;
c) Praise family members;
d) Say “thank you” to family members;
e) Less eat/drink high-sugar food/beverage;
f) Eat less snacks;
g) Do moderate to vigorous physical activity for at least 60 minutes per day;
h) Do more ZTEx; or
i) Become less sedentary.

Figure 4.2 Students' comments on "Do you intend to do the following things in the future after watching the live drama?"



4.3.1.2 Students who participated in the outcome evaluation (T2)

In T2, students (within the outcome evaluation) were asked to rate the live drama, DVD and different sections of worksheets as strongly like, like, fair, dislike or strongly dislike.

A total of 7,059 students participated in the quantitative evaluation while 6,576 completed the second wave of surveys. (For the basic characteristics of the students please see Table 3.2a in Chapter 3)

In the intervention groups (Group A and Group B), Figure 4.3a shows that 76.9% of students strongly liked or liked the FDP II, while only 5.1% disliked or strongly disliked it. Figure 4.3b shows that the lower grade students gave higher ratings (p<0.001). Figure 4.4a shows 74.6% of students gave "strongly like" or "like" ratings to the DVD. Similarly, better ratings were given by students in lower grades (p<0.001) (Figure 4.4b).

Figure 4.3a Intervention groups students' ratings on FDP II (n=4,043)

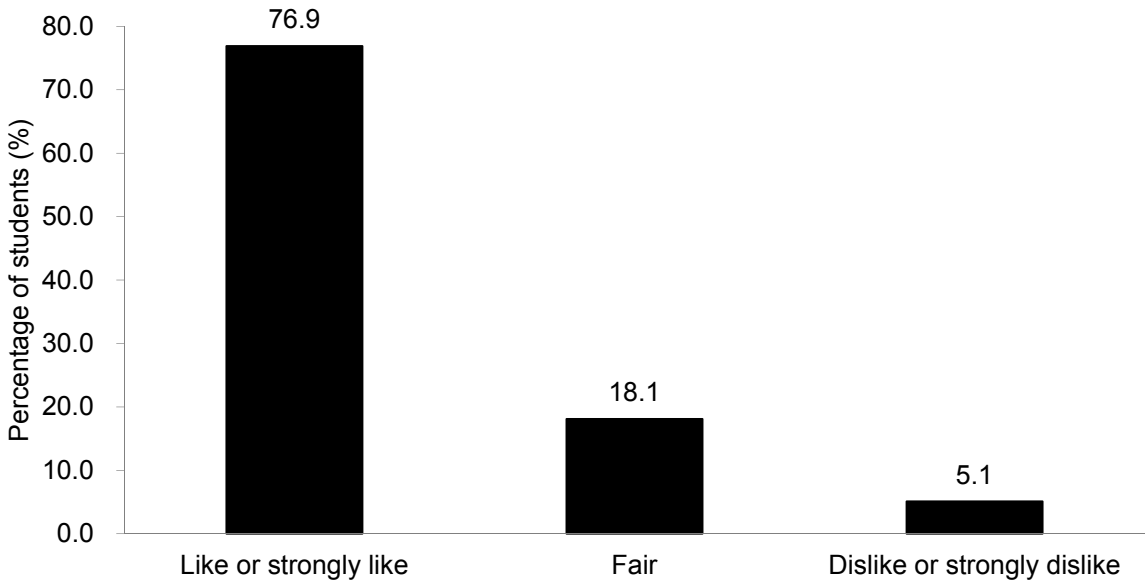


Figure 4.3b Intervention groups students' ratings on live drama by grade (n=4,043)

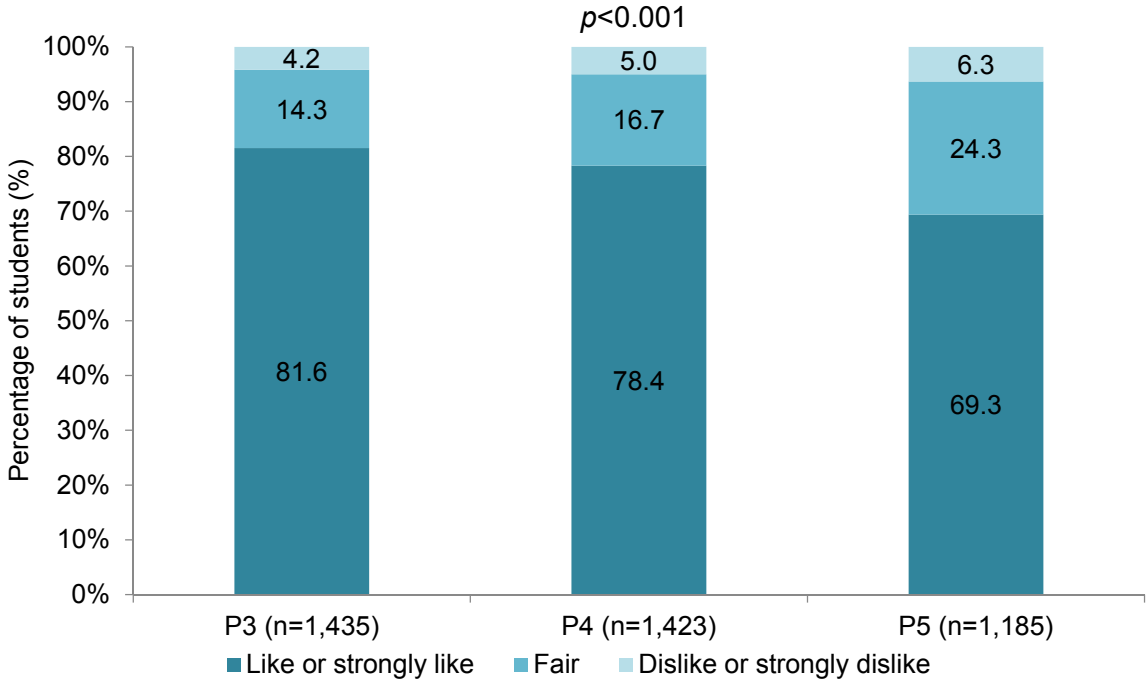


Figure 4.4a Intervention groups students' ratings on DVD (n=3,385)

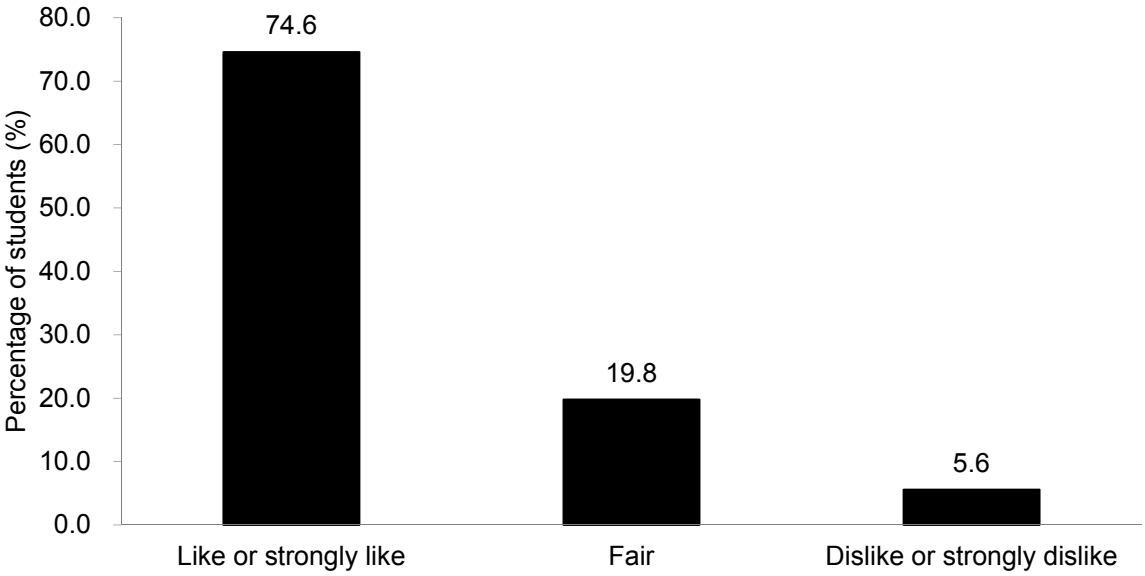
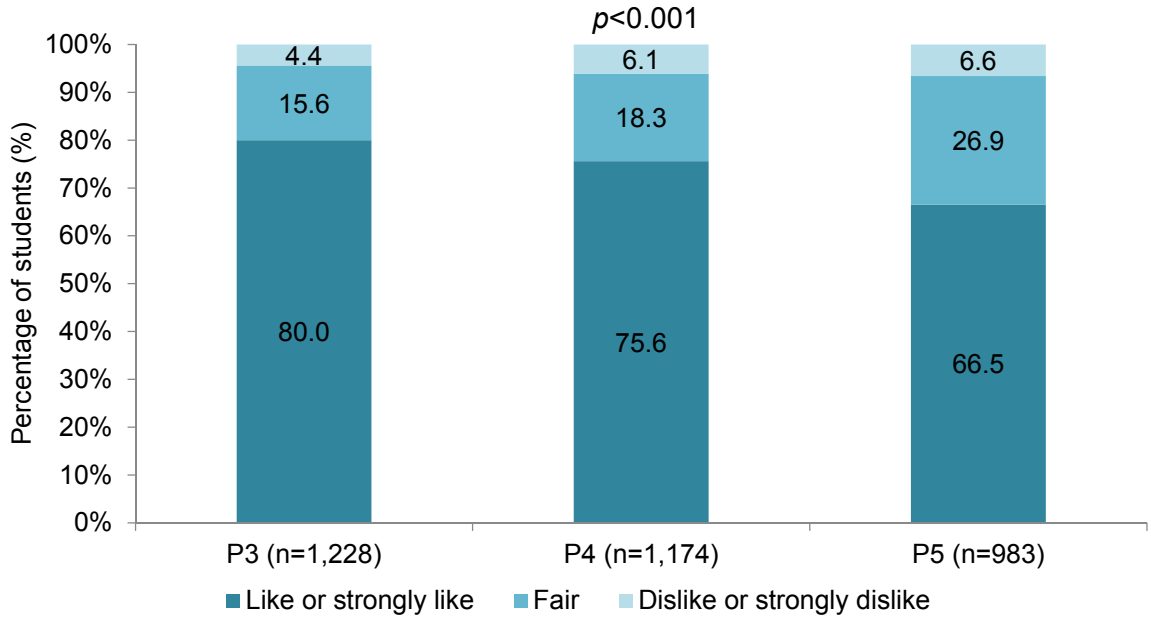


Figure 4.4b Intervention groups students' ratings on DVD by grade (n=3,385)



Students in the intervention groups were also asked about their family members' feedback. About one-third of students answered that their families had not watched this DVD. Figure 4.5 shows that of those families that had watched the DVD, 63.9% reported that their families strongly liked or liked the DVD.

Figure 4.6 shows that 46.4% of the intervention group students had discussed with their families on FDP II (15.7% had an in-depth discussion and 30.7% a brief discussion).

Figure 4.5 Ratings on DVD of family members in intervention groups who had watched the DVD (n=2,796)

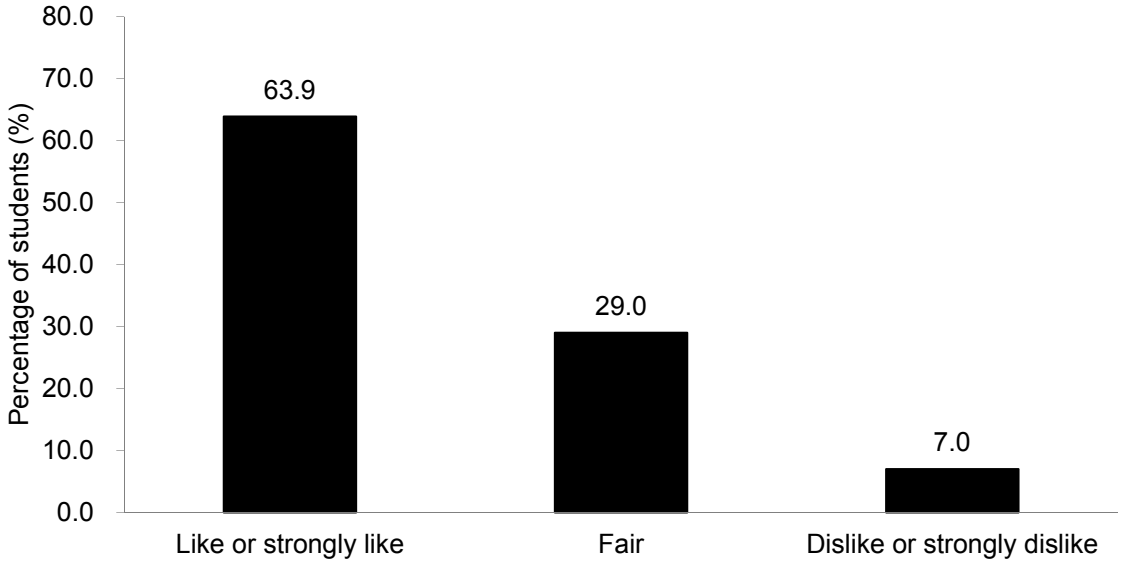
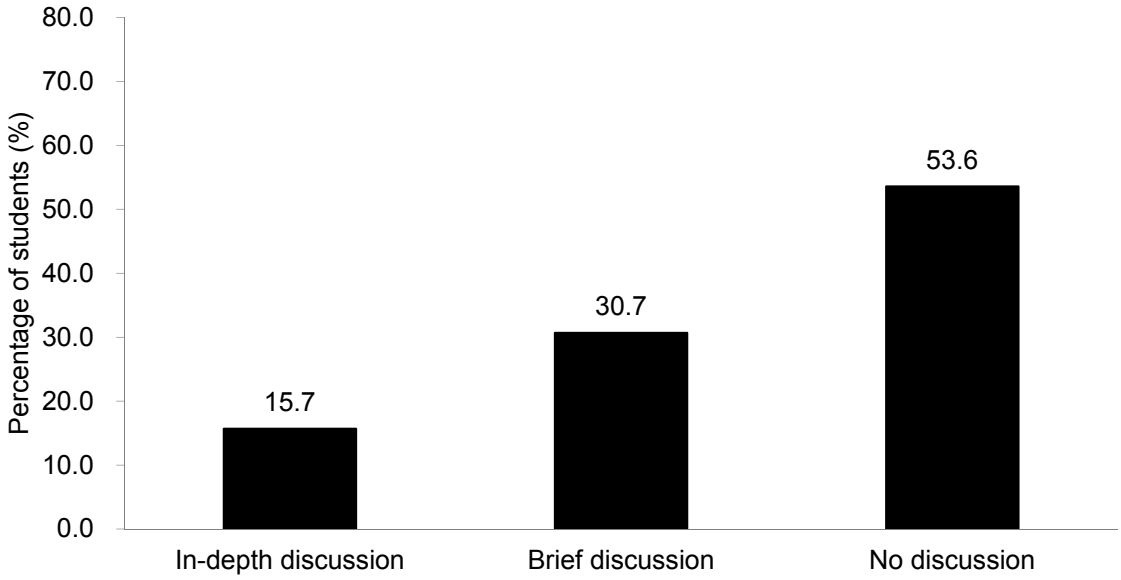


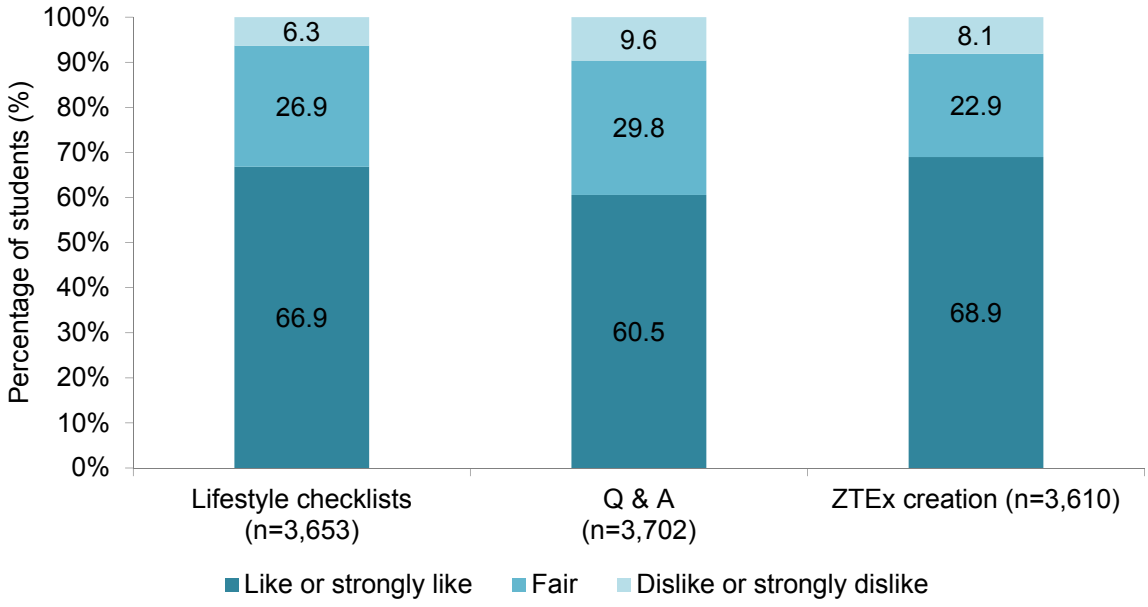
Figure 4.6 Discussion with family members on FDP II for students in intervention groups (n=4,144)



The three sections of worksheets were rated by the intervention group students (Figure 4.7a). ZTEx creation had the highest ratings (68.9% strongly liked or liked) followed by the lifestyle checklists (66.9%) and Q&A (60.5%).

Figure 4.7b shows that for all three sections, lower grade students gave significantly better ratings (lifestyle checklists: $p<0.001$; Q&A: $p=0.006$; and ZTEx creation: $p<0.001$). In addition, 31.4% of students reported that their family members had worked on the worksheets (n=1,387).

Figure 4.7a Intervention group students' rating on three sections of worksheets



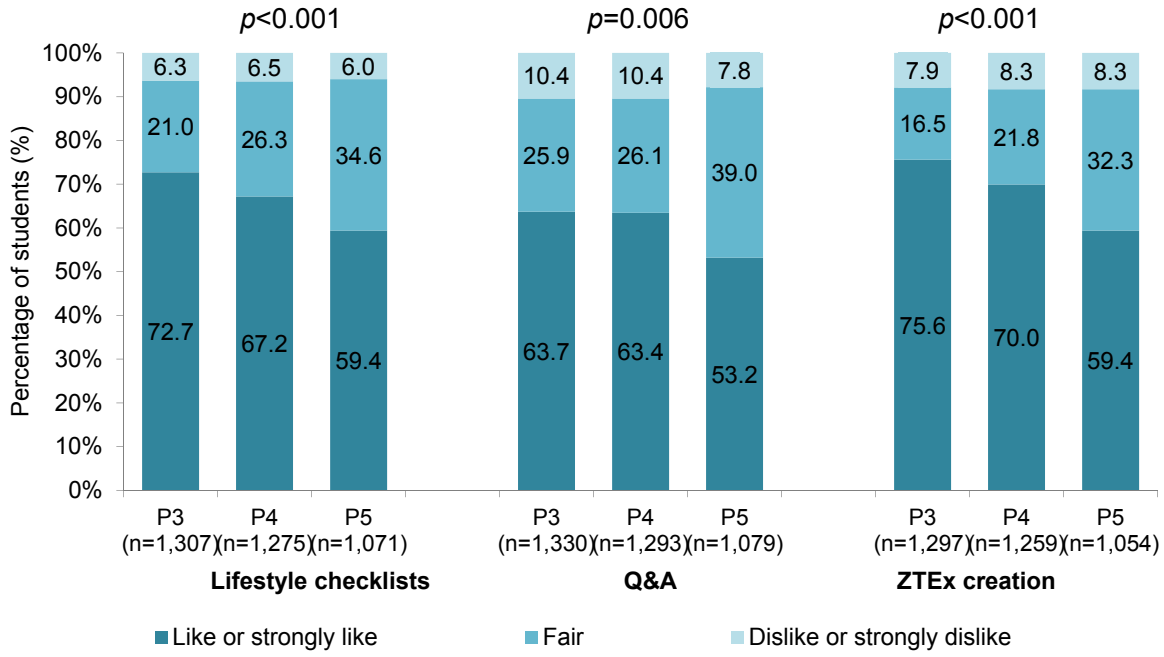


Figure 4.8 showed that about 60% of Group A and Group B students agreed or strongly agreed that the worksheets could enhance FAMILY 3Hs. The agreement of Group A students was significantly stronger (p=0.006).

Figure 4.8 Group A and Group B students' comments on "Can worksheets enhance FAMILY 3Hs?"

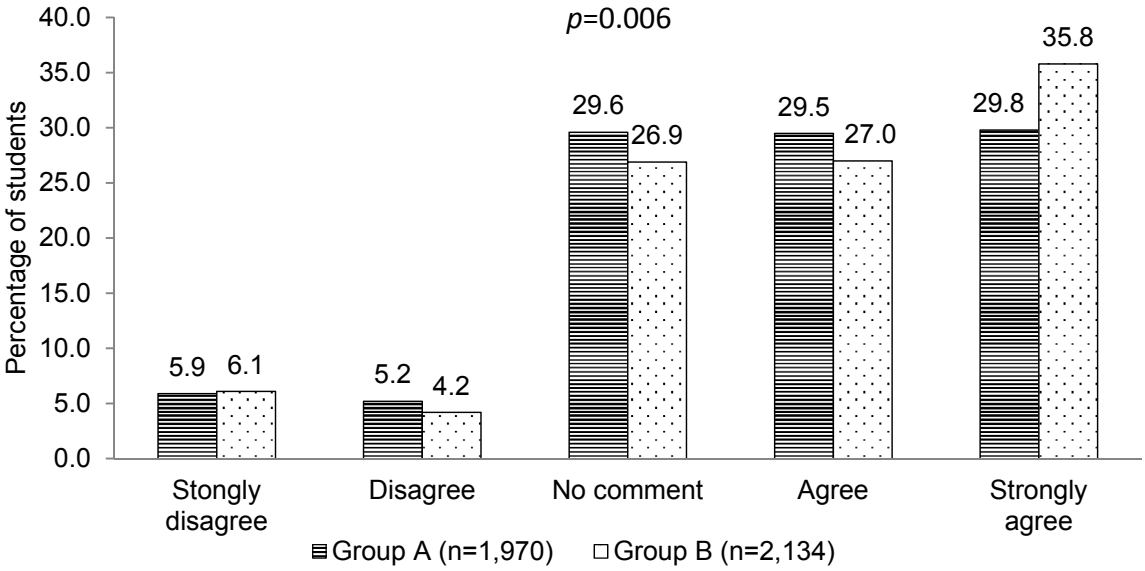


Figure 4.9 shows that about 88% of the intervention group students answered that they wanted or strongly wanted to watch a new show. More Group A students strongly wanted than Group B students, but the difference was of marginal significance (p=0.050).

Figure 4.9 Group A and Group B students' comments on "If there is a new show next time, do you want to watch?"

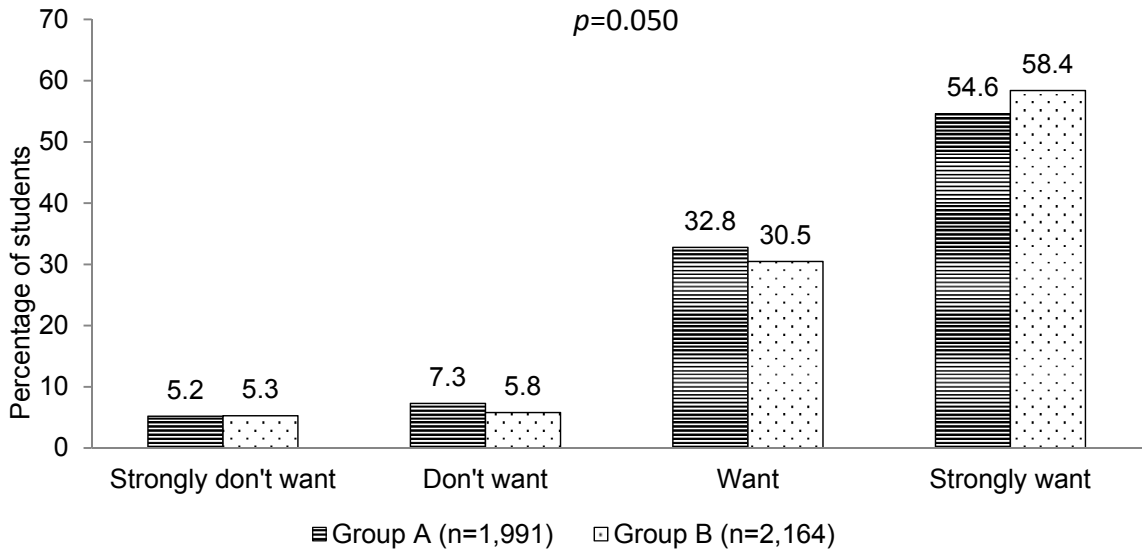
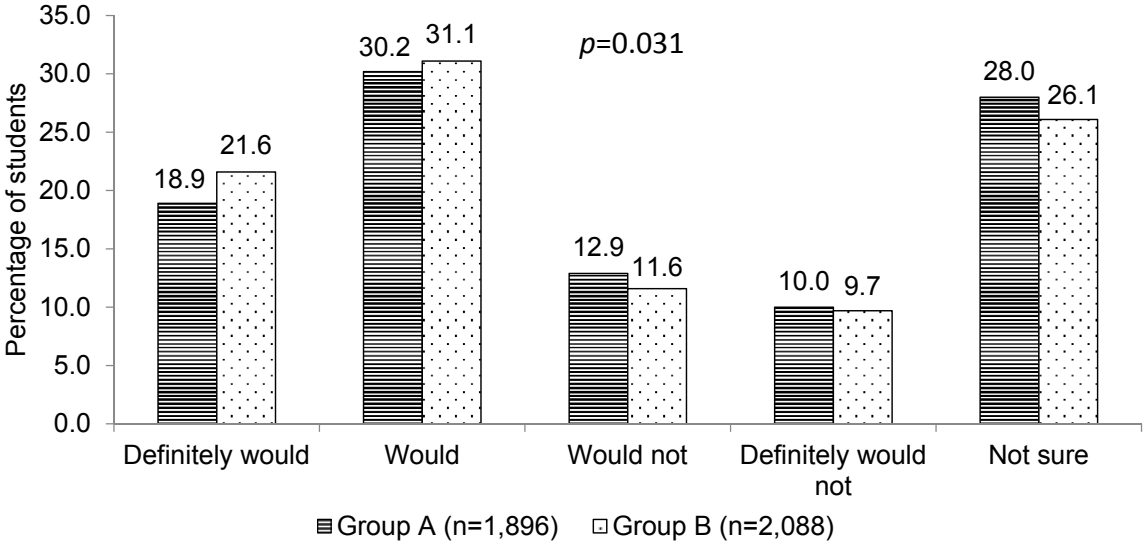


Figure 4.10 shows that about 50% Group A and Group B students would or definitely would recommend the FDP II, respectively. Significantly more Group B students would or definitely would than Group A students (p=0.031).

Figure 4.10 Group A and Group B students' answers to "Will you recommend the FDP II to others?"



4.3.2 Students' satisfaction and feedback

A total of 47 students from 8 schools participated in the focus group interview, and 23 students in the intervention group from 4 schools participated in the telephone interview (Table 4.4). Most participants enjoyed participating in the FDP II. In the interviews, they shared things they had gained from the programme and changes in the family.

Table 4.4 Demographic characteristics of students who completed the qualitative evaluation

Variable	Focus group (n=47)		Telephone interview (n=23)	
	n (%)		n (%)	
Sex				
Male	19	(40.4)	15	(65.2)
Female	28	(59.6)	8	(34.8)
Grade				
Primary 3	11	(23.4)	3	(13.0)
Primary 4	14	(29.8)	18	(78.3)
Primary 5	22	(46.8)	2	(8.7)

Table 4.5 Quotes from participants in focus group interviews

Themes	Subthemes	Quotes
Impression on the drama	The show was interesting	"我覺得呢，呢個好幽默，可以帶俾我哋好多笑聲之後呢，我最鍾意嘅就係一齊唱歌一齊跳舞嗰度。" (五年級，F02C) "I think this (show) was quite humorous, and could bring us much laughter. The part I liked most was singing and dancing together afterwards." (Primary 5, F02C) "（音樂劇入邊）做啲動作好搞笑呀…唔會呀啲詞語太深咁。" (四年級，F04A) "The actions (in the drama) were funny, and the words used were not difficult to understand." (Primary 4, F04A) "我覺得部劇就帶出咗啲訊息，例如搞笑啦，咁我哋就會記住啲搞笑，順便記埋啲訊息嘅。" (四年級，F01E) "I think this drama delivered some massages, for example, it had many funny parts, so we can remember such funny parts together with the messages at the same time." (Primary 4, F01E)

Themes	Subthemes	Quotes
	Conform with children's interest	"（鍾意呢部音樂劇）因為我好鍾意露營。" (五年級，F01F) "(I like this drama) because I like camping very much." (Primary 5, F01F)
	Popularity of songs in the show	***Meaningful lyrics*** "（歌曲）好聽。因為用返之前嗰啲舊歌，佢啲詞同字都有啲意思，譬如話嗰首生日歌係慶祝佢哋大家都和諧咁啦。" (三年級，F01C) "(The songs) were pleasant. Because the old songs used in the drama conveyed their meaning through their lyrics. For example, the "birthday song" was used to celebrate the harmony among them." (Primary 3, F01C) "覺得（歌曲）好好聽…即係俾我哋知道要食多啲水果。" (五年級，F05B) "(The songs) were pleasant…some of them made us know that we should eat more fruits." (Primary 5, F05B) ***Melody of the songs*** "我鍾意開始嗰首歌嘅旋律，因為好輕快，聽完之後好開心。" (五年級，F04D) "I like the melody of the song at the beginning, since it was lively and pleasant, and made me feel happy." (Primary 5, F04D) ***Different songs fit well*** "（歌曲）好有趣啦，同埋可以將不同嘅音樂呢，可以同啲歌詞好夾呢。" (五年級，F01F) "(The songs) were interesting, and many different songs did fit in well, the lyrics also fit in well." (Primary 5, F01F)
	Easy Acceptance	"佢成個劇本做得好自然好逼真，令人覺得好投入，唔難聽佢講嘢。" (五年級，F04E) "The whole script was performed in a natural and lively way, and made people engaged, and it was not difficult to listen to what they said." (Primary 5, F04E)

Themes	Subthemes	Quotes
	The similarity between the plot and the real life	“（鍾意）郊外嗰度，因為…嫲嫲呢…拎住包嘢自己又唔食嘅。（曾經自己屋企人）有試過（發生過類似嘅事）。” (三年級，F03B) “(I like) the scenario in the countryside because the grandma in the drama is having the pack (of drugs) but she did not take them. (My family members) had this before (similar things) had happened.” (Primary 3, F03B)
Gains from the drama	FAMILY harmony	***More communication with family*** “（我鍾意劇尾《Happy today to you》呢首歌）因為呢，咁樣可以令我知道家人和睦相處有幾重要，（今後要）同屋企人傾計咁樣囉。” (三年級，F04C) “(I like the song of “Happy today to you” at the end of the drama) because it makes me know how important to get on well with family members, (in the future I will) communicate more with family members.” (Primary 3, F04C) ***How to relieve negative emotion*** “你發脾氣時有啲解決方法，即係深呼吸咁樣呢。” (五年級，F01D) “There are some solutions when you lose your temper, such as to take a deep breath.” (Primary 5, F01D) “（音樂劇）好幫到我，因為我平時喺屋企成日發脾氣，佢（音樂劇）叫我自己深呼吸，咁我深呼吸就唔會阻住妹妹啦。咁成日發妹妹脾氣，自己做返啲嘢，會開心啲啦。” (四年級，F01E) “(The drama) helps me a lot, because I often lose my temper at home, and (the drama) teaches me to take a deep breath. And if I do so, I won’t bother my sister, I won’t lose my temper at my sister. I will do something. This makes me happier.” (Primary 4, F01E) “（音樂劇講）家庭嘅和諧，同埋佢有講過個音樂劇有講過話以前試過嗌交，深呼吸（就唔使嬲）。” (四年級，F03E) “(The drama presents) the harmony in a family. And it also tells that when we have a quarrel, taking a deep breath (no need to be angry).” (Primary 4, F03E)

Themes	Subthemes	Quotes
	Health knowledge	***Eat more healthy food and less unhealthy food*** “佢（音樂劇）教到我哋唔好成日食太多肉，都要食返啲蔬果嘅。” (三年級，F02B) “It (the drama) teaches us not to eat too much meat in our daily life, and we should eat some vegetables and fruits.” (Primary 3, F02B) “佢（音樂劇）話俾我哋聽，唔好食咁多零食呀嗰啲。” (三年級，F02F) “It (the drama) tells us that we’d better not eat too much snacks.” (Primary 3, F02F) ***Zero-time Exercise*** “（「零時間運動」）唔使花太多時間去做，仲可以慳，都唔使特別出去呀或者喺屋企做都得。” (五年級，F04E) “(ZTEx) won’t take too much time, and it can even save time. No need to go out or can do at home.” (Primary 5, F04E) ***Healthy diet and exercise*** “（音樂劇講）做多啲運動同埋少啲飲嗰啲多糖又或者食嗰啲零食多糖多鹽嗰啲。” (三年級，F03C) “(The drama tells that) do more exercise and drink less beverages with a lot of sugar, and eat fewer snacks with a lot of sugar and salt.” (Primary 3, F03C) “我會話返俾家人聽呢個訊息（即「零時間運動」同埋「二加三」），盡量去加入返，我哋食嘢嗰度，會健康啲。” (五年級，F04E) “I will tell my family members this message (i.e., ZTEx and 2+3), and try to encourage them to do so. Our diets would be much healthier.” (Primary 5, F04E)
Behaviour change after the show	FAMILY harmony	***Awareness of not arguing with family member*** “（打算之後）喺屋企唔好同佢成日嗌交，成日都同阿妹嗌交。” (四年級，F03A)

Themes	Subthemes	Quotes
		“(In the future, I plan) not to always quarrel with my sister.” (F03A, Primary 4) ***<u>Give more praise to family member</u>*** “會（多啲讚屋企人少啲彈屋企人）。” (四年級，F03A) “I will (give more praise and less criticism to my family members).” (Primary 4, F03A)
	FAMILY health	***<u>Drink less sweetened drinks</u>*** “（今後）會有改變，（會飲）少咗，大概本身如果係七罐，可能會減到五罐。” (三年級，F03B) “(In the future) would have some changes, (I will drink) less. In general, if used to drink seven cans, may reduce to five cans.” (Primary 3, F03B) ***<u>Eat less unhealthy food</u>*** “食雞唔好食皮囉。爸爸成日都叫我唔好食皮不過我成日都食嘅，因為好味。（今後會）食少啲。” (五年級，F04E) “Do not eat the skin when eating chicken. My daddy always tells me not to eat the chicken skin but I keep eating, because it is tasty. (From now on, I will) eat less.” (Primary 5, F04E) “肥左囉，所以咪食少啲，或者怕做多啲運動，就補返零食嗰條數，始終都係少食好，多食零食都係咁肥。” (四年級，F01E) “Become fatter, so eat less or afraid to do more exercise, need to eat less snacks to compensate. Anyway, it’s good to eat less, and eating more snacks can make you fat.” (Primary 4, F01E) ***<u>Encourage families to drink less unhealthy drinks</u>*** “但我爸爸成日飲啤酒，我會同佢講唔好成日飲咁多啤酒，媽咪都唔好飲。” (四年級，F05F) “But my dad always drinks beer. I will tell him not to always drink so much beer, and mummy also shouldn’t drink.”

Themes	Subthemes	Quotes
		(Primary 4, F05F) ***<u>Encourage families to eat more vegetables and fruits</u>*** “（平時）都係一家人食一個橙，都無自己（食），（今後自己食水果蔬菜會）增加。” (四年級，F05E) “(Usually,) the whole family eats one orange together, and I didn’t eat fruit by myself. I will eat more fruits and vegetables in the future.” (Primary 4, F05E) “屋企人叫我食橙啦，我媽媽就就反對，因為呢佢話橙太甜，會咳，咁呢佢就話要，要燒咗個橙。即係攞來炆，攞來煮，然之後黑矇矇好苦我唔想食，（今後）我會食其他水果囉，桃、梨、或者蘋果。” (三年級，F04C) “My family members asked me to eat oranges, but my mum disagreed with that because she said oranges were too sweet and would make me cough, and she cooked the orange. The orange became black after being simmered and cooked. I don’t want to eat that. (In the future), I will eat other fruits such as peaches, pears, and apples.” (Primary 3, F04C) ***<u>Do more exercise</u>*** “（今後）可以跑多啲。” (三年級，F03B) “(In the future) can run more frequently.” (Primary 3, F03B) “返到屋企平時呢，返到屋企我就好少做運動嘅，唔係多數，即係可能一個星期得嗰五分鐘咁囉。依家返去可能要快啲做完功課之後就做多啲運動，時間就大概一個鐘度。” (四年級，F04A) “Usually, when I came back home I seldom did exercise, that is to say, I didn’t exercise often, and maybe I used five minutes to do that in a week. Now when I come back home I may finish my homework faster and do more exercise, for about one hour.” (Primary 4, F04A) “（今後）會多咗（做運動）如果得閒嘅話，就去公園，做吓運動。” (五年級，F05A) “(In the future) I will do more (exercise), and I will go to the park to exercise if I have free time.” (Primary 5, F05A)

Themes	Subthemes	Quotes
		<u>Do Zero-time Exercise at home</u>
		“我鍾意（「零時間運動」），即係，我自己好鍾意踩單車，咁有時喺屋企好悶嘅時候咪扮下自己踩單車。” (五年級，F04D)
		“I like (ZTEx). I like cycling, and when I feel bored at home I can imitate the cycling movement.” (Primary 5, F04D)
		“我平時做功課都會做到好夜嘅，咁就無咩時間做運動，咁做功課嗰陣時可以（做「零時間運動」），即係話如果出唔到去真係要留喺嗰位度。” (五年級，F04E)
		“I often need to finish my homework until the late night, so I don’t have much time to do exercise. I can do ZTEx when doing homework, which means I can also exercise even I have to stay on the seat.” (Primary 5, F04E)
		<u>Will encourage families to do Zero-time Exercise together</u>
		“我都會鼓勵家人同我一齊做（「零時間運動」）嘅，譬如食飯，或者休息時間睇電視，都一齊。會（推介俾屋企人），我媽媽成日打機，我想叫佢打緊機嗰陣就郁下隻腳咁。”(四年級，F04B)
		“I will encourage my family members to do (ZTEx) with me such as when having dinner or watching television at the break. I will (recommend it to family members). My mum likes playing computer games. I want to ask her to move her legs while playing games.” (Primary 4, F04B)
		“爹哋就應該會唔得閒㗎啦，喺屋企睇電視，（今後同佢一起做「零時間運動」），睇下佢掂唔掂啦，唔掂都要掂。” (五年級，F01F)
		“Daddy should be too busy, when watching television at home. (In the future, I will do ZTEx with him), and I want to know whether he can do that with me. He has to do that anyway.” (Primary 5, F01F)
		“我都會鼓勵家人同我一齊做（「零時間運動」）嘅，譬如食飯，或者休息時間睇電視，都一齊。” (五年級，F04E)
		“I will encourage my family members to do (ZTEx) with me during occasions such as when having dinner or watching

Themes	Subthemes	Quotes
		television at the break, together." (Primary 5, F04E)
Suggestion on the programme	Ask questions at the end of the show	"因為當你好投入咁樣去睇緊個故事表演嗰時，突然之間問問題好似有少少，奇怪同埋，本來好想睇但係突然之間問你問題就好似，又好似好唔想答，好想再聽埋落去。有啲奇怪，下次，一係你一開頭就做啲，知唔知咩叫三 H 呀，即係問咗問題，之後到劇終嘅時候就問返個答案咁樣。" (五年級，F04D) "Because when you are absorbed in the performance and the story, you would feel strange when you are suddenly asked to answer questions. Besides, you had been wishing to watch the play and when you were suddenly asked questions, it seems like that you don't want to answer the question, and want to continue to watch the play. It's a strange feeling. Next time, you can ask questions such as 'do you know what is 3Hs?' at the beginning of the drama and ask the students to answer at the end of the play." (Primary 5, F04D) "其實呢我就覺得問咗題目之後，做完個劇先至一次過問我哋問題囉。即係我哋再講多次答案，即係嗰個話劇裡面有嗰個答案但係佢唔好問住，之後話劇完咗之後先至搵返我哋。" (五年級，F04F) "In fact, I think you can ask us the questions first, and ask us to answer the questions in one go when the play is over. That is to say, we had answered twice. They don't ask us even though the answer is presented in the play. They should ask us to answer when we finish watching the play." (Primary 5, F04F)
	Diverse topics	"我覺得可以唔好淨係關於家庭，可以關於學校或者其他嘢囉。" (四年級，F03D) "I think it don't need to be only about family. It can be linked with school or other things." (Primary 4, F03D) "可以再講多啲其他零食嘅害處。" (五年級，F05B) "More harms of the snacks can be included." (Primary 5, F05B) "可以加多少少角色，例如上堂時嘅小息，因為有啲同學會帶啲薯片，一帶就帶 2-3 包。" (四年級，F05F) "More roles can be added. For example, some classmates

Themes	Subthemes	Quotes
		bring two to three bags of potato chips when going to school and eat them during the break." (Primary 4, F05F)
	Add more funny parts	"多啲搞笑位。" (四年級，F01A) "Add more punch lines." (Primary 4, F01A) "（再）搞笑啲。" (五年級，F05F) "(Be more) amusing." (Primary 5, F05F)
	Provide more musicals on family health for the whole family	"因為如果睇多啲音樂劇，關於健康，屋企會發生嘅事件，如果俾屋企人睇吓，可能會有其他，即係其他嘅改變咁樣。" (三年級，F03B) "Because there can be other behaviour changes if more musicals on health and things that would happen at home are offered to family members." (Primary 3, F03B)
	Increase the interaction	"我同佢哋（其他小組成員）一樣，都係鍾意呢個音樂劇嘅。不過有啲可以改進，就係呢可以加強啲互動性，以再加多一啲囉。而且可以邀請啲觀眾上去一齊互動。"(三年級，F02C) "I share the opinion with them (other groupmates) that we like the musical play. But it can be improved through strengthening the interaction and you can invite some audience to the stage for interaction." (Primary 3, F02C) "可以叫啲觀眾出去幫吓手囉。" (五年級，F04F) "You can ask from some audience to come out and help." (F04F, Primary 5) "即係好似，之前去郊外，露營嗰陣嗰包藥物搵邊個，跟住又，就會有啲觀眾走出去攞藥咁樣囉。" (四年級，F04B) "For example, in the play, when they go camping at the countryside, there was a bag of medicine…and then some audience can come to get the medicine, and do stuff like that." (Primary 4, F04B) "可以試吓之前，搵定少少同學，咁表演嗰陣時就帶埋同一齊出來表演，咁可能佢哋就會覺得個同學好似，講嘢好似有少少趣味啲囉咁。" (五年級，F04D) "You can try to select a few students before the

Themes	Subthemes	Quotes
		performance and then bring them to perform together. In this way, they would think the students would be quite interesting when he is talking." (Primary 5, F04D)
	Do a show for a wider audience	"即係可能係一啲大會堂拍一套話劇，咁就可以即係大人同小朋友 都可以（睇）囉，多啲人睇。" (四年級，F03E) "You can consider filming a video in some bigger halls, and in this way, it can be watched by more audience including adults and kids." (Primary 4, F03E)
	Turn down the volume	"最尾…後面嗰度都有時好大聲。" (五年級，F01F) "Sometimes it's too loud at the end of the hall." (Primary 5, F01F) "嗰個音量可以控制一下，唔係的話前面啲同學仔呢好容易，耳仔唔係好舒服。" (五年級，F02C) "The volume should be controlled; otherwise the students sitting in the front would have some discomfort in their ears." (Primary 5, F02C) "好大聲前面係咪呀，係呀我覺得好大聲，好嘈。" (三年級，F02F) "It is too loud for people in the front, right? It's too loud and noisy for me." (Primary 3, F02F)
	Turn up the volume	"大聲啲，有啲聽唔到。" (五年級，F05A) "Speak louder, sometimes what the performers said could not be heard." (Primary 5, F05A)

The programme participants were encouraged to practise the suggested behaviours at home as a way to facilitate FAMILY 3Hs. However, the participants reported that they encountered some difficulties during the practice.

Table 4.6 Quotes from participants about difficulties

Themes	Subthemes	Quotes
Barriers in real life	Individual reasons	***Healthy food tasted bad*** "屋企人叫我食橙啦，我媽媽就，就反對，因為呢佢話橙太

Themes	Subthemes	Quotes
		甜，會咳，咁呢佢就話要，要燒咗個橙。即係攞來炆，攞來煮，然之後黑嚫嚫好苦我唔想食。” (四年級，F04C) “My family members asked me to eat oranges, but my mum disagreed with that because she said oranges were too sweet and would make me cough, and she cooked the orange. The orange became black after being simmered and cooked. I don’t want to eat that. (In the future), I will eat other fruits such as peaches, pears and apples.” (Primary 4, F04C) ***Junk food was tasty*** “（飲食方面嘅習慣）唔會（改變），因為我好鍾意食（零食嘅）味道。” (四年級，F01A) “(The habit in diet) won’t (change), because I really like the taste (of snacks).” (Primary 4, F01A) “都係唔會（改變飲食習慣）嘅，因為好味!” (五年級，F01D) “I won’t (change my eating habit), because it’s tasty!” (Primary 5, F01D)
	Influence of parents	***Lack knowledge on less vegetable consumption*** “我唔會（多食生果蔬菜），平時（嫲嫲）拜神先會食㗎，一個月咪有十次，（拜神）要有規律㗎，（平時）好少會買。” (五年級，F01D) “I won’t (eat more fruits and vegetables), Normally, I only eat them when (my grandma offers the fruits) worshipping. You know, (worshipping) should be done regularly and there are ten times in a month. (Normally) we seldom buy them.” (Primary 5, F01D) ***Money Constraints*** “蔬菜就日日都食嘅。（生果）有時會（食）啦，如果喺街市會平啲，就大約（一個禮拜食）3 日度。但如果街市無咁平，有時會（食），有時唔會囉。嗰個月佢（屋企人）有錢嘅話，就會（食多啲）。” (五年級，F01F) “We eat vegetables every day, and sometimes (eat) (fruits). If they are not so expensive in the wet market, we may eat it 3 days (in a week); if not, we cannot eat it every time. If

Themes	Subthemes	Quotes
		they (family members) have enough money in a certain month, we will eat more fruits." (Primary 5, F01F) ***Parent did not cook*** "我媽咪唔煮餸，因我媽媽平日要返工囉，（平時係）姑媽煮嘅。" (四年級，F01A) "My mum doesn't cook, because she usually needs to go to work. My auntie does it." (Primary 4, F01A) ***Parent did not do physical activity*** "通常都係阿媽帶落公園，不過都係我自己做（運動）…佢好少嘅，（媽咪）都係坐喺度…咁玩手機。通常都係我自己做（運動），我阿媽喺度玩手機，我做運動。" (五年級，F01F) "Usually my mum brings me to the park, but I often do exercise by myself. Mum seldom does because she always sits there and is absorbed in her phone, playing with her phone. Usually, I am doing exercise while my mum is playing with her phone." (Primary 5, F01F) ***Too busy to do more exercise*** "（多做運動）無可能的事（普通話），因為太唔得閒，3 個（爸爸、媽媽、自己）都唔得閒。" (四年級，F01A) "(Doing more physical activity) is impossible (in Mandarin), because we don't have enough time, all of us three (daddy, mum and myself) don't have enough time." (Primary 4, F01A)

Table 4.7 Quotes from students' telephone interviews

Themes	Subthemes	Quotes
Impressions on the drama	The show was interesting	"好睇啊，鍾意啊，因為我覺得，eh…可以用個戲劇來帶出，某種訊息會覺得好…eh…會覺得…好得意啊。" (女，四年級，PS02) "Nice show! I like it because I think…this show can bring out some messages, and I feel…it's so cute!" (Female, Primary 4, PS02)

Themes	Subthemes	Quotes
		“都 OK 嘅，鍾意，覺得，嗰個劇好搞笑啊，我鍾意…前面嗰 part，嗰個哥哥好搞笑係唔係，嗰個，同埋嗰個媽媽企喺度，嗰個拖地舞好搞笑嘅。” (女，四年級，PS06) “The play is OK. I like that, and I think…this play is so funny. I like…the beginning part. The brother in the play is so funny, and the mum and her mopping dance while standing there is so funny.” (Female, Primary 4, PS06) “好好睇，鍾意，又可以學到知識，又可以，有一啲娛樂性的音樂劇，鍾意嗰，嗰戲劇、嗰話劇同埋音樂劇。” (男，四年級，PS20) “Good drama. I like it. I can learn knowledge and enjoy when watching the entertaining musical. I like the drama, drama and musical play.” (Male, Primary 4, PS20)
	Like dancing and singing	“好睇，鍾意，我比較鍾意…佢哋一起唱歌跳舞嘅時候，因為我覺得佢哋嗰啲，歌唱嘅好好聽，仲有舞都跳得好好。” (女，四年級，PS03) “Good drama. I like it. My favourite part is…they sing and dance together, because I think they sing very nice songs and dance well.” (Female, Primary 4, PS03)
	FAMILY harmony in the drama	“好睇啊，（我）鍾意，佢哋家庭嗰部分好合拍囉。” (男，四年級，PS10) “Good drama. (I) like it. Their family work very nicely together.” (Male, Primary 4, PS10) “好睇，鍾意，有樂趣囉，佢地…佢地好團結囉。” (男，五年級，PS22) “Good drama. I like it. It has a lot of fun and they are very united.” (Male, Primary 5, PS22)
	Family communication in the drama	“鍾意嗰個表姐同嗰啲哥哥傾計嗰陣時囉，傾緊嗰個，同嗰個哥哥講嗰啲薯片好多鹽㗎。” (男，四年級，PS11) “I like watching the scene when the cousin was talking with that brother, and told him that the photo chips are high in salt.” (Male, Primary 4, PS11)
	Learn health knowledge	“好好睇，鍾意，全部部分都好鍾意，因為佢教識我嗰啲營養知識囉。” (女，四年級，PS12)

Themes	Subthemes	Quotes
		“A good drama! I like it. I like the whole drama and all parts. Because it teaches me some knowledge on nutrition.” (Female, Primary 4, PS12) “好（睇）呀，都鍾意嘅，因為佢有教育性囉，其實全部都鍾意嘅，可以令我哋明白健康同埋飲食都好重要囉。” (男，四年級，PS13) “Good play! We all like it, because it’s so educational. I like it, because it can make us know the importance of health and diet.” (Male, Primary 4, PS13) “都好睇嘅，鍾意，整體都鍾意嘅，可以帶俾大家健康嘅訊息囉。” (女，四年級，PS14) “Good play! I like it, I like the whole play. It can deliver health messages to us.” (Female, Primary 4, PS14) “好睇，其實呢全部都鍾意嘅，呢個音樂劇呢，帶俾我哋好多知識囉。” (男，四年級，PS15) “Good drama! I like the whole musical play since it can give me much knowledge.” (Male, Primary 4, PS15) “鍾意人…人嘅，我哋睇嗰陣時呢感覺到，即係有，真係有人喺度扮，唔會近視呀，多睇都唔會近視，同埋學到健康嘅資訊呢。” (男，四年級，PS18) “I like the play performed by people…when we watch the play, I saw that there were really someone playing the role, and I won’t have myopia. I won’t have myopia no matter how many times I watch, and I can learn health information.” (Male, Primary 4, PS18)
	Moved by the show	“好睇呀，鍾意，因為…有好多健康嘅內容，（最鍾意）最尾嗰部嗰個婆婆講返以前佢嘅先生死咗嘅事，有啲感動囉。” (男，四年級，PS16) “Good drama! I like it because it included many health information, and (my favourite part is) the part at the end of the play, the grandma told the story of her deceased husband. I was quite touched.” (Male, Primary 4, PS16)
Impression on the songs in the drama	Good lyrics	“唱咗啲…嗯…一啲生日歌，不過改成其他歌詞。” (女，四年級，PS03) “Sang the birthday song with the changed lyrics.” (Female,

Themes	Subthemes	Quotes
		Primary 4, PS03) “好聽，歌曲…我覺得填詞好啱囉，佢將原版個編曲呢…將佢加第二啲字，好好。” (男，三年級，PS09) “Good songs…I think the lyrics are well matched. They create new lyrics to match the original melody. Good!” (Male, Primary 3, PS09)
	Melody of the songs	“好聽，鍾意《伴我走》（準確的中文歌名為《陪我長大》）啲旋律。” (男，四年級，PS04) “Nice song! I like the melody of Go with me (the correct English name of this song is 《Growing Up With Me》).” (Male, Primary 4, PS04) “好好聽，聽到啲音樂好開心。” (女，四年級，PS12) “Very good! I feel very happy when hearing the music.” (Female, Primary 4, PS12)
	Health knowledge delivered by the songs	“都好聽嘅，係多教我一啲嘢，同埋令我，啲歌曲入面可以俾我明白更多嘅知識。” (男，四年級，PS20) “Very nice songs! The drama teaches me something and I can learn more knowledge from the songs.” (Male, Primary 4, PS20)
Impressions on the booklet in DVD	Health knowledge	“有（睇），但唔記得咗啊，鍾意（內容）啊，對自己身體（有用）。” (女，四年級，PS02) “I did (watch), but cannot remember now. I like (the content) because it is (good) for our physical health.” (Female, Primary 4, PS02) “好似係有 happiness，「零時間運動」。” (女，四年級，PS03) “There seems to be happiness and ZTEx.” (Female, Primary 4, PS03) “有（印象），踩空氣單車，每日「2+3」。” (男，三年級，PS07) “There is (an impression), on seated cycling, and ‘2+3’ every day.” (Male, Primary 3, PS07)

Themes	Subthemes	Quotes
Impressions on the worksheet	Help understand myself and family	“同屋企人做（工作紙），記錄我哋…一個禮拜食咗啲咩啊，做咗啲咩，讓自己知道囉。” (男，四年級，PS05) “Finish (the worksheet) with my family members to record what we eat and do in a week, so we can be clear about these stuffs.” (Male, Primary 4, PS05) “有（做過）呀，可以清楚自己嘅體重嗰啲，同埋啲耐力同身高囉，知道自己…清楚自己做咗運動幾多次囉。” (男，四年級，PS16) “I have (completed) the worksheet, and it can help me to be clearer about my weight, my strength and height, and know…how many times that I have done exercises.” (Male, Primary 4, PS16) “工作紙嘅作用，就俾我講，我依家嘅身體狀況。” (男，四年級，PS21) “The worksheet tells me my current physical condition.” (Male, Primary 4, PS21)
	Health knowledge	“同屋企人一齊做（工作紙），幫我可以知道，一啲關於加拿大嘅，小朋友嘅，飲食，仲有可以比較刺激，一啲「零時間運動」。” (女，四年級，PS03) “Completing (the worksheet) with family helps me know information on diet of Canadian children, and ZTEx, which is quite exciting.” (Female, Primary 4, PS03)
	Useful to myself	“有…嗰個，都係「零時間運動」嗰一頁自己做有啲作用。” (男，四年級，PS04) “I have used (the worksheet)…the content of ZTEx has some effects.” (Male, Primary 4, PS04)
Gains from the programme	FAMILY health	***<u>More healthy food and less unhealthy food</u>*** “我，記得，嗰個…表姐（劇中角色）…係…唔食好油嗰啲嘢，多啲食菜少啲食肉。” (女，四年級，PS02) “I, I remember, that…cousin (a role in the play)…she…doesn’t eat food that are high in oil, and eat more vegetables and less meat.” (Female, Primary 4, PS02)

Themes	Subthemes	Quotes
		“俾我哋知道…更加多嘅嘢囉，俾我哋唔好食咁多啲唔健康嘅食物，唔好食…啲垃圾食物，同埋要食啲健康嘅嘢同埋，三份水果兩份蔬菜。” (男，四年級，PS05) “It let us know…more things, and teaches us not to eat so much unhealthy food, and junk food, and we should eat healthy food and obey the rule of ‘three servings of fruits and two servings of vegetables’.” (Male, Primary 4, PS05) “唔可以食啲唔健康嘅食物啦，要保重身體，話俾我哋知…唔可以食嗰啲唔健康嘅食物囉，要食多，要食多啲蔬果，遵守…日日都食「2＋3」,「少鹽少糖」法則，因為日日食兩個蘋果三份蔬菜呢，對我哋人體好重要嘅。” (男，三年級，PS09) “We shouldn’t eat unhealthy food, and should pay attention to our health. It tells us that…we should eat more vegetables and fruits instead of unhealthy food, and obey…the rule of ‘2+3’ and ‘less salt and sugar’, because eating two apples and three servings of vegetables are quite important for our body.” (Male, Primary 3, PS09) “（「2+3」係）兩份蔬菜，三份水果，（少食啲）零食，即係飲食嗰方面（有用），例如食飯嗰陣時或者係少啲出街食飯囉，因為出面嗰啲食物大多數都係多鹽或者多糖多油嗰啲。” (男，四年級，PS13) “(‘2+3’ means) two servings of vegetables and three servings of fruit, and it is useful in the diet. For example, it makes me have healthier diet, and reduce my chances to eat outside, because food in the restaurant often is high in salt and sugar or oil.” (Male, Primary 4, PS13) “兩份…兩份生果…個嗰俾我諗諗下，三份水果…3 份水果囉，唔好食嗰啲垃圾食物囉，（少飲）汽水嗰啲，（同埋）油炸食物。” (男，四年級，PS16) “Two servings…two servings of fruits…I need to consider this…three servings of fruits…three servings of fruits. I shouldn’t eat junk food. (I need to have less) soda and deep-fried food.” (Male, Primary 4, PS16) ***Healthy diet knowledge*** “佢講緊教我哋嗰啲可樂有幾多糖，薯片有幾多鹽，三份蔬菜，兩份水果。” (男，四年級，PS11)

Themes	Subthemes	Quotes
		"It teaches us the quantity of sugar in cola, the quantity of salt in potato chips, three servings of vegetables and two servings of fruits." (Male, Primary 4, PS11) "「2+3」嗰啲蔬果嗰啲肉類少啲食嗰啲囉，因為我平時呢食嗰啲 A 餐好多肉嘅，咁你如果食得多肉呢，咁脂肪多咗就好容易有心臟病，所以要令我哋唔好成日食肉囉，咁就減少心臟病。" (男，五年級，PS22) "'2+3' means vegetables…means we should eat less meat. Because the A set I often have in school includes much meat. If you eat much meat, you are likely to have heart disease because you eat too much fat. So, we shouldn't eat so much meat, and it can reduce heart disease." (Male, Primary 5, PS22) "講過要唔好食啲「三高」嘅食品，同埋高鹽份，同埋可樂入面有 7.5 份糖，同埋要多食水果。" (男，四年級，PS20) "The drama tells us not to eat "3 high" food, and high salt. And there are 7.5 servings of sugar in cola. And we should eat more fruits." (Male, Primary 4, PS20) ***<u>Lose weight</u>*** "要做好多唔同嘅運動，如果做多啲運動啦，可以減肥。" (男，四年級，PS01) "We should do more various exercises. If so, it can help us lose weight." (Male, Primary 4, PS01) ***<u>Zero-time Exercise</u>*** "佢（劇中角色盈盈表姐）呢，話呢佢自己有小小便秘…之後…仲講咩「零時間運動」，無論咩時候都可以做嘅。" (女，四年級，PS02) "She (the cousin, Yingying, in the drama) said she had constipation sometimes…and then introduced ZTEx…and it can be done at any time." (Female, Primary 4, PS02) "「零時間運動」有空氣踩單車，仲有小馬步，可以讓我身體強壯啲。" (女，四年級，PS03) "ZTEx includes cycling in the air (foot pedalling) and small knee bending. It can help me have stronger body."

Themes	Subthemes	Quotes
		(Female, Primary 4, PS03) “做多啲運動，仲有話要做「零時間運動」喎，踩空氣單車、踭踭腳、單腳站立。” (男，三年級，PS09) “It tells us to do more exercise, and do ZTEx including cycling in the air (foot pedalling), leg fidgeting and single leg stance.” (Male, Primary 3, PS09) “因為可以推廣一啲「零時間運動」，令到我哋可以一路做其他嘢一路做「零時間運動」，（工作紙）可以令到你知道近排做運動嘅時數嗰類囉。” (女，四年級，PS14) “Because it can promote ZTEx, which can make us exercise while doing other things. (The worksheet) can make you know the time that you spend on exercise recently.” (Female, Primary 4, PS14) “（做多啲）運動囉…唔使花時間唔使花錢嗰個運動囉。” (男，四年級，PS16,) “(Do more) exercise. And do the exercise…that requires no extra time and money.” (Male, Primary 4, PS16) “嗰個「零時間運動」，即係零時間、零金錢、咩咩咩零器材。” (男，四年級，PS21) “ZTEx, means zero time, zero money, and…what…what…zero equipment.” (Male, Primary 4, PS21) “即係嗰啲空腳咁踩單車，扮踩單車個啲，鍾意嗰個「零時間運動」，因為就算無嘢做都可以做多啲「零時間運動」來讓身體健康啲。” (男，五年級，PS22) “It includes cycling with only the legs or imitating riding a bike. I like ZTEx, because you can do more ZTEx to boost your health when you have nothing to do.” (Male, Primary 5, PS22)
	FAMILY harmony	***<u>More praise and less criticism</u>*** “學習（咗）「多讚少彈」。” (男，三年級，PS09) “(Have) learnt ‘more praise and less criticism’”. (Male, Primary 3, PS09)

Themes	Subthemes	Quotes
		“要對屋企人好啲囉。” (男，四年級，PS15) “Should be kind to family members.” (Male, Primary 4, PS15) “讚…讚大家囉。” (男，五年級，PS23) “Praise…praises all.” (Male, Primary 5, PS23)
Changes in FAMILY Health after the show	Physical Activity (ZTEx and moderate physical activity)	***<u>Lose weight</u>*** “有（健康咗），瘦咗少少，可能…都係做咗啲運動囉。” (男，四年級，PS16) “Yes, (healthier). I lost a little weight. Maybe…due to the exercise.” (Male, Primary 4, PS16) “有（健康咗），唔會咁肥囉，踩空氣單車，踎腳，做運動，跑步。” (女，四年級，PS17) “Yes, (healthier). I won’t be so fat after doing cycling in the air (foot pedalling), leg fidgeting, doing exercise and running.” (Female, Primary 4, PS17) ***<u>Do more exercise</u>*** “成日呢…落公園嗰度呢…玩嗰啲，即係跑步啊，踩…踩單車嗰啲囉，以前呢…我係呢…覺得自己跑得好慢，依家跑步可以跑嘅快啲啦。” (男，四年級，PS01) “I go to the park…to run, or ride the bike always. In the past…I…think I ran slowly, but now I can run faster.” (Male, Primary 4, PS01) “都…有時都會…日日都會做運動囉，例如…跑步都係。” (男，三年級，PS09) “Yes…sometimes I will…do exercise every day. For example, jogging every day.” (Male, Primary 3, PS09) “踩空氣單車、踎腳、做運動、跑步（比之前）跑快咗，（一個禮拜跑）多咗一次。” (女，四年級，PS17) “Doing cycling in the air (foot pedalling), leg fidgeting, doing exercise, running faster (than before), and one more time running (in a week).” (Female, Primary 4, PS17)

Themes	Subthemes	Quotes
		<u>Encouraged families to do exercise</u>
		“叫佢哋（屋企人）做多啲運動，（自己）同佢哋一起做，做返哋普通，玩呼拉圈囉，做多咗少少「零時間運動」啦，咩嘢都會做吓。” (女，四年級，PS02)
		“Ask them (family members) to do more exercise, and (I) will do common exercise together with them, including hula hooping, doing more ZTEx and other exercises.” (Female, Primary 4, PS02)
		“夜晚爹哋帶我去公園跑步囉。” (男，四年級，PS05)
		“My daddy brings me to run in the park at night.” (Male, Primary 4, PS05)
		“會叫屋企人做多啲運動，之前做好少運動依家做多咗，（依家）一個禮拜三四次，之前…唔會做嘅，出街跑下步嗰啲，如果喺屋企嘅話得閒就做嗰啲空氣單車囉。” (男，四年級，PS16)
		“I would encourage family members to do more exercise. In the past, seldom did exercise but now do more, and almost three or four times in a week. Previously…wouldn’t do that. For example, now go outside to run, or do cycling in the air (foot pedalling) at home.” (Male, Primary 4, PS16)
		“會（健康咗）呀，我屋企人多咗做運動囉，本身都有做運動嘅，不過就經常咗，做多咗運動，跑步游水嗰類，同埋「零時間運動」。” (女，四年級，PS14)
		“Yes, (healthier). My family members now do more exercise. They did exercise in the past, but now they do more often, such as run, swim and ZTEx.” (Female, Primary 4, PS14)
		<u>Do Zero-time Exercise</u>
		“一個禮拜有五次（「零時間運動」）。” (男，四年級，PS04,)
		“Five times a week (ZTEx).” (Male, Primary 4, PS04)
		“踩空氣單車，自己一個，（一個禮拜）四次啊。” (男，三年級，PS07)
		“Doing cycling in the air (foot pedalling) by myself four times (in a week).” (Male, Primary 3, PS07)

Themes	Subthemes	Quotes
		“做功課嗰陣時我眼瞓可以做埋啲「零時間運動」啦，劫嗰陣時，可以踩空氣單車，因為坐耐咗腳酸。” (男，四年級，PS18) “When I feel sleepy in doing homework I can do ZTEx. And when I feel tired I can do seated cycling since my feet would feel numb if remain seated for too long.” (Male, Primary 4, PS18) “減咗肥，做嗰啲「零時間運動」同埋去公園，日日做 20 分鐘。” (男，四年級，PS05) “I have lost weight through doing ZTEx and going to the park, for 20 minutes every day.” (Male, Primary 4, PS05) ***<u>Do exercise with families together</u>*** “有時會做吓「零時間運動」囉，一個禮拜六日度，有時都會（同屋企人一起做）囉。” (女，四年級，PS12) “Sometimes I do ZTEx. Sometimes I do it (with family members), six days in a week.” (Female, Primary 4, PS12) “會（同屋企人一起做）做多啲「零時間運動」咁樣。” (女，四年級，PS14) “I would (with family members) do more ZTEx.” (Female, Primary 4, PS14) “有時候會出去玩吓咁，去跑吓，有同媽咪同阿妹一齊出去玩。” (女，四年級，PS19) “Sometimes I would go out to play and run, with mum and sister.” (Female, Primary 4, PS19)
	Diet (2+3, less junk food, less salt and sugar)	***<u>Healthy diet habit</u>*** “以前呢…我就呢…食早餐就唔食啦，食好多嗰啲午餐啲咩炸豬扒啊嗰啲…依家呢，就早餐就食嘅多啲，午餐就唔好食咁多啦，同埋唔好食嗰啲咩炸豬扒，即係食嗰啲即係好多菜嗰啲。” (男，四年級，PS01) “Previously…I…didn’t eat breakfast, and eat unhealthy food such as fried pork chops at lunch…now, I eat more during the breakfast, eat less at lunch and eat those with more vegetables instead of fried pork chops.” (Male, Primary 4, PS01)

Themes	Subthemes	Quotes
		“每日媽咪…晏晝…就整多啲菜落個飯盒嗰度，跟住夜晚，再送啲生果過來來，無食咁多零食囉，本身食…五…五六樣，依家食幾樣囉，食嗰啲魷魚絲。” (男，四年級，PS05) “Mum would prepare more vegetables and put them in the lunch box…at noon…every day. And in the evening, she would bring me some fruits. I do not eat so much snacks now. I used to eat five or six kinds of snacks, but now only eat a few, such as shredded squid.” (Male, Primary 4, PS05) “我嗰度啲工作紙呢，就有啲 tick 話，哎，家人嗰啲唔吸煙嗰啲呢我仲第一個禮拜…開始我得 15 個 tick，第四個禮拜我 19 個 tick 啊，代表我…我哋屋企啲生活習慣，變好咗啦。” (男，三年級，PS09) “On the worksheet, there are some ticks representing no smoking of family members. In the first week, I got 15 ticks, but in the fourth week, I got 19 ticks. It represents that…the living habit in my family has become better.” (Male, Primary 3, PS09) ***<u>Less unhealthy food/drink</u>*** “依家唔飲可樂啊，食嗰啲薯片啊嗰啲都唔會食，（以前）大概啊…一日食…幾包到啦，汽水我有時都會飲，但係…依家都唔鍾意飲啦。” (男，四年級，PS01) “Now I don’t drink cola, and don’t eat potato chips. (In the past), I…almost…ate several bags of potato chips every day, and even drank soda sometimes, but…I don’t like to drink that now.” (Male, Primary 4, PS01) “少啲食零食個啲，成日都出街買嘅，依家都少咗啊，平時都係一日差唔多兩包薯片，依家就少咗啦，因為覺得卡路里啊鹽啊油啊嗰啲都幾高。” (男，四年級，PS10) “I eat less snacks now. In the past, I often went out to buy snacks. I eat less snacks instead of almost two bags of potato chips in the past, because the potato chips are high in calorie, salt and oil.” (Male, Primary 4, PS10) “飲少咗汽水，（一個禮拜）飲少咗三次，因為…有好多糖。” (女，四年級，PS17) “I drink less soda, and reduce three times (in a week), because…it has lots of sugar.” (Female, Primary 4, PS17)

Themes	Subthemes	Quotes
		Encouraged families to eat less unhealthy food
		“有時會叫啊媽咪呢…煮餸嘅時候放少啲油啊糖啊鹽啊。” (女，四年級，PS02)
		“Sometimes I would ask mum to put less oil and sugar and salt when cooking.” (Female, Primary 4, PS02)
		“會（同屋企人一起做），譬如少啲食零食，少啲…食糖鹽嗰類唔健康嘅食物。” (女，四年級，PS14)
		“I would (do together with my family members). For example, eat less snacks and unhealthy food such as foods that are high in sugar and salt.” (Female, Primary 4, PS14)
		“食少啲嗰啲垃圾食物，少去買嗰啲多鹽嗰啲嘢囉，叫佢哋（屋企人）呢一日唔好食咁多（垃圾食物）囉。” (男，四年級，PS15)
		“Eat less junk food and buy less foods that are high in salt, and ask them (family members) not to eat so much (junk food) every day.” (Male, Primary 4, PS15)
		“屋企人（依家）無食零食，一個禮拜食啲啲，同佢哋講個音樂劇跟住呢就食少啲。” (男，四年級，PS04)
		“My family members (now) don’t eat snacks. They only eat a little in a week. And they even eat less after I told them about the musical play.” (Male, Primary 4, PS04)
		More fruits and vegetables
		“多咗水果啦同埋…多食咗嗰啲蔬菜，少啲食嗰啲油炸食物都係。” (男，四年級，PS13)
		“Eat more fruits and vegetables, and less deep-fried food.” (Male, Primary 4, PS13)
		“都有（健康咗），即係…多咗水果啦同埋…多食咗嗰啲蔬菜，少啲食嗰啲油炸食物都係。” (男，四年級，PS13)
		“Yes, (become healthier). Because we eat more fruits and vegetables and eat less deep-fried food.” (Male, Primary 4, PS13)

Themes	Subthemes	Quotes
		<u>Encourage families to eat more fruits and vegetables</u>
		“會叫屋企人食多啲生果。” (男，四年級，PS16)
		“I would ask family members to eat more fruits.” (Male, Primary 4, PS16)
		“我覺得有用，因為之前呢，我就無呢個概念啦，二果三菜呢個自從聽咗呢，多食咗好多橙，同埋家人都有，我哋都有互相鼓勵。” (男，四年級，PS18)
		“I think it is useful because I didn’t have such concept on two servings of fruits and three servings of vegetables previously. Since I have heard it, I eat much more oranges, my family members also, we also encourage each other.” (Male, Primary 4, PS18)
		<u>Healthier</u>
		“無咁容易生病，因為我哋，每日都食…健康嘅食物，每日都食二果三菜仲有多菜少肉。” (女，四年級，PS03)
		“It is not so easy to get sick because we eat healthy food every day and eat two servings of fruits and three servings of vegetables and more vegetables and less meat.” (Female, Primary 4, PS03)
		“健康咗，因為，我以前都跑得好快，依家跑得更快，（因為）食咗…嗰啲蔬菜囉，食多咗，少食咗啲零食囉，量同埋次數都有改變，本身一個禮拜就係，日日都食嘅，第一個就係…我仲係食，例如嗰啲，蛋糕啊，我就會食，一兩包嘅，不過我依家呢，我淨係…星期一至五食啊。” (男，三年級，PS09)
		“Become healthier. I used to run fast and now much faster since I have eaten more vegetables and less snacks. Both the quantity and times of eating snacks have changed. I once ate every day in a week. The first is…I still eat, like cakes I would eat, one to two packs. But now, I only eat from Monday to Friday.” (Male, Primary 3, PS09)
		“屋企人無食零食，健康咗。” (男，四年級，PS04)
		“My family members don’t eat snacks and become healthier.” (Male, Primary 4, PS04)

Themes	Subthemes	Quotes
		“有（健康咗），自己同屋企人都有呀，就係…會少咗病囉。” (女，四年級，PS12) “Yes, (become healthier). Both me and my family members become healthier and have less illness.” (Female, Primary 4, PS12)
	Health habit	“可以提高身體上的健康，同埋可以令身體健康一啲囉，多做運動同多食水果，我幾乎全部都有，鼓勵屋企人呀，多食水果，同埋同佢哋一齊做運動，因為平時都係素食為主， 其實我哋都好少喺度， 即係會係清菜上面加少少肉就會係咁，同埋都會開始食清淡一啲，食少少粥。” (男，四年級，PS20) “It can enhance the health of my body, and it can make my body healthier. I almost have all, including doing more exercise, eating more fruits. And I also encourage family members to eat more fruits and do exercise together with them. We often have vegetables mainly and seldom eat meat. And only a little meat would be put on the vegetables. And we begin to eat lighter food and eat some congee.” (Male, Primary 4, PS20)
Changes on FAMILY harmony after the show	More praise	“媽咪有時會讚我囉。” (女，四年級，PS02) “Mummy sometimes praises me.” (Female, Primary 4, PS02) “媽咪爹哋多咗讚我。” (女，四年級，PS03) “Mummy and Daddy praise me more.” (Female, Primary 4, PS03) “（屋企人）多讚咗我囉。” (男，四年級，PS21) “(My family members) praise me more.” (Male, Primary 4, PS21)
	Less conflict	“家庭…嘅…氣氛改變咗，少咗會一家人嗌交。” (女，四年級，PS03) “The atmosphere at home changes, and there is less quarrel.” (Female, Primary 4, PS03) “有（和諧咗），（依家）好少鬧人囉。” (男，四年級，PS11) “Yes, (more harmonious). (Now) less scolding people.” (Male, Primary 4, PS11)

Themes	Subthemes	Quotes
		“有（和諧咗），（以前）老豆又成日鬧我啦，同埋屋企成日發生嗌交，依家減少咗好多，我哋兩方面都有（改變）。” (男，四年級，PS18) “Yes, (more harmonious). (Previously), my daddy often scolded me and there were often many quarrels at home, and now there are less. We have changes in both sides.” (Male, Primary 4, PS18) “有（和諧咗），即係（老豆）唔會，少啲鬧我囉，都會包容一下我。” (男，四年級，PS20) “Yes, (more harmonious). (My daddy) won’t…I mean, scolds me less and is more tolerant of me.” (Male, Primary 4, PS20)
	More communication with family	“有（和諧咗），可能分享喺學校做過啲咩啫係多啲同屋企人溝通。” (男，四年級，PS13) “Yes, (more harmonious). I may share what happens at school and have more communication with family members.” (Male, Primary 4, PS13)
	More interaction with family	***Entertain with families together*** “有（和諧咗）啊，日日都係坐埋一起睇電視囉。” (男，四年級，PS01) “Yes, (more harmonious). We sit together to watch television every day.” (Male, Primary 4, PS01) ***Do homework with parents together*** “有（和諧咗），有時候呢，我唔識功課嗰陣時候呢，爸爸都會教我呀。” (男，四年級，PS15) “Yes, (more harmonious). Sometimes dad would teach me when I don’t know how to do my homework.” (Male, Primary 4, PS15) ***Parents’ companionship*** “有（和諧咗），阿媽有成日陪我去做運動，陪我跑步啦，平時跑都係自己一個人。” (男，四年級，PS18) “Yes, (more harmonious). Mum often accompanies me to

Themes	Subthemes	Quotes
		do exercise such as running. Usually I ran alone." (Male, Primary 4, PS18)
	Better relationship	"有（和諧咗）呀，好少鬧交囉，可能…因為…傾多咗計囉，關係好咗好多。" (男，四年級，PS16) "Yes, (more harmonious). Fewer quarrels, maybe because we talk more and the relationship becomes better." (Male, Primary 4, PS16)
Changes on family happiness after the show	More praise	"有（開心咗，因為）媽咪爹哋多咗讚我。" (女，四年級，PS03) "Happier. Mum and Daddy praise me more." (Female, Primary 4, PS03) "開心咗少少囉，（因為）媽咪有時會讚我囉。" (女，四年級，PS02) "A little bit happier. (Because) mum sometimes praises me." (Female, Primary 4, PS02) "有（開心咗）啊，成日同屋企人（互相）稱讚囉。" (男，四年級，PS16) "Yes, (become happier). My family members and I often praise (each other)." (Male, Primary 4, PS16)
	Less conflict	"有（開心咗），唔會咁多嗌交，屋企人（改變先）咗。" (男，四年級，PS01) "Yes, (become happier). Would not have much quarrel and my family members have changed first." (Male, Primary 4, PS01) "以前成日同阿哥嗌交，少咗囉。" (男，三年級，PS07) "Previously, I often argued with my brother, but now much less than before." (Male, Primary 3, PS07) "都有（開心咗），以前有小小嗌交依家無乜啦。" (男，三年級，PS09) "Yes, (become happier). We had small conflicts before but now we no longer have that." (Male, Primary 3, PS09)

Themes	Subthemes	Quotes
	More communication with family	“有（開心咗），一起去公園，一起傾下計啊。” (男，四年級，PS05) “Yes, (become happier). We go to the park, chat together.” (Male, Primary 4, PS05) “有（開心咗）呀，即係同屋企人一齊分享嗰啲開心嘅嘢。” (男，四年級，PS13) “Yes, (become happier). I can share something happy with family members.” (Male, Primary 4, PS13) “有（開心咗），有時會識得同老豆傾計，之前就好少。” (男，四年級，PS18) “Yes, (become happier). Sometimes I would know how to talk with my daddy and previously I seldom did that.” (Male, Primary 4, PS18) “應該會有（開心咗），成日都一齊傾計囉，傾下學校發生咗啲咩事囉。” (男，五年級，PS22) “Should be (happier). We often talk on what has happened at school.” (Male, Primary 5, PS22)
	More interaction with family	“有（開心咗）啊，得閒嗰陣時候呢，同佢哋做「零時間運動」。” (男，四年級，PS15) “Yes, (become happier). When I am free, I would do ZTEx with them.” (Male, Primary 4, PS15) “有（開心咗），有一齊，當我攞咗嗰個啞鈴就同屋企人一齊分享來玩。” (女，四年級，PS19) Yes, (become happier). When I get a dumbbell, I share it with my family and we all enjoy playing together. (Female, Primary 4, PS19) “都有（開心咗）嘅，都會同我一齊溫習同埋做功課，咁樣會做功課啦好啲，同埋都會同我哋搵啲戲同我哋一齊睇。” (男，四年級，PS20) Yes, (become happier). (My family) would accompany me to go over the lesson and do homework, and I can do my homework better. Also, they would look for some movies and watch with me. (Male, Primary 4, PS20)

Themes	Subthemes	Quotes
	Better mood	“會（開心咗），唔會成日鬧交同埋心情會好咗，可能係做多咗運動，令到自己開心啲囉。” (女，四年級，PS14) “I am (happier). There is not much quarrel all day and the mood is better. Maybe because I do more exercise and make me happier.” (Female, Primary 4, PS14)
Suggestion on the programme	Worksheet	“工作紙應該可以有多啲運動（題目）。” (男，四年級，PS01) “More exercises should be included in the worksheet.” (Male, Primary 4, PS01) “如果可以改呢，我鍾意創作，鍾意創作嗰啲「零時間運動」囉。” (男，三年級，PS09) If there can be some changes, I would like to…create more ZTEx. (Male, Primary 3, PS09)
Difficulties	Lack family interaction	“佢（屋企人）無睇（DVD）啊，因為我無播。因為我唔會播呢啲俾佢睇，因就算係。，因就算我播佢哋都唔睇囉。因為我爸爸好夜放工。 我媽媽又淨識喺 Facebook 度同人傾計。哥哥又喺度玩手機。 所以播咗佢哋都唔睇。” (男，五年級，PS22) “They (my family members) didn’t watch (DVD) because I didn’t show it to them. I won’t show it to them because even I try they won’t watch it. My daddy comes home from work late at night, my mum only talks with others on Facebook, and my brother is playing with his phone, so they won’t watch even I show it to them.” (Male, Primary 5, PS22)

4.3.3 Parents’ satisfaction and feedback

Table 4.8 shows that the basic characteristics of the parents who completed the qualitative evaluation. A total of 12 parents participated in the telephone interview. In the discussion, they talked about their opinions about the programme, things they had gained from the programme, changes in the family as well as views on the FDP II.

Table 4.8 Demographic characteristics of parents who completed the qualitative evaluation (n=12)

Variable	n (%)
Parent role	
Father	0 (0.0)
Mother	12 (100)
Age group (years)	
30-39	4 (33.3)
40-49	8 (66.7)
Number of bedroom(s)	
1 bedroom	3 (25.0)
2 bedrooms	6 (50.0)
3 bedrooms	3 (25.0)
Family economic status	
Low	1 (8.3)
Mid-low	4 (33.3)
Middle	6 (50.0)
Mid-high	1 (8.3)
Monthly household income[a]	
≤$9,999	3 (27.3)
$10,000-$19,999	4 (36.4)
$20,000-$29,999	1 (9.1)
$30,000-$49,999	3 (27.3)
Work status/occupation	
Management and administrative staff	1 (8.3)
Service and sales	1 (8.3)
Housewife	3 (25.0)
Unemployed	3 (25.0)
Other industry	4 (33.3)

[a] n(missing)=1

Table 4.9 Quotes from parents' telephone interviews

Themes	Subthemes	Quotes
Impressions on the programme	Drama (DVD)	***More exercise*** "即係都有啲…都有啲幫助啦，都係做多啲運動都係健康啲囉，即係俾佢認識到，即係話運動…對身體都有好處嘅咁囉。" (母親，PP01) "It is helpful. Doing more exercise makes a healthier body. The play makes the children know that physical activity…is beneficial for health." (A mother, PP01) "幾好啊，幾好睇啊，都鍾意嘅，即係佢表達啲訊息啦，咩都幾啱小朋友睇吓啦，咩嗰啲，做運動呢啲。" (母親，PP04) "It's good! Nice drama! We like it. The messages delivered such as doing exercise are suitable for children." (A mother, PP04) ***Increase children's' health awareness*** "我諗應該對小朋友有幫助嘅，可能佢會透過啲遊戲認識到啲運動對人嘅健康…知道運動嘅重要啦，喺嗰段時間，即係嗰個活動期間啦，你認識咗之後對你日後嗰個意識都有幫助嘅。" (母親，PP03) "I think it would be helpful for children because they could understand the importance…of physical activity for people through the games during the activity. During that time, the time of the activity, after you have learnt that, can help raise your awareness in the future." (A mother, PP03) ***Suitable for children*** "好睇，小朋友都好鍾意睇，因為都係其實 target 係俾小朋友嘅嘛，咁我陪佢一起睇嘅，都 OK，佢哋（小朋友）心動啲囉有時，講下笑話啊咁樣囉。" (母親，PP06) "Good! The children like it a lot, because it targeted kids, and I feel OK to watch with my child. And he was sometimes touched by the drama, telling jokes." (A mother, PP06) "睇過，睇過幾次啦，佢（個女）有一排成日攞來睇，我個女好鍾意睇，（我）都 OK（鍾意）啊，因為佢可以教細路仔注意有咩嘢啊…如果唔係…我個仔好鍾意食肉嘛，我仔好鍾意

Themes	Subthemes	Quotes
		食肉，好肥㗎都。” (母親，PP08) “I have seen it. I have seen it for several times. She (my daughter) likes it very much and for a period of time she often watches it for a while. I also like it. Because it can teach children what should be paid attention to…otherwise…my son likes meat a lot. He really likes meat, and he’s quite fat.” (A mother, PP08) ***<u>The show was interesting</u>*** “都好睇㗎，幾搞笑㗎，都 OK 嘅，小朋友都鍾意睇，同埋呢，同大人一齊睇到都覺得幾好睇嘅，好鍾意佢哋屋企人一家人有講有笑好開心囉。” (母親，PP11) “It’s a good drama. It’s funny and children like watching it. Besides, it’s suitable for parents to watch it with children together. The family in the drama talked and laughed, and they are very happy/. I really like that.” (A mother, PP11) ***<u>Useful health information</u>*** “其實佢（小朋友）睇緊嗰時我喺屋企做緊啲家務，咁我都有行過吓聽，睇吓講啲咩，但成隻我就未。係啦，成隻我就未完整睇過晒嘅，我都大概睇咗一部份咁囉，我睇咗嗰啲都 OK（鍾意）囉，（音樂劇）幾好㗎，講健康飲食，同運動。” (母親，PP07) “In fact, I was doing housework when he was (my child) watching the drama. So, I listened to it and watched some parts when I passed by. But I didn’t watch the whole drama. Yes, I haven’t watched the whole drama. I just watched some parts, and I think they are OK. (The musical play is) very good, it promotes healthy diet and physical activity.” (A mother, PP07) “都可以啊，佢哋（子女）鍾意囉，（我）都 OK 啊，即係比較正面啦，咁唔好食咁多零食，做多啲運動，呢啲都好有用嘅。” (母親，PP07) “The drama is OK. They (the children) like it. (For me) it’s OK, and quite positive. It’s useful to encourage them to eat less snacks and do more exercise.” (A mother, PP07)

Themes	Subthemes	Quotes
	Songs of the drama	***Melody of the songs*** “好聽，好聽嘅…小朋友都鍾意嘅…我見到我阿仔好似睇嗰啲嘢都睇咗兩次三次” (母親，PP03) “Nice! Nice songs! Children all like them…I saw my son has watched the drama for two or three times.” (A mother, PP03) “好聽呀，好快樂囉，哈哈，好開心。” (母親，PP11) “Nice songs! They make us very happy…haha…very happy.” (A mother, PP11) ***Meaningful lyrics*** “幾好聽，幾好聽，係啦，幾好聽，因為可以用返之前…啲歌改埋歌詞，因為之前嗰首歌呢已經係好多人都識唱啦，唔識唱都都知嘅，咁改埋歌詞又覺得，好易上口囉，容易學到啲囉。” (母親，PP04) “Very nice, very nice, yes, good songs. Because they use old songs and change the lyrics. Because many people can sing the song before, and even some people cannot sing, they know the song at least. They find the song after changing the lyrics easy to sing and easy to learn.” (A mother, PP04)
	Booklet of DVD (5 topics)	“有個小冊子我都無，又無詳細睇，不過我有 keep，嗰盒依家都仲喺我書架度呢，好似無詳細了解到。” (母親，PP03) “I even don’t have one of the booklets and don’t read carefully. But I keep them. The box of booklets is still on my bookshelf.” (A mother, PP03) “係係係，呢個（二果三蔬）有講，都鍾意㗎，因為依家啲小朋友都好多食埋嗰啲垃圾食物，因為對身體唔健康，其實我屋企不嬲都食得好健康，譬如呢，即係我小朋友就好少食零食嘅，特別薯片嗰啲呢，即係小朋友完全唔俾食就無可能嘅，不過呢就間中食少少，但好少嘅。” (母親，PP11) “Yes, yes, yes, the booklets introduce it (two servings of fruits and three servings of vegetables). We like it because nowadays, children always eat junk food which is bad for their health. In fact, my family always has healthy diets. For example, my child seldom eats snacks, especially stuff like potato chips. It is impossible for children not to eat snacks,

Themes	Subthemes	Quotes
		but my child only eats a little occasionally, but very little." (A mother, PP11)
	Worksheet	"有呢份工作紙，都係推介健康之類我哋都幾滿意嘅。" (母親，PP02) "The worksheet aims at promoting health, and we are quite satisfied with it." (A mother, PP02) "有（印象）嘅，我有陪阿仔做過嘅，好似我都唔係…印象好深刻，我就記得有幾隻好似有幾張工作紙返來要做，我有同佢做過，咁樣，好似有，有佢有啲…講，講緊，即係講緊呢個話題係做緊嘅時候好似有，有參與過少少，佢自己畫我唔記得畫咗啲（咩）…" (母親，PP03) "Yes, (I remember it). My son has completed a worksheet with me, but it seems that I don't remember it clearly. I only remember that several worksheets were given to him and I have accompanied him to fill in some. It seems…seems that he, he has talked about it. I have joined in a little when he was doing it. I cannot remember what picture he has drawn…" (A mother, PP03) "其實都好好啦，你…可以令到小朋友有一啲…比較健康嘅飲食方法都…好好啊，maybe 家長講佢會聽啊但係睇呢啲佢都比較鍾意同埋都…受落嘅。" (母親，PP07) "In fact, the worksheet is good. You…your worksheet can help children to learn the way of healthy diet…very good. Maybe children won't listen to the suggestions from their parents, but they like reading the worksheet and they enjoy and accept it." (A mother, PP07)
Gains from the programme	FAMILY health	***Improve health attitude*** "其實因為呢啲日常生活裡邊呢都會同小朋友一起，講返啦…一起行動會 deliver 返啲 message 囉，咁就因為睇咗嗰套音樂劇呢最主要係，會俾到我哋大家，即係個輕鬆啲嘅手法去加強佢自己呢一個概念囉。" (母親，PP06) "In fact, such things would be often discussed in daily life with children, and practicing together would deliver such messages. The concept of health message would be strengthened for us in a relaxed way through watching this musical play." (A mother, PP06)

Themes	Subthemes	Quotes
		“小朋友會覺得…食多啲…蔬菜蔬果係好嘅，做多啲運動都係好嘅，即係要健康啲，少鹽少糖啊，呢啲 term…因為佢，可能我要同佢講佢 maybe 唔會記得咁深刻啦，我覺得對小朋友嗰個…影響，影響會大啲囉，即係大人係知道呢啲係，即係比較好嘅…習慣嘛。” (母親，PP07) “Children would feel that eating more fruits and vegetables is good and doing more exercise is also good. To be more healthy, technical terms such as less salt and less sugar…if I tell them such things, maybe it wouldn’t impact them as much. I think the programme can exert a larger influence on children. And adults know that these are good living habits.” (A mother, PP07) ***<u>Diet (2+3, less junk food, less salt and sugar)</u>*** “飲食方面唔係「2＋3」囉，2 份水果 3 份蔬菜囉，即係都係少肉多菜，要咁樣囉，咁啦食多啲水果啦…肉類啦盡量食少啲啦咁。” (母親，PP04) “There was no ‘2+3’, namely, two servings of fruits and three servings of vegetables in our diet. We should eat less meat and more vegetables, and eat more fruits…and try the best to eat less meat.” (A mother, PP04) “（記得）「2+3」囉，咩高鹽高油高糖嗰啲咪少食囉。” (母親，PP06) “(Can remember) ‘2+3’), and should eat less foods that are high in salt, oil and sugar.” (A mother, PP06) “食多啲蔬菜水果嘛，無食咁肥膩嘅嘢囉，好似話煮咩，我唔記得，嗰种名啦，但係係比較…肥啲囉，啲肉比較多啲，就無咁肥膩囉。” (母親，PP07) “Eat more vegetables and fruits, and don’t eat foods with much fat. Just like cooking something, I cannot remember the names, and they contain much fat. If more meat, the dish won’t have so much fat.” (A mother, PP07) “我，自己覺得呢，嗰樣唔係好唔好睇，主要係教返細路仔要佢食嘢…無咁成日偏食囉，食肉個啲囉，都要食生果同埋菜囉，咁樣教佢。” (母親，PP08) “As far as I am concerned, it doesn’t matter whether the drama is good to see or not. The most importance thing is to teach children… not to be fussy about their food, and

Themes	Subthemes	Quotes
		teach them to eat not only meat but also fruits and vegetables." (A mother, PP08) ***Exercise（ZTEx and moderate physical activity）*** "尤其你哋…有一個叫「零時間運動」嘛，咁唔係可以，坐喺度可以…都係做運動啦踎吓腳啦，咩嗰啲 空氣踩單車啦。" (母親，PP04) "Especially you…have (an activity) called ZTEx, which can allow us to do exercise…while sitting, including leg fidgeting or doing cycling in the air (foot pedalling)." (A mother, PP04) "「零時間運動」都，都好嘅，呢個 concept，即係俾你，有多啲機會去做運動囉，唔好成日話「無時間啊無時間啊」咁樣。" (母親，PP06) "ZTEx is good. This concept gives you more chances to do exercise. And you should not complain all the time by saying 'I don't have time, don't have time'." (A mother, PP06) "（了解）做運動囉，（鍾意）踎踎手啊踎踎腳嗰啲囉。" (母親，PP07) "(Know) how to do exercise. (I like) hand fidgeting and leg fidgeting." (A mother, PP07) "比較（鍾意）多啲因為之前都無接觸過呢方面話可以坐係度都可以按下隻腳啦咩嗰啲，當時係，做運動咩啦，即係做運動都係要去…公園玩啦跑啦咩嗰啲先係，呢方面都係，點樣可以，即係，直情坐係度等都可以郁下腳啦手啦然後可以單腳做運動，呢方面就比較咩啲，係啦，因為之前都…無乜嘢點接觸呢方面啲…係啦。" (母親，PP04) "(I like it) very much because I had no exposures to such things like I can also move my legs while I am sitting, and this is exercise. In the past, only go to the park to play or run is exercise. Now moving our hands and legs while sitting is exercise, and can do exercise by standing with one leg. This aspect is quite (new), yes, because I didn't know things like that before, really." (A mother, PP04) "大概都記得嘅，即係講呢即係屋企可以…即係唔識點講…講呢小朋友呢食嘢呀乜嘢呀都…以健康為主，個啲同埋多啲

Themes	Subthemes	Quotes
		「零時間運動」嗰啲囉。” (母親，PP11) “I can remember generally. It tells us when we are at home we could…I don’t know how to express…tells us that children health is the main aim when eating or something, and should do more ZTEx.” (A mother, PP11)
	FAMILY harmony	***More praise and less criticism*** “係唔係要，即係一家人唔係要互相，可以話互相關懷囉，咁唔係要讚賞人多啲啦，讚吓人啦話，無成日掛住自己玩啦，自己顧自己嘅。” (母親，PP04) “It doesn’t mean to say that family members should…It means that people should care about each other in a family. So, it means that people shouldn't only care about themselves and should praise others more.” (A mother, PP04) ***Family communication*** “有咩事就同屋企人講囉。” (母親，PP07) “Tell your family when you have some problems.” (A mother, PP07) “多咗（傾計），即係（傾嘅）時間長咗。” (母親，PP10) “More (talking), and longer time in talking.” (A mother, PP10) “之前掛住玩啦咩啊…或者之前，即係都喺自己嘅世界入邊咯，咁一起做下運動囉，好似佢咁樣大家一起去行山啦，露營啦咩嗰啲，咁，帶多啲訊息俾小朋友好啊，大人都好啊，應該要，家人要，要互相關懷囉咩嗰方面，多啲讚人啦，唔好唔好只係睇到人哋唔好嘅方面，要睇到人哋好嘅方面…都幾好。” (母親，PP04) “Previously, I only wanted to play…and only myself in my own world. Now we exercise together, such as go hiking and go camping, just like what they did (in the drama), so it is good to deliver more messages to children, parents, and encourage family members to care about each other and give more praise. We should pay attention to the strong points of people rather than their shortcomings, quite good.” (A mother, PP04)

Themes	Subthemes	Quotes
Changes on FAMILY 3Hs	FAMILY health	***More fruits and vegetables*** “即係…都…食生果…好啲囉，即係（個仔）揀多咗一樣，譬如嗰啲…士多啤梨以前，佢（個仔）唔係幾鍾意食嘅，士多啤梨同埋嗰隻…啤梨啊，以前啊只係食嗰個橙，同埋蘋果，不過最近多咗兩樣佢（個仔）揀，佢（個仔）叫我買呢樣，之前買佢（個仔）都唔鍾意食嘅。” (母親，PP02) “Eating fruits is good for health. (My son) picks one more kind of fruits. For example, he (my son) didn’t like eating strawberry and…pear. He only ate oranges and apples before, but recently he (my son) has two more options. He asks me to buy these kinds of fruits that he didn’t like before.” (A mother, PP02) “即係（提小朋友）係食啲水果啊，多飲啲水囉，都大概咁樣啦，（屋企人都）一齊做㗎。” (母親，PP10) “(Remind children) of things such as eating fruits and drinking more water. (The whole family) do it together.” (A mother, PP10) “都有（應用日常生活）㗎，之前呢，我仔都食好少生果，不過依家有時整啲生果俾佢食呢，佢都好喜歡嘅，（工作紙）都有（用）嘅，因為好似平時呢，之前如果係有時呢，好似一日啊食唔到咁多菜乜嘢嘅，但係呢，有張工作紙就好似嗰排時間菜都食多啲生果…都好似照住你哋張工作紙上面呢度，都改善咗好多嘅。” (母親，PP11) “Yes, (it has been applied into daily life). Previously, my son used to eat little fruits, but now he is happy when he is given some fruits to eat. (The worksheet) is useful because before we used it, such as we didn’t eat so much vegetables. And when we had it, we ate more vegetables and fruits during that period, and we improved a lot according to what’s on the worksheet.” (A mother, PP11) “阿女咪係食多啲菜囉，屋企人可以食多啲菜囉…減少啲出去食飯囉。” (母親，PP07) “My daughter eats more vegetables, and the family eat more vegetables too…We have fewer times to eat outside.” (A mother, PP07)

Themes	Subthemes	Quotes
		Less unhealthy food “即係個仔係食肉食嘅多，依家都係管住佢，唔俾佢食咁多囉，有時…佢，咩食肉食嘅多，咪由佢攞個碟出來睇下。” (母親，PP08) “My son used to eat much meat, and now we limit him to do that. Sometimes…he eats too much meat, and let him watch the DVD of the drama again.” (A mother, PP08) ***More Zero-time Exercise*** “都有（改變）嘅，咁你最起碼，咁平時可能唔知咁唔係齋坐喺度睇下電視啦，依家如果，都好似睇下電視又好，或者做其他嘢咁坐低咁郁吓隻腳啦咩啊嗰啲，咁嘅，都好嘅，係囉，就教嗰啲方法俾我哋囉，大人都好啦，小朋友可以一起做啦。” (母親，PP04) “There are changes. At least, maybe you did not know shouldn’t just sit down still to watch television. Now, watching television together and doing exercise such as moving the legs while sitting together are very good. Yes. The drama teaches us, both adults and children to do that together and it is very good.” (A mother, PP04)
	FAMILY happiness	“有（開心咗），即係一家人一齊食水果啊或者乜嘢咪好開心囉， 就係咁樣囉，一齊傾計啊，一齊做嘢嗰啲就開心囉。” (母親，PP10) “Yes, (became happier). It’s happy for the whole family to eat fruits or do other things together. Yes, we should talk together and do things together and be happy.” (A mother, PP10) “比以前快樂咗好多囉，關係好咗，比起以前好咗好多。” (母親，PP11) “Much happier than before. We get much better relationship compared with that of the past.” (A mother, PP11)
	FAMILY harmony	***More praise and less criticism*** “有幫助嘅，咁啊，即係好似傳統嘅中國人來講呢都係…其實即係…比較少讚，讚人囉，（依家）可以嘗試吓多啲去讚吓睇到人哋好嘅方面咁樣，讚多啲人囉，都好啲嘅。” (母親，

Themes	Subthemes	Quotes
		PP04) "It is helpful. The traditional Chinese people…they seldom praise people, but (now) we can try to praise people more when seeing their strong points. Praise people more is better." (A mother, PP04) ***<u>More family interaction and communication</u>*** "會係和諧啲囉，同埋同屋企人嘅相處佢嗰度都有講，同佢哋（子女）陪住佢哋（子女）一起去，去睇啊…咁樣，一起去睇大家會再，（覺得）好好笑啊，或者直情叫我哋做多啲運動啊，要入多啲啊咁樣囉。" (母親，PP06) "Became more harmonious. The drama also covers how to get on well with family members. Watching with them (the children) together, and we find the drama very funny, or it directly tells us to do more exercise, do more such thing." (A mother, PP06) "有（和諧咗）啊，我哋就好簡單嘅…咁一齊食飯可以，大家可以傾吓計嘛，咁做對家庭又好啲，即係有…正面影響囉，係呀係呀好事來嘅。" (母親，PP07) "Yes, (became more harmonious). We are quite simple…Eating together allows us to talk and it would be good for the family. It's good and it has positive influence. Yes, yes, it's a good thing." (A mother, PP07) "影響啊，咁呀，都有嘅，咁以前呢我都好少同個仔傾計，覺得佢好似唔啱傾咁，依家都多咗兩個人係埋一齊傾吓計同埋食嘢啊，都多咗好多歡樂囉，即係比起以前親密咗囉。" (母親，PP11) "It does have influence. In the past, I seldom talked with my son and thought he was not willing to talk with me. Now we have more chances to talk and eat, together and we have much more joy, and are closer than before." (A mother, PP11)
Suggestion on programme	Booster programme	"即係都要學校嗰方面再同佢哋加強啲嗰（相關）活動囉，如果學校佢互動嘅活動會多啲嘅話，鼓勵再多啲，我哋跟住有啲咩 programme 啦，跟住會有啲咩活動啦，主題係可能同你頭先呢個…即係你哋依家做緊嘅呢一個活動係有關連嘅，咁就會加深咗囉可以。" (母親，PP06) "It requires the school to hold more the related activities to

Themes	Subthemes	Quotes
		strengthen. If there is more interactive activities and more encouragement from school, and then we have some programmes and activities with themes related to your current programme afterwards, would get deeper impression of it." (A mother, PP06)

Parents were encouraged to practise the behavioural indicators at home as a way to facilitate FAMILY 3Hs. However, the participants reported some difficulties in doing so.

Table 4.10 Quotes on parents' difficulties in practising behavioural indicators

Themes	Subthemes	Quotes
Difficulties	Short-time influence	"影響就嗰段時間囉，可能有認識多啲囉。" (母親，PP03) "The influence was there during that period, and I may have learnt more." (A mother, PP03)
	The healthy habit exists already	"因為佢平時都唔多嘅，所以，即係頭先你講嗰啲，你話…唔食啊…汽水嗰啲唔多所以…基本上係…無話…因為，睇完個劇而…有啲咩嘢佢改變囉。" (母親，PP05) "Because he didn't eat much (junk food) before, and he almost never drank beverages like soda as you mentioned before, so it is hard to say what has changed after watching the play." (A mother, PP05)
	Cannot understand the words	"有…睇過（小冊子），而我唔識字，睇過都…唔係幾明，睇係有睇，但係我唔識字，嗰啲字啊，嗰啲文都唔係幾明白囉。" (母親，PP10) "I have…read (the booklet), but I am illiterate, even I read it, but I still…can't understand. I did read it, but I am illiterate, and I don't quite understand the words and texts." (A mother, PP10)
	Not enough to just rely on one drama	"影響，就無咩特別嘅影響嘅，因為靠一套劇呢就，好難去淨靠一套劇之後，大家就有所轉變咁樣嘅，不過都係有時佢哋，除咗嗰套劇之外呢…咁學校又有啲活動啊，同佢哋做過一啲，體能上邊嘅測試啊咁樣呢，咁佢哋反而喺當中就會知道自己…我體能要點樣點樣，要多做啲乜嘢咁樣囉。" (母親，PP06) "As for influence…there was not an impressive influence because it is hard to change the behaviours through

Themes	Subthemes	Quotes
		watching a play. But apart from the play, sometimes the school had held activities such as physical assessment, so the children can know themselves better…what my physical fitness should be, and what should they do more." (A mother, PP06)
	Too many notices from school	"因為其實…呢啲活動嘅延伸呢都係需要互動，認識會比較有效啲囉，如果有時就咁，派咗返張紙返來學校又唔係話要，我要幾時幾日收返，嗰啲咁樣呢，咁好多時，因為太多通告啊，太多其他嘅資訊，派咗返來呢通常都會就咁擺埋咗㗎啫。" (母親，PP06) "Because…in fact, the extension of such activity requires interaction, and would get more effective understanding from the interaction. If we only give a piece of paper (the worksheet) and the school doesn't tell us they want it back, and when should we return it. It is quite common that we often leave the worksheet there because there are too many notices and information." (A mother, PP06)

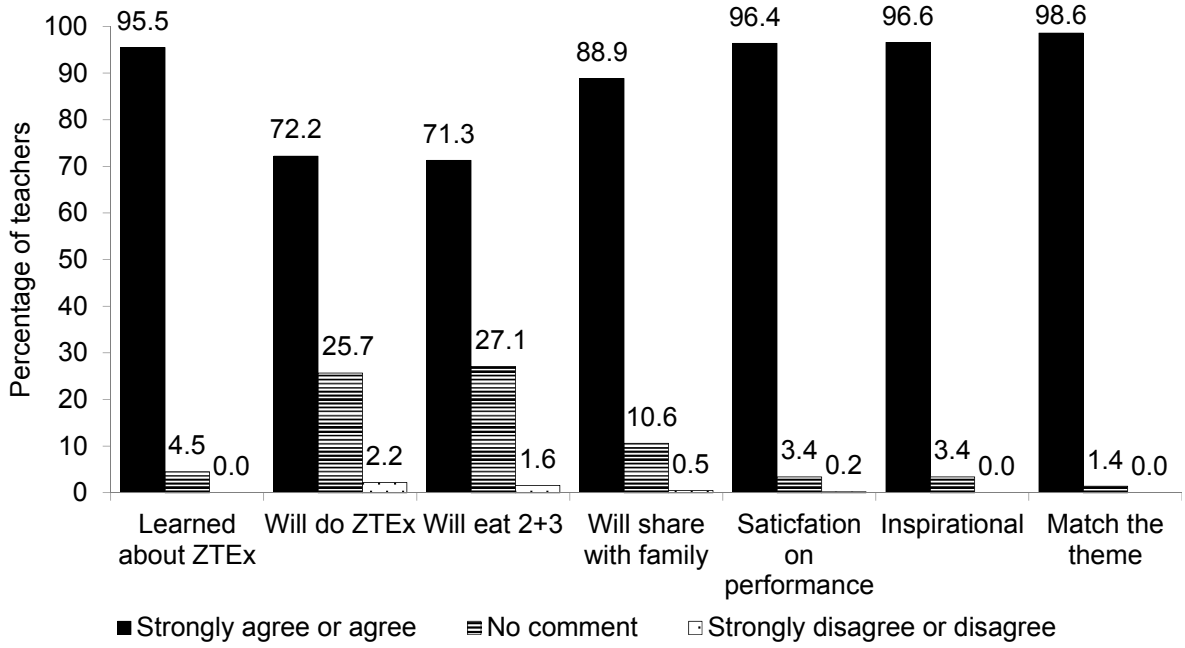
4.3.4 Teachers' satisfaction and feedback

All the teachers who watched the live drama show were invited to fill in questionnaires for process evaluation. A total of 560 completed the one-page questionnaire. Teachers were asked for feedback about the 3Hs Family Drama show, and the majority of the teachers provided positive feedback about the programme. The questions are shown below:

a) Through the drama show, I think students learned about ZTEx;
b) I think students will do ZTEx after watching the show;
c) I think students will consume two servings of fruits and three servings of vegetables per day after watching the show;
d) I think students will share the health information gained from the drama with their family;
e) I am satisfied with the performance;
f) I think the content of the show is informative and inspirational; and
g) I think the show and the theme are well-matched.

As shown in Figure 4.11, 95.5% of the teachers commented that they agreed or strongly agreed that the students learned ZTEx via the show. More than 95% were satisfied with the performance, and agreed or strongly agreed that the content was informative and inspirational, and the show matched the theme. 88.9% thought that the students would share the health information with their family after watching the show. More than 70% of the teachers thought that the students would do ZTEx and consumed two servings of fruits and three servings of vegetables per day after the show.

Figure 4.11 Teachers' ratings on the satisfaction toward the show and perception of the students' action after the show



The teachers thought the students strongly liked the drama show (1 item, score range: 0-10) (Mean=8.7, SD=1.07), and so did they (1 item, score range: 0-10) (Mean=8.7, SD=1.05). 99.2% of the teachers thought their school would like to participate in the programmes of same type in the future.

Table 4.11 Quotes from the teachers' written feedback

Themes	Subthemes	Quotes
Comments on the drama	Funny show	"很有趣，易明。" (老師，T100) "It was interesting and easy to understand." (A teacher, T100) "演員投入演出，非常精彩，表情誇張，能吸引學生，非常好。" (主任，T40) "The performers were deeply involved and the performance was very entertaining. Their exaggerated facial expressions were attractive to students. It's very good!" (A head of department, T40)
	Meaningful lyrics	"特別欣賞歌曲歌詞部分，流行曲學生熟悉，歌詞具啟發性。" (老師，T58) "I especially appreciate the songs and their lyrics. The students are quite familiar with the popular songs and the

Themes	Subthemes	Quotes
		lyrics are enlightening." (A teacher, T58)
	Good content	***Informative and meaningful*** "內容豐富全面，能啟發學生了解身心健康的重要性，演繹技巧也生動有趣。" (主任，T17) "The content was rich and comprehensive and can inspire students to know the importance of physical and mental health. The skill of performance was vivid and interesting." (A head of department, T17) "內容對白有趣，富教育性。" (主任，T64) "The dialogues and content were interesting and educational." (A head of department, T64) "內容很有啟發性，趣味十分，能感動人心。非常棒！" (老師，T61) "The content was enlightening, very interesting and touching. Very good!" (A teacher, T61) "歌曲很悅耳，內容也很有意義，可印成卡片送給學生作宣傳，讓她們把訊息帶回家，與家長分享。" (老師，T71) "The songs are pleasant and the content is very meaningful. Promoting cards can be made and given to students, and they can bring the health messages home and share with family members." (A teacher, T71) ***Easy to understand*** "劇本很好，節奏緊湊。內容深入淺出，小學生容易明白。而且主題突出。" (老師，T38) "The script is very good and the tempo was fast. The play's content explains in depth and in a simple way, which is easy for primary students to understand. The theme is very prominent." (A teacher, T38) ***Positive message*** "正面訊息傳遞，家庭生活、飲食及運動，非常豐富！演員演出精彩，生動及活潑！Well done!" (主任，T53)

Themes	Subthemes	Quotes
		“The play delivered many positive messages on family life, healthy diets and exercise. The performance was wonderful, vivid and lively! Well done!” (A head of department, T53) “音樂劇能散發正面信息及正能量，適合孩子欣賞。” (校長，T99) “The musical play can disseminate positive information and energy, suitable for children to appreciate.” (A principal, T99)
	Good interaction	“另有司儀在完結時向學生提問，安排很好，學生反應佳，而且有熒幕輔助帶出重要資訊，學生易於吸收！” (主任，T17) “There was a host who asked students questions at the end of the show. It’s a good arrangement and students responded well. The important information was displayed on a screen, so it was easy for students to absorb.” (A head of department, T17) “互動性頗高，能透過適切的間場連繫不同的幕，突出主旨。同學們投入活動趣味性高，能透過故事帶出「零時間運動」的信息。” (老師，T25) “The interaction was quite high, could highlight the theme through linking the intervals between the acts. The students took an active part in the interesting activity, and the message of ZTEx could be delivered by the story.” (A teacher, T25)
	Good performance form	“以輕鬆手法帶出「零時間運動」及二果三菜的信息，學生易明，佳！” (老師，T28) “The message of ZTEx and the message of “two servings of fruits and three servings of vegetables” were delivered in a light and relaxed way, which was easy for students to understand. Good!” (A teacher, T28) “以音樂劇宣傳健康教育的內容，不沉悶，能吸引學生。” (老師，T13) “The health education is promoted through the musical play, not boring and can attract students.” (A teacher, T13) “表演者水準專業及能有效地帶出主題，透過有趣的內容帶出主題，令學生透過音樂劇吸收到有關的訊息。” (老師，T65)

Themes	Subthemes	Quotes
		“The performers were professional and could effectively bring out the theme with interesting content, and make students absorb the related information through the musical play.” (A teacher, T65)
	Stage set and sound effects	“舞台佈景及音效能切合劇情行進，能展現內容中的張力。” (老師，T25) “The stage setting and the sound effect fit in with the development of the plot and could demonstrate the tension of the content.” (A teacher, T25)
	Fit the daily life	“劇情配合學生日常生活經驗，能引起學生共鳴，而且演員表演生動有趣。” (老師，T28) “The plot matched the students’ experience in daily life and could strike a chord with students, and the actors’/actresses’ performance was vivid and interesting.” (A teacher, T28)
	Fit the school concept	“訊息健康，表演精彩，演員專業，謝謝你們！有關活動和我校 2015-2018 年度「建立健康校園」非常配合！” (校長，T58) “The messages delivered are healthy, the performance was wonderful and the performers were professional. Thank you very much! This activity well matched with our school’s programme of “constructing a healthy campus” during 2015 to 2018!” (A principal, T58)
	Professional drama	“由衷感謝在我校進行高質量的音樂劇表演，雖然場地有不少限制。表演十分專業，主題突出，廣受好評。” (主任，T57) “I am really grateful for the high-quality musical performed in our school, though there is much limitation in the venue. Very professional musical with the theme prominently presented and well-received by all.” (A head of department, T57) “主題突出，效果明顯，內容生鬼，富趣味性，非常專業！非常好！” (主任，T48) “The play has a prominent theme, obvious effect, humorous content, and is very interesting and highly professional. It’s great!” (A head of department, T48) “劇團合作富效率，演出精彩。用心製作高質素的舞台劇，十

Themes	Subthemes	Quotes
		分值得欣賞。” (老師，T51) “The whole drama troupe cooperated efficiently and presented a wonderful performance. I really appreciate that they tried hard and presented a high-quality drama performance.” (A teacher, T51)
	Professional staff	“所有台前幕後工作人員都很專業，態度很好，學生很投入。” (老師，T81) “All the staff, no matter on or behind the stage, were very professional with good attitude. The students were involved deeply.” (A teacher, T81)
Suggestion on the drama	Audio equipment	“音響可調較至清晰一點。” (老師，T28) “The sound equipment could be improved to be clearer. “(A teacher, T28)
	The speed is too fast	“演出時的說話速度較快，有些台詞未必能清楚接受。” (主任，T17) “The speed of the lines was quite fast in the performance and some of the actor’s lines could not be heard clearly.” (A head of department, T17) “可减慢某些對白的速度，因聲音透過咪後，較模糊。” (老師，T72) “The speed of certain dialogues could be slowed down since the sound would become muffled through the microphone.” (A teacher, T72) “劇目中有某些說話說得比較快，可慢少少讓學生聽清楚。” (老師，T44) “Some roles in the play spoke too fast, and they could slow down a lot to let the students to hear more clearly.” (A teacher, T44)
	Clothing is too fancy	“服裝太花俏，可以平實一點。” (老師，T28) “The costumes were too fancy. They can be simplified.” (A teacher, T28)
	Tardiness	“若全體人員都能準時到達就更完美了。” (老師，T96) “That would be perfect if the crew could arrive punctually.”

Themes	Subthemes	Quotes
		(A teacher, T96)
	Less information	“作為小學劇場的演出，可算是很不錯了，然而訊息可能太豐富，可能學生只能收到 1-2 個訊息，如能集中某一兩個訊息效果更佳。” (老師，T26) “It was quite good as a performance for primary schools, but there was too much information and the students might only receive one to two messages. The effect would be better if one or two messages are highlighted.” (A teacher, T26)
	More interaction	“劇中能增加與學生有互動次數，效果更理想。” (老師，T82) “The effect would be even better if there were more interaction with the students.” (A teacher, T82) “有某些地方可以讓學生一齊參與，例如一齊做「零時間運動」，一齊唱「Happy today」首歌。” (老師，T44) “Students can be asked to participate at certain time such as doing ZTEx and singing the song of ‘Happy Today’ together.” (A teacher, T44)
	Explain the difference between positive and negative behaviour	“在劇內可解釋有意式踎腳與無意式踎腳分別，後者屬不禮貌行為，不宜鼓勵。” (主任，T42) “The difference of legs fidgeting intentionally and unconsciously can be explained in the play and the latter shouldn’t be encouraged since it is impolite.” (A head of department, T42)
	Need long-term work	“態度及價值觀是不會一時一刻改變的，要細水長流的灌輸及培養。” (校長，T17) “The attitude and value cannot be changed suddenly, and they should be delivered and cultivated slowly.” (A principal, T17)
	Card sharing	“歌曲很悅耳，內容也很有意義，可印成卡片送給學生作宣傳，讓她們把訊息帶回家，與家長分享。” (老師，T71) “The songs are pleasant and the content is very meaningful. Promoting cards can be made and given to students, and they can bring the health message home and share with family members. “(A teacher, T71)

Themes	Subthemes	Quotes
	Parents' role	"要達到 每天進食 2 果 3 菜，要學生與其家長及時間配合才可。" (老師，T58) "Ensuring the intake of two servings of fruits and three servings of vegetables every day requires timely cooperation between students and parents." (A teacher, T58) "飲食方面（2 果 3 菜）由家長做主導，故學生較難依從。" (老師，T88) "Parents take the leading role in the diet (two servings of fruits and three servings of vegetables), so it is hard for students to comply." (A teacher, T88)
	Practise immediately	"「零時間運動」著墨不多，未必令學生留下印象。建議講述「零時間運動」時，可即時讓學生一起練習。" (老師，T97) "The play doesn't emphasize too much on ZTEx so the students may not remember. I suggest that students could be asked to practise together immediately when talking about ZTEx." (A teacher, T97)
	Time is too long	"音樂劇之後的活動時間太長，學生較難集中。" (老師，T35) "The activity time after the musical play was too long, so it was hard for the students to concentrate." (A teacher, T35)

CHAPTER 5 TRAIN-THE-AMBASSADOR PROGRAMME

5.1 Introduction

Preventive interventions in public health have to be cost-effective. They must be practical and brief, and easily spread widely across the population. The train-the-ambassador educational approach has been used to build capacity in the community. In addition to training professional or paraprofessional service workers, experts also provide training for lay volunteers to reduce the demand on time, resources and manpower from financially strapped and understaffed professional social and health services in the community.

In view of growing health challenges both locally and globally, Phase II of the FAMILY Project had a special focus on family holistic health, an integration of physical and psychological health, which advocates healthy lifestyles with more exercise, healthy diet and positive living attitudes. We have created a new approach, ZTEx, which refers to simple movements or exercises that do not require extra time, money and equipment (3 Zeros) and can be done anytime, anywhere and by anybody (3As). We also emphasise that ZTEx is easy, enjoyable and effective (3Es). It was used as a foot-in-the-door approach to start with simple exercises while sitting, walking or standing during waiting, watching television, commuting or doing sedentary work.

Cell phone ownership and texting are increasing rapidly locally and globally. Mobile messaging is a familiar, convenient and acceptable way in communicating with others, which may be an effective way to change health-related behaviours. Several reviews of cell phone based studies suggest mobile health intervention is promising [20-23], and in a recent review of interventions using mobile technologies to physical activity reported significant increases in physical activity and/or decrease in sedentary behaviour [24].

The TTA of FDP II was jointly developed by the FAMILY Project Team and BGCA.

Eleven TTA workshops were conducted for university student helpers, parents, teachers and BGCA staff during October 2015 to June 2016.

5.2 Objectives

- To enhance the trainees' knowledge, self-efficacy, attitude and behaviour in relation to engaging in healthy living habits, particularly ZTEx;
- To increase trainees' physical activity, healthy dietary habits, family communication, and personal and family well-being;
- To encourage trainees to share the health information and influence the health behaviour of their family members;
- To promote trainees' health knowledge and skills of conducting and/or assisting to implement school activities; and
- To examine the effectiveness of electronic messages added to a TTA by a cRCT.

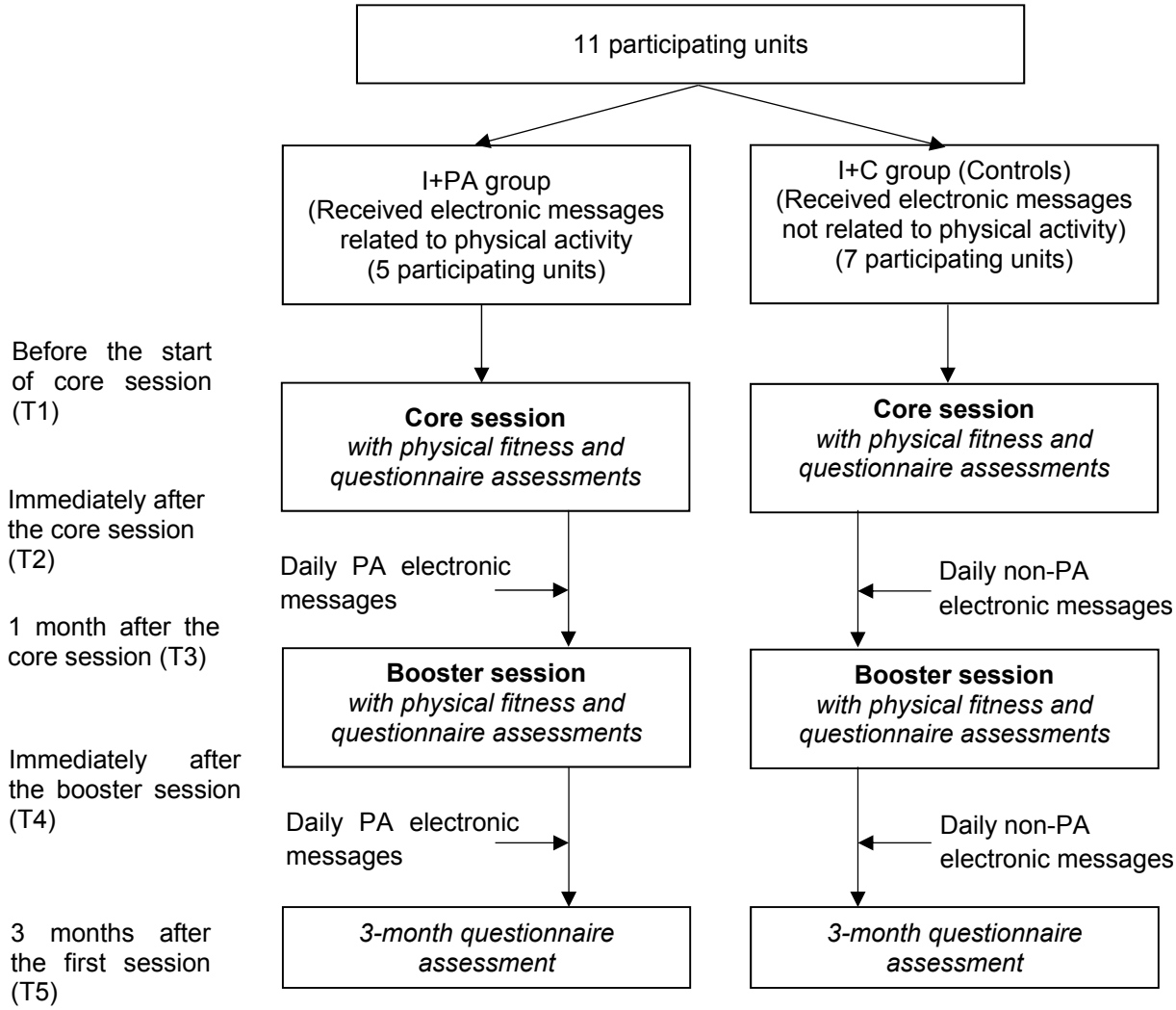
5.3 Design

The effects (or changes) were assessed in all subjects included (no control group) before and after the intervention of the TTA. Figure 5.1 shows the cRCT design to assess effectiveness of electronic physical activity messages (with a control group). The service units of the trainees were randomised into two message groups, either physical activity message group (I+PA group) or non-physical activity message group (I+C group; control).

All trainees in both groups received two 2-hour sessions, including a core session at baseline and a booster session at 1 month.

The I+PA group received daily electronic messages related to physical activity and the I+C group received daily electronic messages not related to physical activity ("placebo") for 3 months.

Figure 5.1 The cRCT design



5.4 Recruitment

Parents, teachers, university students and BGCA staff were recruited through the strong networks between the BGCA and, the PTAs of various schools and the students' unions of different universities.

In total, 141 parents and 34 primary school teachers were recruited. After training, they were expected to change their own health behaviours and share the learning with their family members.

Forty-eight BGCA staff were assigned by their service units to join this programme in order to promote their physical activity and attention on health. The goals of the training were to improve trainees' health-related habits (particular in increasing physical activity), engage their family members in physical activity and enhance their family communication and well-being. Three programme workers were assigned to assist two senior social workers from BGCA to implement the FDP II.

Seventeen university student helpers were recruited through students' unions of different universities. They were trained to help the implementation of the FDP II under the continuous guidance provided by the registered social workers from BGCA. Table 5.1 shows the participating service units and schools.

All trainees fulfilled the following inclusion criteria:

- Ethnic Chinese, older than 18 years of age; and
- Able to read Chinese and speak Cantonese.

Table 5.1 Participating service units and schools

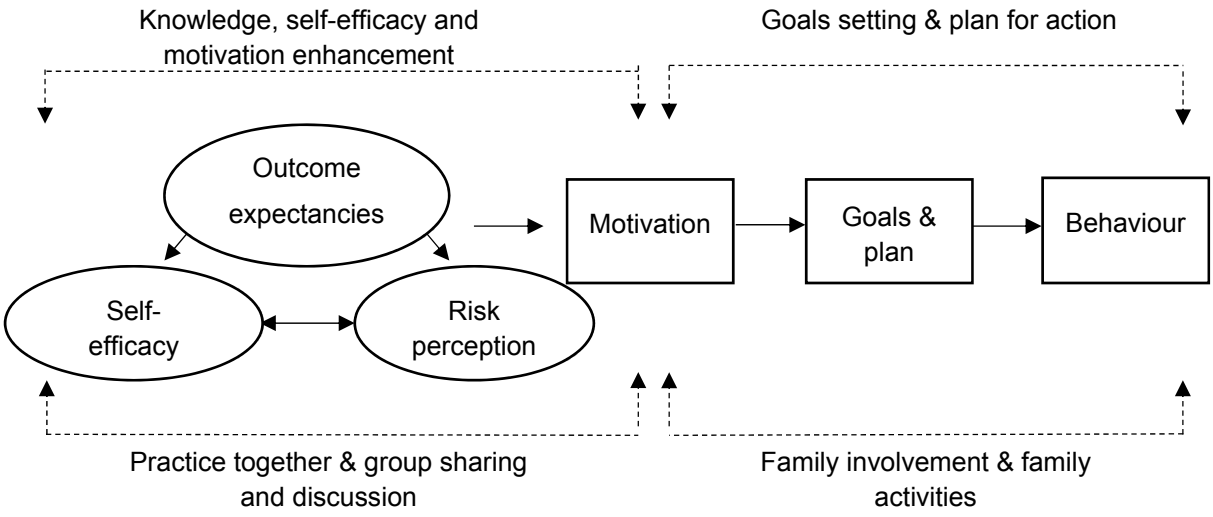
Programme code	Institution
1	Kowloon Tong Bishop Walsh Catholic School
2	BGCA - Youth volunteer group
3	Our Lady of China Catholic Primary School
4	Alliance Primary School, Whampoa
5	Sheng Kung Hui Kei Lok Primary School
6 and 11	The Mission Covenant Church Holm Glad Primary School
7	Yuen Long Long Ping Estate Wai Chow School
8	BGCA JC South Horizons Child and Youth Integrated Service Centre
9	BGCA JC Southern District Child and Youth Integrated Service Centre
10	BGCA JC Sheung Wan Child and Youth Integrated Service Centre

5.5 Interventions

5.5.1 Theory-based framework for programme development

Figure 5.2 shows the essential components and strategies in the model-based intervention guided by the Health Action Process Approach [25]. The intervention was conducted by a nurse from the FAMILY Project Team.

Figure 5.2 Essential components and strategies used in the model-based intervention



Both groups received a 2-hour interactive core session at baseline and a 2-hour booster session at 1 month. The training content of core and booster sessions were the same in two groups, but different electronic messages were sent to the two groups.

5.5.2 In-class training sessions

5.5.2.1 Core session

The core session was a 2-hour knowledge, self-efficacy and motivation session. The goals were on advocating a healthy lifestyle including regular physical activity, healthy eating habits, positive emotion, family communication and wellbeing, based on positive psychology. The strategies included:

- Introducing information on the consequences of physical inactivity, obesity and ZTEx;
- Enhancing the knowledge, self-efficacy and attitude towards ZTEx and healthy eating habit;
- Associating the health behaviour to the positive outcomes of the trainees; and
- Introducing cognitive dissonance and highlighting the possible discrepancy between participants' cognition and pledge to act, and actual behaviour, which could promote intrinsic motivation to change behaviours [26, 27].

In addition, we encouraged trainees to share what they had learnt with their family members by providing examples of ZTEx family games. We asked them to set goals and plan for exercising, and involve their families in their action plans.

5.5.2.2 Booster session

The booster session was a 2-hour experience sharing and group discussion session at 3 months after the first session. Trainees were invited to share their experiences and barriers they had encountered in engaging in ZTEx. We highlighted any positive changes trainees reported, reassured that the positive changes were likely to come with doing ZTEx regularly, and reminded them of the negative consequences of physical inactivity and sedentary behaviour.

5.5.3 Electronic messages

Immediately after the core session, trainees in both groups received daily mobile messages.

The I+PA group received well-structured mobile messages in relation to physical activity, ZTEx, examples of ZTEx, suggested ZTEx games and examples of positive communication with family members in relation to ZTEx.

The I+C group received daily electronic messages not related to physical activity, including information about healthy diet and prevention of chronic diseases such as diabetes mellitus, hypertension and cardiovascular diseases.

5.6 Evaluation of the training workshops

5.6.1 Outcomes

Primary outcome

- Physical activity including ZTEx.

Secondary outcomes

- Knowledge, self-efficacy and attitude in relation to ZTEx;
- Physical fitness performance;
- Family communication in relation to ZTEx;
- Dietary habits;
- Subjective assessment of personal and FAMILY3Hs;
- Influence on the family members; and
- Feedback of the training workshops.

5.6.2 Measurements

Outcomes were assessed by self-reported questionnaires at five time points: baseline (T1), immediately (T2) and 1 month after the core session (T3), after the booster session (T4) and 3 months after the core session (T5). Physical fitness assessments were done at baseline and 1 month. Focus group interviews and in-depth interviews were conducted after completion of the FDP II, which was about 1 year after core session.

Trainees indicated the extent of their agreement on five statements in relation to their perceived knowledge, self-efficacy, outcome expectancies, and intention on engaging in ZTEx (for example, “I am confident that I am able to ZTEx regularly”). Each item allowed response on a scale ranging from “0=strongly disagree” to “10=strongly agree”.

Self-reported physical activity was assessed by questions adopted and modified from the International Physical Activities Questionnaire–Chinese version (IPAQ-C) [28, 29]. We assessed sedentary behaviour by asking two questions (for example, “On a typical weekday in the last 7 days, how many hours per day did you typically spend seated?”). We assessed the frequency (number of days) of engaging in physical activity in the last 7 days by asking five questions (for example, “In the last 7 days, on how many days did you perform at least 10-minute of moderate physical activities?”). Responses ranged from “0 days” to “7 days”.

Physical fitness assessments with standardised protocols were used to assess the physical fitness performance, including hand grip strength measured by a dynamometer [30, 31], lower limbs strength assessed by the 30-second chair stand test [32, 33] (the number of stands or times the individual was able to rise from sitting in a chair in 30 seconds), balance by single leg stance test [34] (the number of seconds that the individual could effectively balance on one leg; up to the maximum of 120 seconds), and chair sit-and-reach test (the distance reached by the hand) [35].

We asked the participants to indicate their self-reported FAMILY well-being by three questions: “Do you think your family is healthy?”; “Do you think your family is happy?”; and “Do you think your family is harmonious?”. Self-reported personal well-being were assessed by asking two questions: “Do you think you are healthy?” and “Do you think you are happy?”. Each item allowed responses on a scale ranging from a “0=very unhealthy/unhappy/disharmonious” to “10=very healthy/happy/harmonious”.

Fidelity checks were conducted for every session of the workshops, which ensured the quality of the intervention and the implementation of the key elements in the intervention.

The qualitative focus group interviews were audiotaped and transcribed verbatim in Cantonese. Two FAMILY Project Team members, one of whom attended the interviews, coded the transcripts. Transcripts were analysed by thematic content analysis, following the guidelines recommended by Morse and Field [19] and NVivo 11. Field notes were reviewed with the transcript to organise and summarise the data. Mixed Method Triangulation design was used to interrelate and interpret the qualitative and quantitative data to validate the results [36].

5.6.3 Statistical analysis

Quantitative data were analysed using SPSS 24.0 and STATA. The demographic characteristics of the participants were described using frequencies and percentages, and the baseline scores of outcome variables were described using means and standard deviations. To examine whether the cluster randomisation resulted in comparability among the groups, Pearson’s chi-square tests and in-dependent t-tests were conducted to compare the demographic characteristics and baseline scores between the groups. To examine the effectiveness of the training programme, linear mixed model was carried out. This analytical procedure was adopted to assess whether there were differences in the outcome changes

between the I+PA group and the I+C group. The principle of ITT analysis was adopted through imputing missing observations from lost to follow-up or decline to complete follow-up questionnaires using the baseline values (i.e., assuming no changes). Sensitivity analysis was performed by using “complete case analysis”, exclusively with trainees with complete assessments at baseline, one-month, and three-month follow up. An effect size (Cohen’s d) of 0.2 was considered as a small effect, 0.5 as a medium effect, and 0.8 or above as a large effect. All significance tests were two-sided with a 5% level of significance.

5.7 Quantitative results

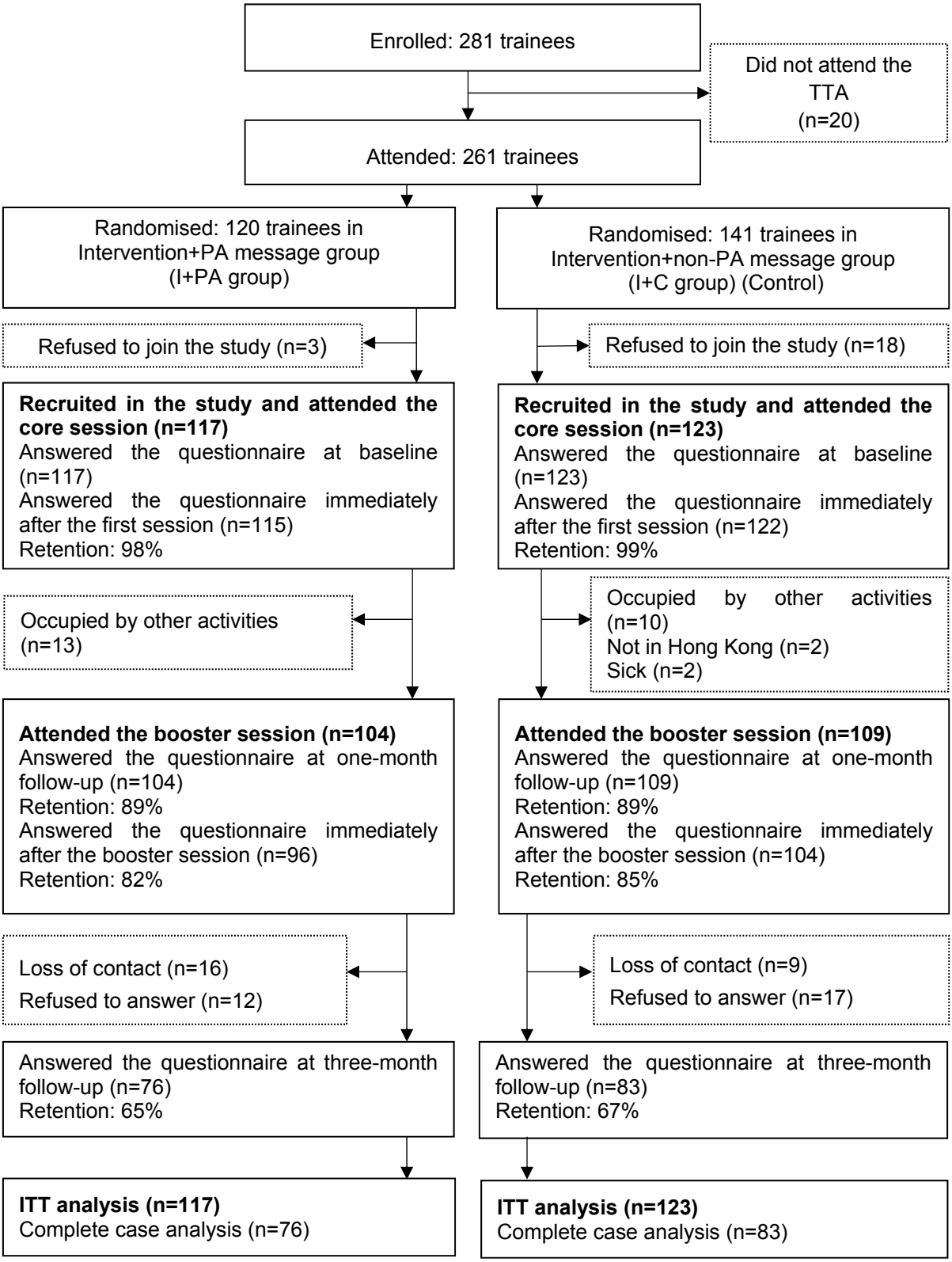
5.7.1 Recruitment

A total of 12 workshops (average of 22 trainees per workshop) were conducted during October 2015 to June 2016. Table 5.2 shows the enrolment, attendance and recruitment. 281 individuals enrolled in the programmes, 120 individuals were unable to attend and 21 refused to join the study. Thus, 240 trainees were recruited, including 141 parents, 17 university students, 34 primary school teachers and 48 BGCA staff. Figure 5.3 shows the flow of trainees.

Table 5.2 Enrolment, attendance and recruitment of intervention programmes

Programme code	Number of people enrolled	Number of people attended	Number of people recruited
1	13	8	7
2	33	31	29
3	17	10	10
4	25	20	19
5	35	35	35
6	28	28	26
7	17	17	17
8	16	15	15
9	15	15	15
10	15	15	14
11	19	19	19
12	48	48	34
Total	281	261	240

Figure 5.3 CONSORT flow diagram



5.7.2 Baseline characteristics

The trainees were randomised into either the I+PA group (n=117) or the I+C group (n=123).

As shown in Table 5.3, most trainees in each group were female (86% in the I+PA group and 80% in the I+C group). The I+C group was significantly older than the I+PA group. The I+PA group was more active and had less sugar dietary practices than those in the I+C group. Age, sex and baseline values were included as covariates in the subsequent analyses.

Table 5.3 Baseline demographic characteristics of trainees (n=240)

	I+PA group n=117	I+C group n=123	*p*-value[a]
	n (%)	n (%)	
Sex			
Male	16 (14)	23 (20)	0.23
Female	101 (86)	99 (80)	
Age group (years)			
<40	57 (49)	98 (80)	<0.001***
≥40	60 (51)	25 (20)	
Medical history			
Hypertension	5 (4)	2 (20)	0.27
Cardiovascular disease	0 (0)	1 (1)	1.00
Diabetes mellitus	1 (1)	0 (0)	0.49
Arthritis	6 (5)	4 (3)	0.53
Physical activity and ZTEx			
Moderate physical activity (0-7 days)	2.75 (2.44)	2.07 (2.33)	0.020*
Vigorous physical activity (0-7 days)	1.59 (2.02)	1.07 (1.68)	0.058†
Exercise while sitting (0-7 days)	2.45 (2.30)	2.57 (2.52)	0.75
Exercise while standing (0-7 days)	2.65 (2.31)	2.61 (2.95)	0.93
Exercise while walking (0-7 days)	2.34 (2.42)	1.90 (2.45)	0.17
Engaging in ZTEx (0-7 days)	2.10 (1.16)	1.90 (1.07)	0.17
Discussing ZTEx with family members (0-7 days)	2.03 (1.09)	1.66 (0.93)	0.009**
Doing ZTEx with family members (0-7 days)	1.92 (1.04)	1.59 (0.91)	0.009**

	I+PA group n=117	I+C group n=123	*p*-value[a]
	n (%)	n (%)	
Sugar consumption			
Low sugar dietary practice (1-5)	3.45 (1.01)	2.98 (1.07)	0.001**
Discussing low sugar dietary practices with family members (1-5)	3.09(1.03)	2.63 (1.04)	0.001**
Adopting low sugar dietary practices with family members (1-5)	3.28 (1.07)	2.72 (1.15)	<0.001***
Self-reported personal and FAMILY well-being			
Self-reported personal health (0-10)	5.78 (2.07)	5.92 (1.86)	0.59
Self-reported personal happiness (0-10)	6.80 (1.88)	6.67 (1.85)	0.57
Self-reported FAMILY health (0-10)	7.02 (1.73)	6.95 (1.70)	0.77
Self-reported FAMILY happiness (0-10)	7.14 (2.08)	7.11 (1.74)	0.93
Self-reported FAMILY harmony (0-10)	7.26 (1.97)	7.45 (1.73)	0.45

[a] *p*-values generated using the Pearson chi-square test: †$p<0.10$; *$p<0.05$; **$p<0.01$; ***$p<0.001$

5.7.3 Changes in outcomes by time and group

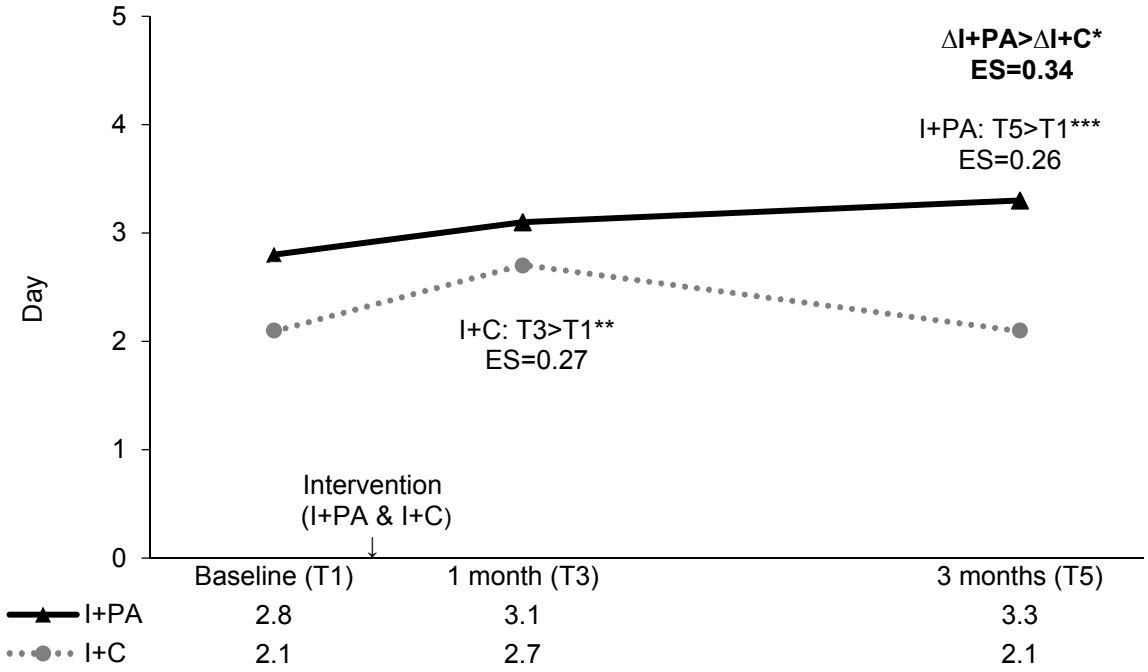
5.7.3.1 Physical activity

5.7.3.1.1 Moderate physical activity

Figure 5.4 shows significant increases in moderate physical activity in the I+C group at 1 month (ES=0.27, *p*=0.004) and in the I+PA group at 3 months (ES=0.26, *p*=0.006). The effect size was small.

The increase in moderate physical activity at 3 months was significantly greater in the I+PA group than I+C group, indicating the longer-term effectiveness of PA message intervention with small effect size (ES=0.34, *p*=0.02).

Figure 5.4 Days spent doing at least 10 minutes of moderate physical activity in the last 7 days (0-7 days)

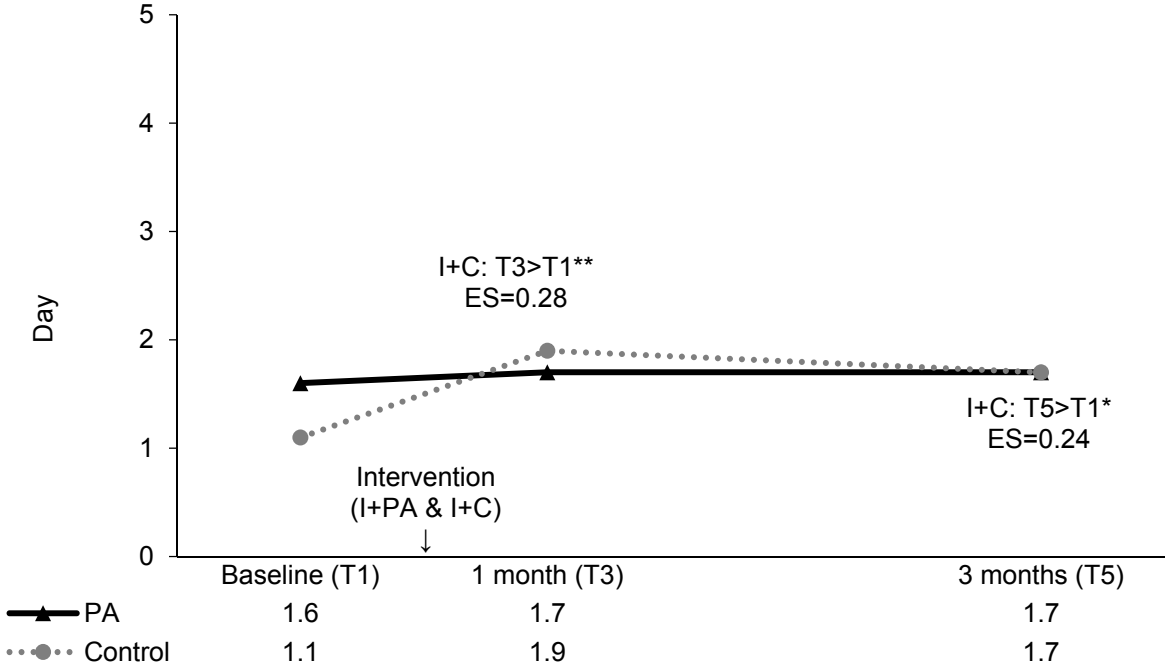


*p<0.05; **p<0.01; ***p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.1.2 Vigorous physical activity

Figure 5.5 shows significant increases in vigorous physical activity in the I+C group at 1 month and 3 months with small effect size (ES=0.28, *p*=0.003 and ES=0.24, *p*=0.011, respectively). The two groups showed no significant differences in the changes.

Figure 5.5 Days spent doing at least 10 minutes of vigorous physical activity in the last 7 days (0-7 days)



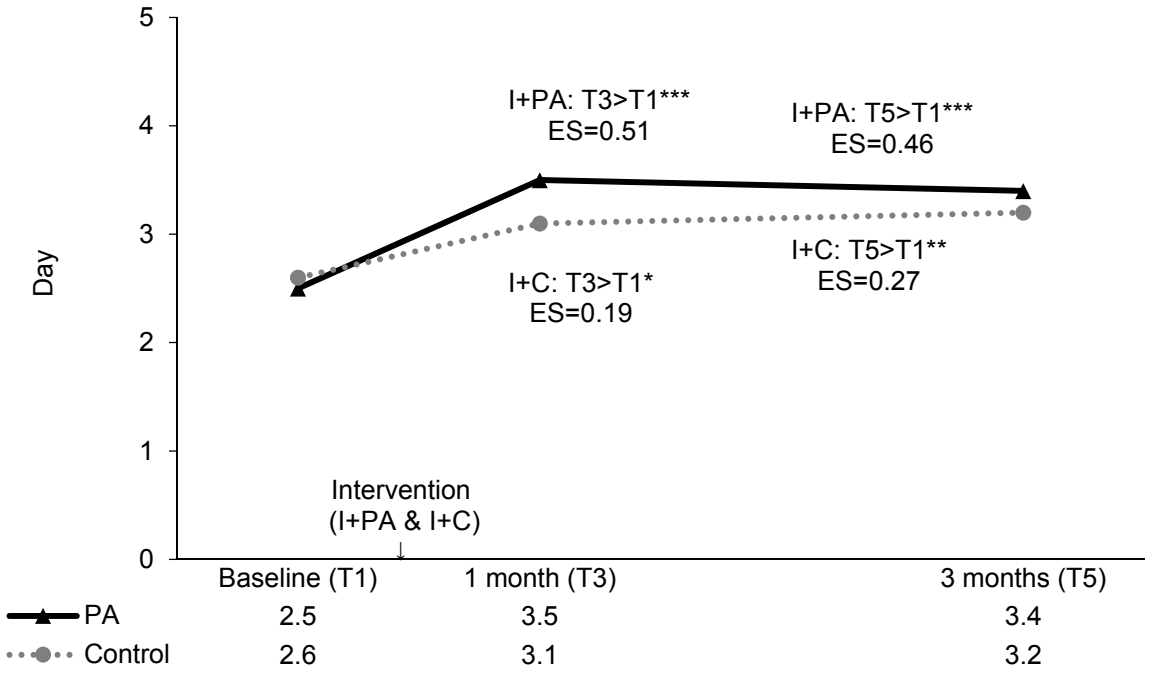
*p<0.05; **p<0.01

ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.1.3 Exercise while sitting

Figure 5.6 shows significant increases in exercise while sitting in both groups at 1 month and 3 months with small to medium effect size (I+PA group: ES=0.51 $p<0.001$ and ES=0.46, $p<0.001$, respectively; I+C group: ES=0.19, $p=0.038$ and ES=0.27, $p=0.004$, respectively). However, the increases did not differ between the two groups.

Figure 5.6 Days spent exercising while sitting in the last 7 days (0-7 days)

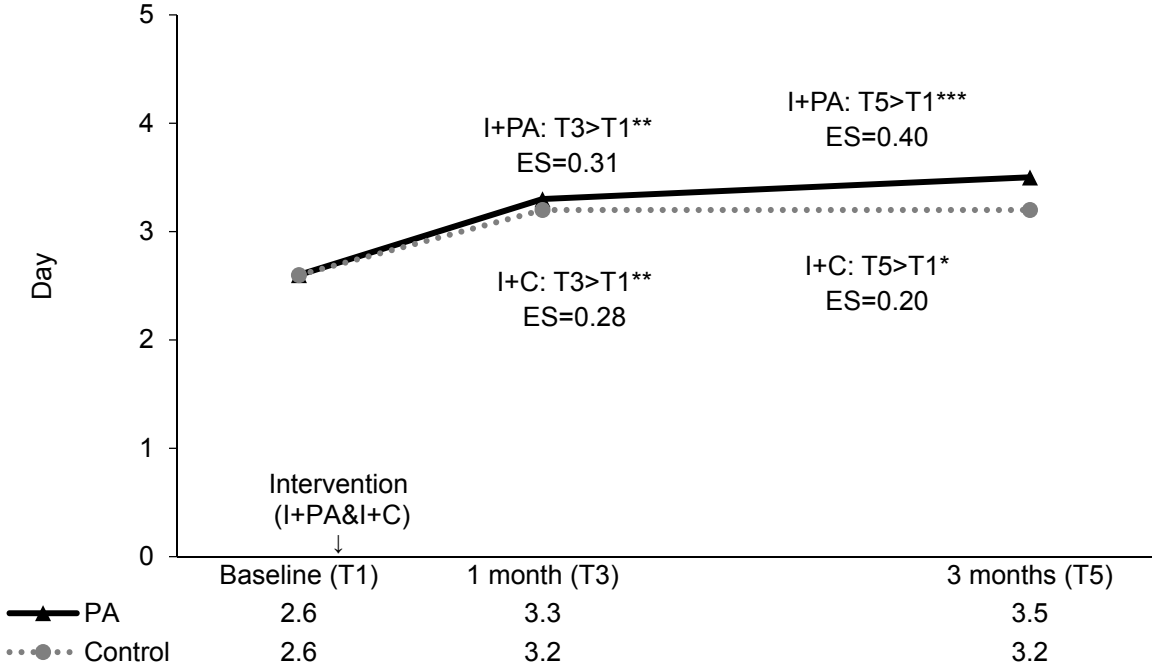


*$p<0.05$; **$p<0.01$; ***$p<0.001$
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.1.4 Exercise while standing

Figure 5.7 shows significant increases in exercise while standing in both groups at 1 month and 3 months with small effect size (I+PA group: ES=0.31, p=0.001 and ES=0.40, p<0.001, respectively; I+C group: ES=0.28, p=0.003 and ES=0.20, p=0.039, respectively). The two groups showed no significance differences in the changes.

Figure 5.7 Days spent exercising while standing in the last 7 days (0-7 days)

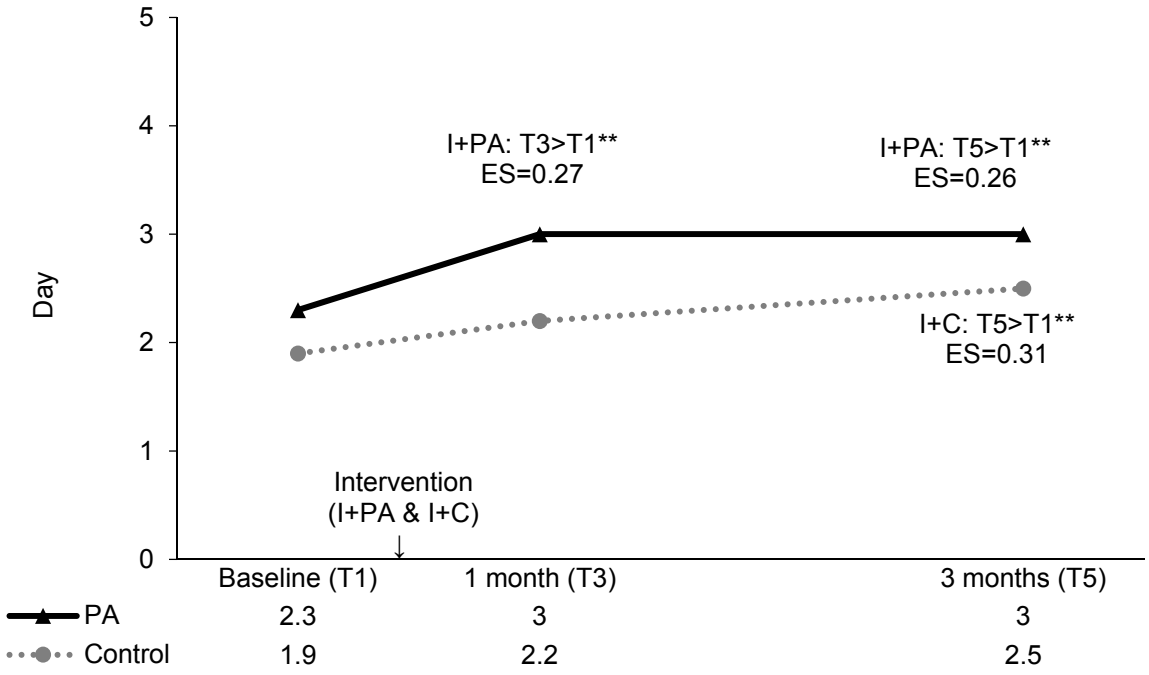


*p<0.05; **p<0.01; ***p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.1.5 Exercise while walking

Figure 5.8 shows significant increases in exercise while walking in the I+PA group at 1 month and 3 months (ES=0.27, *p*=0.006 and ES=0.26, *p*=0.006, respectively) and in the I+C group at 3 months (ES=0.31, *p*=0.001). The two groups showed no significance differences in the changes.

Figure 5.8 Days spent exercising while walking in the last 7 days (0-7 days)



**p<0.01

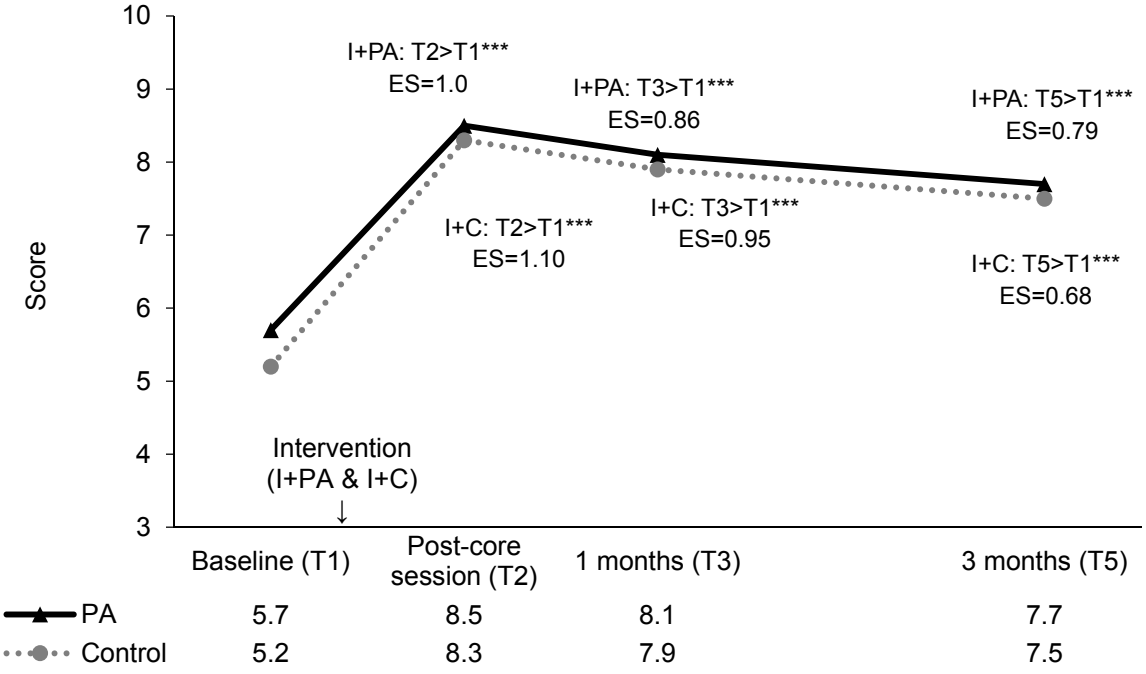
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.2 Zero-time Exercises

5.7.3.2.1 Knowledge of ZTEx

Figure 5.9 shows significant increases in knowledge of ZTEx in both groups with medium to large effect size (I+PA group: ES=0.79-1.0, p<0.001; I+C group: ES=0.68-1.10, p<0.001). However, the two groups showed no significance differences in the changes.

Figure 5.9 Knowledge of ZTEx (0-10)



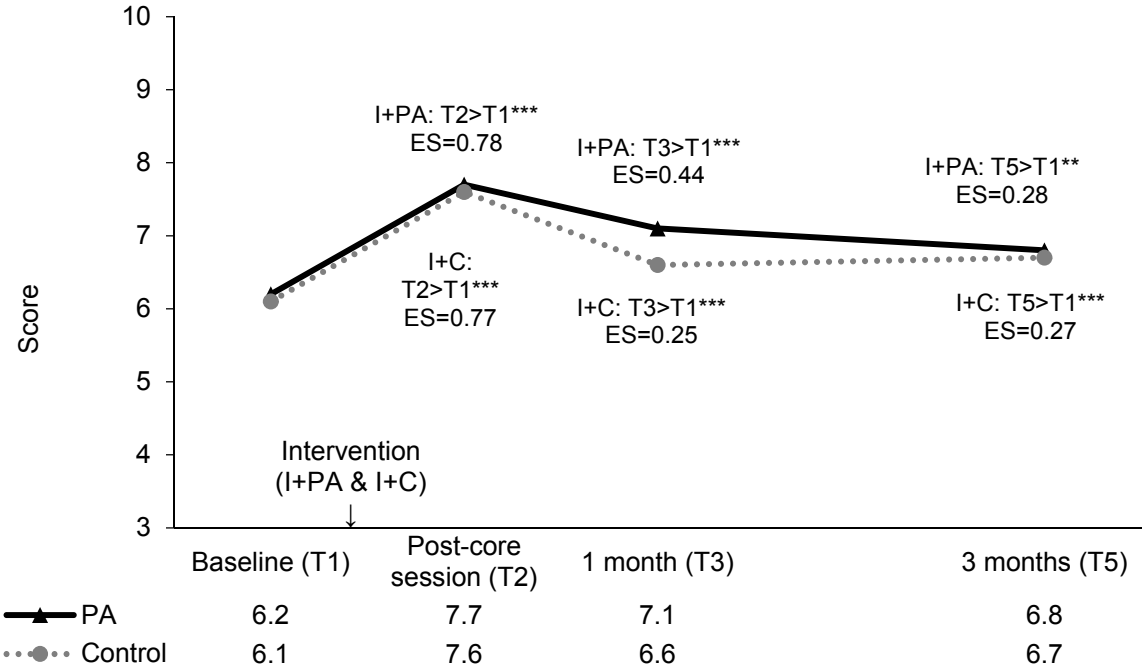
***p<0.001

ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.2.2 Self-efficacy of engaging in ZTEx

Figure 5.10 shows significant increases in the self-efficacy of engaging in ZTEx regularly in both groups with small to medium effect size (I+PA group: ES=0.28-0.78, p<0.01; I+C group: ES=0.25-0.77, p<0.001). The two groups showed no significance differences in the changes.

Figure 5.10 Self-efficacy of engaging in ZTEx regularly (0-10)



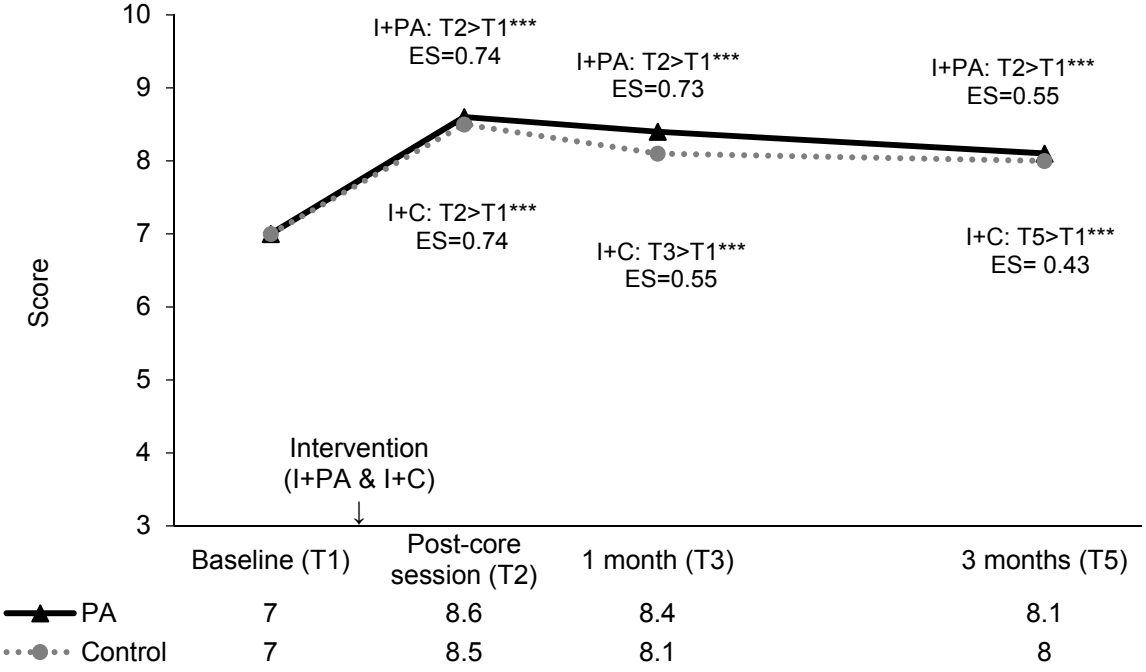
**p<0.01; ***p<0.001

ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.2.3 Outcome expectancies of engaging in ZTEx

Figure 5.11 shows significant increases in the outcome expectancies of engaging in ZTEx regularly in both groups with small to medium effects size (I+PA group: ES=0.55-0.74, p<0.001; I+C group: ES=0.43-0.74, p<0.001). The two groups showed no significance difference in the changes.

Figure 5.11 Outcome expectancies of engaging in ZTEx (0-10)



***p<0.001

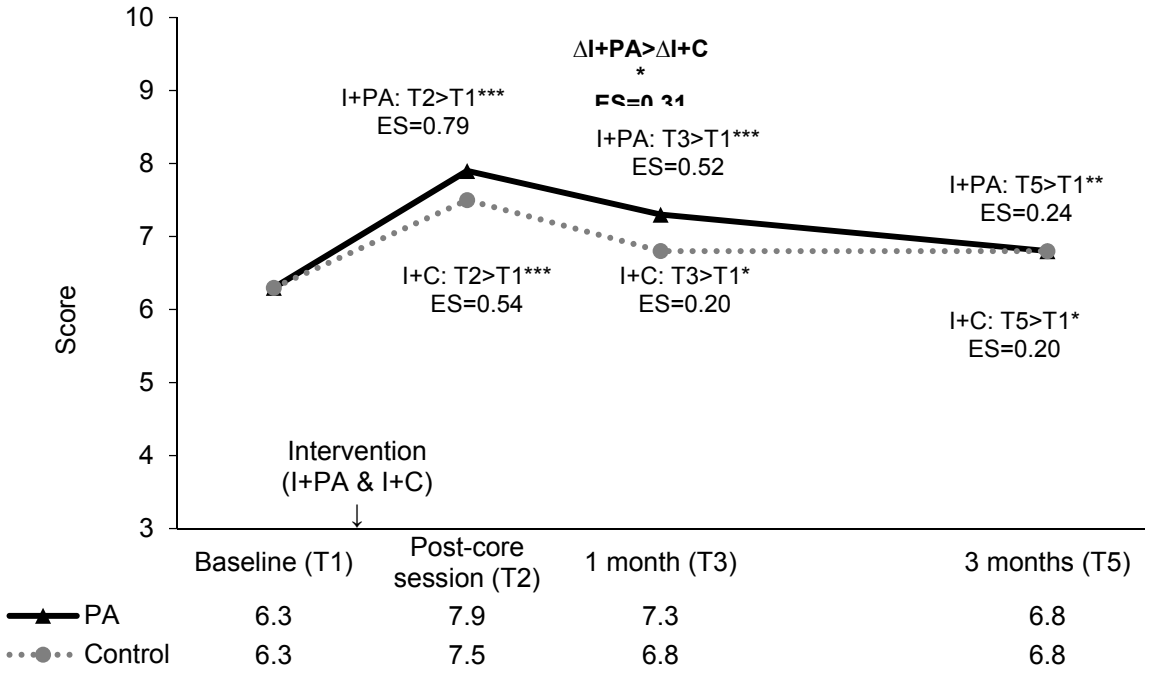
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.2.4 Intention to engage in ZTEx

Figure 5.12 shows significant increases in intention to engage in ZTEx in both groups with small to medium effect size (I+PA group: ES=0.24-0.79, p<0.01; I+C group: ES=0.20-0.54, p<0.05).

The increase in intention was significantly greater in the I+PA group than I+C group only at 1 month, indicating short term effectiveness of the PA message intervention with small effect size (ES=0.31, p=0.003).

Figure 5.12 Intention to engage in ZTEx (0-10)



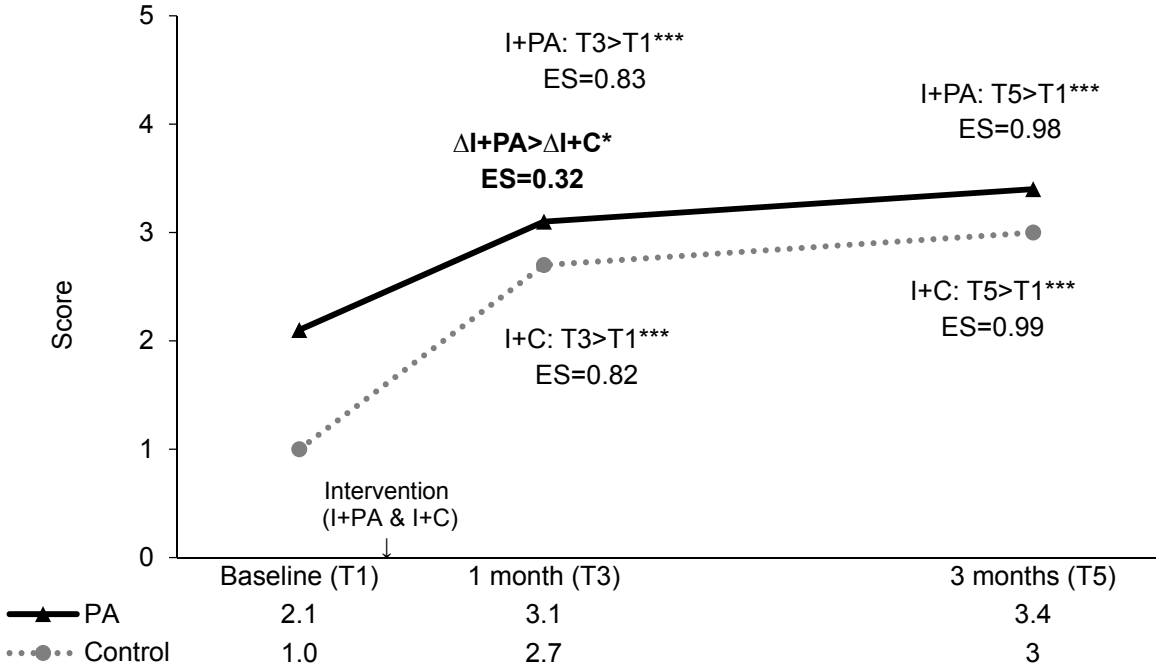
*p<0.05; **p<0.01; ***p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.2.5 Engaging in ZTEx

Figure 5.13 shows significantly increases in engaging in ZTEx in both groups at 1 month at 3 months with large effect size (I+PA group: ES=0.83, p<0.001 and ES=0.99 p<0.001, respectively; I+C group: ES=0.82, p<0.001 and ES=0.99, p<0.001, respectively).

The increases in engaging in ZTEx was significantly greater in the I+PA group than in I+C group only at 1 month, indicating short term effectiveness of the PA message intervention with small effect size (ES= 0.32, p=0.015).

Figure 5.13 Engaging in ZTEx (1-5)

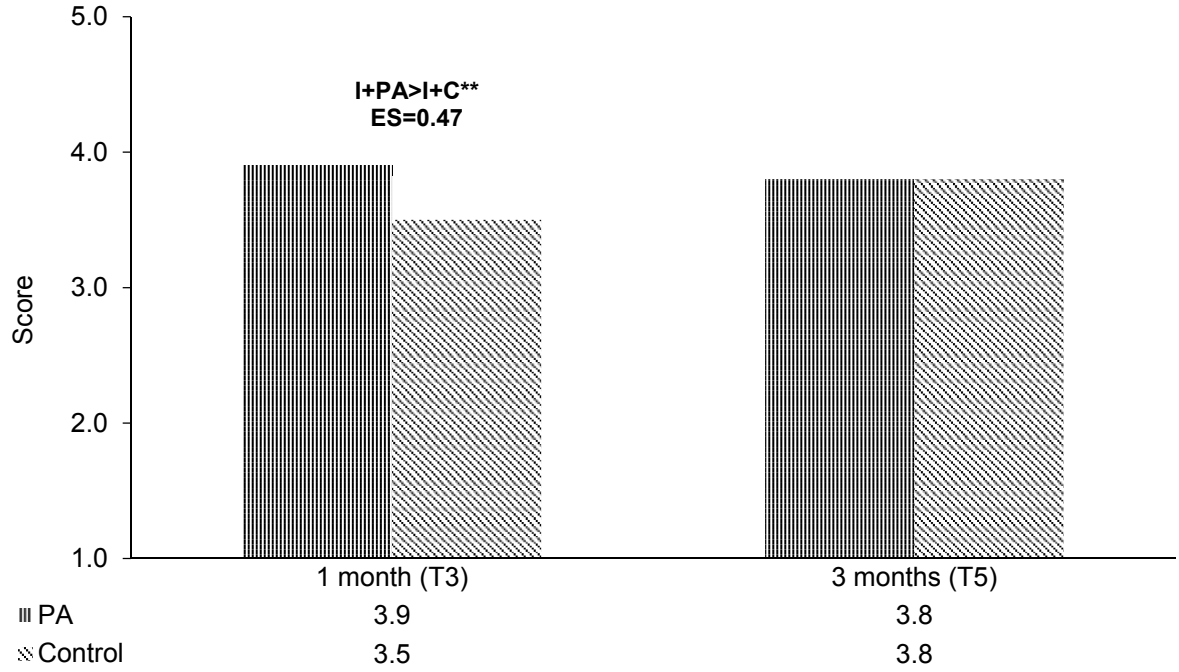


*p<0.05; ***p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.2.6 Subjective change in engaging ZTEx

Figure 5.14 shows the subjective change in doing ZTEx with family members at 1 month was significantly greater in the I+PA group than I+C group (ES=0.47, *p*=0.001), indicating short term effectiveness of PA message intervention with small effect size.

Figure 5.14 Subjective change in doing ZTEx with family members (1-5)



***p*<0.01

ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

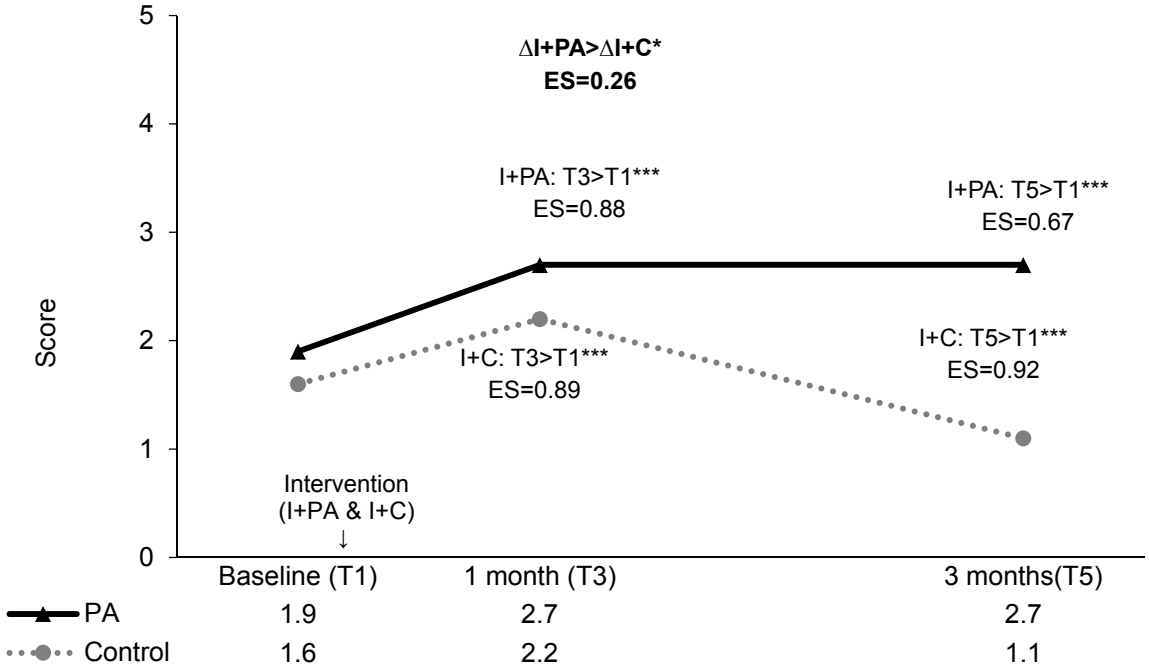
Note. Subjective changes were not measured at baseline and immediately after the first session

5.7.3.2.7 Discussing ZTEx with family members

Figure 5.15 shows significant increases in discussing ZTEx with family members in both groups at 1 month and at 3 months with large effect size (I+PA group: ES=0.88, p<0.001 and ES=0.67, p<0.001, respectively; I+C group: ES=0.89, p<0.001 and ES=0.92, p<0.001, respectively).

The increase at 1 month was significantly greater in the I+PA group than I+C group, indicating the short-term effectiveness of PA message intervention with small effect size (ES=0.26, p=0.042).

Figure 5.15 Discussing ZTEx with family members (1-5)

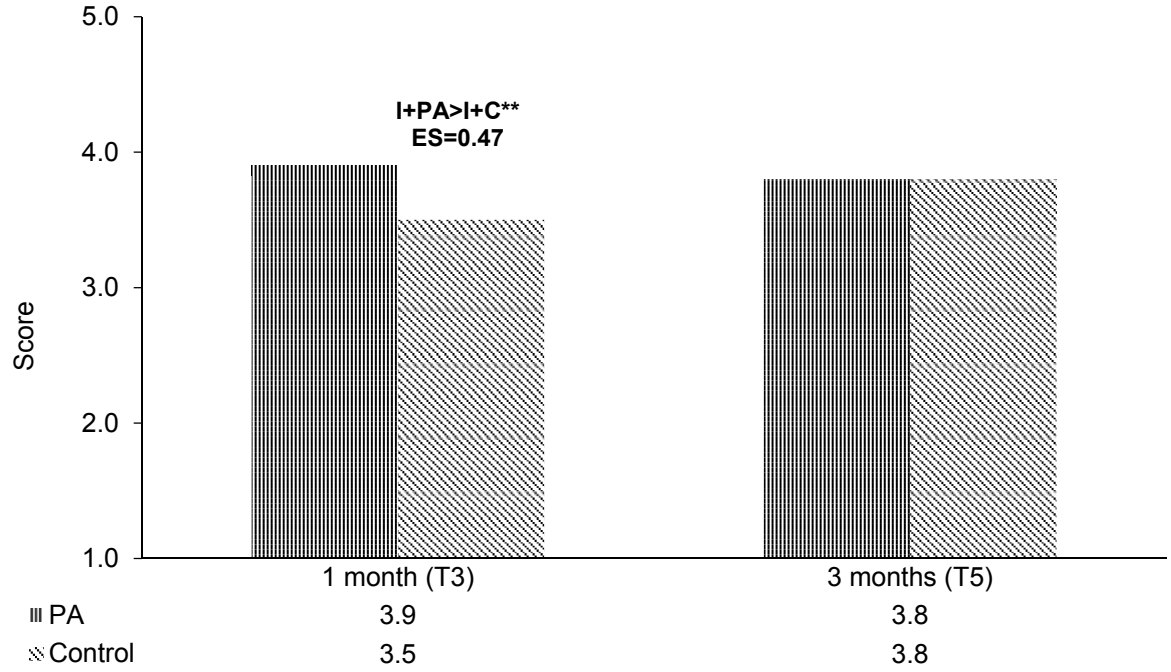


*p<0.05; ***p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.2.8 Subjective change in engaging ZTEx

Figure 5.16 shows the subjective change in doing ZTEx with family members at 1 month was significantly greater in the I+PA group than I+C group (ES=0.47, *p*=0.001), indicating short term effectiveness of PA message intervention with small effect size.

Figure 5.16 Subjective change in doing ZTEx with family members (1-5)



***p*<0.01

ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

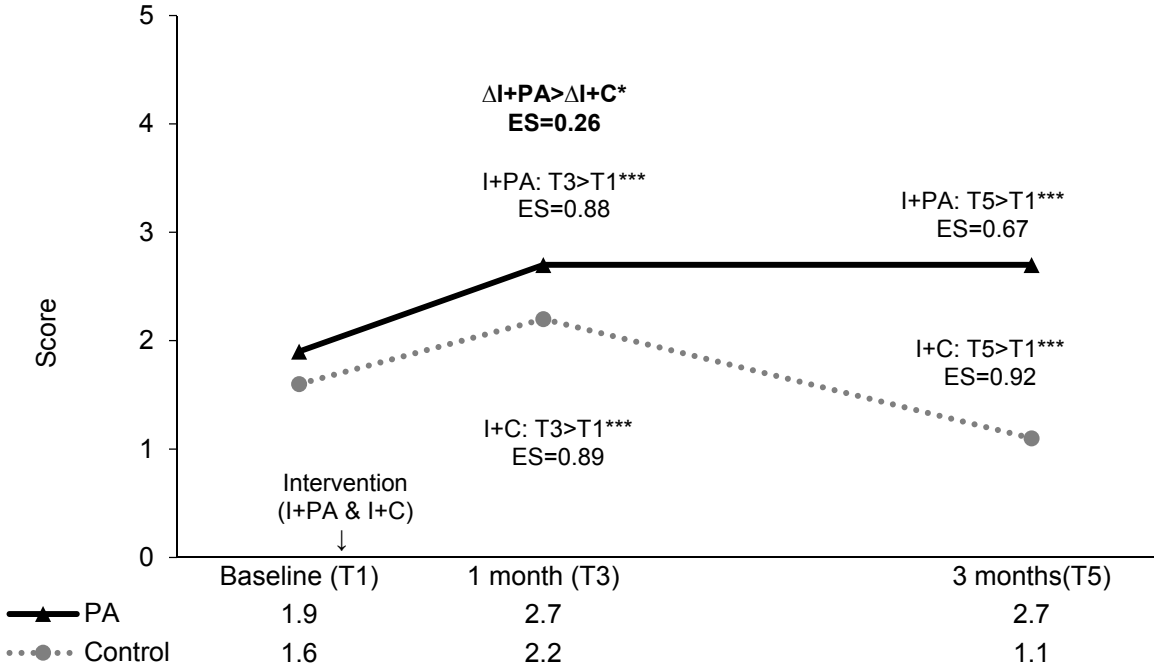
Subjective changes were not measured at baseline and immediately after the first session

5.7.3.2.9 Discussing ZTEx with family members

Figure 5.17 shows significant increases in discussing ZTEx with family members in both groups at 1month and at 3 months with large effect size (I+PA group: ES=0.88, p<0.001 and ES=0.67, p<0.001, respectively; I+C group: ES=0.89, p<0.001 and ES=0.92, p<0.001, respectively).

The increase at 1 month was significantly greater in the I+PA group than I+C group, indicating the short-term effectiveness of PA message intervention with small effect size (ES=0.26, p=0.042).

Figure 5.17 Discussing ZTEx with family members (1-5)



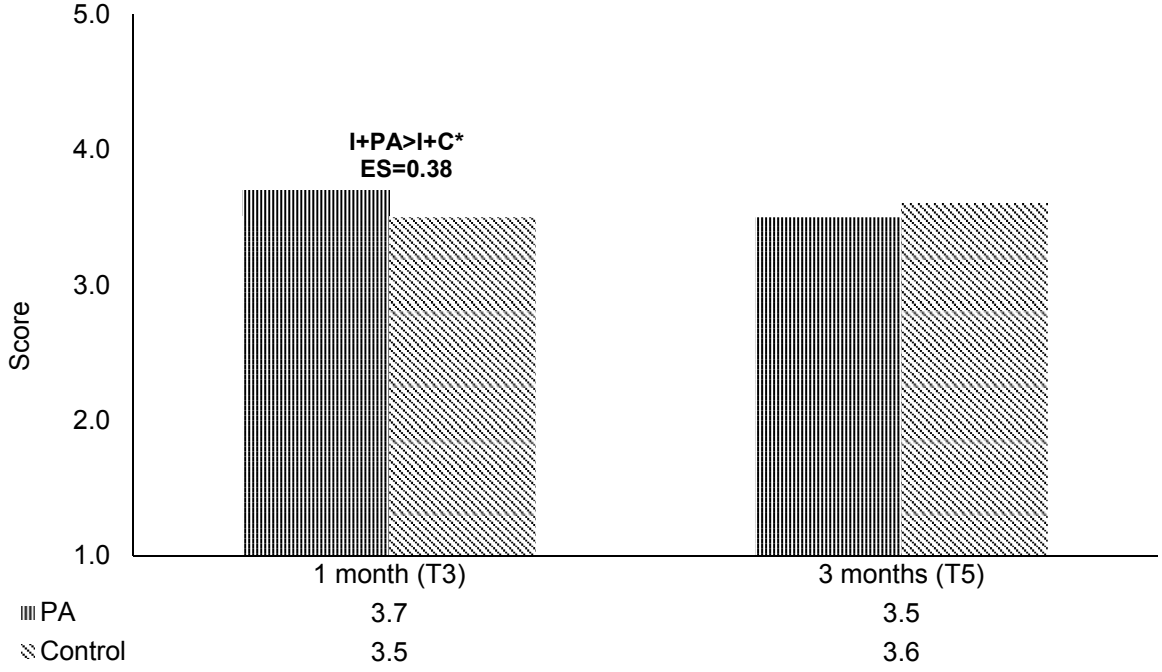
*p<0.05; ***p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.2.10 Doing ZTEx with family members

5.7.3.2.10.1 Subjective change in doing ZTEx with family members

Figure 5.18 shows the subjective change in doing ZTEx with family members at 1 month was significantly greater in the I+PA group than I+C group, indicating the short-term effectiveness of the PA message intervention with small effect size (ES=0.38, $p<0.001$).

Figure 5.18 Subjective change in doing ZTEx with family members (1-5)

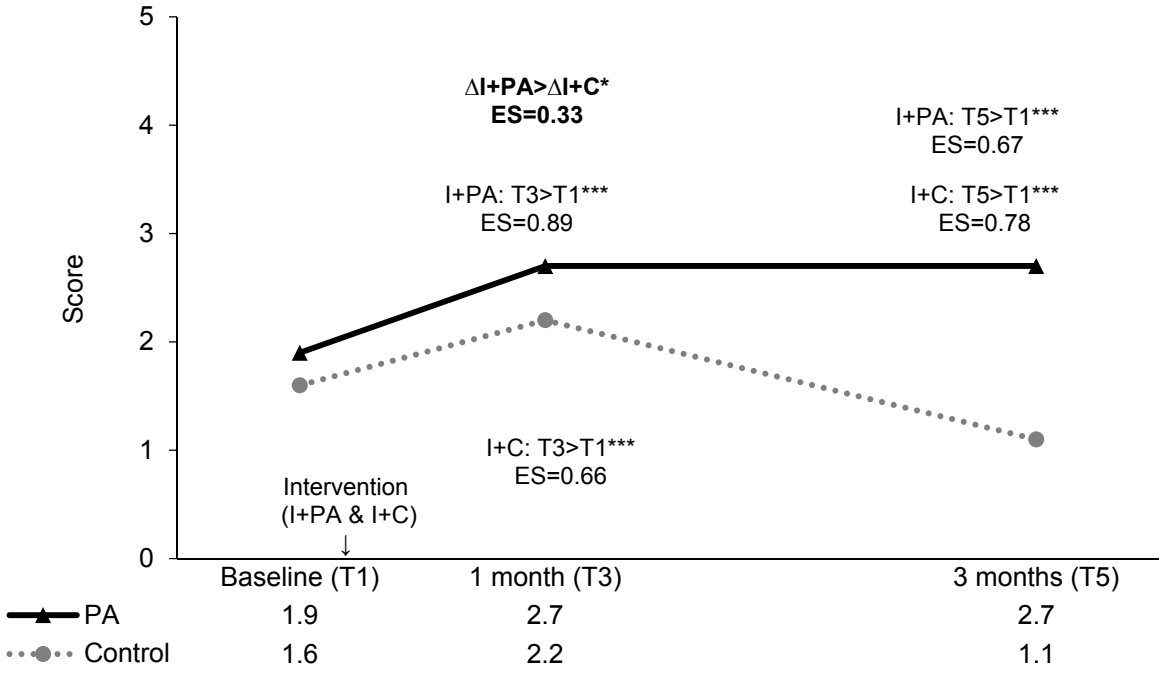


*$p<0.05$
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80
Subjective changes were not measured at baseline and immediately after the first session

Figure 5.19 shows significant changes in doing ZTEx with family members in both groups at 1 month and 3 months (I+PA group: ES=0.89, p<0.001 and ES=0.67, p<0.001, respectively; I+C group: ES=0.66, p<0.001 and ES=-0.78, p<0.001, respectively).

The increase at 1 month was significantly greater in the I+PA group than I+C group, indicating the short-term effectiveness of PA message intervention with small effect size (ES=0.33, p=0.012).

Figure 5.19 Doing ZTEx with family members (1-5)

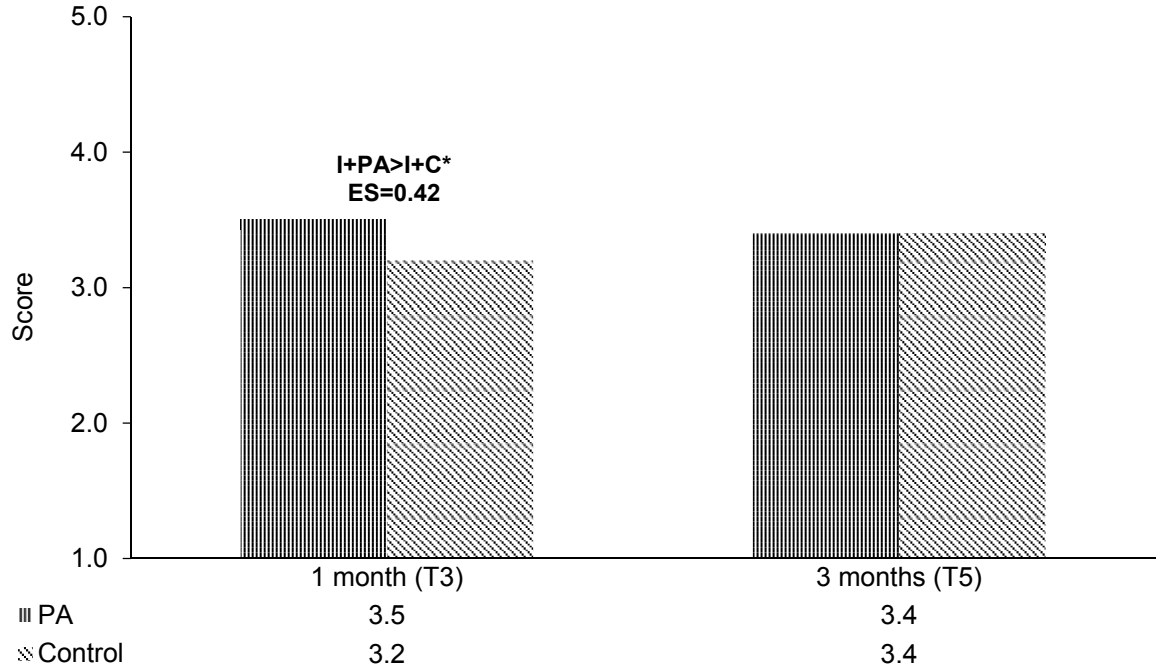


*p<0.05; ***p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.2.11 Subjective change in doing ZTEx with family members

Figure 5.20 shows the subjective change in doing ZTEx with family members at 1 month was significantly greater in the I+PA group than I+C group, indicating the short-term effectiveness of PA message intervention with small effect size (ES=0.42, $p<0.001$).

Figure 5.20 Subjective change in doing ZTEx with family members (1-5)



*$p<0.05$

ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

Note. Subjective changes were not measured at baseline and immediately after the first session

5.7.3.3 Physical fitness performance

Table 5.4 shows significant improvements in performance on the 30-second chair stand test and the chair sit-and-reach test in both groups with small to medium effect size (I+PA group: ES=0.41-0.52, $p<0.001$; I+C group: ES=0.40-0.67, $p<0.001$). Right hand grip strength significantly increased in the I+C group with small effect size (ES=0.19, $p=0.039$). However, the two groups showed no significant differences in the changes.

Table 5.4 Physical fitness performance at baseline and 1-month follow-up (n=35)

	I+PA group			I+C group			Difference in changes between two groups
	Pre-training	1 month	Pre→1 month	Pre-training	1 month	Pre→1 month	
	Mean (SD)		*p*-value[a]/ES[b]	Mean (SD)		*p*-value[a]/ES[b]	*p*-value[a]/ES[b]
Body weight (kg)	55.37 (11.46)	58.74 (11.83)	0.10/0.05	59.41 (11.69)	59.16 (10.80)	0.45/0.07	0.45/0.20
30-second chair stand test (no. of stands)	22.94 (2.87)	26.02 (7.75)	**<0.001***/0.52**	26.03 (6.88)	29.62 (7.89)	**<0.001***/0.67**	0.31/0.14
Single leg stance test (seconds)	92.85 (37.23)	95.52 (35.70)	0.22/0.12	102.8 (31.24)	105.8 (29.24)	0.22/0.14	0.80/0.03
Chair sit-and-reach test (cm)	2.51 (8.65)	4.41 (9.16)	**<0.001***/0.41**	5.51 (9.81)	7.54 (9.76)	**<0.001***/0.40**	0.40/0.11
Hand grip strength - left (kg)	26.76 (6.47)	27.10 (6.28)	0.37/0.09	27.66 (8.21)	28.50 (7.46)	0.039*/0.19	0.57/0.14
Hand grip strength - right (kg)	28.25 (7.73)	28.64 (7.60)	0.27/0.11	29.77 (9.47)	30.24 (8.35)	0.25/0.11	0.25/0.04

† $p<0.10$; * $p<0.05$; ** $p<0.01$; *** $p<0.001$

[a] *p*-value for the difference between baseline and 1-month follow-up

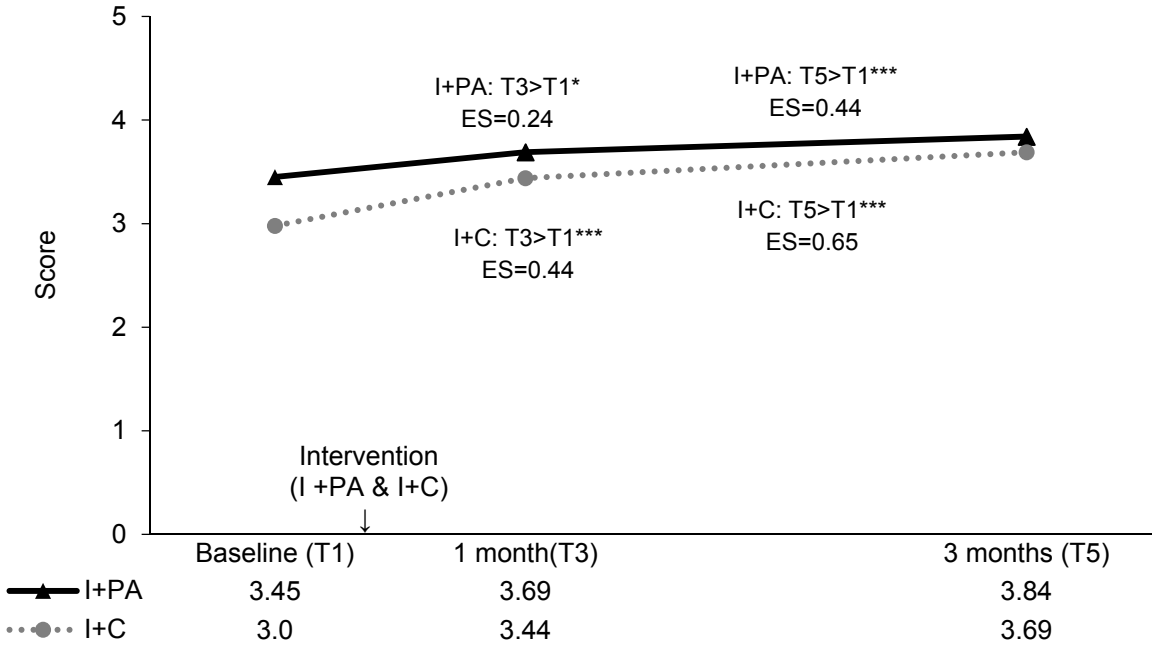
[b] ES=effect size (Cohen's d): small=0.20; medium=0.50; largeu=0.80

5.7.3.4 Dietary practice

5.7.3.4.1 Less sugar consumption practice

Figure 5.21 shows significant increases in less sugar consumption practice in both groups at 1 month and 3 months (I+PA group: ES=0.24, p=0.013 and ES=0.44, p<0.001, respectively; I+C group: ES=0.44, p<0.001 and ES=0.65, p<0.001, respectively). The effect size ranged from small to medium. The two groups showed no significant differences in the changes.

Figure 5.21 Less sugar consumption practice (1-5)

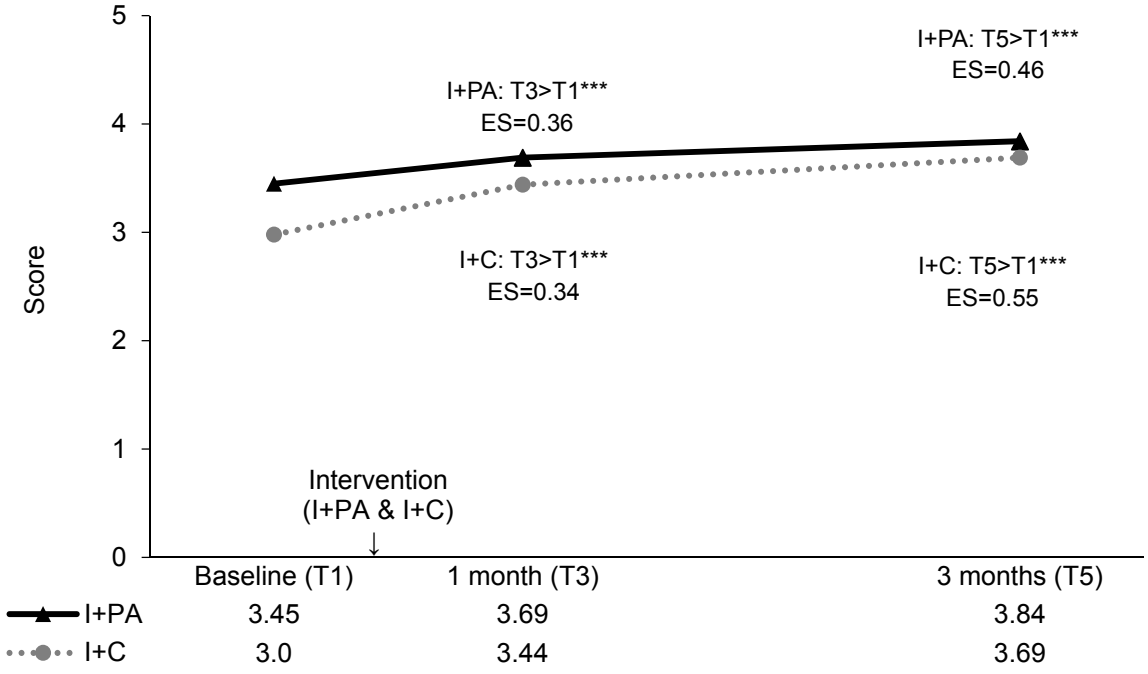


*p<0.05; ***p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.4.2 Discussing less sugar consumption with family members

Figure 5.22 shows significant increases in discussing less sugar consumption with family members in both groups at 1 month and 3 months (I+PA group: ES=0.36, p<0.001 and ES=0.34, p<0.001, respectively; I+C group; ES=0.46, p<0.001 and ES=0.55, p<0.001, respectively). The effect size ranged from small to medium. The two groups showed no significant differences in the changes.

Figure 5.22 Discussing less sugar consumption with family members (1-5)

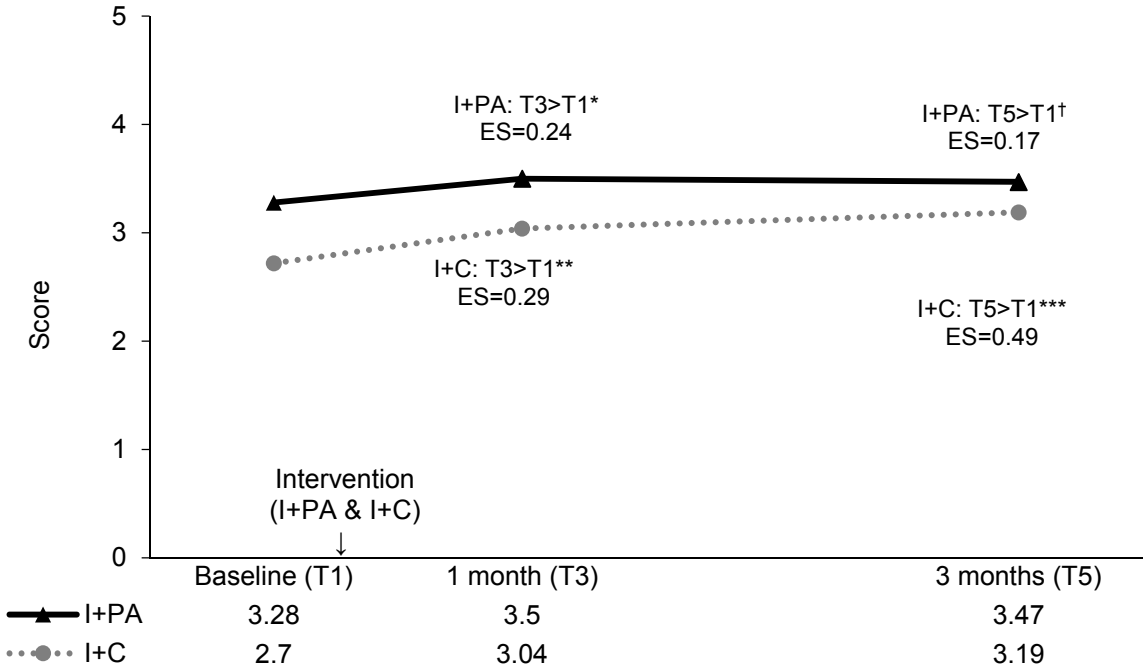


***p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.4.3 Adopting less sugar consumption practice with family members

Figure 5.23 shows significant increases in less sugar consumption practice with family members in the I+C group at 1 month and 3 months (ES=0.29, p=0.002 and ES=0.49, p<0.001, respectively). The I+PA group showed a significant increase at 1 month and a marginally significant increase at 3 months (ES=0.24, p=0.011 and ES=0.17, p=0.07, respectively). The effect size was small. The two groups showed no significant differences in the changes.

Figure 5.23 Adopting less sugar consumption practice with family members (1-5)



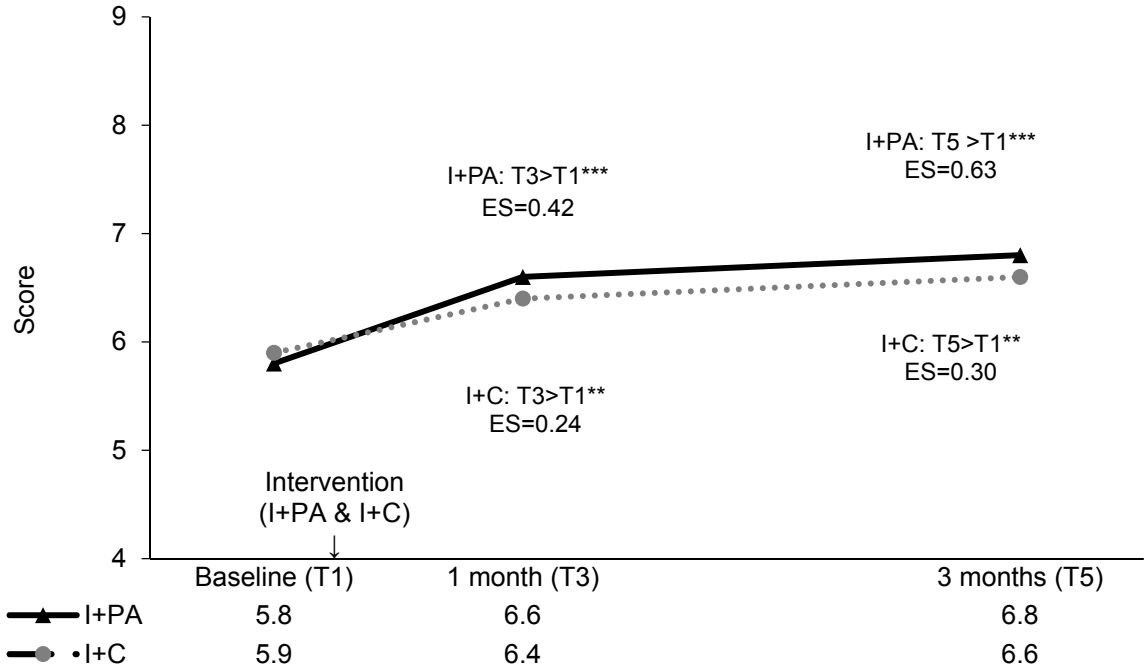
† p<0.10, * p<0.05; ** p<0.01; *** p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.5 Self-reported personal well-being

5.7.3.5.1 Self-reported personal health

Figure 5.24 shows significant increases in self-reported personal health in both groups at one month and three months with small to medium effect size (I+PA group: ES=0.42 p<0.001 and ES=0.63, p<0.001, respectively; I+C group: ES=0.24, p=0.009 and ES=0.30, p=0.001, respectively). The two groups showed no significant difference in the changes.

Figure 5.24 Self-reported personal health (0-10)



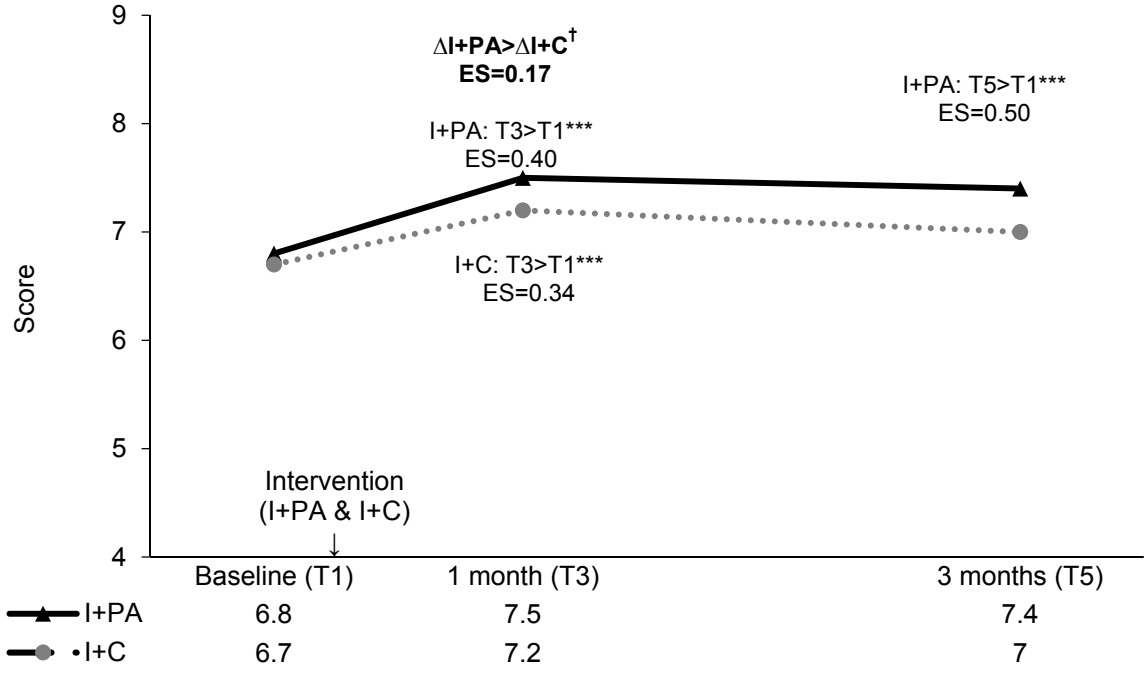
** p<0.01; *** p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.5.2 Self-reported personal happiness

Figure 5.25 shows significant increases in self-reported personal happiness in I+PA group at 1 month and 3 months (ES=0.40, p<0.001 and ES=0.50, p<0.001, respectively), and a significant increase in the I+C group at 1 month (ES=0.34, p<0.001). The effect size ranged from small to medium.

The increase in personal happiness at 1 month was marginally significantly greater in the I+PA group than I+C group (ES=0.17, p=0.06), which could be suggestive evidence of the effectiveness of PA message intervention.

Figure 5.25 Self-reported personal happiness (0-10)



† p<0.10, *** p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

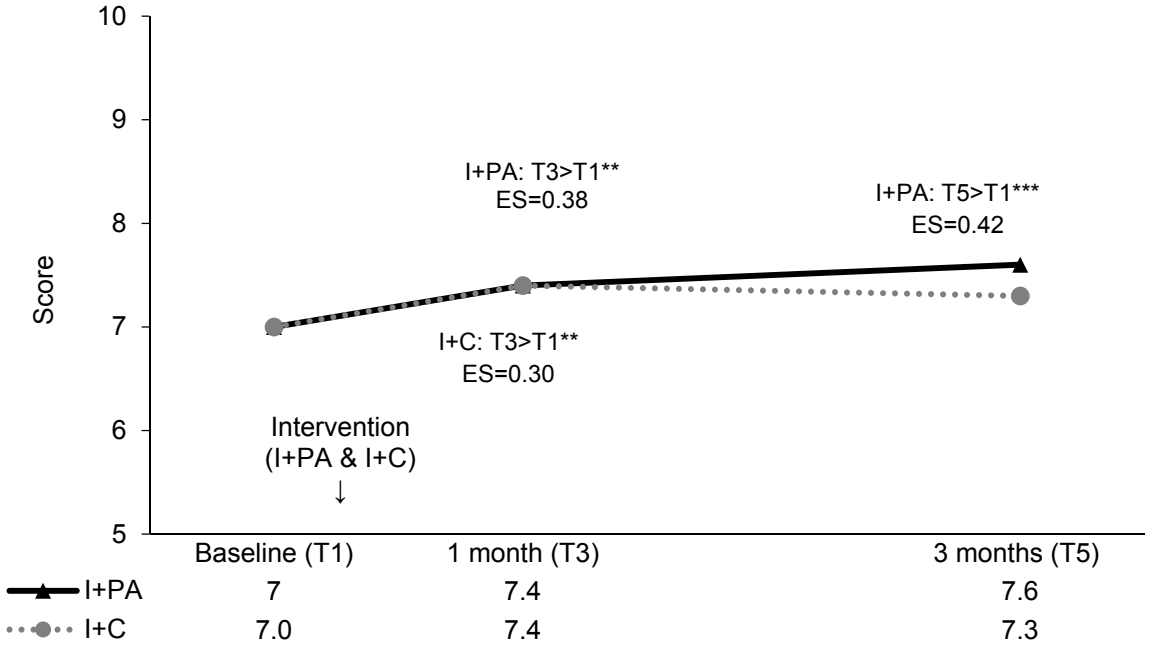
5.7.3.6 Self-reported FAMILY 3Hs

5.7.3.6.1 Self-reported FAMILY health

Figure 5.26 shows significant increases in FAMILY health in the I+PA group at 1 month and 3 months (ES=0.38 p=0.007 and ES=0.42, p<0.001, respectively) and a significant increase in the I+C group at 1 month (ES=0.30 p=0.001). The effects size was small.

However, the two groups showed no significant differences in the changes.

Figure 5.26 Self-reported FAMILY health (0-10)

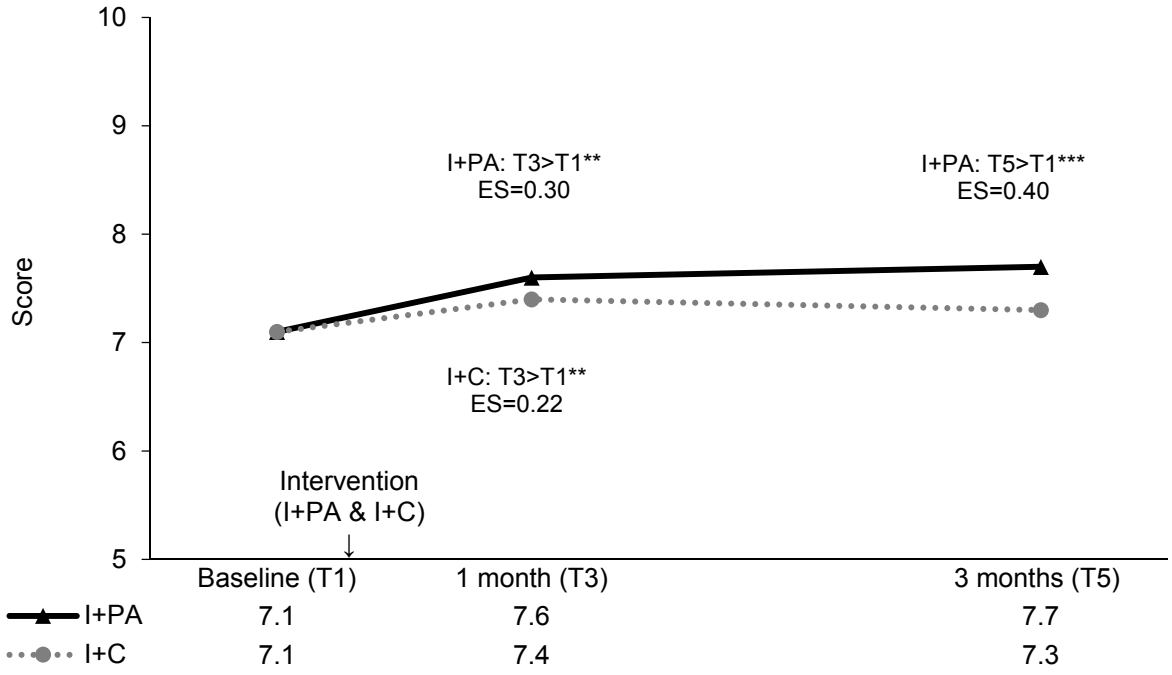


** p<0.01; *** p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.6.2 Self-reported FAMILY happiness

Figure 5.27 shows significant improvements in self-reported FAMILY happiness in I+PA group at 1 month and 3 months (ES=0.30, p=0.001 and ES=0.40, p<0.001, respectively) and a significant improvement in the I+C group at 1 month (ES=0.22, p<0.01). The effect size was small. The two groups showed no significant differences in the changes.

Figure 5.27 Self-reported FAMILY happiness (0-10)

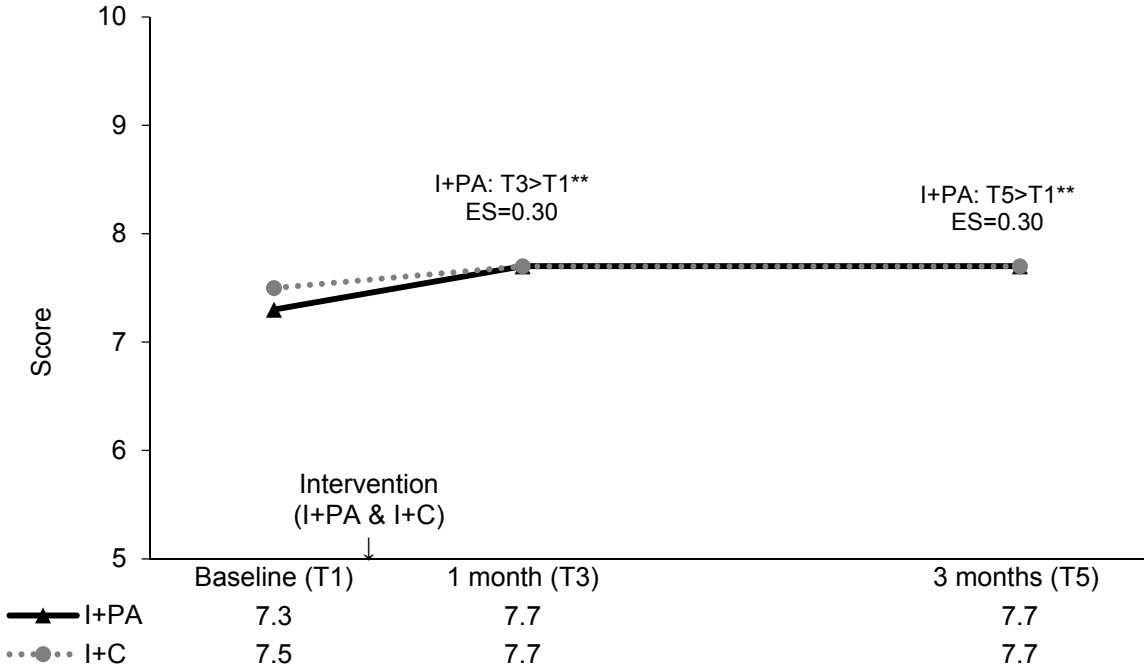


† p<0.10, * p<0.05; ** p<0.01; *** p<0.001
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.3.6.3 Self-reported FAMILY harmony

Figure 5.28 shows significant improvements in self-reported FAMILY harmony only in the I+PA group at 1 month and 3 months (ES=0.30, $p<0.01$ and ES=0.30, $p<0.01$, respectively). The two groups showed no significant differences in the changes.

Figure 5.28 Self-reported FAMILY harmony (0-10)



** $p<0.01$
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

5.7.4 Feedback

5.7.4.1 TTA workshops

From the on-site direct observation in the process evaluation, trainees were highly engaged with active participation and enthusiasm in the training. They appreciated the training very much, particular in the physical fitness assessments, and the atmosphere was joyful. ZTEx demonstration and in-class practice, and lots of interaction between interventionists who conducted the training and trainees.

Immediately following the core session, trainees rated the quality of content as 8.8±1.4 and level of utility of the intervention was rated as 8.7±1.3 on a scale of 0 to 10. All participants (99.5%) reported that they would recommend the workshop to their friends and families.

Immediately following the booster session, trainees rated the quality of intervention content as 8.6±1.5 and the level of utility of the intervention was rated as 8.4±1.4 on a scale of 0 to 10. All participants (95%) reported that they would recommend this intervention workshop to their friends and families.

5.7.4.2 Electronic messages

At 1-month assessment, trainees rated the quality of content as 8.8±1.4 and the level of utility of the intervention was rated as 8.7±1.3 on a scale of 0 to 10. All participants (99.5%) reported that they would recommend this intervention workshop to their friends and families.

5.7.4.3 Reasons for trainees engaging and not engaging in ZTEx

Figure 5.29 shows trainees' feedback on the electronic message at 1-month assessment. Trainees indicated that the three main reasons of engaging in ZTEx were "easy-to-do" (59%), "able to improve health" (59%) and "could be done at any time" (56%).

Figure 5.29 Reasons for trainees engaging in ZTEx at 1 month

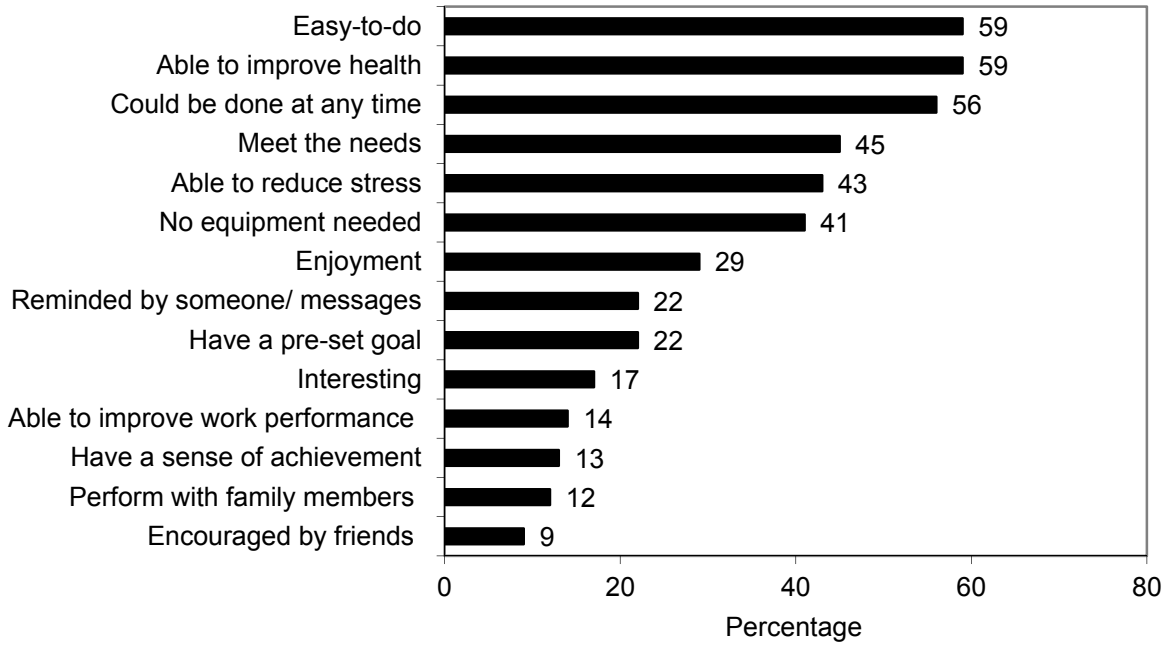
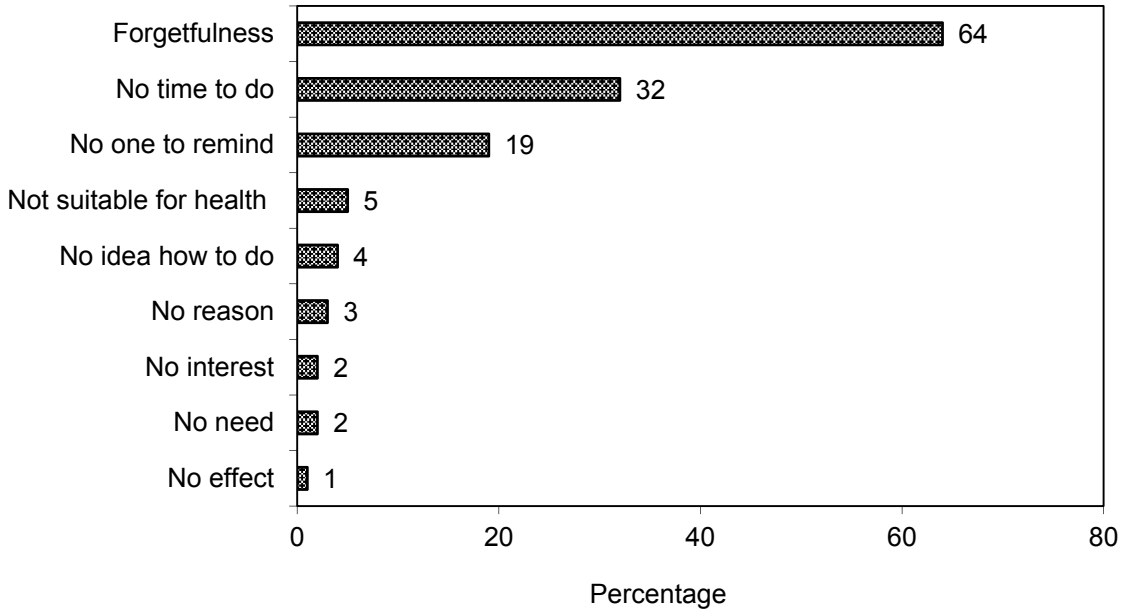


Figure 5.30 shows that the three main reasons of not engaging in ZTEx were “forgetfulness” (64%), “no time to do” (32%) and “no one to remind” (19%).

Figure 5.30 Reasons for trainees not engaging in ZTEx



5.7.5 Summary of quantitative results

Overall, the results of the TTA suggested that the workshops were acceptable and effective. Feedback from the trainees indicated that the programme and electronic messages were well-accepted.

The results on changes in the two groups showed that our 2-session in-class training was effective in enhancing health-related behaviours, including physical activity, ZTEx and low sugar consumption, sharing of the learning with family members, physical fitness as well as personal and family well-being in both groups. The cRCT between-group results comparing I+PA group versus I+C group (control) showed that the additional physical activity–related mobile messages further enhanced the trainees’ moderate physical activity, intention and practices of engaging in ZTEx, and engaging in ZTEx with family members. Some outcome measures showed no changes after intervention, which suggested that the positive responses and improvements were no substantially due to social desirability bias (i.e. that respondents were likely to over-report socially desirable answers).

These results suggested that ZTEx is an effective and innovative approach to increase physical activity and fitness performance, family communication and well-being. These activities were designed to make an easy behavioural change that can be readily integrated into daily life and introduced to family members. In addition, short electronic messages can further enhance health behaviour such as physical activity.

5.8 Qualitative results

5.8.1 Demographic characteristics

Three focus group interviews were conducted for four university student helpers, three programme workers and ten parents in November 2017. The majority of the trainees were aged 30-39 years and female (88%).

Table 5.5 Sociodemographic characteristics of trainees who joined the focus group interviews (n=17)

Characteristic	n (%)
Sex	
Male	2 (12)
Female	15 (88)
Age group (years)	
20-29	6 (35)
30-39	7 (41)
40-49	3 (18)
50-59	1 (6)
Education	
Secondary	11 (65)
Tertiary	6 (35)

5.8.2 Focus group interview

The main themes generated from the focus groups included “impression on the programme”, “implications on future works” and “barriers in behaviour change”. The trainees commented that the workshops were well-organised with detailed explanations; and the electronic messages reminded them the importance of being active and to do exercise regularly. They were impressed by the new innovative exercise concept. Their health knowledge and awareness and family communication were enhanced.

The main themes, subthemes, and categories relevant to the research questions in Chinese are shown below with translated quotations in English. Table 5.6 shows the quotes from the university student helpers and BGCA staff and Table 5.7 shows the quotes from the parents.

Table 5.6 Quotes from university student helpers and BGCA programme staff

Themes	Sub-themes	Quotes
Impression of the programme	The drama was attractive	“我諗都係個話劇，因為吸引到佢哋睇囉，同埋入面有啲內容可以等大家都會吸收到。”(學生義工，女，20-29 歲，G0205) “I think it’s the drama, because this attracted them. And there was some content that allowed us to absorb.” (Student Volunteer, female, 20-29 yr, G0205)
	Had fun when organising the events	“其實我覺得係好玩嘅，因為我之前做，即係我未返 BGCA 做義工嘅時候呢，都有做啲 fun fair 啊，或者講座都有參加過做義工嘅，但如果你話真係入學校同小朋友做嗰個（Physical Exercise）Fun Day 嗰個呢，即係機會好少囉，咁所以其實對我嚟講小朋友覺得開心之餘我自己都覺得好好玩囉。”(計劃助理，男，20-29 歲，G0202) “Actually, I think it was fun, because before I had come to BGCA to be a volunteer, I had done volunteer work for fun fair or talk. But, if you say really go to school and have a (Physical Exercise) Fun Day with the kids, the chance is rare. So, to me, not only the kids felt happy, me myself also had great fun.” (Programme Worker, male, 20-29 yr, G0202) “因為真係，一嚟就喺度幫返公司自己手喇，二嚟就係對住啲參加者其實同佢哋玩…咁令到其實中間係好開心嘅，同埋有一個好特別嘅經驗就係重返校園啊我覺得係，將成件事帶返去校園成件事就開心咗好多。”(社工，女，20-29 歲，G0203) “Because it was really, on one hand helped my organisation, on the other hand, when facing the participants and played with them…it made me feel very happy when doing it. And it is a very special experience to go back to school, bringing the whole thing back to school made it much happier.” (Social Worker, female, 20-29 yr, G0203)

Themes	Sub-themes	Quotes
	Reaction from the participants	***Impressed by the knowledge*** “我覺得糖份嗰啲樽，係我成個 TTA 裏面我覺得係最 impress 嘅…實體化地 show 到俾人哋睇, 呢度一罐汽水飲咗幾多糖…特別係你哋好好已經係做哂喺一個 display 裏面有幾多糖份呢。呢樣嘢我覺得連我自己都好 impressed 囉。其實我覺得因為其實做運動可能好多出面唔同 programme 都有講。大家香港人都會注意到呢樣嘢，反而少鹽少糖，特別糖份嗰度呢，我覺得係每次去 TTA 唔同學校呢，啲家長即係參加者都會係好驚訝，嘩原來一罐汽水有咁多糖。” (計劃助理，男，20-29 歲，G0202) “I think the bottle with sugar inside, is the most impressed part in the TTA…It vividly showed how much sugar your drink is from a bottle of soda drink, especially you clearly displayed the amount of sugar inside. I feel it’s very impressive to me as well. Actually, I think maybe exercise, there are many different programmes that mention this part, so Hong Kong people are all aware of this. But the less salt less sugar part, especially the sugar part, every time when we went to different schools (to do the event), the parent participants were all greatly shocked, oh! so much sugar in a bottle of soda drink.” (Programme Worker, male, 20-29 yr, G0202)
		Participants enjoyed ZTEx “我哋啲 community show 嗰啲活動呢，我哋都見到有啲遊戲都去加入咗「零時間運動」嗰啲元素喺入面嘅，咁都見到啲義工啊帶啲小朋友玩其實都見到，家長同佢哋都玩得好開心嘅。” (項目助理，女，20-29 歲，G0201) “In our community shows, we saw some ZTEx elements had been put into the games, and I saw the volunteers played with the kids, can tell that both the parents and the kids playing with great fun.” (Programme Worker, Female, 20-29 yr, G0201) “做咗幾場啲地區 show 啦，同埋入咗廿幾間學校入面做嗰個（Physical Exercise）Fun Day 嘅時候都同啲細路仔，有啲就家長都有接觸嘅…（我哋會同講）其實「零時間運動」係好好嘅，其實好簡單㗎喇，出拳都已經係「零時間運動」，係點都做到嘅，去答返啲家長囉。” (社工，女，20-29 歲，G0203) “Completed some community shows, and went in to more

Themes	Sub-themes	Quotes
		than 20 schools and ran the (Physical Exercise) Fun Day, (we) had some contacts with the kids and some parents (and we'd say this to the parents)'Actually ZTEx is very good. Because it's very simple, only do a fist is already ZTEx, you can do it easily.' (we would reply this) to the parents." (Social Worker, female, 20-29 yr, G0203)
	Difficulty to do questionnaire	"其實係…唔係唔鍾意，但係難…難…難答囉，因為有啲係可能統計你一個禮拜有做幾多個運動啊，或者食幾多嘢啊，其實要再諗返自己，呢個係難答囉。" (計劃助理，男，20-29歲，G0202) "Actually, it is not you like it or not, it's…difficult…difficult to answer (the questions in the questionnaire). Because some would ask how much exercise you did in a week, or had how much food, actually you need to think about it yourself, it's hard to answer." (Programme Worker, male, 20-29 yr, G0202)
Implications of the programme	More engagement with different people	"主要接觸到小朋友，可能要見家長喇，可能上咗年紀嘅都會接觸到。都係一個好機會嚟嘅，可以接觸多啲唔同嘅人。" (學生義工，女，20-29歲，G0205) "Mainly contacted the kids, but maybe also needed to meet the parents, maybe would meet some older people. It's a good chance to contact different people." (Student Volunteer, female, 20-29 yr, G0205)
	Gained knowledge in health	"因為我以前同我妹講話：「你唔好食咁多薯片啊」，可能「你唔好飲咁多汽水」，就咁齋講係…即係無乜…唔夠力囉，佢覺得「你都係」，即係唔當我係…可能家姐係想管細妹咁樣，但如果依家我又即係…已經有晒資料喇，有晒圖，有晒短片啊，同佢講嘅時候呢，可能佢會覺「係真係唔好㗎喎」，就會少啲拗撬，因為佢知我真係為佢好囉。" (計劃助理，男，20-29 歲，G0202) "Before I would tell my younger sister: "it's not good to eat so many chips or you should not drink so much soda drinks." But it's just saying， nothing much (to the sister), powerless. She thought you just want to tell me what to do as a big sister. But now I already have these materials, have the pictures, and the videos, then when I talked to her, she would feel, it (eating junk food) is really not good, and then she'd argue less with me, because she knows I am really saying that for her good." (Programme Worker, male, 20-29 yr, G0202)

Themes	Sub-themes	Quotes
		“因為我做咗 100 場嘅 show 出咗去，其實我自己都會記得啲信息， 即係我返到去…「零時間運動」有時都會記得就會做吓咁樣囉。” (項目助理，女，20-29 歲，G0201) “Because I have done 100 shows, actually me myself would remember the information, it’s like when I go back (home) sometimes I would do ZTEx when I think of it.” (Programme Worker, female, 20-29 yr, G0201)
	More family communication	“同佢（阿媽）講咗呢排（健康信息）之後，就會傾多咗亞妹嘅嘢囉。因為其實叫佢唔買都係為咗亞妹健康咋嘛，跟住佢就會同我講返亞妹啲問題啊。因為我妹就唔係好講佢啲問題俾我聽…所以我媽依家就講啲咁嘅問題俾我聽咁，咁我就幫手分析咁。” (項目助理，女，20-29 歲，G0201) “After talking about the (health information) with her (the mum), will talk more about my little sister. Because asked her (the mum) not to buy it was mainly for the sister, and then she will talk more issues about my sister. Because my sister does not say much about her things to me…so my mum now will talk about her issues to me, then I can help to analyse things.” (Programme Worker, female, 20-29 yr, G0201)
	Increased self-efficacy in doing exercise	“同埋都…因為認識咗（「零時間運動」），就可能覺得唔係嘥好多時間都肯去做下。” (學生義工，女，20-29 歲，G0205) “And now know (ZTEx), then think it’s not using too much time so I’d do it.” (Student helper, female, 20-29 yr, G0205)

Table 5.7 Quotes from parents

Themes	Sub-themes	Quotes
Impressions of the programme	Comprehensive content	“其實我覺得每一 part（training）都幾好嘅，因為喺你成個生活係包括囉…係應該呢啲咁嘅元素，先至會令到你健康㗎嘛，所以其實我係覺得，你做齊咁多嘢呢就等於健康嘅生活、人生喇咁樣。” (媽媽，40-49 歲，G301) “Actually, I think every part (of the training) is quite good, because it included all the elements (that) should be (paid attention to) in life, and then (these elements) can make you healthy. So actually, I feel, (when) you have done all

		these elements, that equals to healthy living and a healthy life." (Mother, 40-49 yr, G301) "我以為去聽講座，但原來唔係㗎喎，咁多唔同類型嘅嘢。" (媽媽，30-39 歲，G101) "I thought it's just to attend a lecture, but turned out it's not, (there were) so many different types of things." (Mother, 30-39 yr, G101)
	Impressed by ZTEx	***Less limit*** "（「零時間運動」）隨時隨刻都可以做到嘅啲運動。" (媽媽，30-39歲，G101) "(ZTEx) is exercise you can do anytime." (Mother, 30-39 yr, G101) "（「零時間運動」讓你）正面去諗嘅…因為好簡單呀啲運動，其實你唔需要諗，你特登要 book 個場呀要，或者約好多人呀，咁你一個人都可以做到嘅。" (媽媽，30-39 歲，G101) "(ZTEx made you) think positively…because the exercise is very simple, actually you don't have to think, you don't need to particularly book a venue, or ask many people (to join you), then you can do it yourself alone." (Mother, 30-39 yr, G101) ***New concept*** "（「零時間運動」）新穎啲囉，唔使話局限住去做一樣嘢囉。" (媽媽，40-49歲，G102) "(ZTEx) is something new, don't have to be constraint to do only one thing." (Mother, 40-49 yr, G102)
	Messages enhanced motivation	"有 WhatsApp（提醒）嗰陣時呢比較有大推動力。" (媽媽，40-49 歲，G301) "(I felt) more motivated when there was WhatsApp (reminder)." (Mother, 40-49 yr, G301)
	Suggestion	***Provide exercise expenditure*** "（我想知）譬如，我哋做er踩半個鐘頭單車，可以消耗到幾

		多卡路里呀…” (媽媽，30-39歲，G101) “(I want to know) such as, when I did half an hour cycling in the air, how many calories it burns…” (Mother, 30-39 yr, G101) ***<u>More messages to remind to do exercise</u>*** “所以我哋個訊息應該係要，可唔可以額外send多少少? 我哋有陣時，有1，2個動作，真係有幾個動作真係唔記得㗎。” (媽媽，40-49歲，G102) “So, I think the messages are needed…can you send a few more messages? There’s sometimes, one or two movements, there are really some movements we couldn’t remember.” (Mother, 40-49 yrs, G102)
Implications	Knowledge gains	“多咗好多健康知識囉。會同小朋友分享。多咗好多唔知嘅嘢囉。” (媽媽，40-49歲，G104) “Gained a lot of knowledge about health. And will share it with kids. Got to know many things that I didn’t know before.” (Mother, 40-49 yr, G104)
	Increase risk perception	“好健康嘅訊息囉，（信息讓我）注意吓嗰啲飲食，即係而家唔好食咁甜呀，（因為這些信息）真係減到飲甜嘢，真係瘦啲嘅。” (媽媽，40-49 歲，G102) “The messages are very healthy, (they) reminded us to pay attention to the diet, means now it’s not good to eat too much sweet food, (so because of this I) did reduce drinking sweet stuff, (I) really become thinner.” (Mother, 40-49 yr, G102) “有㗎，呢個（甜嘢攝入）佢（孩子）有 care，佢而家知道，哇，一盒檸檬茶…一盒咪有七粒糖呀！” (媽媽，40-49 歲，G301) “Yes, this (sugary intake) he (the kid) cares, now he knows, wa, a pack of lemon tea…a pack has 7 cubes of sugar!” (Mother, 40-49 yrs, G301)
	More family communication and interaction	“我老公問，你做乜成日喺度遊吓遊吓，我話呢啲「零時間運動」嚟㗎，唔駛錢。阿仔做功課做到悶，（我會）企喺度，拉吓筋，佢（個仔）問你做乜遊吓遊吓，我話，即係依樣會對身體好，咁你有時間你都拉下筋啦。” (媽媽，40-49 歲，G102) “My husband asked me, why are you moving (so restlessly)

		all the time. I said it's ZTEx, need no money…when I got bored while doing the homework with my son, (I would) stand there, do some stretching, he (the kid) ask you why are you moving (so restlessly), I said, it's (the movements) good for health, you should do these stretching as well when you have time." (Mother, 40-49 yr, G102) "個仔成日都叫我做(「零時間運動」)㗎，因為我個仔鍾意運動嘅…都喺屋企鍾意運動啦…" (媽媽，30-39 歲，G103) "The son asked me to do (ZTEx) every day, because he likes doing exercise…he likes to do exercise at home…" (Mother, 30-39 yr, G103)
Barriers in behaviour change	Dietary habit due to culture	"譬如平時我去酒樓呢，鍾意嗌啲糖水食咚…一碗碗嗰啲糖水啊，咩紅豆沙綠豆沙…雙皮奶呀，杏仁糊嗰啲…中國人呀（都係鍾意嗰啲）…" (媽媽，50-59歲，G303) "Such as when I go to the Chinese restaurant, (I) likes to order the Chinese dessert sweet soups, such as red bean soup, green bean soup…double-layer milk pudding, almond paste…Chinese (all like such desserts) …" (Mother, 50-59 yr, G303)
	Optimistic bias	"細路哥…都係有啲唔夠堅持（做運動），（佢會講）：“我學校都有體育堂啦，已經成日郁啦，仲郁？”唔知係…佢覺得，即係佢仲係細個，覺得對身體呢樣嘢仲未好好注意，所以就仲未好緊張。" (媽媽，40-49歲，G301) "Some young kids…not persistent in doing it (the exercise), (they would say): "I have PE lesson at school, already keep moving every day, still (ask me) to move?" Not sure if…he thinks he is still young, so not yet pay attention to health, so he isn't very serious about this." (Mother, 40-49 yr, G301)

5.9 Discussion and conclusions

The trainees had been benefited from the programme. In general, they showed:

- High acceptability of the training programme;
- Improved knowledge, self-efficacy, attitude in relation to ZTEx;
- Increased physical activity, physical fitness performance; and
- Improved personal and family well-being.

The trainees indicated that the training was comprehensive and practical. The physical fitness assessments were the most highly rated component of the training intervention. The

mobile health messages can further enhance trainees' intention of engaging in ZTEx, which can remind trainees to perform exercise regularly, and further increase their moderate physical activity and involvement of their family members in ZTEx.

There were several limitations in our study. First, because validated questionnaires were not available, we developed our outcome-based questionnaire to assess the changes in trainees. We measured perceptions and not actual knowledge and skills. Perceived knowledge and skills, may not reflect actual knowledge and skills acquired and can be influenced by the individual's personality, self-perception, and may be under- or over-estimated depending upon numerous factors in play at the time when completing the questionnaire. In addition, social desirability bias might have exaggerated the positive findings. Because some self-reported outcomes did not show any changes, the effect of social desirability bias was unlikely to be substantial. We did get indirect information about actual knowledge and skills by examining the trainees' proposals, the design and content of the programmes and the delivery process, which fulfilled our requirement. Objective measures or tests/examinations of specific knowledge and skills would provide stronger evidence in future studies. Examination of the effective components of our training strategies would be a future direction for research, and may allow refinement of the programme for broader dissemination.

This programme trained lay individuals to implement health promotion and intervention activities, which can reduce the demand on resources and manpower from financially strapped and understaffed social and health service. The vigorous evaluation has yielded good evidence on the effects of academic and community partnerships, capacity-building and evidence-based practice, which are essential elements for large scale community-based interventions. It also offers a practical example of building capacity programme, which should be helpful to others seeking to develop such programmes in diverse communities. We strongly advocate the fusion of "Best Practice" (from community organisations) with the "Best Science" (from academia) to increase the strength of social service and empower social service organisations to integrate the experiences gained above into their existing and future programmes.

CHAPTER 6 PUBLIC EDUCATION HEALTH COMMUNICATION

6.1 Booster programme and website

A booster programme was arranged for all the participating schools to ensure that the students could put the health concepts into daily practice, and the students who joined the School Drama Tour were invited to participate in the booster programme after the performance. The booster programme included a checklist for monitoring their achievement within 1 month. Moreover, students were encouraged to participate in the competition of ZTEx creation. The checklist reminded the students about the daily application and parents can monitor their achievement within a certain period of time according to the instructions in the checklist. Souvenirs were presented to the participating students who returned the checklist and creative idea after 1month. To encourage participation, awards were also given to ten schools with the best participation rate. There were 688 participants from 100 schools till the end of the project.

A healthy lifestyle with ZTEx refers to any physical activity using zero money, zero time and zero equipment. In order to increase the students' interest in ZTEx, the project held a competition of ZTEx creation, to encourage them to design the new ZTEx. Winning entries have been uploaded in our website and Facebook page. The following are some of the winning entries:

Figure 6.1 Winning entries

6.2 DVD and Handbook on Family Holistic Health

30,000 DVD of the drama show, together with a family holistic health handbook to promote the concepts of 3Hs were published and distributed to the students and parents. The contents of the Handbook on Family Holistic Health included the introduction of the drama, the theme songs, five health tips (focusing on ZTEx, 2+3 [two servings of fruits and three servings of vegetables], less junk food, 3Ls-1H [three 'lows', low fat, low salt and low sugar; and one 'high', high fibre], more appreciation and less criticism), the key concepts of FAMILY 3Hs, some reflective questions concerning the family holistic health messages, the introduction of our booster programme, and the hyperlink to our website and Facebook page. For schools which could not join the drama show, copies of the DVD and the handbook were provided to them so that students and the parents can watch the show together with their children at home and discuss the issues and the messages and the implications to daily life and join the booster programme afterwards.

CHAPTER 7 DISCUSSION AND CONCLUSIONS

7.1 Overall project discussion

This research adopted a cRCT approach. Participating schools were randomly assigned into three groups: two intervention groups (Group A and Group B) and one control group (Group C). Group A watched a 60-minute drama performance and had activities at school, Group B watched a 60-minute drama performance. Both groups were given a DVD of the performance and worksheets. Students were encouraged to watch the DVD with the family. The weekly worksheets comprised questions designed to reinforce messages in the drama or DVD and to ensure that the students and parents have incorporate the health concepts into daily practice over 1 month with the help of checklists. Group C, a waitlist control group, received the intervention upon the completion of the study.

7.1.1 Student feedback and ratings on the programme (live drama, DVD and worksheets)

76.9% of students in the intervention groups gave strongly like or like ratings on the FDP II (Figure 4.3a). 74.6% of intervention group students gave strongly like or like ratings on the DVD (Figure 4.4a). These showed that both the live drama show and DVD were attractive intervention tools to students. 63.9% of families strongly liked or liked the DVD (Figure 4.5). However, this question was answered by the students, but more than one-third of the students answered that their families had not seen this DVD. 15.7% of the students had an in-depth discussion and 30.7% of students had a brief discussion with their families (Figure 4.6). These results showed that about 50% families had discussed about the DVD with their children, but only a small percentage of families watched the DVD directly. Another intervention tool was the worksheets, which comprised three sections. For intervention groups, ZTEx creation had the highest ratings, followed by lifestyle checklists and Q&A (Figure 4.7a). These showed that drawing was a more interesting way for students to get involved.

Intervention students were asked if they wanted to watch a new show next time. More than 85% commented that they wanted or strongly wanted (Figure 4.9). Most of the students looked forward to a new show, thus activities of similar types and themes should be organised in the future.

Intervention students were also asked if the worksheets could enhance FAMILY 3Hs. While more than 55% and 60% of Group A and Group B students agreed or strongly agreed, about 28% of students answered “No comment” (Figure 4.8). Students were also asked if they would recommend FDP II to others. While 49.1% and 52.7% of Group A and Group B students would or definitely would, about 27% of each group answered “Not sure” (Figure 4.10). Qualitative evaluations, including telephone interviews and focus group discussion showed a lot of positive feedback, which can help better understand the factors affecting students’ comments.

Significantly better ratings were obtained from students in lower grades (Figures 4.3b, 4.4b and 4.7b), suggesting that more junior students would be more receptive to the programme,

although a clear difference in programme effectiveness by grade was not observed. Future drama performance may also include Primary 2 students, and upper grade students may need different drama and related interventions.

7.1.2 Students' health behaviours

The intervention results were generally satisfactory. Compared to the control group, students in Group B had significant decreases in consumption of soda drinks at T2 and T3 with small effect size, indicating short-term effectiveness of the short drama intervention.

7.1.3 Knowledge of health

The interventions were more generally effective for all items from T1 to T2 compared to control group. Figure 3.7b shows that from T1 to T2, intervention students (Group A and Group B) showed greater increase in all of the health knowledge items than the control group, such as the salt content of potato chips, the effect of sugary beverage and fewer movements and of sedentary behaviour on body weight, and the sugar content of cola.

The intervention was also generally effective in increasing knowledge of the salt content of potato chips, the effect of fewer movements and of sedentary behaviour on body weight and the sugar content of cola from T1 to T3. Figure 3.7b shows that from T1 to T3, more intervention students (Group A and Group B) showed increase in almost all of the health knowledge items than the control group.

7.1.4 Parent-child interactions

The interventions were effective for praising. In Figure 3.8b, compared to the control group, more Group B students were praised by mum T1 to T2, and more Group A students praised mum than the control group from T1 to T2 and T1 to T3.

The interventions were generally effective for parental involvement in day-to-day activities and the level of parent-child intimacy as well. Figure 3.10a shows that compared to the control group, for paternal interactions more intervention students (Group A and Group B) played and jogged with dad from T1 to T2; more Group A students studied, played and were touched by dad from T1 to T3; and more Group B students watched television with dad from T1 to T2. Figure 3.10b shows that compared to the control group, for maternal interactions, more intervention students (Group A and Group B) were touched by mum from T1 to T2; more Group A students were touched by mum and jogged with mum from T1 to T2 and T1 to T3; more Group A students hung out with mum from T1 to T2; more Group B students were more likely to be hugged by mum from T1 to T2 and T1 to T3; and more Group B students studied and chatted with, and were touched, and kissed by from T1 to T2. There was some evidence, though not significant, that some items showed medium effect size.

7.1.5 FAMILY 3Hs of the families

Although perceived improvements on FAMILY 3Hs were observed for both intervention groups (Figure 3.14), no immediate and short-term significant differences in students' self-reported personal health and self-reported FAMILY happiness and harmony were observed between intervention group and the control group (Figures 3.11-3.13). The results on FAMILY 3Hs might not be very obvious compared with those on health behaviours and

parent-child interactions, probably because it was easier for primary students to directly imitate those health behaviours and interactions activities from the drama, while it was more difficult for them to fully understand and grasp the concept of FAMILY 3Hs and provide an assessment. Ceiling effect (meaning that the baseline values were already too high in the scale and could hardly be increased), which was observed for all the questions on self-reported FAMILY 3Hs, might have masked the positive changes of the students. The questions/scales might not be sensitive to detect small changes.

7.1.6 Process evaluation

The process evaluation clearly showed that the intervention programmes were very much welcomed by the participants as they found the programmes useful, could meet their needs, improve their eating and physical activity and family relationships. Students, parents and teachers were very satisfied with the programme and health- and family-related improvements. However, measuring long-term effects on the participants and their families remains a challenge.

The qualitative study clearly showed the many improved outcomes of different themes, which corroborated the results of the quantitative assessments. However, a few parents brought up the difficulties in programme details which included the need to improve the programme schedule. Some students and parents were resistant to changes, and what had been learnt could be easily forgotten.

7.2 Limitations

Firstly, ceiling effect was observed for questions on self-reported FAMILY 3Hs. Better questions and scales are needed to minimise the ceiling effect and detect smaller difference. The use of questions on self-reported subjective changes is needed as a supplementary assessment tool. Secondly, future programmes that aim to make an impact on parents' interaction and booster programme should be highlighted in the programme elements, because the improvement of students' physical health is strongly related with parents' influence and school activities, but is difficult to measure and needs a longer follow-up. Thirdly, the long drama did not seem to be effective according to the comparisons between Groups A and B. In order to enhance the effectiveness of the drama, future intervention programmes should perhaps consider increasing the intensity and number of booster programmes. Fourthly, we did not know whether the schools had any follow-up interventions after our programme. Last but not least, to improve the sustainability of any intervention effect, the participating schools are suggested to adopt the conceptual framework used in this project in their future work. Future programmes, with more boosters, could have more and longer follow-up (e.g. 12-month post-intervention) to evaluate the long-term effect or sustainability of the intervention. Whether the schools had further follow-up interventions should also be assessed.

7.3 Conclusions and recommendations

Putting school-based student-performed musical drama on the community stage had marvellous effects on the FAMILY 3Hs behaviours of the student performers, while increasing the public's receptiveness to FAMILY Holistic Health messages with fun. The appeal of physical activity was also enhanced by the introduction of ZTEx to students, Health Ambassadors and the public. Most importantly, the all-round evaluation of students, parents, teachers and the trained workers generated further evidence of the project's positive impacts and consolidated a new model for promoting FAMILY 3Hs from the classroom to the community.

In general, FDP II was well received by the subjects, and satisfactory results of the programme in improving students' physical health and parent-child interactions were observed. Although perceived improvements on health behaviour and FAMILY 3Hs were observed, the programme had only small effects on health behaviour changes and self-reported FAMILY 3Hs.

This evaluation highlighted room for improvement in future programmes with more emphasis on the awareness and understanding of students towards FAMILY 3Hs. Prior briefing of schools and teachers by the FAMILY Project Team would be useful for better implementation and evaluation. It is useful to include qualitative interviews to understand the effects of the programme.

The encouraging results of these projects have shown that a musical drama performed by professional actors and the students themselves, accompanied by family-viewing DVDs, worksheets and activities have provided a powerful and effective method for improving healthy living habits and family communication among primary students and their families. Whether performed in schools or on the community stage, the interactive musicals with student actors and popular sing-along songs created a warm and enthusiastic atmosphere, helping people of all ages to embrace 3Hs-enhancing practices into their daily lives. Better yet, these positive FAMILY 3Hs impacts can be extended to the community through public performances, Health Ambassadors and themed competitions, thus creating a valuable work model for the public and education sectors to spread the benefits of FAMILY 3Hs to all levels of society.

ACKNOWLEDGEMENTS

The FAMILY Project Team would like to thank The Hong Kong Jockey Club Charities Trust for funding this project. We would like to thank Mr. Tsui Hon Ming, Mr. Chan Pik Fai, Mr. Chan Chi Hung, Ringo and other staff from The Boys' and Girls' Clubs Association of Hong Kong for their collaboration in managing this project, recruiting schools, collecting questionnaires and all the activities. We are also grateful for the hard work put in by the many student helpers. Last but not least, we would like to thank all the participating schools, students and families for their cooperation and participation, without whom the project would not have been possible.

REFERENCES

1. Hong Kong Monthly Digest of Statistics: Health Exercise for All Campaign - Physical Fitness Test for the Community. In. Edited by Census and Statistics Department; 2013.
2. Ackerman NW: Theory of Family Dynamics. *Psychoanalysis and the Psychoanalytic Review* 1959, 46(4):33-50.
3. Jackson DD: Family rules: Marital quid pro quo. *Archives of General Psychiatry* 1965, 12:589-594.
4. Minuchin S: Families and family therapy. Cambridge, MA: Harvard University Press; 1974.
5. Bowen M: Family therapy in clinical practice. New York: Jason Aronson; 1978.
6. Christian LG: Understanding families: Applying family systems theory to early childhood practice. *YC Young Children* 2006, 61(1):12.
7. Van Velsor PR, Cox DL: Use of the collaborative drawing technique in school counseling practicum: An illustration of family systems. *Counselor Education and Supervision* 2000, 40(2):141-152.
8. Bowen M: Family therapy in clinical practice: Jason Aronson; 1993.
9. Nichols MP, Schwartz RC, Minuchin S: Family therapy: Concepts and methods: Gardner Press New York; 1984.
10. Fletcher GJ: Cognition in close relationships. *New Zealand Journal of Psychology* 1993.
11. Koerner AF, Fitzpatrick MA: Toward a theory of family communication. *Communication theory* 2002, 12(1):70-91.
12. Koerner AF, Fitzpatrick MA: Family communication patterns theory: A social cognitive approach. *Engaging theories in family communication: Multiple perspectives* 2006:50-65.
13. Shearman SM, Dumlao R: A cross-cultural comparison of family communication patterns and conflict between young adults and parents. *Journal of Family Communication* 2008, 8(3):186-211.
14. Watzlawick P, Bavelas J, Jackson D: Chapter 2. Some tentative axioms of communication. New York, NY: WW Norton & Company; 1967.
15. Olson DH, Barnes H: Family communication. *Minneapolis: Life Innovations* 2004.
16. Bandura A: Social Learning Theory. In.: Englewood Cliffs, NJ: Prentice-Hall; 1977.
17. Bandura A: Social Cognitive Theory. *The International Encyclopedia of Communication* 1989.
18. Cohen J: Statistical power analysis for the behavioral sciences. *NJ: Lawrence Earlbaum Associates* 1988, 2.
19. Morse JM: Qualitative research methods for health professionals; 1995.
20. Krishna S, Boren SA, Balas EA: Healthcare via cell phones: a systematic review. *Telemedicine and e-Health* 2009, 15(3):231-240.
21. Whittaker R, Borland R, Bullen C, Lin RB, McRobbie H, Rodgers A: Mobile phone-based interventions for smoking cessation. *Cochrane database syst Rev* 2009, 4(4).
22. Fjeldsoe BS, Marshall AL, Miller YD: Behavior change interventions delivered by mobile telephone short-message service. *American journal of preventive medicine* 2009, 36(2):165-173.

23. Cole-Lewis H, Kershaw T: Text messaging as a tool for behavior change in disease prevention and management. *Epidemiologic reviews* 2010, 32(1):56-69.

24. O'Reilly GA, Spruijt-Metz D: Current mHealth technologies for physical activity assessment and promotion. *American journal of preventive medicine* 2013, 45(4):501-507.

25. Schwarzer R: Modeling health behavior change: How to predict and modify the adoption and maintenance of health behaviors. *Applied Psychology* 2008, 57(1):1-29.

26. Draycott S, Dabbs A: Cognitive dissonance 1: An overview of the literature and its integration into theory and practice in clinical psychology. *British Journal of Clinical Psychology* 1998, 37(3):341-353.

27. Draycott S, Dabbs A: Cognitive dissonance 2: A theoretical grounding of motivational interviewing. *British Journal of Clinical Psychology* 1998, 37(3):355-364.

28. Macfarlane DJ, Lee CC, Ho EY, Chan K, Chan DT: Reliability and validity of the Chinese version of IPAQ (short, last 7 days). *Journal of Science and Medicine in Sport* 2007, 10(1):45-51.

29. Lee PH, Macfarlane DJ, Lam T, Stewart SM: Validity of the international physical activity questionnaire short form (IPAQ-SF): A systematic review. *International Journal of Behavioral Nutrition and Physical Activity* 2011, 8(1):115.

30. Roberts HC, Denison HJ, Martin HJ, Patel HP, Syddall H, Cooper C, Sayer AA: A review of the measurement of grip strength in clinical and epidemiological studies: towards a standardised approach. *Age and ageing* 2011, 40(4):423-429.

31. Trampisch US, Franke J, Jedamzik N, Hinrichs T, Platen P: Optimal Jamar dynamometer handle position to assess maximal isometric hand grip strength in epidemiological studies. *The Journal of hand surgery* 2012, 37(11):2368-2373.

32. Guralnik JM, Simonsick EM, Ferrucci L, Glynn RJ, Berkman LF, Blazer DG, Scherr PA, Wallace RB: A short physical performance battery assessing lower extremity function: association with self-reported disability and prediction of mortality and nursing home admission. *Journal of gerontology* 1994, 49(2):M85-M94.

33. Jones CJ, Rikli RE, Beam WC: A 30-s chair-stand test as a measure of lower body strength in community-residing older adults. *Research quarterly for exercise and sport* 1999, 70(2):113-119.

34. Newton R: Review of tests of standing balance abilities. *Brain injury* 1989, 3(4):335-343.

35. Jones CJ, Rikli RE, Max J, Noffal G: The reliability and validity of a chair sit-and-reach test as a measure of hamstring flexibility in older adults. *Research quarterly for exercise and sport* 1998, 69(4):338-343.

36. Creswell JW, Clark VLP: Designing and conducting mixed methods research. 2007.

APPENDICES

Appendix 1

FDP II assessment questionnaire

Figure A Assessment questionnaire, page 1 of 2

"EVALUATION ON FAMILY INTERACTIVE DRAMA WITH EXERCISE AND FUN" ASSESSMENT QUESTIONNAIRE

Note: Data collected in this questionnaire are only for academic research and statistical analysis. All personal information will be kept strictly confidential.

Please put a "✓" to the most suitable answer(s) you considered.

1. Where did you get this "Evaluation on Family Interactive Drama with Exercise and Fun"?
   ① Project's participating organisation ② The Hong Kong Jockey Club ③ District Council
   ④ Library ⑤ Community organisation ⑥ Social service organisation
   ⑦ Others, please specify: _____
2. Why did you get this "Evaluation on Family Interactive Drama with Exercise and Fun"? (can select more than one option)
   ① Free of charge ② Attractiveness of content ③ Content meets my needs
   ④ Related to my work, can be used as a reference ⑤ Participated in FAMILY Project
   ⑥ Want to explore the practice wisdom in this project ⑦ No reason
   ⑧ Others, please specify: _____
3. At **the time when you fill in this questionnaire,** how much content of "Evaluation on Family Interactive Drama with Exercise and Fun" have you read?
   ① Not at all (0%) ② Less than half (0%-49%) ③ Half (50%)
   ④ About three quarters (75%) ⑤ More than three quarters (76%-99%) ⑥ All (100%)
4. If you have not finished reading the "Evaluation on Family Interactive Drama with Exercise and Fun" yet, will you continue to read it?
   ① Yes, please explain: _____
   ② No, please explain: _____
5. Do you think the content of this "Evaluation on Family Interactive Drama with Exercise and Fun" practical?
   ① Very practical ② Practical ③ Neutral
   ④ Not very practical ⑤ Not practical at all
6. Do you think this "Evaluation on Family Interactive Drama with Exercise and Fun" can fulfil the following objectives?
   (Score 0 represents very incapable, score 10 represents very capable)
   a. Help readers know how to effectively design, implement and evaluate a community-based intervention project

0	1	2	3	4	5	6	7	8	9	10
Very incapable					Average					Very capable

   b. Deepen readers' understanding of the scientific rationale and model (Public health approach & Evidence-based and evidence generating [EBEG]) of this project

0	1	2	3	4	5	6	7	8	9	10
Very incapable					Average					Very capable

   c. Inspire readers to apply FAMILY 3Hs (Health, Happiness and Harmony) in their future project planning agenda

0	1	2	3	4	5	6	7	8	9	10
Very incapable					Average					Very capable

   d. Inspire readers to incorporating CBP & EBEG model and scientific evaluation into their future community-based activities

0	1	2	3	4	5	6	7	8	9	10
Very incapable					Average					Very capable

7. Which part of the "Evaluation on Family Interactive Drama with Exercise and Fun" do you feel satisfied the most? (can select more than one option)
   ① Introduction of Community-based Participatory (CBP) model
   ② Introduction of Evidence-based and evidence generating (EBEG) model
   ③ Evidence-based research — scientific evaluation for programmes
   ④ Impact of the community-based intervention programmes
   ⑤ Future suggestions and recommendations in different level of audiences
   ⑥ None
   ⑦ Others, please specify: _____

Figure B Assessment questionnaire, page 2 of 2

8. Do you have any plan to apply suggestions from this "Evaluation on Family Interactive Drama with Exercise and Fun" to design family activities? If yes, when will you intend to apply the suggestions?
   ① Not intend to do so, please specify reason(s): _____
   ② Within one month, please specify which suggestion(s) you will adopt: _____
   ③ Beyond one month but within half year, please specify which suggestion(s) you will adopt: _____
   ④ Beyond half year but within one year, please specify which suggestion(s) you will adopt: _____
   ⑤ Intend to, but not sure about the time, please specify which suggestion(s) you will adopt: _____
9. After reading "Evaluation on Family Interactive Drama with Exercise and Fun", what is your biggest acquisition? Do you have any other opinions?
   _____
   _____
10. Will you recommend this "Evaluation on Family Interactive Drama with Exercise and Fun" to others? And whom?
    ① Yes, my colleagues ② Yes, my friends ③ Yes, my organisation
    ④ Yes, other community stakeholders ⑤ No, I will not recommend to others
    ⑥ Others, please specify: _____
11. Sex:
    ① Male ② Female
12. Age:
    ① <18 years old ② 18-24 years old ③ 25-34 years old
    ④ 35-44 years old ⑤ 45-54 years old ⑥ 55-64 years old
    ⑦ 65 years old or above
13. Education level:
    ① Primary ② Secondary 1-3 ③ Secondary 4-5
    ④ Matriculated (Secondary 6-7) ⑤ Non-degree tertiary ⑥ Degree tertiary or above
14. Are you a registered social worker? ① Yes ② No
15. If yes, how long have you been working in the social service profession: _____ year(s)
16. If you are working in the social service profession, the target group(s) of your organization is/are: (can select more than one option)
    ① Resident ② Family ③ Adolescents
    ④ Women ⑤ Children & Teenagers ⑥ Elderly
    ⑦ Mentally handicapped ⑧ Disabled ⑨ Mentally rehabilitated
    ⑩ New arrivals ⑪ Ethnic minority ⑫ Others: _____
17. Are you a community stakeholder/leader? ① Yes ② No
18. How long have you been working for the community: _____ year(s)
19. If you are working for the community, your service target group(s) is/are: (can select more than one option)
    ① Resident ② Family ③ Adolescents
    ④ Women ⑤ Children & Teenagers ⑥ Elderly
    ⑦ Mentally handicapped ⑧ Disabled ⑨ Mentally rehabilitated
    ⑩ New arrivals ⑪ Ethnic minority ⑫ Others: _____

FAMILY Project aims to promote FAMILY 3Hs (Health, Happiness and Harmony), if you are willing to receive information from our project, please write down your contact information as follow:

Name: _____
Phone: _____
Email: _____
Address: _____

Appendix 2

Publications

Chan SS, Viswanath K, Au DW, Ma C, Lam W, Fielding R, Leung G, Lam T-H: Hong Kong Chinese community leaders' perspectives on family health, happiness and harmony: a qualitative study. Health education research 2011, *26*(4):664-674.

Chen J, Wang M-P, Wang X, Viswanath K, Lam T-H, Chan SS: Secondhand smoke exposure (SHS) and health-related quality of life (HRQoL) in Chinese never smokers in Hong Kong. BMJ open 2015, *5*(9):e007694.

Fabrizio CS, Hirschmann MR, Lam TH, Cheung T, Pang I, Chan S, Stewart SM: Bringing scientific rigor to community-developed programs in Hong Kong. BMC public health 2012, *12*(1):1129.

Fabrizio CS, Lam TH, Hirschmann MR, Pang I, Yu NX, Wang X, Stewart SM: Parental emotional management benefits family relationships: a randomized controlled trial in Hong Kong, China. Behaviour research and therapy 2015, *71*:115-124.

Fabrizio CS, Lam TH, Hirschmann MR, Stewart SM: A brief parenting intervention to enhance the parent-child relationship in Hong Kong: Harmony@Home. Journal of child and family studies 2013, *22*(5):603-613.

Fabrizio CS, Stewart SM, Ip AK, Lam TH: Enhancing the parent–child relationship: A Hong Kong community-based randomized controlled trial. Journal of Family Psychology 2014, *28*(1):42.

Ho HC, Mui M, Wan A, Ng Y-L, Stewart SM, Yew C, Lam TH, Chan SS: Happy Family Kitchen II: a cluster randomized controlled trial of a community-based family intervention for enhancing family communication and well-being in Hong Kong. Frontiers in psychology 2016, *7*:638.

Ho HC, Mui M, Wan A, Ng Y-l, Stewart SM, Yew C, Lam TH, Chan SS: Happy Family Kitchen: A community-based research for enhancing family communication and well-being in Hong Kong. Journal of Family Psychology 2016, *30*(6):752.

Ho HC, Mui M, Wan A, Ng Y-l, Stewart SM, Yew C, Lam TH, Chan SS: Happy Family Kitchen II: a cluster randomized controlled trial of a community-based positive psychology family intervention for subjective happiness and health-related quality of life in Hong Kong. Trials 2016, *17*(1):367.

Ho HC, Mui M, Wan A, Stewart SM, Yew C, Lam TH, Chan SS: Happy Family Kitchen: behavioral outcomes of a brief community-based family intervention in Hong Kong. Journal of Child and Family Studies 2017, *26*: 852–864.

Kavikondala S, Stewart SM, Ni MY, Chan BH, Lee PH, Li KK, McDowell I, Johnston JM, Chan SS, Lam TH, Lam WW: Structure and validity of Family Harmony Scale: an instrument for measuring harmony. Psychological assessment 2016, *28*(3):307.

Lai AY, Mui MW, Wan A, Stewart SM, Yew C, Lam T-h, Chan SS: Development and two-year follow-up evaluation of a training workshop for the large preventive positive psychology happy family kitchen project in Hong Kong. PLoS one 2016, *11*(1):e0147712.

Lai AY, Stewart SM, Mui MW, Wan A, Yew C, Lam TH, Chan SS: An evaluation of a Train-the-Trainer Workshop for social service workers to develop community-based family interventions. Frontiers in public health 2017, *5*:141.

Lai AY, Stewart SM, Wan A, Fok H, Lai HY, Lam T-h, Chan SS: Development and evaluation of a training workshop for lay health promoters to implement a community-based intervention program in a public low rent housing estate: The Learning Families Project in Hong Kong. PLoS one 2017, *12*(8):e0183636.

Lam T, Stewart S, Hirschmann M, Fabrizio C, Yu N: Can randomized controlled trials be conducted in community social service settings? Public health 2015, *129*(5):601-603.

Lam W, Fielding R, McDowell I, Johnston J, Chan S, Leung G, Lam T: Perspectives on family health, happiness and harmony (3H) among Hong Kong Chinese people: a qualitative study. Health education research 2012, *27*(5):767-779.

Lee PH, Macfarlane DJ, Lam TH. Factors associated with participant compliance in studies using accelerometers. Gait & posture 2013, *38*(4):912-917.

Lee PH, McGrath CP, Kong AY, Lam TH. Self-report poor oral health and chronic diseases: the Hong Kong FAMILY project. Community dentistry and oral epidemiology 2013, *41*(5):451-458.

Lee PH, McGrath CP, Kong AY, Lam TH. Self-reported oral health and quality of life: a latent growth curve analysis. International journal of behavioral medicine 2014, *21*(2):358-363.

Lee PH, Nan H, Yu YY, McDowell I, Leung GM, Lam TH. For non-exercising people, the number of steps walked is more strongly associated with health than time spent walking. Journal of science and medicine in sport 2013, *16*(3):227-230.

Lee PH, Stewart SM, Lun V, Bond MH, Yu X, Lam TH. Validating the concord index as a measure of family relationships in China. Journal of Family Psychology 2012, *26*(6):906-915.

Lee PH, Yu YY, McDowell I, Leung GM, Lam TH. A cluster analysis of patterns of objectively measured physical activity in Hong Kong. Public health nutrition 2013, *16*(8):1436-1444.

Leung GM, Ni MY, Wong PTK, Lee PH, Chan BHY, Stewart SM, Schooling MC, Johnston JM, Lam WWT, Chan SSC, McDowell I, Pang H, Fielding R, Lam TH**.** Cohort profile: FAMILY cohort. International journal of epidemiology 2015*, 46*(2):1-13.

Leung SS, Lam T: Group antenatal intervention to reduce perinatal stress and depressive symptoms related to intergenerational conflicts: a randomized controlled trial. International journal of nursing studies 2012, *49*(11):1391-1402.

Li HCW, Chan SS, Mak YW, Lam TH: Effectiveness of a parental training programme in enhancing the parent–child relationship and reducing harsh parenting practices and parental stress in preparing children for their transition to primary school: a randomised controlled trial. BMC public health 2013, *13*(1):1079.

Li WH, Mak YW, Chan SS, Chu AK, Lee EY, Lam T: Effectiveness of a play-integrated primary one preparatory programme to enhance a smooth transition for children. Journal of health psychology 2013, *18*(1):10-25.

Nan H, Lee PH, McDowell I, Ni MY, Stewart SM, Lam TH. Depressive symptoms in people with chronic physical conditions: prevalence and risk factors in a Hong Kong community sample. BMC psychiatry 2012, *12*(1):198.

Nan H, Lee PH, Ni MY, Chan BH, Lam TH. Effects of depressive symptoms and family satisfaction on health related quality of life: the Hong Kong FAMILY study. PLoS one 2013, *8*(3):e58436.

Nan H, Ni MY, Lee PH, Tam WW, Lam TH, Leung GM, McDowell, I. Psychometric evaluation of the Chinese version of the Subjective Happiness Scale: evidence from the Hong Kong FAMILY Cohort. International journal of behavioral medicine 2014, *21*(4):646-652.

Ni MY, Li TK, Yu NX, Pang H, Chan BH, Leung GM, Stewart SM. Normative data and psychometric properties of the Connor–Davidson Resilience Scale (CD-RISC) and the abbreviated version (CD-RISC2) among the general population in Hong Kong. Quality of Life Research 2016, *25*(1):111-116.

Shen C, Wan A, Kwok LT, Pang S, Wang X, Stewart SM, Lam TH, Chan SS: A community based intervention program to enhance neighborhood cohesion: The Learning Families Project in Hong Kong. PLoS one 2017, *12*(8):e0182722.

Shen C, Wang MP, Chu JT, Wan A, Viswanath K, Chan SSC, Lam TH: health app possession among smartphone or tablet owners in Hong Kong: population-based survey. JMIR mHealth and uHealth 2017, *5*(6):e77.

Soong CS, Wang MP, Mui M, Viswanath K, Lam TH, Chan SS: A “community fit” community-based participatory research program for family health, happiness, and harmony: Design and implementation. JMIR research protocols 2015, *4*(4): e126.

Stewart SM, Fabrizio CS, Hirschmann MR, Lam TH: Developing community-based preventive interventions in Hong Kong: a description of the first phase of the family project. BMC Public Health 2012, *12*(1):106.

Wang MP, Chu JT, Viswanath K, Wan A, Lam TH, Chan SS: Using information and communication technologies for family communication and its association with family well-being in Hong Kong: FAMILY Project. Journal of medical Internet research 2015, *17*(8): e207.

Wang MP, Viswanath K, Lam TH, Wang X, Chan SS: Social determinants of health information seeking among Chinese adults in Hong Kong. PLoS one 2013, *8*(8):e73049.

Wang MP, Wang X, Lam TH, Viswanath K, Chan SS: Ex-smokers are happier than current smokers among Chinese adults in Hong Kong. Addiction 2014, *109*(7):1165-1171.

Wang MP, Wang X, Lam TH, Viswanath K, Chan SS: Health information seeking partially mediated the association between socioeconomic status and self-rated health among Hong Kong Chinese. PLoS one 2013, *8*(12):e82720.

Wang MP, Wang X, Lam TH, Viswanath K, Chan SS: The tobacco endgame in Hong Kong: public support for a total ban on tobacco sales. Tobacco Control 2015, *24*(2):162.

Wang MP, Wang X, Viswanath K, Wan A, Lam TH, Chan SS: Digital inequalities of family life information seeking and family well-being among Chinese adults in Hong Kong: a population survey. Journal of medical Internet research 2014, *16*(10):e227.

Wang X, Wang MP, Viswanath K, Wan A, Lam TH, Chan SS: smoking and secondhand smoke exposure at home were associated with poor perceived family well-being: findings of FAMILY Project. PLoS one 2016, *11*(8):e0161761.

Xie YJ, Stewart SM, Lam TH, Viswanath K, Chan SS: Television viewing time in Hong Kong adult population: associations with body mass index and obesity. PLoS one 2014, *9*(1):e85440.

Yu X, Stewart SM, Chui JP, Ho JL, Li AC, Lam TH: A pilot randomized controlled trial to decrease adaptation difficulties in chinese new immigrants to Hong Kong. Behavior therapy 2014, *45*(1):137-152.

Yu X, Stewart SM, Liu IK, Lam TH: Resilience and depressive symptoms in mainland Chinese immigrants to Hong Kong. Social psychiatry and psychiatric epidemiology 2014, *49*(2):241-249.

Yu X, Tam WW, Wong PT, Lam TH, Stewart SM. The Patient Health Questionnaire-9 for measuring depressive symptoms among the general population in Hong Kong. Comprehensive psychiatry 2012, *53*(1):95-102.

Yu XN, Stewart SM, Wong PTK, & Lam TH. Screening for depression with the Patient Health Questionnaire-2 (PHQ-2) among the general population in Hong Kong. Journal of affective disorders 2011, *134*(1):444-447.

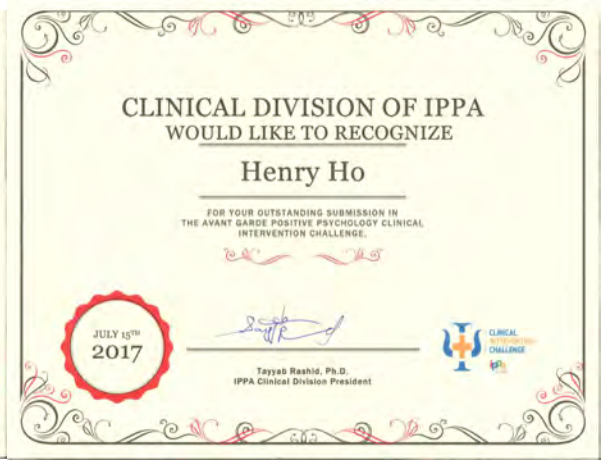
Yu NX, Lam T, Liu IK, Stewart SM: Mediation of short and longer term effects of an intervention program to enhance resilience in immigrants from mainland China to Hong Kong. Frontiers in psychology 2015, *6*:1769.

Zhou Q, Chan SS-c, Stewart SM, Leung CS-c, Wan A, Lam TH: The effectiveness of positive psychology interventions in enhancing positive behaviors and family relationships in Hong Kong: a community-based participatory research project. The Journal of Positive Psychology 2016, *11*(1):70-84.

Zhou Q, Stewart SM, Wan A, Leung CS-c, Lai AY, Lam TH, Chan SS-c: Development and evaluation of a train-the-trainer workshop for Hong Kong community social service agency staff. Frontiers in public health 2017, *5*:15.

Appendix 3

Recognition in the Avant Garde Positive Psychology Clinical Intervention Challenge



Appendix 4

Dr. Lai Yuen Kwan Agnes' Doctor of Philosophy thesis

Train-the-Trainer Programmes for
Community-based Intervention Projects to Enhance
Family Well-being in Hong Kong

By

LAI, Yuen Kwan Agnes

B.N. *H.K.U.*; M.Sc. *C.U.H.K.*; D.N. *H.K.U.*

A thesis submitted in partial fulfilment of the requirements for
the Degree of Doctor of Philosophy
at The University of Hong Kong

Appendix 5

Conference presentations

Lam TH, Leung C, Wan ANT, Soong CSS, Wang C, Chan SSC. Strengthening family relationship to increase family health, happiness and harmony: findings from a Community-based Participatory Research (CBPR) project under FAMILY: A Jockey Club Initiative for a Harmonious Society Project in Hong Kong. 6th Global Conference of the Alliance for Healthy Cities, Hong Kong, October 29 – November 1, 2014.

Lam TH, Mui M, Wan ANT, Soong CSS, Wang C, Chan SSC. Happy Family Kitchen II, a Community-based Participatory Research (CBPR) to enhance family health, happiness and harmony in Hong Kong: A cluster randomized controlled trial under FAMILY: A Jockey Club Initiative for a Harmonious Society Project. 6th Global Conference of the Alliance for Healthy Cities, Hong Kong, October 29 – November 1, 2014.

Wang X, Wang MP, Lam TH, Viswanath K, Chan SSC. Physically active adults reported higher levels of family health, happiness and harmony: findings from the Hong Kong Family and Health Information and Trends Survey (FHInTs) under FAMILY: A Jockey Club Initiative for a Harmonious Society Project. 6th Global Conference of the Alliance for Healthy Cities, Hong Kong, October 29 – November 1, 2014.

Lam TH, Chen J, Wang MP, Wang X, Soong CSS, Wan ANT, Chan SSC. Secondhand smoke exposure and health-related quality of life in never smokers: The Hong Kong Jockey Club FAMILY Project. 16th World Conference on Tobacco or health - Tobacco and Non-communicable disease, Abu Dhabi, United Arab Emirates, March 17-21, 2015.

Chan BHY, Pang H, Yuan BY, Li TK, Leung GM, Ni MY. A randomised factorial design to examine the effect of requesting Hong Kong identity card (HKID) numbers and participation incentive on participant's consent to health record linkage: evidence from the FAMILY Cohort. Annual Scientific Meeting, Hong Kong College of Community Medicine, Hong Kong, September 19, 2015.

Ni MY, Li T, Yu NX, Pang H, Chan BHY, Leung GM, Stewart SM. Normative data and psychometric properties of the Connor-Davidson Resilience Scale (CD-RISC) and the abbreviated version (CD-RISC2) among the general population in Hong Kong. Annual Scientific Meeting, Hong Kong College of Community Medicine, Hong Kong, September 19, 2015.

Yao XI, Ni MY, Chan BHY, McDowell I, Leung GM, Pang HH. Systematic evaluation of factors associated with health-related quality of life: a high-dimensional multivariate multilevel analysis in the FAMILY Cohort. Annual Scientific Meeting, Hong Kong College of Community Medicine, Hong Kong, September 19, 2015.

Lai AY, Mui MWK, Wan A, Stewart SM, Yew C, Lam TH, Chan SSC. Development and model-based evaluation of a train-the-trainer workshop for the large preventive positive psychology Happy Family Kitchen Project in Hong Kong, 6th International Nursing Conference, Hong Kong, December 10-11, 2015.

Lam TH, Chan BHY, Yuan B, Ni MY. Smoking and family harmony in Hong Kong Chinese: evidence from the FAMILY Cohort, Society for Research on Nicotine and Tobacco Annual Meeting 2016, United States, March 2-5, 2016.

Lai AY, Mui MW, Wan A, Stewart SM, Yew C, Lam TH, Chan SS. Training workshop for applying logic model framework in designing, implementation and evaluation of community-based family intervention in Happy Family Kitchen Project in Hong Kong, 37th Annual Meeting & Scientific Sessions, Society of Behavioral Medicine, Washington DC, United States, March 30-April 2, 2016.

Lam TH. Zero-time Exercise (ZTEx): enjoyable, easy and effective — an innovative concept to promote exercise for anybody, anytime and anywhere: A new initiative from the Hong Kong Jockey Club FAMILY Project, The XIII International Congress on Obesity, United Kingdom, May 1-4, 2016.

Lam TH, Chan BHY, Li TK, Ni MY. Change in body mass index (BMI) among Chinese in a general population: the FAMILY Cohort, The XIII International Congress on Obesity (ICO), Vancouver, Canada, May 1-4, 2016.

Lam TH, Chen S, Wan ANT. Zero-time Exercise, a new approach to promote physical activity — Hong Kong FAMILY Project: A Jockey Club Initiative for a Harmonious Society, The XIII International Congress on Obesity, United Kingdom, May 1-4, 2016.

Lam TH, Lai AY, Wan A, Chu JTW. Zero-time Exercise (ZTEx), a new approach to promote physical activity and mental health: A pilot study under Hong Kong Jockey Club FAMILY Project, The XIII International Congress on Obesity, United Kingdom, May 1-4, 2016.

Ni MY, Chan BHY, Li TK, Lam TH. Child neglect and body mass index (BMI) in adulthood: a sibling study nested in the FAMILY Cohort, The XIII International Congress on Obesity (ICO), Vancouver, Canada, May 1-4, 2016.

Lam TH, Lai AYK, Wan ANT, Chu JTW. Zero-time Exercises (ZTEx), a new approach to promote physical activity and mental health: a pilot study under Hong Kong Jockey Club FAMILY project, FPH Annual Conference and Public Health Exhibition 2016, Brighton, United Kingdom, June 14-15, 2016.

Ho HCY, Wan A, Mui M, Chan SS, Lam TH. The mediating effect of physical exercise on family health, harmony and communication in a community-based family intervention: Happy Family Kitchen Movement under Hong Kong Jockey Club FAMILY Project, Annual Conference on Disaster Preparedness and Response, Hong Kong, October 8, 2016.

Shen C, Wan A, Kwok LT, Lam TH. A community based Intervention of Hong Kong Jockey Club FAMILY Project to enhance Zero-time Exercise and grip strength: Fitter Families, Project Annual Conference on Disaster Preparedness and Response, Hong Kong Academy of Medicine, October 8, 2016.

Ho HCY, Wan A, Ki BHS, Chan SS, Lam TH. The mediating effect of positive psychology behaviors on family health, happiness and harmony in a community-based family intervention: Happy Family Kitchen Movement under Hong Kong Jockey Club FAMILY Project, 5th CIFA Regional Symposium, Seoul, Korea, November 3-5, 2016.

Lam TH, Wan A, Mui M, Ho HCY, Chan SS. An innovative and public health approach to promote family holistic health - The FAMILY: A Jockey Club Initiative for a Harmonious Society in Hong Kong, 5th CIFA Regional Symposium, Seoul, Korea, November 3-5, 2016.

Shen C, Wan A, Kwok LT, Pang S, Wang X, Stewart SM, Lam TH, Chan SS. A community based intervention program to enhance family communication and family well-being: The Learning Families Project in Hong Kong, 5th CIFA Regional Symposium, Korea, November 3-5, 2016.

Lai AYK, Wan ANT, Lee DPK, Lam TH. Zero-time Exercise: A cluster randomized control trial to promote physical activity, health, happiness and family harmony under Hong Kong Jockey Club Family Project, The Institute of Cardiovascular Science and Medicine, Twentieth Anniversary Scientific Meeting 2016, Hong Kong, November 19, 2016.

Lam TH, Wan A, Ho HCY, Lau G, Lai A. Zero-time Exercise and Anti-inertia Reminder (AIR) Model: The Hong Kong Jockey Club FAMILY Project, 20th Anniversary Scientific Meeting of the ICSM, Hong Kong, November 19, 2016.

Lam TH, Lai A., Wan A, Lau G, King J. Zero-time Exercises for families: The Hong Kong Jockey Club FAMILY Project, 18th Beijing Hong Kong Medical Exchange, Hong Kong, November 20, 2016.

Lai A, Wan A, Lam TH. FAMILY Project: Training workshops for lay health promoters to implement a community-based intervention program, 215t Research Postgraduate Symposium, Hong Kong, December 1-2, 2016.

Lam TH, Wang MP, Shen C, Wan A, Chan SS. Pattern of health app use and associated sociodemographic factors in Hong Kong smokers - findings from FAMILY Project, Annual Meeting on The Society for Research on Nicotine & Tobacco, Florence, Italy, March 8-11, 2017.

Ho HCY, Wan A, Mui M, Chan SS, Lam TH. The effectiveness of a community-based positive psychology family intervention on physical exercise and fitness of older adults: Happy Family Kitchen Movement under Hong Kong Jockey Club FAMILY Project, 12th International Symposium on Healthy Aging, Hong Kong, March 11-12, 2017.

Lai A, Wan A, Lam TH. Hong Kong Jockey Club FAMILY Project: A 15-min Zero Time Exercise intervention to enhance well-being in older people, 12th International Symposium on Healthy Aging “Wellness and Longevity: From Science to Service”, Hong Kong, March 11-12, 2017.

Shen C, Wang MP, Wan A, Chan SS, Lam TH. Zero-time Exercise and subjective happiness in older people: findings from Hong Kong Jockey Club FAMILY Project, 12th International Symposium on Healthy Aging “Wellness and Longevity: From Science to Service”, Hong Kong, March 11-12, 2017.

Lam TH, Ho HCY, Lau G, Wan A, Chan N. Promotion of Zero Time Exercise (ZTEx) through Anti-inertia Reminders (AIR): New initiative from The Hong Kong Jockey Club FAMILY Project, Primary Care Research Symposium, Hong Kong, March 25, 2017.

Lam TH, Lai A, Wan A. Normative data for absolute and relative hand grip strength in Hong Kong: FAMILY Project, a Hong Kong Jockey Club Initiative for a Harmonious Society, International Symposium 2017 Physical Activity & Fitness of Young Generation in Asia-Pacific, Hong Kong, May 20, 2017.

Lai A, Wan A, Lam TH. The effectiveness of a clustered randomized control on Zero-time Exercise to reduce sedentary behaviour, enhance physical activity and improve personal well-being in Hong Kong, ISBNPA 2017Annual Meeting, Victoria, Canada, June 7-10, 2017.

Lam TH, Shen C, Wang MP, Wan A, Chan SS. Factors associated with use of physical activity apps in smartphone and tablet owners in Chinese: findings from Hong Kong Jockey Club FAMILY Project, Annual Meeting on The International Society of Behavioral Nutrition and Physical Activity, Victoria, Canada, June 7-10, 2017.

Shen C, Wang MP, Wan A, Chan SS, Lam TH. Patterns of health apps use in smartphone and tablet owners in Chinese: findings from Hong Kong Jockey Club FAMILY Project, Annual Meeting on The International Society of Behavioral Nutrition and Physical Activity, Victoria, Canada, June 7-10, 2017.

Wan A, Lai A, Lam TH. Train-the-ambassador workshop for a community-based family health promotion project to reduce excess dietary sugar intake: A cluster randomised controlled trial, ISBNPA 2017 Annual Meeting, Victoria, Canada, June 7-10, 2017.

Ho HCY, Wan A, Mui M, Chan SS, Lam TH. Mediating effect of positive psychology behaviors on subjective happiness and life satisfaction in a family intervention: Happy Family Kitchen Movement under Hong Kong FAMILY Project, Fifth World Congress on Positive Psychology, Montreal, Canada, July 13-16, 2017.

Author: School of Public Health, The University of Hong Kong
Publisher: The Hong Kong Jockey Club
Publication date: November 2017

Contact Information

Address: G/F, Patrick Manson Building (North Wing),
7 Sassoon Road, Pok Fu Lam, Hong Kong

Tel: (852) 3917 6824 / 3917 6702

Fax: (852) 2855 9528

E-mail: jcfamily@hku.hk

Website: http://www.family.org.hk

ISBN 978-988-13332-6-1