香港明愛 Caritas 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

# Be Healthy, So Easy: FAMILY Education Project

## FAMILY Health, Happiness and Harmony - 3Hs

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# Table of Contents


Preface (1)……..1

Preface (2)……..2

Preface (3)……. 3

FAMILY: A Jockey Club Initiative for a Harmonious Society..... 4

Executive summary..... 8

**CHAPTER 1 Introduction** ..... 10

1.1 Background ..... 10

1.2 Objectives..... 11

1.3 Literature review ..... 12

**CHAPTER 2 Design and methods** ..... 17

2.1 Project design and methods..... 17

2.2 Project evaluation ..... 21

2.3 Target populations ..... 26

**CHAPTER 3 Stage 1-Project Conception**..... 27

3.1 Pilot trial..... 27

**CHAPTER 4 Stage 2-Project Implementation** ..... 34

4.1 Parent Education Programme..... 34

4.2 Train-the-Trainer and Ambassador Programme..... 78

4.3 Qualitative Evaluation of FAMILY Education Project..... 85

**CHAPTER 5 Stage 3-Project Consolidation**..... 130

5.1 Family Holistic Health Day ..... 130

5.2 Practice Wisdom Sharing Programme ..... 132

5.3 Community-based Health Education Campaign..... 138

5.4 Publicity and promotion..... 140

**CHAPTER 6 Discussion and conclusions** ..... 144

6.1 Discussion ..... 144

6.2 Strengths and limitations..... 145

6.3 Implications and suggestions for future planning..... 146

Acknowledgements..... 148

References ……149

Appendices ……153

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# 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 Be Healthy, So Easy: FAMILY Education Project, a collaboration between the FAMILY Project and Caritas-Hong Kong, was successfully implemented in eight integrated family service centres under Caritas-Hong Kong in 2015, with the participation of more than 670 parents. The project was aimed at encouraging parents to adopt healthy lifestyles and positive parent-child interaction. Through this report, we hope to demonstrate that simple interventions can be effective in enhancing family relationships and 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, Caritas, as well as Family Council and all collaborating parties 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)

In Hong Kong nowadays, parents are occupied by daily tasks to an extent they pay less attention to exercise and a healthy diet. They also have inadequate family time, which would be harmful to health, happiness and FAMILY harmony.

Caritas-Hong Kong has been providing assistance and counselling service to families for 57 years. Caritas Family Service is committed to supporting parents through strengthening the family as a unit and improving the quality of family life. To address the needs of families to maintain a healthy lifestyle, Be Healthy, So Easy: FAMILY Education Project has been developed. With the financial support from The Hong Kong Jockey Club Charities Trust (HKJCCT) and the support from Family Council, the project represents the integration of professional knowledge and intervention skills of the Caritas Family Service and the scientific expertise of the FAMILY Project Team from the School of Public Health, The University of Hong Kong (HKU-SPH).

The study spanned a two-year period from 2015 to 2017 with a total of eight Caritas Integrated Family Service Centres (IFSC) and 673 parents participating. With academic input from HKU-SPH and generous funding from the HKJCCT, our project completed a large scale randomized controlled trial. The study results showed that our project was able to increase time spent exercising, the amount of healthy food consumed, and satisfaction FAMILY Health, Happiness and Harmony.

I would like to express our sincerest gratitude to The Hong Kong Jockey Club Charities Trust and the School of Public Health of the University of Hong Kong, in particular Prof. Lam Tai Hing and his research team, for sharing with us his valuable expertise. We are also very thankful for the support from the Caritas IFSCs, the Caritas School Social Work Service, the Primary School Guidance Service, and the Child Care Service that participated in this project. Most of all, we are so grateful to the participants and their families whose commitment and active participation in the project made it a success. We shall continue to provide quality family education programmes, based on the knowledge and experiences gained from this joint venture to promote FAMILY Health, Happiness and Harmony.

**Ms. Maggie CHAN**
Director of Social Work Services Division, Caritas-Hong Kong

# PREFACE (3)

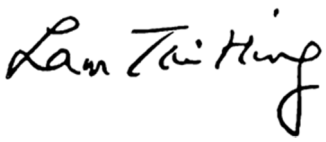
We are most grateful to The Hong Kong Jockey Club Charities Trust which initiated and donated HK$250 million to fund and launch a citywide project entitled “FAMILY: A Jockey Club Initiative for a Harmonious Society”, in collaboration with the School of Public Health of The University of Hong Kong (HKU-SPH).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

In view of growing health challenges locally and globally to increase physical activity in the population, the current phase of FAMILY Project focused on Family Holistic Health. We have designed a simple approach, namely “Zero-time Exercise” (ZTEx) which are simple movements and stretching that can be done anytime, anywhere, and by anybody, that do not require extra time (hence zero time), money or equipment. It is a foot-in-the-door approach to start with a small amount of exercise and to reduce sedentary time.

Be Healthy, So Easy: FAMILY Education Project, led by the Caritas-Hong Kong, in collaboration with the HKU-SPH FAMILY Project Team, is one of the major intervention projects under FAMILY Project. This project focused on promoting participating parents’ healthy lifestyle, including physical activity (ZTEx), healthy diet and positive family relationships through a series of activities, by emphasizing on the involvement of family members to enhance personal and family well-being. The project gathered the power, experiences and networks of the eight Integrated Family Services Centres and various schools to benefit the families through various health promotion activities.

Be Healthy, So Easy: FAMILY Education Project has been completed with great success and its benefits have been extended from service workers to the participants and their families. 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.

On behalf of the FAMILY Project Team, I express my sincerest gratitude to Caritas-Hong Kong, Family Council and all collaborating parties for their professionalism, commitment and hard work. We are particularly grateful to the staff of IFSC and other volunteers who had gone through the Train-the-Trainer and Ambassador Programme and contributed a lot to the project. We are very pleased that they and our FAMILY Project Team had shared the experiences through further training with their colleagues who would disseminate the programme to their elderly and rehabilitation services.



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

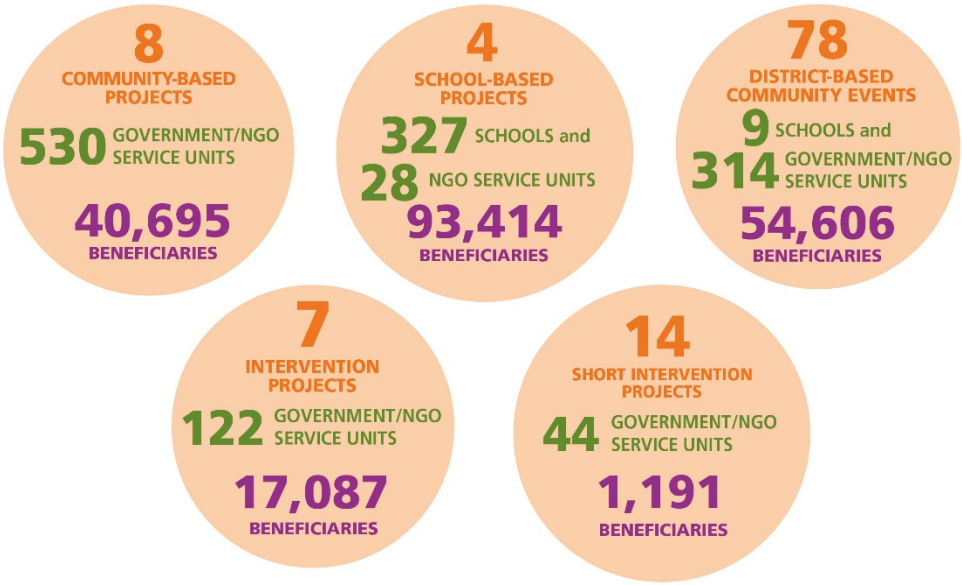
- H.O.P.E. (Hope Oriented Parents Education for Families in Hong Kong) Project
- Harmony @ Home Project
- Effective Parenting Programme
- Happy Transition to Primary One
- Share the Care, Share the Joy
- Boosting Positive Energy Programme
- Be Healthy, So Easy: FAMILY Education Project

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

Physical inactivity has been identified as the fourth risk factor for global mortality. Despite clear evidence of the protective effects of physical activity on one's health has been shown to the public, Hong Kong families still engage in inadequate physical activity and choose to live a sedentary life instead. For many people, the World Health Oragnization (WHO) physical activity guidelines are too difficult to achieve and many are not even willing to try. An important barrier to increasing activity is the belief that regular exercise has to be time-consuming, expensive, and separated from everyday life. To minimize these barriers, we have created a term "Zero-time Exercise" (ZTEx) as a new approach to motivate people to increase physical activity in the community. ZTEx includes simple movements and stretches that are easy, enjoyable and effective (3Es) and can be done while sitting, standing and walking, with zero time, zero money and zero equipment (3 Zeros) by anybody, anytime and anywhere (3As).

Families are the fundamental building blocks of a society. Family members spending time on doing exercise together has been recognized as the most rewarding activity. It not only benefits one's health, but also strengthens family bonding. Parents serve as role models for their children's participation in physical activity, and family support has been correlated with individuals' physical activity and their exercise self-efficacy. Doing exercise together allows parents and children to spend more time for a healthier lifestyle.

Effective behavioural interventions are urgently needed. Some studies focused on reducing screen time or using active workstations that encourage standing at the computer. Others focus on increased use of stairs instead of lifts. These interventions used behaviour change techniques such as goal-setting and behavioural self-monitoring. Although previous approaches have shown some effects, they are not easily applicable to most people. New and simple approaches are needed to reduce sedentary behaviour and increase physical activity.

The Be Healthy, So Easy: FAMILY Education Project (FEP) was a community-based project organized by the Caritas in collaboration with the FAMILY Project Team, the School of Public Health, the University of Hong Kong (HKU-SPH). FEP included a "Parent Education Programme" to implement a series of parent education activities and used family as a platform to advocate healthy living habits for participants and their family members, particularly in the enhancement of physical activity. The ultimate outcomes were improvements in personal and FAMILY Holistic Health; and well-being [Health, Happiness and Harmony (3Hs)].

The Parent Education Programme adopted a cluster randomized controlled trial (cRCT) design, and aimed to examine the effectiveness of using ZTEx to reduce sedentary behaviour and enhance physical activity. Eight Caritas Integrated Family Services Centres with their respective community participants were randomized into either a Physical activity intervention (PA) group or a Healthy diet control (HD) group (4 centres per group). The interventions were designed by the multidisciplinary research team consisted of academic public health professionals with experience in developing health interventions in the community and registered social workers from the Caritas who were experienced with implementing community intervention activities and staff training.

The intervention aimed to enhance knowledge, self-efficacy and motivation in relation to practicing ZTEx, and included four sessions: two interactive experiential learning sessions (a core session at baseline and a booster session at three months), a six-month tea gathering

session and one-year follow-up session. The control group received the Healthy diet intervention with the same intervention framework and methods, as well as the same number and duration of sessions. The theory-based intervention was guided by the Health Action Process Approach (HAPA). HAPA proposes that behaviour change is the result of motivation enhancement which increases intention, goal setting and planning, and these processes enhance intention and promote its conversion to action. Our immediate goal was to determine whether we could get and maintain attitude and behaviour changes over the short to medium term.

Participants' physical activity level, dietary habits, involvement in healthy living habits with family, and their personal and family well-being, were assessed by self-administered questionnaires and physical fitness assessment at baseline, three months, six months and one year after intervention.

A total of 673 participants (92% female) joined the FEP, and were randomized into the Physical activity intervention (PA) group (n=357) or the Healthy diet control (HD) group (n=316) during July 2015 to September 2016. During the one-year study period, both groups increased frequency of engaging in moderate physical activity, ZTEx, and involving family members in ZTEx after interventions. These increases were significantly greater in the PA group than HD group. In addition, participants had significantly improved physical. All participants also consumed more fruits and vegetables and less sweetened beverages, and increased involvement of family members in having heathy diet habits after intervention. These improvements were significantly greater in the HD group than the PA group. Both groups also had increases in self-reported personal health, happiness, and self-reported FAMILY harmony after interventions. The self-reported personal health of the PA group showed greater improvement compared with the HD group.

Train-the-Trainer and Ambassador Programme composed of nine single-session training workshops were conducted for the 180 staff and volunteers from 8 Integrated Family Service Centres in May and August 2016. The goal was to equip them with knowledge and skills to promote the concept of public health approach and FAMILY Holistic Health in FEP. The training content covered the general concepts of FAMILY Holistic Health (including physical health and psychosocial health) and positive psychology. In addition, the trainees were introduced to the public health approach to developing, delivering, and evaluating a community-based project. Outcome evaluation was conducted throughout by questionnaires before and after the intervention workshops. The attendees indicated improvements in perceived knowledge, sell-efficacy and intention in relation to ZTEx. They contributed to the implementation of FEP. The qualitative data from focus group interviews also showed that the project was very successful, with more in-depth and interesting information from the trainees, participants and service providers.

In conclusion, the project demonstrated that the brief and well-structured intervention was effective in promoting the concept of ZTEx to reduce sedentary behaviour and improve personal and family well-being. This intervention driven by the public health approach and strategies may offer an example of simple, easy-to-implement, and cost-effective intervention and may serve as a new work model for social service, health and education sectors to benefit large numbers of people and families.

# CHAPTER 1 INTRODUCTION

## 1.1 Background

Physical inactivity has been identified as the fourth leading risk factor for global mortality [1]. Many studies revealed that most people had not engaged in adequate levels of physical activity [2, 3]. Physical inactivity and prolonged sedentary time have been recognized as major causes of chronic diseases [4, 5]. Regular physical activity and short movement breaks from sitting have been reported to benefit on moods, quality of life and health outcomes [6-10].

For many people, the World Health Organization (WHO) physical activity guidelines are too high to be achieved and they are not even willing to try, despite the strong evidence for the many health benefits. In response, a recent focus has been placed upon reduction of sedentary behaviour. Sedentary behaviour is defined as 'those activities that do not increase energy expenditure substantially above the resting level, such as sitting or lying down, or simply as "too much sitting". Sedentary behaviour includes watching TV, sitting in front of the screen. The health harms of sedentary behaviour are independent of the harms from a lack of physical activity.

An important barrier to reducing sedentary behaviour and increasing activity is the belief that regular exercise has to be time-consuming, expensive, and separated from everyday life. To overcome these barriers, FAMILY Project created the term "Zero-time Exercise" (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 targeted to influence individuals to reduce sedentary behaviour, and those who do not exercise regularly to increase their activity by emphasizing that ZTEx is easy, enjoyable and effective (3Es). ZTEx (also named as 3-Zero Exercise) was used as foot-in-the-door approach to start with simple exercises while sitting or standing during waiting, watching TV, commuting in a transport vehicle or doing sedentary work.

Family health, which traditionally and narrowly means maternity and child health, has new meanings recently. Professionals increasingly use the term family health broadly when discussing the functional, psychological, and biological functions of individuals and family member interactions. Family health is identified as a dynamic and complex construct consisting of multiple member interactions within and across the boundaries of households nested within social contexts [11]. Family health is influenced by the participants' embedded cultural context and characterized by highly interactive functional, contextual and structural perspectives [11]. In Hong Kong, most 'health projects' only focus on individual's physical health and usually separate physical from mental or psychosocial health. Chinese cultures are collectivist in nature, meaning that emphasis is placed on the group rather than the individual. The importance of family relationship is highly emphasized and therefore family support for exercise should play an important role in changing health behaviour.

The Hong Kong Jockey Club Charities Trust (HKJCCT) invited the School of Public Health of The University of Hong Kong (HKU-SPH) to collaboratively launch a project entitled "FAMILY: A Jockey Club Initiative for a Harmonious Society" (FAMILY Project) to help build a more harmonious society. Since 2007, the FAMILY Project Team has been working on many

community-based projects to promote family well-being (FAMILY Health, Happiness and Harmony). In the view of the health challenges locally and globally, the second phase of FAMILY Project focused on promoting FAMILY Holistic Health with special emphasis on the integration of physical and psychosocial health.

Caritas-Hong Kong (Caritas) and FAMILY Project Team had jointly developed and implemented Effective Parenting Programme during July 2010 to April 2012. The Effective Parenting Programme was successful in enhancing participants' emotional well-being and FAMILY harmony, and had been disseminated to the territory. With the past positive partnership and experience between Caritas, FAMILY Project Team and HKJCCT, Be Healthy, So Easy: FAMILY Education Project (FEP) was one of the major intervention project in the second phase of FAMILY Project.

FEP was organized from March 2015 to February 2017 by Caritas and FAMILY Project Team. We named the ZTEx as "3-Zero Exercise" in this project because it used the concept of zero time, zero money, and zero equipment (3 Zeros) in enhancing physical activity and reducing sedentary behaviour. Our intervention aimed to promote healthy living of the participants and their families, including physical activity, dietary habits and positive family communication through community-based family activities by emphasizing the involvement of family members in healthy living habits for improving personal and family well-being.

FEP used innovative integrated positive psychology, public health theories and methods to develop brief, simple and cost-effective intervention and promotion activities targeted at families. It included Parent Education Programme, TTTA, Practice Wisdom Sharing Programme, FAMILY Holistic Health Day, Community-based Health Education campaign, and publicity activities.

We assessed behavioural changes and improvements in the key components on health and well-being. FEP aimed at promoting physical activity, heathy diet habits, family communication, personal and family well-being for people of all ages. The use of positive psychology approach can better empower people and help families build positive communication among family members. It helped improve their holistic health by encouraging and working with each other to have more physical activity and heathy diet habits. To meet the needs and constraints of busy families and individuals in Hong Kong, the suggested physical activity, especially ZTEx, was fun, simple, easy to start involving little time or money, which can generate a sense of achievement and can be readily shared in the family.

## 1.2 Objectives

The objectives of FEP were as follows:

- to enhance healthy living habits, including physical activity and heathy diet;
- to enhance family communication, holistic health (physical health and psychosocial health) and well-being [FAMILY Health, Happiness and Harmony (3Hs)]; and
- to develop a new work model for parent education and to disseminate this model to the social service, education and health sectors and to the public.

## 1.3 Literature review

### 1.3.1 Physical activity

WHO recommends that adults aged 18-64 should perform 150 minutes or more of moderate-intensity or 75 minutes or more of vigorous-intensity physical activity throughout the week, or an equivalent combination of moderate- and vigorous-intensity activity [12, 13]. According to the Hong Kong Behavioural Risk Factors Survey 2016, 43.1% and 55.4% of the respondents had not done the minimum 10-minute vigorous physical activity and moderate activity respectively, whereas 71.9% of the respondents did not walk for a minimum of 10 minutes a day [14]. These demonstrated that many people do not meet WHO targets for physical activity.

The health benefits of regular physical activity are well established. Regular and persistent physical activities are associated with happiness, a better quality of life and positive health outcomes [6-10], and inversely associated with various illnesses [15, 16]. However, for many people, the WHO physical activity guidelines are too high as targets and they are not even willing to try, despite the strong evidence for the many benefits to their short-term well-being and long-term health [17].

Physical inactivity is one of the four major behavioural risk factors of non-communicable diseases [18]. Sedentary behaviour is defined as “those activities that do not increase energy expenditure substantially above the resting level, such as sitting, lying down, or simply as ‘too much sitting” [19]. Sedentary behaviour is defined as ‘those activities that do not increase energy expenditure substantially above the resting level, such as sitting, lying down, or simply as “too much sitting”. Sedentary behaviours include watching TV, sitting in front of the screen at home or work and sitting during transport [20]. The health harms of sedentary behaviour include almost immediate metabolic and cardiac changes, and are independent of the harms from a lack of physical activity [21]. Prolonged sedentary time is associated with deleterious health outcomes in type 2 diabetes incidence, all-cause-mortality, cardiovascular disease, and cancer mortality and incidence [5, 22], and risk of anxiety [23]. Short movement breaks from sitting is associated with better cardio-metabolic and inflammatory biomarkers [21]. Public health leaders have called for reducing the time spent in sedentary behaviours as a public health priority [24].

Preventive physical activity programmes are considered as an effective public health solution to the growing costs of non-communicable diseases [25, 26]. Researchers have used various approaches to enhance physical activity such as reducing occupational sedentary time among white-collar workers [27], reducing screen time among young children [28], and implementing physical activity promotion programmes/campaigns with the participation of community health workers [29]. These interventions mostly targeted participants who had a positive view towards physical activity. However, these interventions demand much time and resources to help people develop a regular physical activity habit.

In addition, family members spending time on doing exercise together has been recognized as the most rewarding activity [30]. It not only benefits one’s health, but also strengthens family bonding. Parents can serve as role models for their children's participation in physical activity, and family support has been correlated with individuals’ physical activity and their exercise

self-efficacy [31]. Doing exercise together allows parents and children spend more time for a healthier lifestyle.

### 1.3.2 Healthy diet

In addition, maintaining a balanced diet with adequate amount of fruits and have many health benefits, such as vegetables can increase people's intake of dietary fibre and other nutrients, and can have many health benefits, such as protection against some types of cancer [32]. The Hong Kong Department of Health and the WHO recommend that at least five servings of fruits and vegetables should be consumed per day. One serving of fruits is defined as two small-sized fruits (e.g. kiwi fruit), one medium-sized fruit (e.g. apple), or half a large-sized fruit (e.g. banana), while one serving of vegetables is defined as half a rice bowl of cooked vegetables [33]. A high level of free sugars intake is a more recent health concern, because of its association with poor dietary quality, obesity and risk of NCDs such as heart disease and gout [34]. WHO calls on countries to reduce sugars intake among adults and children. A new WHO guideline recommends adults and children reduce their daily intake of free sugars to less than 10% of their total energy intake. A further reduction to below 5% or roughly 25 grams (6 teaspoons) per day would provide additional health benefits. Evidence shows that increasing the amount of sugar in the diet is associated with weight increase and dental caries. Reducing free sugars intake is one of the important public health goals.

The Hong Kong Behavioural Risk Factor Survey 2016 revealed that 79.5% of respondents consumed less than 5 servings of fruits and/or vegetables per day [14]. Another survey in Hong Kong showed that 20.5% of men and 9.5% of women consumed 2 units or more sugary beverages per day [35]. It also found that younger consumers tended to drink more sweetened beverages, and 30% of these beverages were carbonated drinks and fruit juices [35].

Parents act as a powerful socialization agent and strongly influence a child's social behaviour and eating habits. Parents make food choices for the children and serve as a model of their dietary practices/habits. Family meals are not only meant to provide good nutrition, but also provide time for family members to learn family values and culture. In the Chinese cultures, cooking and dining with family members are emphasized as they provide a channel to promote family bonding. In addition, food sharing symbolizes family cohesiveness and helps to reaffirm family relationships [36, 37].

### 1.3.3 Positive psychology

Positive psychology is a specialized but board discipline within psychology. We focused on a positive human emotion "Happiness", and on the skill of "learned optimism" [38]. It focuses on using simple, practical skills to help people become happier and more fulfilled. The subjective part of positive psychology is about positive personal experience, including well-being and satisfaction in the past; flow, joy, the sensual pleasures and happiness in the present moment; and constructive cognitions about the future which include optimism, hope, and faith [38].

Family-centred positive psychology recognizes that families and parents have the most direct and lasting impact on children's life.It attempts to promote both well-being of children and healthy family functioning [39]. Family-centred positive psychology has been well-adopted as a framework for service workers who work with children and families that promotes personal

strengths and capacity building among individuals, families and systems, rather than focusing solely on the resolution of problems [40].

Traditionally, many researchers put much emphasis on the investigation of treatment for mental dysfunction and disorders, and less attention on prevention. Positive psychology offers a health enhancement rather than disease prevention approach, which is consistent with the idea of supporting and developing psychological and family resources, while avoiding the stigma related to mental ill health [41]. Enhancement of protective factors that guard against the development of emotional and behavioural disorders is particularly important, especially in resource-poor areas where skilled mental health workers are limited and treatment is stigmatized [41].

Positive psychology has been shown to be effective in the enhancement of psychosocial well-being [42]. A meta-analysis of 51 intervention studies employing positive psychology concluded that this intervention model (or approach) significantly enhanced well-being and decreased depressive symptoms of individuals [42]. Another recent review also suggested that positive psychology has played an important role in setting guidelines for interventions that promote work-family balance [43]. Interventions based on this framework can be widely applied to real-life settings [44].

### 1.3.4 Family communication

Communication has been suggested as a key to enhance healthy family relationships [45, 46]. However, particularly in Hong Kong, long working hours and stressful urban lifestyle leave very limited time for family gatherings and thus pose barriers for strong and supportive relationships among family members. In addition, many people may not have adequate social and/or stress-coping skills to establish positive communication within a family.

Positive parent-child communication contributes to positive adolescent development. In a local study, Shek at al found that positive communication with parents was associated with less delinquent behaviour and better adolescent psychological well-being [47]. However, the research also showed that the majority of working parents in Hong Kong did not have enough time to take care or communicate with their children. Fathers particularly spent most of the time on working, which resulted in a contemporary phenomenon of “detached fathers, involved mothers” [48].

According to the FAMILY Project Hong Kong Family and Health Information Trends Survey in 2009, communication methods such as praising family members, offering physical touch like hugs or touch on family member’s shoulder, and spending quality time with family such as dining, shopping or walking together were positively associated with family well-being. However, such communication methods were not commonly used by Hong Kong people. The Survey found that only 30% of respondents showed their care to family members through physical touch, while only 23.9% of respondents adopted praising in their communication with each other in a family [49].

### 1.3.5 FAMILY Holistic Health

Despite the different perspectives in the definitions, family health should be holistically defined. family health encompasses both wellness and illness, and focuses on the interactive, developmental, functional, psychosocial, and health processes of family experience [50]. Therefore, family holistic health may be described as dynamics that maintain or change the relative state of well-being, including elements of family systems, such as biological, psychological, spiritual and sociocultural aspects [51].

FAMILY Holistic Health, as defined by the FAMILY Project, is an integration of physical and psychological health, which advocates healthy lifestyles with more physical activity, a healthy diet and a positive living attitude [52]. Positive psychology has been suggested as a simple and practical approach to maintain a positive attitude and emotion [42].

### 1.3.6 Family well-being

Families worldwide are undergoing rapid changes together with fast paced lifestyle and economic upheavals. Demographic shifts, changing societal norms and values, together with immigration across borders are creating new and altered structures, communication and relationships within families.

Family well-being is a multifaceted construct including physical, psychological, social, economic, and spiritual domains [53, 54]. Thus, family well-being is difficult to be defined by a single sentence. People with different cultures and backgrounds may have different sets of internally and externally defined criteria for well-being of their families. Family well-being has also been conceptualized according to its functions, comprising communication and relationships among family members as well as involving decision-making and problem-solving [55].

The FAMILY Project Team conducted qualitative studies on the Chinese in Hong Kong, and the respondents described their perception on family well-being by three domains: FAMILY Health, Happiness and Harmony (3Hs) [56, 57]. FAMILY harmony is defined as absence of conflicts and effective communication with family members. Stoicism and spending time with family are important in forming a harmonious family. FAMILY happiness is originated from family activities. Spending time with family members and building connections with friends and relatives are the routes to positive family relationship and individual happiness [58]. Family health includes physical and mental health. There is a strong connection between psychological capital, family unity and Family health. In short, these three domains of family well-being are interrelated and established on communication, respectful and caring attitudes and behaviours, whereas family time is a particularly important element in family well-being.

### 1.3.7 Behavioural interventions

There is still little evidence of effective behavioural interventions to decrease sedentary behaviour and increase physical activity. Some studies have focused on reducing screen time [59] or using active workstations that encourage standing at the computer [60]. Others have attempted to promote increased use of stairs instead of lifts [61]. These interventions used behaviour change techniques such as goal-setting and behavioural self-monitoring. Although

previous approaches have shown some effects, they are not easily applicable to most people. New and simple approaches are needed to reduce sedentary behaviour and increase physical activity.

### 1.3.8 Health Action Process Approach

The Health Action Process Approach (HAPA) is a theory of health behaviour change. Psychological construct is assumed to explain and predict an individual's changes in health behaviour [62]. HAPA suggests that adoption, initiation, and maintenance of health behaviour should act as a structured process, including a motivation phase and a volition phase. Motivation refers to the intention formation while volition refers to the planning and actions (initiative, maintenance, recovery). HAPA emphasizes on particular roles of perceived self-efficacy at different stages of health behavioural changes [63]. In the motivation phase, risk awareness, outcome expectancies, and task self-efficacy lead to the formation of an intention to either adopt a health protective behaviour or change a health risking behaviour. The volition phase includes action planning, coping planning, coping self-efficacy, and recovery self-efficacy. The model has been applied to various intervention programmes to promote heathy diet in adults with type 2 diabetes mellitus [64], and to predict physical activity-related outcomes in overweight and obese adults [65]. Our immediate goal was to determine whether we could get and maintain attitude and behaviour changes over the short to medium term.

# CHAPTER 2 DESIGN AND METHODS

## 2.1 Project design and methods

This project was approved by the Institutional Review Board of the University of Hong Kong/Hospital authority Hong Kong West Cluster (UW 15-330) and under Clinical Trials.gov (NCT 02601534). The Family Council was invited and joined as a supporting organization.

### 2.1.1 Key characteristics of FEP

#### Community participation

The intervention targets of this project were parents and their family members. To increase the number of beneficiaries, this project involved not only parents in the community but also parents and students from kindergartens, schools and parent-teacher associations.

#### Capacity building

We developed a systematic capacity building and dissemination plan, including organizing training workshops and producing practice manuals, so that good practice and knowledge could be transferred to the Caritas staff of all the Integrated Family Service Centers and school-based units. To ensure that the programme would reach more professionals from the social service and education sectors, Train-the-Trainer and Ambassador Programme (TTTA) and Practice Wisdom Sharing Programme were organized to disseminate the results of the Parent Education Programme and the valuable experiences gained from the development and implementation of the programmes.

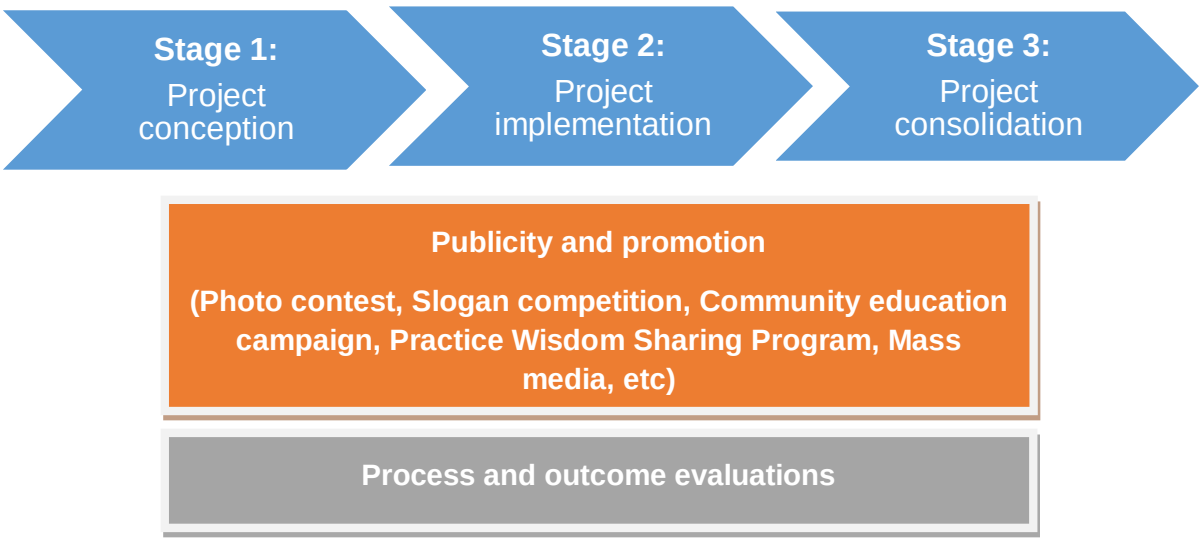
#### Dissemination

We used different means, such as multi-media, press events and newspaper columns, to promote the concept and practice of FAMILY Holistic Health to the public. We introduced the work approach, interventions and results of the Parent Education Programme to professionals from the social service, health and education sectors.

### 2.1.2 The three stages

The FEP was a community-based research project delivered over two years. The project had three stages: Project conception, Project implementation and Project consolidation (Figure 2.1).

Figure 2.1 Three stages and key deliverables of the FEP




## Stage One: Project Conception

### *Pilot Trial*

A total of two groups of participants were recruited into the pilot trial during May to June 2016. The pilot trial aimed to obtain feedback from participants on the content and structure of the education programme and the questionnaires in order to enhance the acceptability and applicability of the subsequent Parent Education Programme.

## Stage Two: Project Implementation

### *Parent Education Programme*

This was a cluster randomized controlled trial. All the eight Integrated Family Service Centres (IFSCs) with their respective community participants, who were parents, were randomized into either a "Physical activity intervention" (PA) group or a "Healthy diet control" (HD) group (4 centres per group). The participants in the PA group received an intervention using ZTEx to reduce sedentary behaviour and increase physical activity.

ZTEx is a new exercise concept to motivate people to do simple movements or exercises that do not need extra time, money and equipment (3 Zeros), and can be done anytime, anytime and anywhere (3As). We also emphasised that ZTEx is easy, enjoyable and effective (3Es). It was used as foot-in-the-door approach to start with simple exercises while sitting or standing during waiting or doing sedentary work. We named these activities 3-Zero Exercise in this programme.

The intervention focused on demonstration and practice of ZTEx, and included a 2.5-hour interactive core session at baseline, a 1.5-hour booster session at 3 months, a tea buffet with families at 6 months, and 16 monthly/bi-weekly mobile messages over a period of one year. The HD group had heathy diet intervention with the same methods, number of sessions and duration. All the participating IFSCs were responsible for the recruitment of the eligible participants for their Parent Education Programmes.

The Parent Education Programme aimed to (i) motivate and empower the participants and their families to have a healthier lifestyle by adopting ZTEx, and (ii) enhance positive family communication and personal and family well-being. The programme content was jointly designed by the Caritas and the FAMILY Project Team. The interactive education sessions were conducted by two experienced frontline social workers, who were specially trained for the implementation of this Parent Education Programme. In addition, FAMILY Project Team also provided on-site support and technical assistance. Self-report questionnaires were used to assess the effectiveness of the intervention at baseline, three months, six months and one year. Focus group interviews were conducted to obtain feedback on the Parent Education Programme from the participants. On-site observation and fidelity checks were implemented as process evaluation.

***Train-the-Trainer and Ambassador Programme***

The TTTA composed of nine single-session training workshops were conducted for the staff and volunteers of eight Integrated Family Service Centres (IFSCs) during May to August 2016. They were designed to equip the staff with knowledge and skills to implement the community-based Parent Education Programme to their service users, and prepare the volunteers to be community health ambassadors to assist in the implementation of community-based activities and help build workforce and knowledge at the local level. The training content covered the concepts of ZTEx, heathy diet and positive psychology themes of gratitude and praise. Outcome evaluation was conducted using the questionnaires at baseline and immediately following the intervention workshops. Individual phone interviews were used to collect feedback from the trainees.

## Stage Three: Project consolidation

***Family Holistic Health Day***

A media event was organized on 17 December 2016. Representatives from HKJCCT, Caritas, the FAMILY Project Team, and two participants of the Parent Education Programme joined the press conference. A brief introduction and the preliminary results of the project were presented, and the two participants shared their experiences about the Parent Education Programme. Then, questions were asked by the media reporters.

A closing ceremony and carnival, entitled “Family Holistic Health Day”, was held immediately after the media event. Community participants and the representatives of the eight IFSCs attended these events. Representatives of HKJCCT, the Social Welfare Department, the Family Council, Caritas and the FAMILY Project Team joined the ceremony. The ceremony also included prize presentation to the award winners of a photo shooting competition, and certificate presentation to the representatives of the eight participating IFSCs. All guests and participants were invited to join the carnival after the ceremony. The FAMILY Project Team and the eight Caritas IFSCs organized a variety of game booths to promote FAMILY Holistic Health.

***Practice Wisdom Sharing Programme***

Two workshops were organized for stakeholders from various service settings on 15 October 2016 and 24 February 2017. These workshops aimed to share the results and practice tips with regard to the Parent Education Programme.

***Publicity and Promotion***

*Community-based health education campaign*

A series of short videos on promoting FAMILY Holistic Health were made and broadcasted for service users in different locations, including in all IFSCs, other Family Service units, and schools. The videos were uploaded to YouTube for wider publicity and promotion (https://www.youtube.com/channel/UCNZKtEwdXmnkP1buoGwSuGQ/featured).

*Slogan Competition and Photo Contest*

Both the Slogan Competition and the Photo Contest were conducted in kindergartens and primary schools. These contests aimed to promote awareness and importance of physical activity and family well-being.

*Practice Manual*

After the completion of the Parent Education Programme, practice manuals were prepared. These manuals summarized the information about the programmes (Appendix 1). A total of 2,000 copies of practice manuals were distributed to different units of Caritas Family Service, all primary and secondary schools served by Caritas school social workers, and the Hong Kong Council of Social Services. The manual served as a key reference for the social workers and teachers who might wish to implement similar programmes.

*Healthy diet booklet and ZTEx leaflet*

A total of 1,000 copies of the six-page booklets (Appendix 2) and 700 copies of the ZTEx leaflets (Appendix 3) were prepared and distributed to the participants who joined the Parent Education Programmes and the IFSCs for their service users. The Healthy diet booklets covered: (a) information on sugar content in some drinks, (b) the size of one serving of fruits and vegetables, and (c) practical tips for reading food labels. The booklets reviewed what the participants had learnt during the Parent Education Programme. The ZTEx leaflets were used to remind the participants about the different exercises that can be done anytime and anywhere.

*Souvenirs*

A variety of souvenirs, such as handgrip, towels, dumbbell-shaped water bottles, were distributed to the participants of this project. They were intended to remind participants about health-related behaviour such as physical activity, heathy diet and FAMILY harmony.

*Media Promotion*

Mass media such as newspapers and radio broadcasting, were used to promote awareness and importance of FAMILY Holistic Health. Media events were held to disseminate the results of project evaluation to the public, and promote strategies to enhance positive parent-child interaction. Posters/banners were used to introduce the project and invite the public to join The Parent Education Programme. We emailed other NGOs, secondary and primary schools, kindergartens and Parents Teachers Associations to encourage them to join the community-based health campaigns, such as the Slogan Competition and the Photo Contest. Facebook pages were used to share photos and related videos among the participants and their families,

and with the public. WhatsApps groups were formed to deliver health information and upcoming events of the programmes.

## 2.2 Project evaluation

Apart from evaluating the project outcome, a detailed process evaluation for each intervention programme was completed (Figure 2.2 and Table 2.1). The evaluation framework was designed to assess the project impact at different time points.

Figure 2.2 Timeline of the FEP
(Outline of main events and evaluation process)

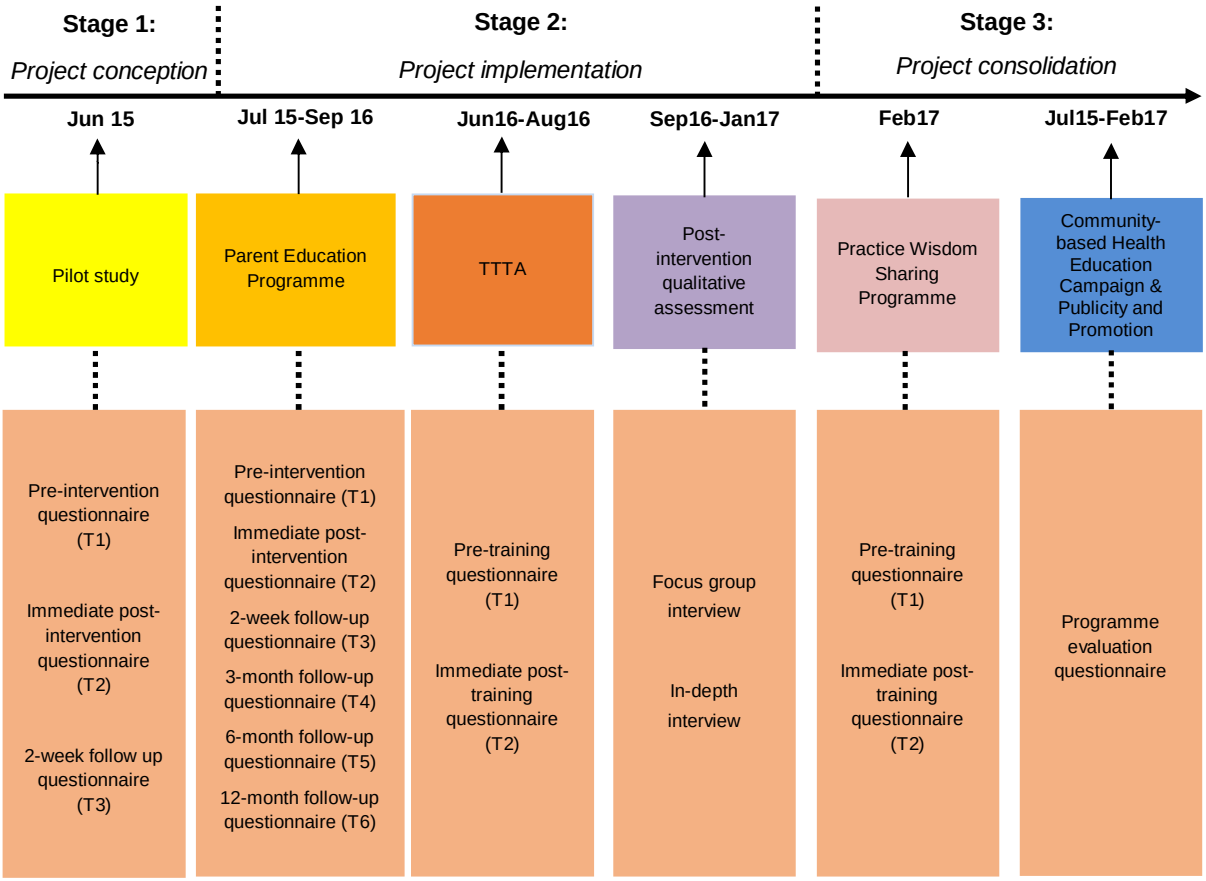


Table 2.1 Evaluation framework of the FEP

| Stages | Events | Details | Evaluation methods |
|---|---|---|---|
| Project Conception | Pilot Trial (May and June 2016) | Two pilot groups for social workers and parents were conducted.<br>The goal was to obtain feedback from the participants to refine the intervention and questionnaire for enhancing the acceptability and applicability of the Parent Education Programme | Quantitative:<br>• Pre- (T1), immediate post-intervention (T2) and 2-week follow-up (T3) assessments<br>Targets:<br>• Social workers and eligible participants |
| Project Implementation | Parent Education Programme-core session (July-September 2015) | Eight participating IFSCs recruited around 600 eligible parents.<br>The participating IFSCs were randomized into 2 groups- PA group and HD group<br>The conceptual framework, number and duration of interventions were standardized in the two groups, but the content was different.<br>A 2.5-hour core session delivered the intervention on ZTEx and healthy diet to the PA group and HD group, respectively.<br>Both groups were encouraged to share and practise the health habits with their families.<br>The goal was to enhance knowledge, self-efficacy, motivation | Quantitative:<br>• Pre- (T1), immediately after intervention (T2) assessments<br>• 2-week follow-up assessment (T3, for PA group only)<br>Targets:<br>• Study-eligible participants<br>Process evaluation:<br>• Fidelity form (for PA group only)<br>A representative from the FAMILY Porject Team conducted the process evaluation |

| Stages | Events | Details | Evaluation methods |
|---|---|---|---|
| | | and performance in relation to physical activity, ZTEx and dietary habits, and personal and family well-being. | |
| | Parent Education Programme-booster session (October-December 2015) | A 1.5-hour booster session was conducted three months after the core session.<br>The booster aimed to strengthen knowledge, self-efficacy and motivation, and explore any difficulties encountered in achieving the expected outcomes. | Quantitative:<br>• 3-month follow-up assessment (T4)<br>Targets:<br>• Study-eligible participants<br>Process evaluation:<br>• Fidelity form (for PA group only)<br>A representative from the FAMILY Porject Team and other representative from Caritas conducted the process evaluation. |
| | Parent Education Programme-tea gathering session (January-March 2016) | A 3-hour tea gathering session* was conducted six months after the core session, for the participants and their family members.<br>(*30-min Parent Education Programme activities)<br>This session was conducted for the participants to experience an enjoyable event with their family members, and introduced the Parent Education Programme to the participants' families. | Quantitative:<br>• 6-month follow-up assessment (T5)<br>Targets:<br>• Study-eligible participants<br>Process evaluation:<br>• Fidelity form (for PA group only)<br>Representative from the FAMILY Porject Team conducted the process evaluation. |

| Stages | Events | Details | Evaluation methods |
|---|---|---|---|
| | Parent Education Programme-Family Holistic Health session (July-September 2016) | A Family Holistic Health session was conducted at 12 months after the core session. The goal was to collect long-term feedback from the participants.<br>ZTEx and healthy dietary practices were introduced to the HD group and the PA group respectively. | Quantitative:<br>• 12-month follow-up assessment (T7), immediately after the Family Holistic Health session assessment (T8).<br>Targets:<br>• Study-eligible participants<br>Qualitative:<br>• Short interview<br>Targets: participants were randomly invited to complete a short interview. |
| | Parent Education Programme-participant focus group interviews (December 2015-September 2016) | Focus group interviews were conducted to obtain participants' opinions and feedback on the programme. | Qualitative:<br>• A focus group interview guide was developed to collect qualitative data from the participants<br>Targets:<br>• Study-eligible participants |
| | TTTA (May-August 2016) | Staff and volunteer workers of Caritas Family Service attended TTTA. The goal was to promote their knowledge, skills and practice of 3-Zero Exercise, and disseminate learning to their service users. | Quantitative:<br>• Pre-training assessment (T1), and immediately after training assessment (T2) were conducted to obtain feedback from trainees and assess the impact of the trainng workshop.<br>Targets:<br>• Staff and volunteer workers of IFSC |

| Stages | Events | Details | Evaluation methods |
|---|---|---|---|
| | TTTA-participating staff phone interviews (November 2016) | Phone interviews were conducted to obtain trainees' opinions and feedback on the training workshop. | Qualitative:<br>• A semi-structured interview guide was developed to collect qualitative data from the trainees<br>Targets:<br>• Staff and volunteer workers of Caritas Family Service |
| | FEP-Staff in-depth interviews (December 2015-September 2016) | In-depth interviews were conducted to obtain IFSC staff's opinions and feedback on the project. | Qualitative:<br>• A semi-structured interview guide was used to collect comments and suggestions about the project. |
| | FEP-Project working team in-depth interviews (January 2017) | In-depth interviews were conducted to collect feedback from the members of the working team. The goal was to collect their views and experiences in implementing the project, and their perceived effectiveness of the project. | Qualitative:<br>• A semi-structured interview guide was used to collect comments and suggestions about the project and its potential policy impact |
| Project Consolidation | Practice Wisdom Sharing Programme (February 2017) | Stakeholders from various service settings in the territory were invited to attend the workshops. The goal was to introduce the ZTEx programme and share the results of the Parent Education Programme. | Quantitative:<br>• One-page questionnaire to obtain feedback on the workshop<br>Targets:<br>• Participants of the programme |

## 2.3 Target populations

The target population of the public education events and media promotion was the general public. For the community-based Parent Education Programme, participants were service users of Caritas IFSCs in Tuen Mun, Tsuen Wan, Sha Tin, Shau Kei Wan, Tung Tau, Aberdeen, Tin Shui Wai and Fanling. They were parents who had at least primary education and at least one child aged 3 to 18 years. Staff and volunteers of Caritas Family Service Centres were assigned or invited to attend the TTTA. Table 2.2 shows the expected numbers of beneficiaries in each project component. The actual numbers beneficiaries will be presented in the following chapters.

Table 2.2 Expected numbers of beneficiaries in each programme component

| Programmes/events | Expected numbers of beneficiaries |
|---|---|
| **Parent Education Programme** | |
| Core session | 600 participants |
| Booster session | 600 participants |
| Tea gathering session | About 1,600-2,000 participants |
| Family Holistic Health session | 600 participants |
| TTTA | About 150 Caritas staff and volunteer workers |
| Practice Wisdom Sharing Programme | About 30 participants |
| Family Holistic Health Day | 300 participants |
| **Community-based health education campaign** | |
| Slogan competition | 100 participants |
| Photo contest | 100 participants |
| Short videos | About 10,000 students<br>About 500 participants at the Family Service Centres<br>About 2,000 public viewers via YouTube |
| **Publicity and media coverage** | |
| Newspapers | 200,000 readers |
| Media event | 80,000 readers |
| **Others** | |
| Healthy diet booklet | 400-600 participants |
| Practice manual | 200 staff of Caritas Family Service<br>2,000 teachers |

# CHAPTER 3 STAGE 1-PROJECT CONCEPTION

## 3.1 Pilot trial

ZTEx is a new innovative approach to reduce sedentary behaviour, and enhance physical activity and personal and family well-being. This Pilot trial focused on the development of the intervention and questionnaire for the community-based Parent Education Programme.

### 3.1.1 Objectives

- To assess the feasibility and appropriateness of the intervention;
- To assess the acceptability and understandability of the questionnaire; and
- To obtain participants' input relevant to improving the intervention before finalization.

### 3.1.2 Methods

#### 3.1.2.1 Target population

***Phase One***

A pre-pilot trial was conducted for social workers of the Family Service, Caritas-Hong Kong.

***Phase Two***

A pilot trial was conducted for parents who were able to read and write Chinese, who had at least primary school education, and who had at least one child aged 3 to 18 years.

#### 3.1.2.2 Recruitment

***Phase One***

Ten social workers were recruited from participating Family Service, Caritas-Hong Kong.

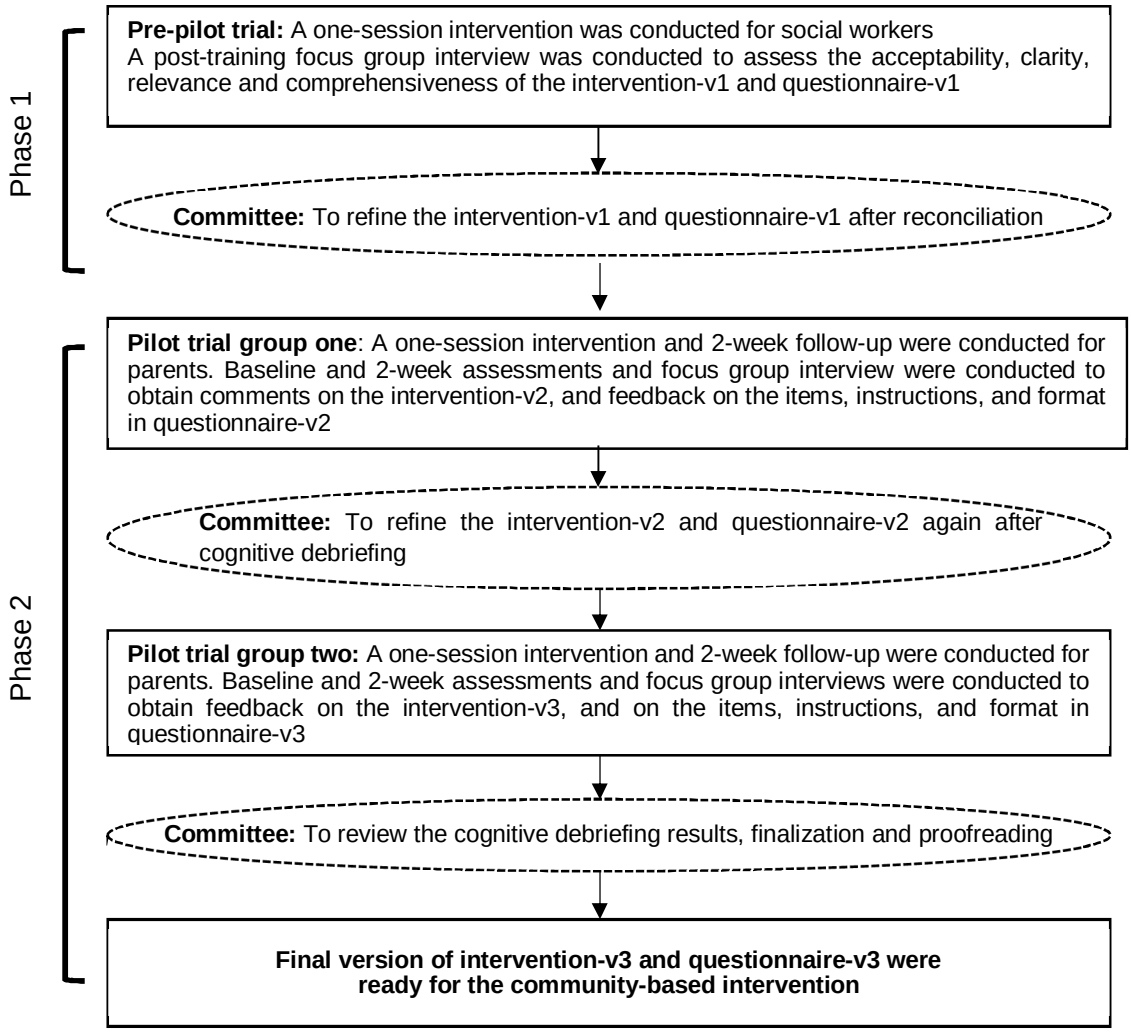
***Phase Two***

Eighteen parents were recruited from two IFSCs in Sha Tin and Shau Kei Wan.

### 3.1.2.3 Procedures

Figure 3.1 shows the 2-phase framework for the development of the intervention and questionnaires.

Figure 3.1 Framework for the development of the intervention and questionnaires




***Phase One: Pre-pilot trial***

A 2-hour intervention focusing on FAMILY Holistic Health (physical and psychosocial health) was conducted for 10 social workers on 28 May 2015. A post-intervention focus group interview was held to obtain feedback and comments in order to refine the first version of the intervention and questionnaire (intervention-v1 and questionnaire-v1). The goal was to assess the acceptability, clarity, relevance and comprehensiveness of the intervention and questionnaire.

***Phase Two: Pilot trial***

After obtaining feedback from the social workers and the reconciliation of the project committee, second versions of the intervention and questionnaire (intervention-v2 and questionnaire-v2) were formulated. The intervention-v2 for the parents' groups included a 2.5-

hour core session at baseline and a 1.5-hour follow-up session at two weeks. A total of 18 parents attended two pilot trials: the first group received the trial on 5 and 19 June 2015; and the second group on 9 and 24 June 2015. The Pilot trial aimed to obtain feedback on the intervention-v2 and the items, instructions, and response format of questionnaire-v2 through cognitive debriefing interviews with the parents group. Pilot trial group two aimed to obtain feedback on the intervention-v3 and questionnaire-v3, which were the next-to-final version to be used in the Parent Education Programme intervention. Questionnaire assessments were conducted at baseline, immediately after the core session and at two weeks. Focus group interviews were conducted immediately after the core session and at 2-week follow-up.

The committee reviewed the comments from the participants, discussed and integrated the feedback as appropriate, and obtained a consensus version of the format and content of the intervention and questionnaires. Revisions were made as needed to ensure item clarity and relevance. The final and third version was obtained for the Parent Education Programme. These procedures helped to enhance the acceptability, relevance, and comprehensiveness of the intervention and questionnaires.

All sessions were videotaped and some of the sessions were transcribed into English so that the project investigator could monitor each session closely. Attendance for each session was recorded. After the trial, each participant was given supermarket coupons (total value=$250).

#### 3.1.2.4 Measurements

Primary outcomes:

- Physical activity including ZTEx; and
- Feedback on the pilot trials.

Secondary outcomes:

- Physical fitness performance;
- Family communication in relation to ZTEx; and
- Personal and family well-being.

Assessments were performed at baseline and two-week follow-up. Perceived knowledge, self-efficacy and intention in relation to ZTEx were assessed by asking participants to indicate the extent of their agreement with three statements. For example, “I am confident that I am able to do ZTEx regularly” before the training and immediately after the training. Responses were made on a 6-point Likert scale, ranging from “1=strongly disagree” to “6=strongly agree”.

Self-reported physical activity and involvement of family in ZTEx were assessed by five questions, which were adopted and modified from the International Physical Activities Questionnaire-Chinese version (IPAQ-C). We assessed physical activity levels by asking the participants to indicate the number of days in the last seven days they (1) did ZTEx while sitting, (2) did ZTEx while standing, (3) did ZTEx while walking, (4) encouraged family members to do ZTEx, and (5) did ZTEx with family members. Responses ranged from “0 day to 7 days”.

#### 3.1.2.5 Statistical analysis

Analyses were conducted using SPSS 24.0. All significance tests were 2-sided with a 5% level of significance. By intention-to-treat analysis missing data were replaced by baseline value, that is assuming no change. Paired t-test was used to compare the difference between baseline and at two weeks.

## 3.1.3 Results

### 3.1.3.1 Demographic characteristics

A total of 18 parents attended the two pilot trial groups, including nine parents from IFSC-Sha Tin and nine parents from IFSC-Shau Kei Wan.

Table 3.1 Demographic characteristics (n=18)

| Characteristic | n (%) |
|---|---|
| | |
| **Sex** | |
| Male | 3 (16.7) |
| Female | 15 (83.3) |
| **Age group (years)** | |
| 30-39 | 6 (33.4) |
| 40-49 | 8 (44.4) |
| 50-59 | 2 (11.1) |
| ≥60 | 2 (11.1) |
| **Education** | |
| Primary or below level | 1 (5.6) |
| Secondary or above level | 17 (94.4) |
| **Employment status** | |
| Employed (Full time) | 2 (11.1) |
| Employed (Part time) | 6 (33.3) |
| Unemployed/Retired | 2 (11.1) |
| Housewife | 8 (44.4) |
| **Household monthly income[a]** | |
| CSSA<$10,000 | 8 (50.0) |
| $10,000-$19,999 | 7 (43.8) |

| Characteristic | n (%) |
|---|---|
| $20,000-$29,999 | 1 (6.3) |
| **Age of children (years)** | |
| 3-5 | 2 (11.1) |
| 6-12 | 10 (55.6) |
| 13-18 | 10 (55.6) |

[a] n(missing)=2

### 3.1.3.2 Changes in outcomes

***Competence and motivation in relation to ZTEx***

Table 3.2 shows that participants reported high scores on perceived knowledge, self-efficacy and intention (ranged from 5.1 to 5.6 out of 6) in relation to doing ZTEx, immediately after the core session and at two weeks. There was no significant difference between these measures at these two time points.

Table 3.2 Participant's competence and motivation in relation to ZTEx (1-6)[b]

| | Immediately post-intervention (T2) n=18 | Two-week follow-up (T3) n=18 | Post→2wk |
|---|---|---|---|
| | Mean (SD) | | *p*-value[a] |
| **Competence** | | | |
| Perceived knowledge of the general concept of ZTEx | 5.50 (0.99) | 5.56 (0.63) | 0.71 |
| Self-efficacy in relation to doing ZTEx regularly | 5.44 (0.62) | 5.38 (0.81) | 0.80 |
| **Motivation** | | | |
| Intention in relation to do ZTEx regularly | 5.06 (0.62) | 5.25 (0.78) | 0.58 |

[a] *p*-value for the difference between immediately following intervention and two-week follow-up

[b] 6-point Likert scale: "1=strongly disagree" to "6=strongly agree"

### *Zero-time Exercise*

Table 3.3 shows that participants reported significant increases in ZTEx with large effect size at two weeks (all $p<0.001$).

Table 3.3 Doing ZTEx in the last seven days (0-7 days)

| | Pre-intervention (T1) n=18 | Two-week follow-up (T3) n=18 | Pre→2wk |
|---|---|---|---|
| | Mean (SD) | | *p*-value[a]/ES[b] |
| Days spent doing ZTEx when sitting in the last 7 days | 1.39 (2.06) | 5.31 (1.70) | 0.001** /2.08 |
| Days spent doing ZTEx when standing in the last 7 days | 1.39 (2.45) | 5.38 (1.54) | 0.002** /2.95 |
| Days spent doing ZTEx when walking in the last 7 days | 1.89 (2.49) | 5.31 (2.27) | 0.001** /2.44 |

[a] *p*-value for the difference between pre-training and two-week follow-up: ** $p<0.01$

[b] ES=effect size (Cohen's d): small=0.20, medium=0.50 and large=0.80

### *Family communication in relation to ZTEx*

Table 3.4 shows that participants reported significant increases with moderate effect size in encouraging their families to do ZTEx and doing ZTEx with their families at two weeks (all $p<0.05$).

Table 3.4 Family involvement in relation to ZTEx in the last seven days (0-7 days)

| | Pre-intervention (T1) n=18 | Two-week follow-up (T3) n=18 | Pre→2wk |
|---|---|---|---|
| | Mean (SD) | | *p*-value[a]/ES[b] |
| Days spent encouraging family to do ZTEx in the last 7 days | 2.05 (1.04) | 2.64 (1.00) | 0.009**/0.58 |
| Days spent doing ZTEx with family in the last seven days | 1.76 (0.95) | 2.33 (1.14) | 0.049*/0.54 |

[a] *p*-value for the difference between pre-training and two-week follow-up: * $p<0.05$; ** $p<0.01$

[b] ES=effect size (Cohen's d): small=0.20, medium=0.50 and large=0.80

### 3.1.4 Findings and recommendations

#### Intervention content

During post-intervention discussion with the participants, they indicated that the content for all sessions were interesting, relevant and useful. The intervention had a clear framework and was easy to follow. Some participants indicated that the exercise was easy and enjoyable to practise such as standing on tiptoe and leg stretching. They wanted more examples of ZTEx. However, some participants still indicated some uneasiness when they did ZTEx in public.

#### Feasibility and comprehension of revised assessments

Participants completed the questionnaires after brief instructions from the facilitators. The average time to complete the pre-intervention or the post-intervention questionnaire was 10 minutes and 15 minutes, respectively. Some participants suggested that a clearer definition of ZTEx might help them understand the new term. Some participants preferred to use the number of days in a week instead of the total time spent in a week to assess the frequency of ZTEx. In addition, they suggested that a larger font size be used in the questionnaire. In general, the participants had no difficulty in understanding and answering the final version of the questionnaire-v3.

#### Effectiveness of the intervention

The pilot trial was effective in increasing participants' and their families' involvement with ZTEx. Participants stated that they had a new mind set about exercising and agreed that they could make good use of time to do exercise. They also reported that they felt more relaxed after doing ZTEx, especially after performing the stretching exercises after a long day's work.

# CHAPTER 4 STAGE 2-PROJECT IMPLEMENTATION

## 4.1 Parent Education Programme

### 4.1.1 Introduction

The Parent Education Programme used ZTEx as a foot-in-the-door approach to minimize barriers to exercise, and enhace personal and family well-being.

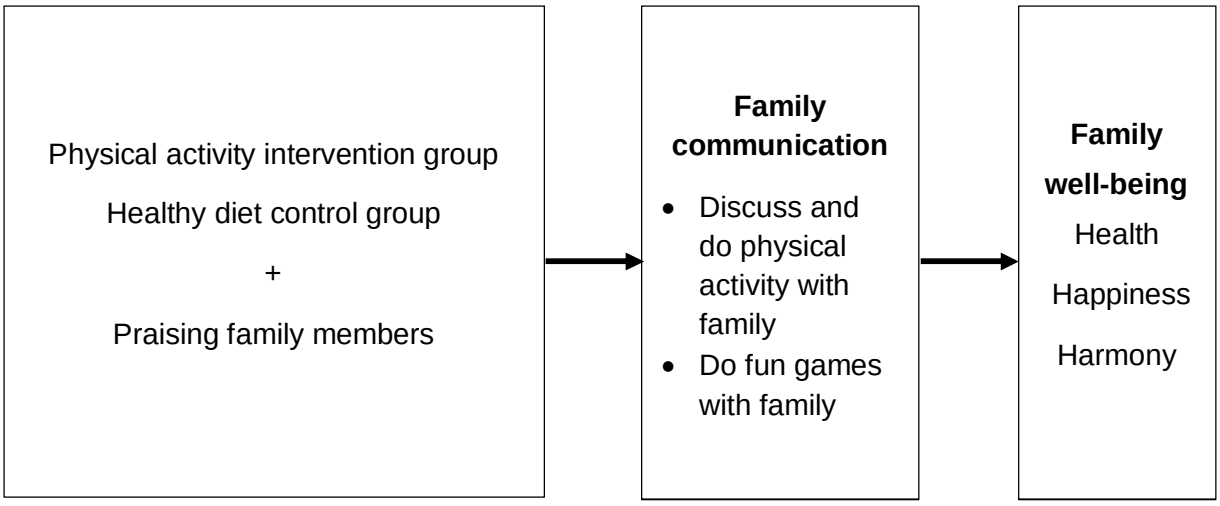
The objectives were:

- To reduce participants' sedentary behaviour and increase their physical activity;
- To enhance participants' family communication in relation to ZTEx; and
- To enhance participants' self-reported personal health, happiness and FAMILY harmony.

### 4.1.2 Conceptual framework of the Parent Education Programme

Figure 4.1 shows the conceptual framework of the Parent Education Programmes. The interventions focused on advocating a healthy lifestyle including regular physical activity, heathy diet habit, positive emotion and family communication through the promotion of activities by emphasizing the involvement of family members and praising family members to enhance personal and family well-being.

Figure 4.1 The conceptual framework of the Parent Education Programme



## 4.1.3 Methods

### 4.1.3.1 Cluster randomized controlled trial design

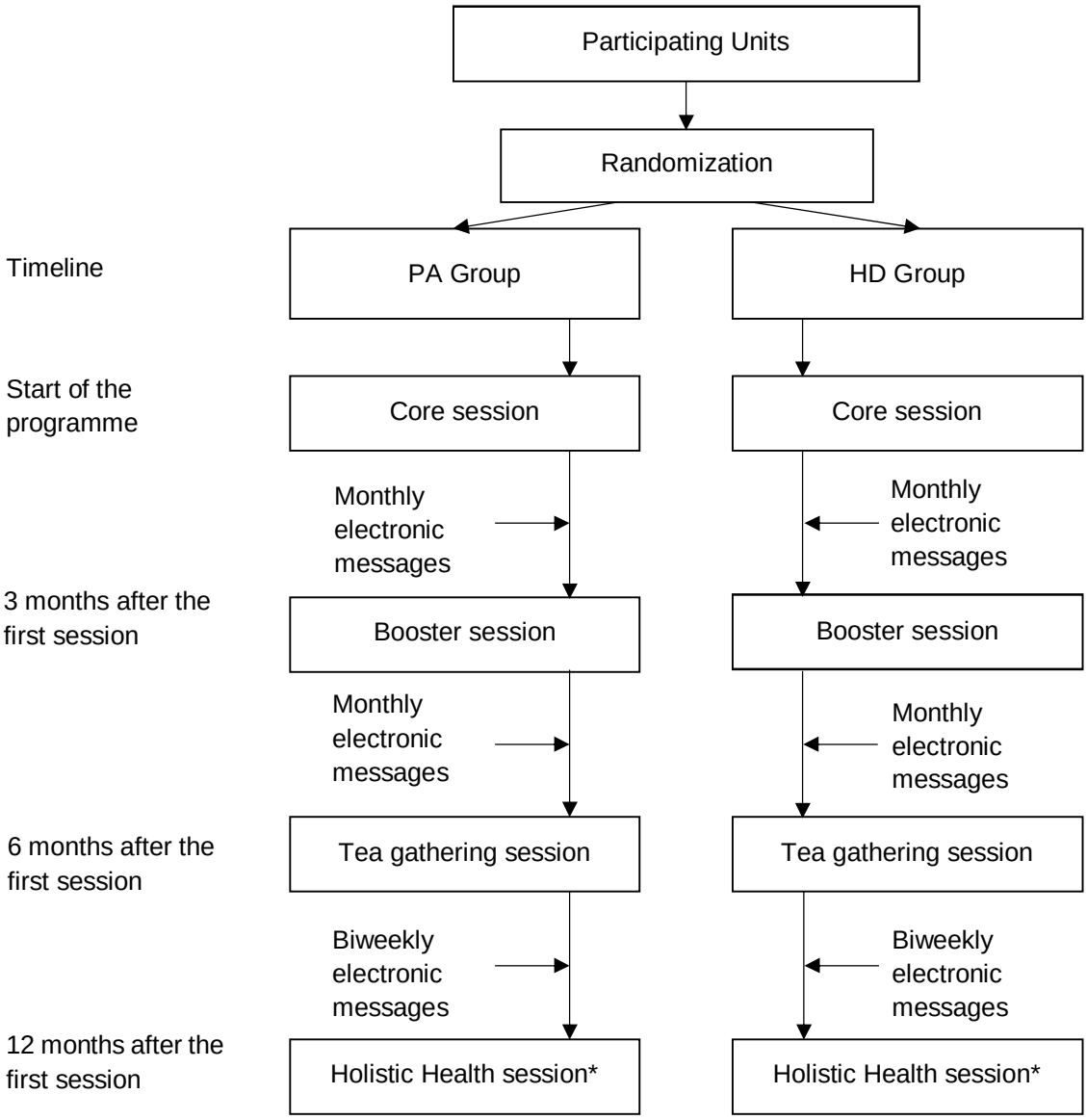
All the eight Caritas Integrated Family Services Centres with their respective community participants were randomised into either PA group or HD group (4 centres per group). Table 4.1 shows the participating centres in each group.

Table 4.1 The participating centres in each group

| **Physical activity interevention group** |
|---|
| Caritas Integrated Family Service Centre-Tsuen Wan (East)<br>明愛荃灣綜合家庭服務中心(東荃灣) |
| Caritas Integrated Family Service Centre-Tuen Mun<br>明愛屯門綜合家庭服務中心 |
| Caritas Integrated Family Service Centre-Aberdeen (Tin Wan/Pok Fu Lam)<br>明愛香港仔綜合家庭服務中心(田灣) |
| Caritas Integrated Family Service Centre-Tin Shui Wai<br>明愛天水圍綜合家庭服務中心 |
| **Healthy diet control group** |
| Caritas Integrated Family Service Centre-Shau Kei Wan<br>明愛筲箕灣綜合家庭服務中心 |
| Caritas Dr. & Mrs. Olinto de Sousa Integrated Family Service Centre<br>明愛蘇沙伉儷綜合家庭服務中心 |
| Caritas Integrated Family Service Centre-Tung Tau (Wong Tai Sin South West)<br>明愛東頭綜合家庭服務中心(黃大仙西南) |
| Caritas Integrated Family Service Centre-Fanling<br>明愛粉嶺綜合家庭服務中心 |

Figure 4.2 shows the design of the study. Both groups included a 2.5-hour interactive core session at baseline, a 1.5-hour booster session at 3 months, 2.5-hour tea gathering session at 6 months, and a Holistic Health session at one year. Physical fitness and questionnaire assessments were conducted immediately before each session. We also provided 16 monthly/bi-weekly health-related mobile messages for knowledge enhancement and as reminders till one year after training.

Figure 4.2 The cRCT design




*Follow-up session aimed to collect one-year feedback from participants

### 4.1.3.2 Target populations

The inclusion criteria were:

- Aged 18 years or above;
- Parents/grandparents with one child/grandchild or more aged 3 to 17;
- Parents/grandparents with primary education or higher; and
- Parents/grandparents able to read and write Chinese.

The exclusion criteria were

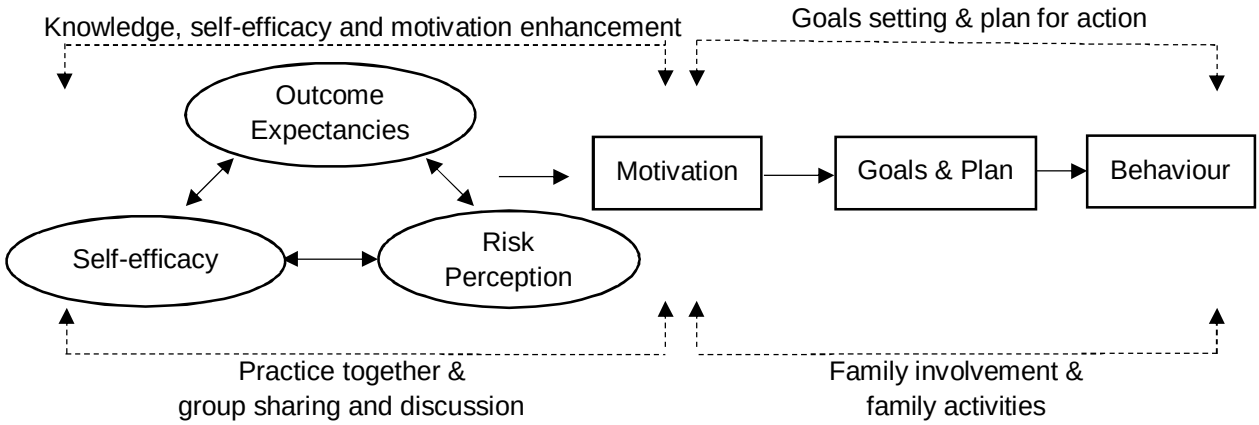
- Individuals with serious health conditions that might prevent them from participating in low intensity physical activity.

Participants were required to sign a consent form before participating in the programme and completing questionnaires. A contact telephone number was provided to all participants should they have any queries about the programme. They were reassured that they have the right to withdraw at any time without any consequences.

### 4.1.3.3 The intervention

Figure 4.3 shows the essential components and strategies that were used in the model-based intervention, and guided by the health action process approach. The intervention was conducted by two trained social workers.

Figure 4.3 The essential components and strategies to be used in the model-based intervention




#### *4.1.3.3.1 Physical activity intervention group*

***The Core session***

The core session was a 2.5-hour session. The intervention aimed to enhance factors that influence behavioural changes.

The strategies included:

- Introducing information on the consequences of physical inactivity, obesity and ZTEx (risk perception);
- Enhancing skills and confidence in the ability to do ZTEx (exercise self-efficacy);
- Associating the health behaviour to the positive outcomes of the trainees (outcome expectations); and
- Introducing cognitive dissonance, i.e. a discrepancy between participants' belief (including pledge to eat) and behaviour (failure or potential failure to act) to promote intrinsic motivation to change behaviours.

In addition, we encouraged participants to express their concerns about their health, and their views regarding ZTEx, share their new learning, engage and praise their family members in doing ZTEx, and involve their family members in their exercise action plan. We got them pledge openly and loudly together that they would do ZTEx and share with their family because they loved them. We then explained what they would experience cognitive dissonance if they do not do as they have pledged [66]. Strategies were described to mobilize behaviour change and focused on increasing motivation and setting goals for action.

***The Booster session***

The Booster session was a 1.5-hour experience sharing and group discussion session at three months after the first session. Participants first answered the 3-month questionnaires and performed the physical fitness assessment at the beginning. They were then invited to share their experiences and the barriers they had encountered in doing ZTEx and introducing it to their families and follow up assessment was done at the beginning. We highlighted any positive changes they reported, reassured participants that positive changes and health benefits were likely to come with doing ZTEx regularly, and reminded them of the negative consequences of physical inactivity and sedentary behaviour. We also provided more in-depth information about ZTEx and more demonstrations on different types of ZTEx to the participants.

***The Tea gathering session***

The Tea gathering session was a 2.5-hour family gathering session, six months after the first session. Participants attended the tea buffet with their families. At the beginning, participants first answered the 6-month questionnaires and performed the physical fitness assessment. The goal was to enhance family communication and relationships, promote healthy behaviour habits, and strengthen motivation to continue doing ZTEx.

***The Holistic health session***

This was a 2.5-hour holistic health session, one year after the first session. This session was not a part of the cRCT. The goals were to (i) collect one-year feedback of participant for assessing the one-year effect of the cRCT through 1-year questionnaire and physical fitness assessment at the beginning; and (ii) provide additional health information for participants to improve dietary habits. We also taught participants how to read food labels and what one portion of fruit and vegetable was, and encouraged participants to consume less sweetened beverages and more fruits and vegetables (at least five portions a day).

***Electronic messages***

We also provided continuous post-training electronic health messages to participants. Sixteen monthly/biweekly electronic texts, pictorial and video messages related to healthy living habits and ZTEx were sent to the participants (Appendix 4). The goal was to extend the effectiveness of the programme till one year after joining training. We encouraged the participants to contact us through electronic messages or hotline if they had any questions.

***Others***

We asked participants to complete the exercise diary with family members (Appendix 5). We gave out souvenirs such as handgrip, which served as reminders to increase participants' motivation to do physical activity and ZTEx regularly.

Participants who attended the intervention sessions and completed the assessments were given supermarket coupons (total value HK$450: $100 at baseline, $100 at 3 months, $50 at 6 months and $200 at 1 year) to compensate them for their time.

#### *4.1.3.3.2 Healthy diet control group*

The contents of the electronic message were information about ZTEx and heathy diet habits for the PA group and the HD group, respectively. They were similar in structural design and duration, number of messages and sessions and the components and strategies to be used in the model-based intervention.

### 4.1.3.4 Evaluation

#### *4.1.3.4.1 Outcomes*

*Primary outcomes:*

- Physical activity including ZTEx.

*Secondary outcomes:*

- Physical fitness performance;
- Family communication in relation to ZTEx;
- Dietary habits;
- Self-reported well-being; and
- Feedback of the Parent Education Programme.

#### *4.1.3.4.2 Measurements*

Outcomes were assessed by self-reported questionnaires at six time points: baseline, immediately after core session, and at two weeks (for PA group only), three months, six months and one year after the first session. A physical fitness assessment was done at baseline, three months, six months and one year.

Focus group interviews and in-depth interviews were conducted after completion of the Parent Education Programme (at one year after the first session).

Self-reported physical activity and involvement of family in relation to ZTEx were assessed by seven questions, which were adopted and modified from the International Physical Activities Questionnaire-Chinese version (IPAQ-C). We assessed physical activity levels by asking participants to indicate the number of days in the last seven days they (1) did at least 10-minute moderate physical activities, (2) did at least 10-minute vigorous physical activities, (3) did ZTEx while sitting, (4) did ZTEx while standing, (5) did ZTEx while walking, (6) encouraged family members to do ZTEx, and (7) did ZTEx with family members. Responses ranged from “0 day to 7 days”. We assessed sedentary behaviour by asking the following question: “On a typical weekday in the last seven days, how much time (hours per day) did you spend sitting?”.

Dietary habits were assessed by asking questions about the daily consumption of fruits and vegetables. Responses mostly ranged from “0 serving” to “5 servings or more”. We assessed sugary beverage drinking habits by asking the number of days they drank sugary beverages in the last seven days. Responses ranged from “0 day” to “7 days”.

We asked the participants to indicate their self-reported FAMILY harmony, personal health and personal happiness by three questions: “Do you think your family is harmonious?”; “Do you think you are happy?” and “Do you think you are healthy?”. Each item allowed response on a scale ranging from "0=very unhealthy/unhappy/disharmonious" to "10=very healthy/happy/harmonious".

Foot pedalling, a simple assessment was conducted to evaluate the physical fitness of the participants. Participants were required to sit on a stable chair (about 43cm in height), with back touching the pan, hands supported by the sides, hip flexed, knees slightly bend and hamstrings were off from the chair. Participants were required to do pedalling or cycling (like on an imaginary bicycle) as follows: flex the right hip (right knee up) and back to original position (right knee down), and simultaneously flex the left hip (left knee up) and back to original position (left knee down) with a rhythm of about one cycle per second by saying 001, 002, 003…etc. When one leg completed the up and down, one cycle was completed; each hamstring should not touch the chair and the sole should not touch the ground during the process; cycle should be completed in 1 second; and count the number of seconds the participant can do up to 120 seconds.

#### *4.1.3.4.2 Statistical analysis*

Quantitative data were analysed using SPSS 24.0. 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 general linear model were conducted to compare the demographic characteristics and baseline scores between the groups. To examine the effectiveness of the Parent Education Programme, mixed linear models and generalised estimating equations were done. Since marital status, educational level, and family income were statistically different between the two groups, they were considered as potential confounding factors. In the analysis, we considered group allocation as a fixed effect, clustering effects of individuals in the same centre as random effect, outcomes of interest as dependent variables, and age, sex, marital status, education level, family income and baseline values as covariates. This analytical procedure was adopted to assess whether there were differences in the outcome changes between follow-up time points and between the PA group and the HD group. The principle of

intention-to-treat analysis was adopted by 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 participants with complete assessments at baseline, 3-, 6-month and 1-year 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 2-sided with a 5% level of significance.

Transcripts were analysed by thematic content analysis, following the guidelines recommended by Morse and Field [67] and NVivo 11.0. Field notes were reviewed with the transcript to organize and summarize data. Mixed Method Triangulation design was used to interrelate and interpret the qualitative and quantitative data to validate the results [68].

#### 4.1.3.5 Quality assurance

##### *4.1.3.5.1 Procedure manuals*

A series of standardized procedures were listed in the procedure manual which all personnel were required to follow. The Procedure Manuals included recruitment procedures, operational instructions, and data collection procedures, management and security.

##### *4.1.3.5.2 Process evaluation*

In a research study, it is important to ensure that the intervention is delivered in a standardised and almost identical manner. Fidelity checks were conducted for every session of the programmes, which ensured the quality of the intervention and the implementation of the key elements in the intervention.

#### 4.1.3.6 Retention and attrition

To reduce dropout during the programme, several strategies were used. One week prior to the start of the programme and each session, reminder texts were sent or phone calls were made to participants to remind them to attend the intervention sessions. Make-up sessions in person or over the phone were arranged for participants who missed the second to fourth sessions.

## 4.1.4 Results

### 4.1.4.1 The recruitment

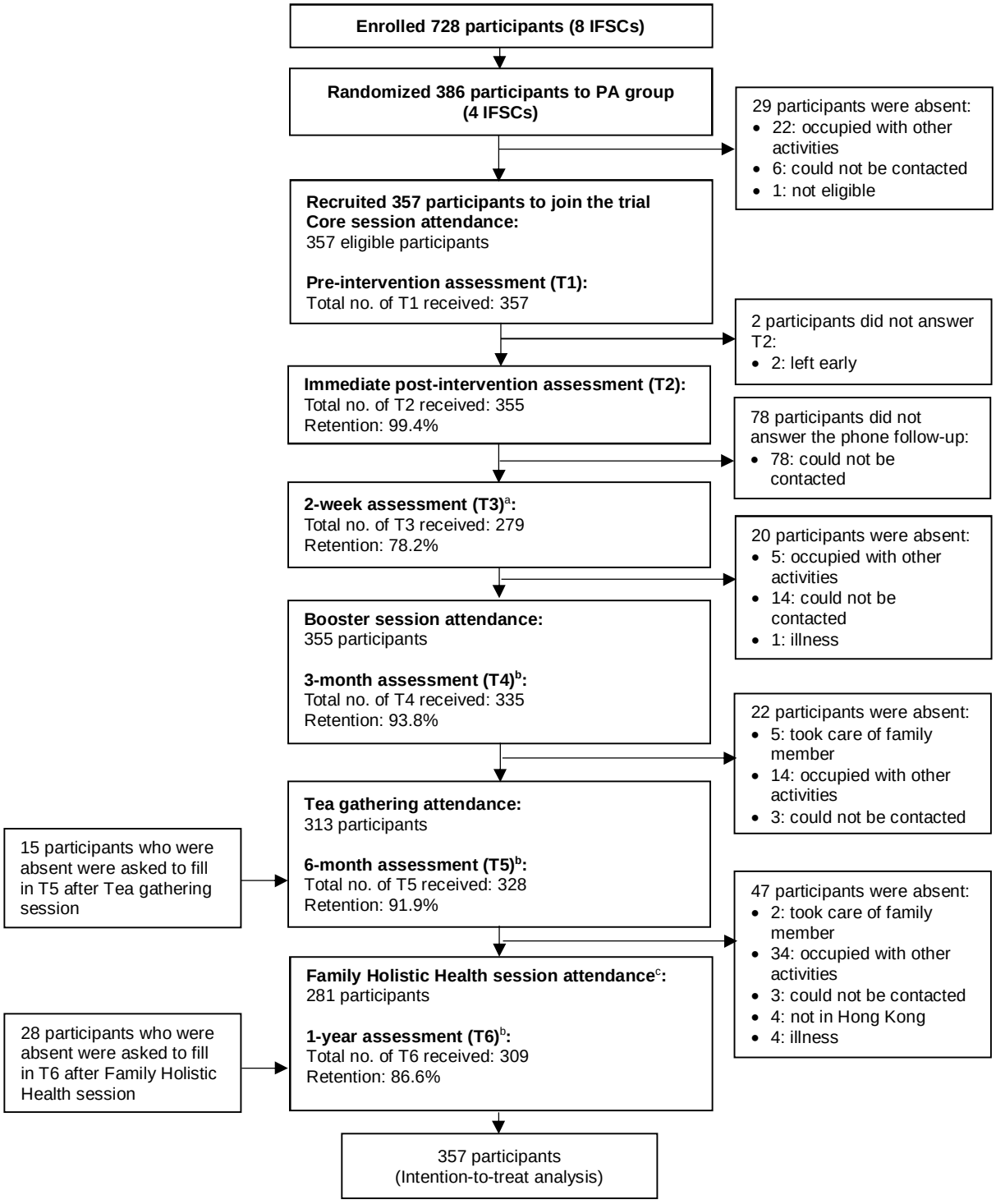
A total of 23 programmes (an average of 29 participants per programme) were conducted in eight IFSCs during July 2015 to September 2016. Table 4.2 shows the enrolment, attendance and recruitment.

Table 4.2 Enrolment, attendance and recruitment of 23 intervention programmes

| Programme code | Number of people enrolled | Number people of attended and recruited |
|---|---|---|
| 1 | 34 | 30 |
| 2 | 26 | 26 |
| 3 | 19 | 18 |
| 4 | 27 | 23 |
| 5 | 33 | 30 |
| 6 | 33 | 29 |
| 7 | 28 | 26 |
| 8 | 25 | 25 |
| 9 | 33 | 31 |
| 10 | 39 | 38 |
| 11 | 26 | 26 |
| 12 | 17 | 15 |
| 13 | 37 | 34 |
| 14 | 47 | 40 |
| 15 | 34 | 33 |
| 16 | 35 | 32 |
| 17 | 25 | 23 |
| 18 | 42 | 37 |
| 19 | 39 | 38 |
| 20 | 39 | 38 |
| 21 | 40 | 34 |
| 22 | 32 | 29 |
| 23 | 18 | 18 |
| Total | 728 | 673 |

728 subjects enrolled in the programmes and were randomised into either a Physcial activity intervention (PA) group or a Healthy diet control (HD) group. Fifty-five subjects were unable to attend. Thus, 673 participants attended and were recruited into the trial. They were randomised into either PA group (n=357) or HD group (n=316). There were 48 and 38 dropouts in PA group and HD group, respectively. Thus, 673 questionnaires at baseline and 667 immediately following training, 279 at two-week (for PA group only), 641 at 3-month, 620 at 6-month, and 587 at 1-year follow-up assessments were collected.

Figure 4.4 CONSORT flow chart (PA group)

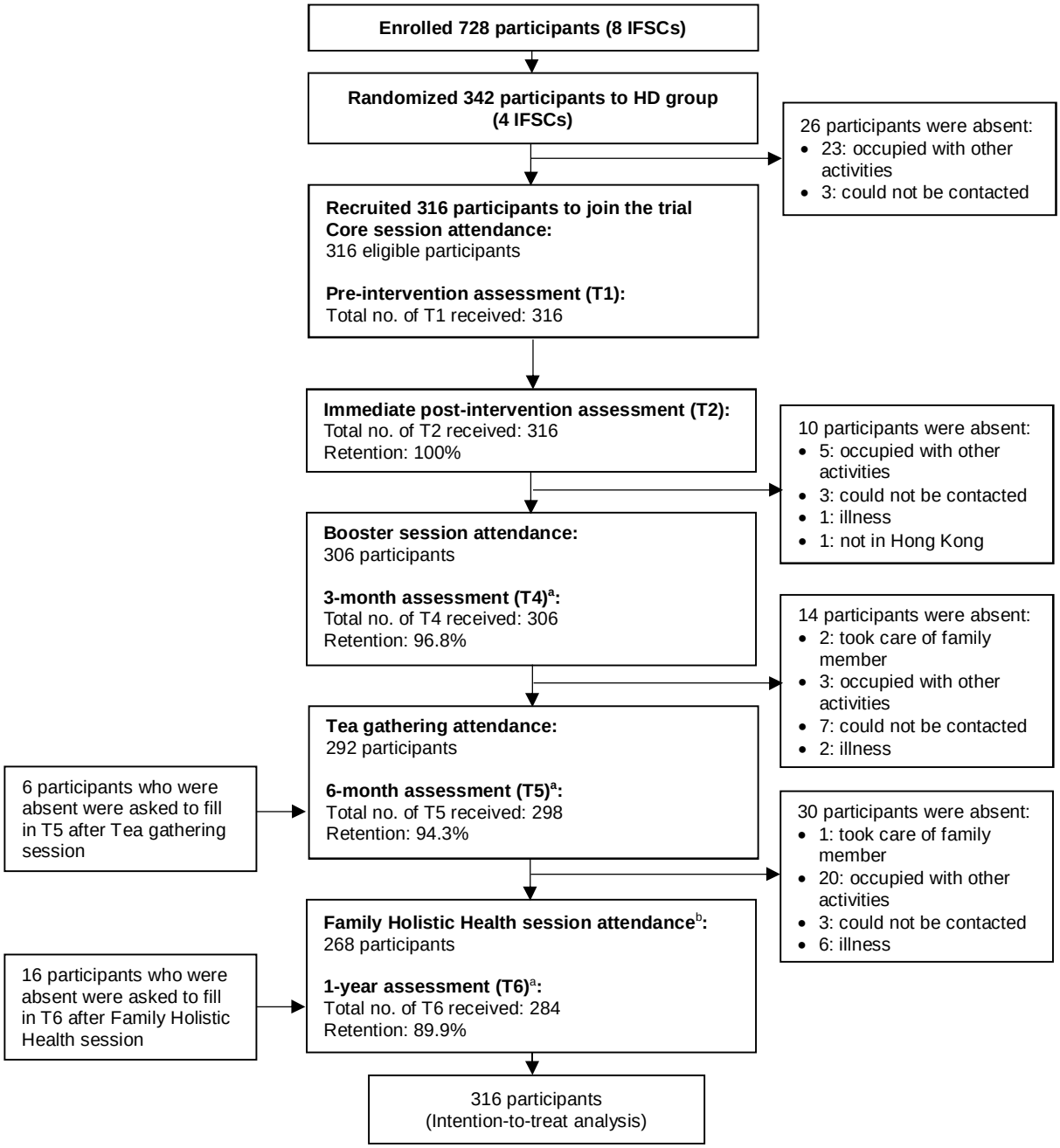



[a] For PA group only

[b] Assessments conducted at the beginning of the session

[c] Family Holistic Health session aimed to collect one-year feedback from the participants

Figure 4.5 CONSORT flow chart (HD group)




[a] Assessments conducted at the beginning of the session

[b] Family Holistic Health session aimed to collect one-year feedback from the participants

### 4.1.4.2 Baseline characteristics of participants

Most participants in each group were female (92% in PA group and 93% in HD group), and aged 30 to 49 years (89% in PA group and 84% in HD group) (Table 4.3). There was no significance difference in gender, age, work status and household monthly income, and age of their children between the two groups. However, marital status, educational levels, household monthly income showed statistically significant. These potential confounding factors were included as covariates in the subsequent analyses.

Table 4.3 Demographic characteristics (n=673)

| Characteristic | PA group n=357 | HD group n=316 | *p*-value[a] |
|---|---|---|---|
| | n (%) | n (%) | |
| **Sex** | | | |
| Male | 30 (8.4) | 23 (7.3) | 0.59 |
| Female | 327 (91.6) | 293 (92.7) | |
| **Age group (years)** | | | |
| 20-29 | 12 (3.4) | 13 (4.1) | 0.62 |
| 30-39 | 160 (44.9) | 149 (47.2) | |
| 40-49 | 150 (42.1) | 118 (37.3) | |
| ≥50 | 35 (9.8) | 36 (11.4) | |
| **Marital status** | | | |
| Never married | 7 (2.0) | 7 (2.2) | <0.001*** |
| Married | 275 (77.0) | 203 (64.2) | |
| Widowed | 10 (2.8) | 25 (7.9) | |
| Divorced/separated | 65 (18.2) | 81 (25.7) | |
| **Education** | | | |
| Primary or below level | 33 (9.3) | 64 (20.2) | <0.001*** |
| Secondary level | 270 (75.6) | 217 (68.7) | |
| Tertiary or above level | 54 (15.1) | 35 (11.1) | |
| **Employment status[b]** | | | |
| Employed | 109 (30.7) | 98 (31.2) | 0.68 |
| Unemployed/retired | 20 (5.6) | 13 (4.1) | |
| Housewife | 226 (63.7) | 204 (64.8) | |

| Characteristic | PA group n=357 | HD group n=316 | *p*-value[a] |
|---|---|---|---|
| | n (%) | n (%) | |
| **Household monthly income[c]** | | | |
| CSSA&<$10,000 | 119 (34.1) | 161 (52.5) | <0.001*** |
| $10,000-$19,999 | 150 (43.0) | 99 (32.2) | |
| $20,000-$29,999 | 51 (11.6) | 28 (9.1) | |
| >=$30,000 | 29 (8.3) | 19 (6.1) | |
| **Age of children (years)** | | | |
| ≤12 | 321 (89.9) | 276 (87.3) | 0.17 |
| >12 | 87 (24.4) | 86 (27.2) | 0.59 |

[a] *p*-value for the difference between pre- and two-week follow-up: *** $p<0.001$

[b] n(missing)=3; [c] n(missing)=17

Table 4.4 Baseline comparison (n=673)

| | PA group n=357 | HD group n=316 | *p*-value[a] |
|---|---|---|---|
| | Mean (SD) | Mean (SD) | |
| **Physical activity and ZTEx** | | | |
| Moderate physical activity (0-7 days) | 2.62 (2.49) | 2.77 (2.67) | 0.45 |
| Vigorous physical activity (0-7 days) | 0.90 (1.57) | 1.01 (1.76) | 0.43 |
| Time spent sitting (0-24 hours) | 4.47 (2.47) | 4.11 (2.38) | 0.032 |
| ZTEx (0-7 days) | 2.34 (2.55) | 2.56 (2.73) | 0.27 |
| Encouraging family members to do ZTEx (0-7 days) | 1.62 (2.26) | 1.62 (2.32) | 0.99 |
| ZTEx with family members (0-7 days) | 1.12 (1.86) | 1.09 (1.94) | 0.86 |
| Foot pedalling (Max.) (0-120 seconds) | 58.26 (23.46) | 61.37 (30.42) | 0.18 |
| **Dietary habit** | | | |
| Daily consumption of fruits (0-5 servings) | 1.40 (0.72) | 1.54 (1.13) | 0.06 |
| Daily consumption of vegetables (0-5 servings) | 1.83 (0.92) | 2.08 (1.46) | 0.019* |
| Consumption of sweetened beverages (0-7 days) | 2.74 (2.27) | 2.69 (2.36) | 0.79 |
| **Self-reported well-being** | | | |
| Self-reported personal health (0-10)[b] | 4.80 (1.87) | 4.80 (2.18) | 0.99 |
| Self-reported personal happiness (0-10)[b] | 5.81 (1.87) | 5.38 (2.21) | 0.007** |
| Self-reported FAMILY harmony (0-10)[b] | 6.19 (2.10) | 5.79 (2.22) | 0.017* |

[a] *p*-value for the difference between groups: * $p<0.05$, ** $p<0.01$

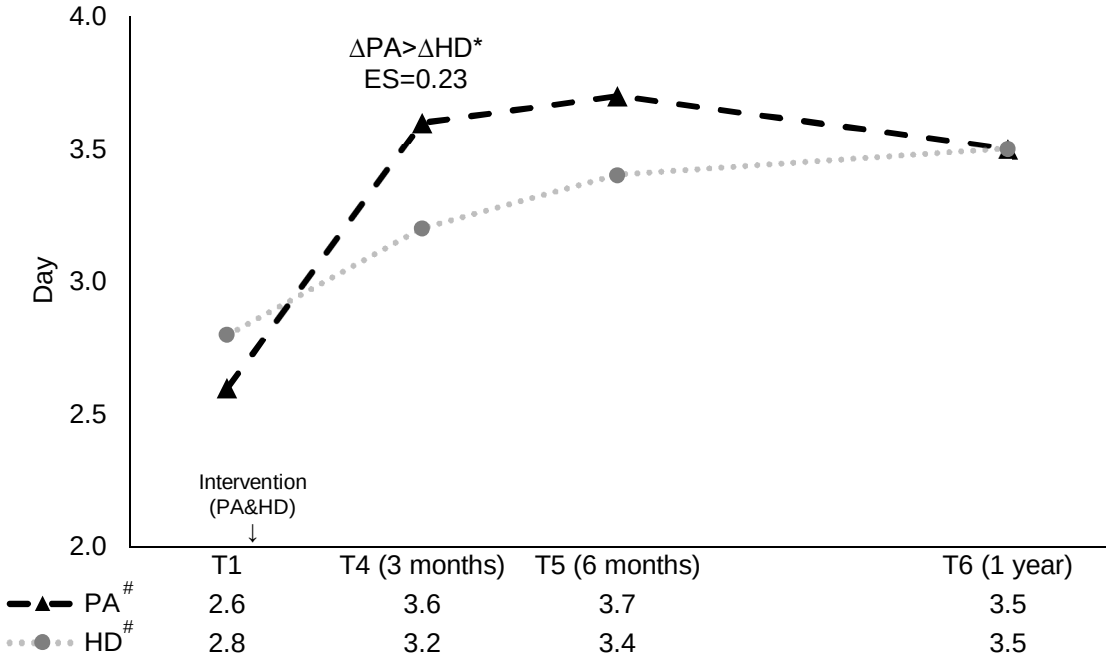
[b] 11-point Likert scale: "0=very unhealthy/unhappy/disharmonious" to "10=very healthy/happy/harmonious"

### 4.1.4.3 Changes in outcomes by time and group

***Moderate physical activity***

Figure 4.6 shows significant increases in moderate physical activity in both groups. The increases in moderate physical activity was significantly greater in the PA group than the HD group only at 3 months, indicating the short-term effectiveness of the PA intervention with small effect size (ES=0.23, *p*=0.017).

Figure 4.6 Days spent doing at least 10-min moderate physical activity in the last seven days (0-7 days)




Within group comparison: # *p*<0.05

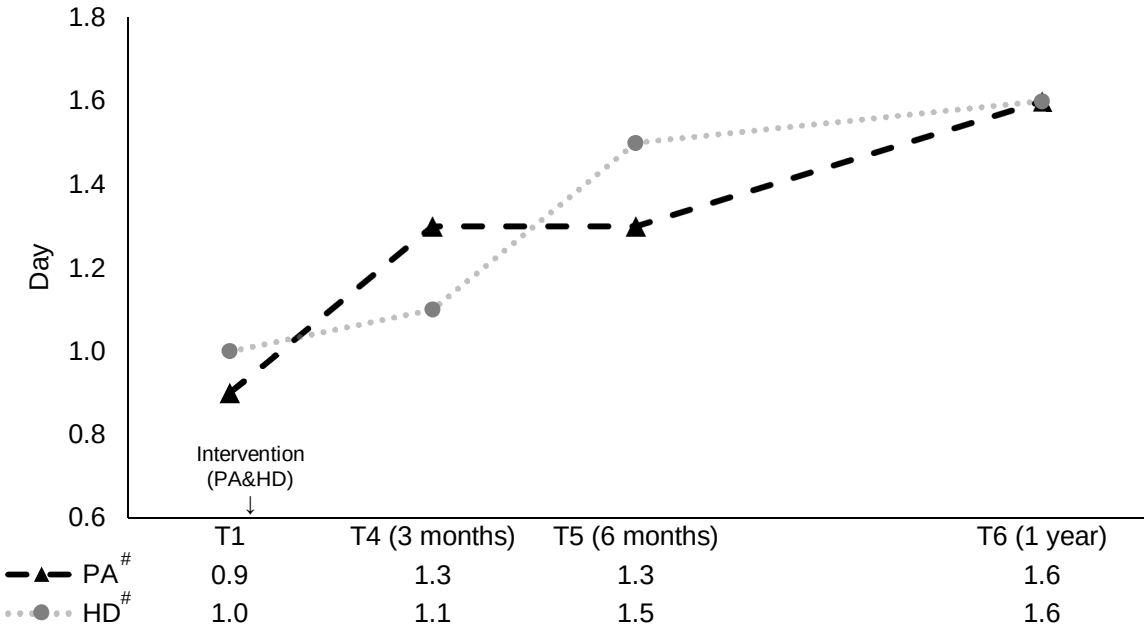
Between group comparison: * *p*<0.05

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

***Vigorous physical activity***

Figure 4.7 shows significantly increases in vigorous physical activity in both the PA and HD groups, but no significant differences in the changes between the PA and HD groups.

Figure 4.7 Days spent doing at least 10-min vigorous physical activity in the last seven days (0-7 days)

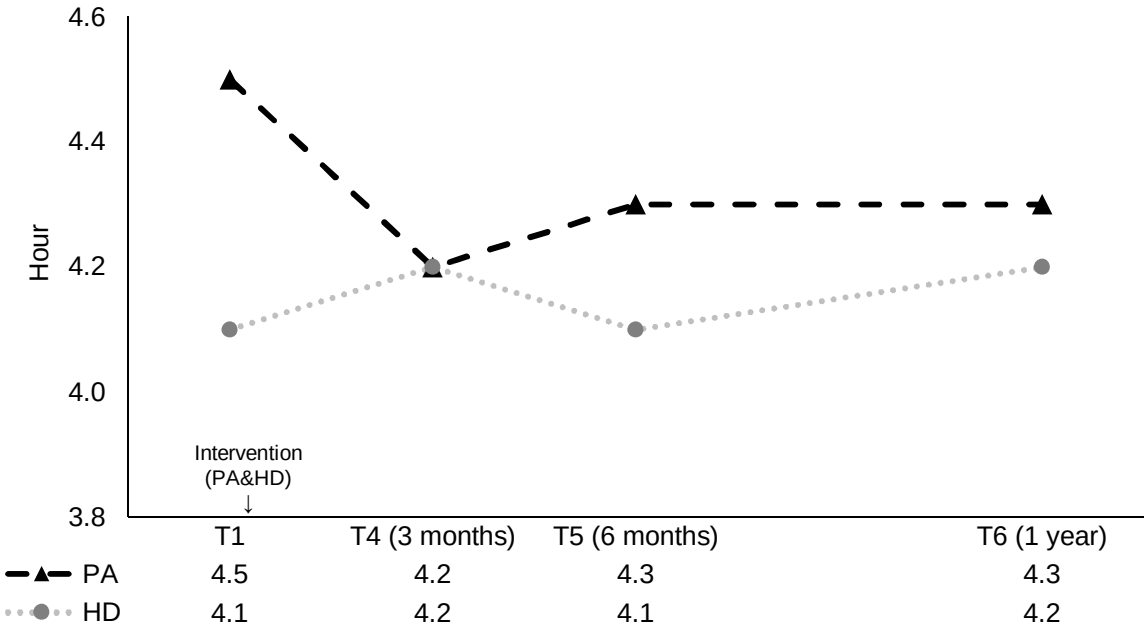



Within group comparison: # $p<0.05$

***Time spent on sitting***

Figure 4.8 shows no significant change in time spent on sitting in both groups and no significant differences in the changes between the PA and HD groups.

Figure 4.8 Average daily time spent on sitting in a working day in the last seven days (0-24 hours)

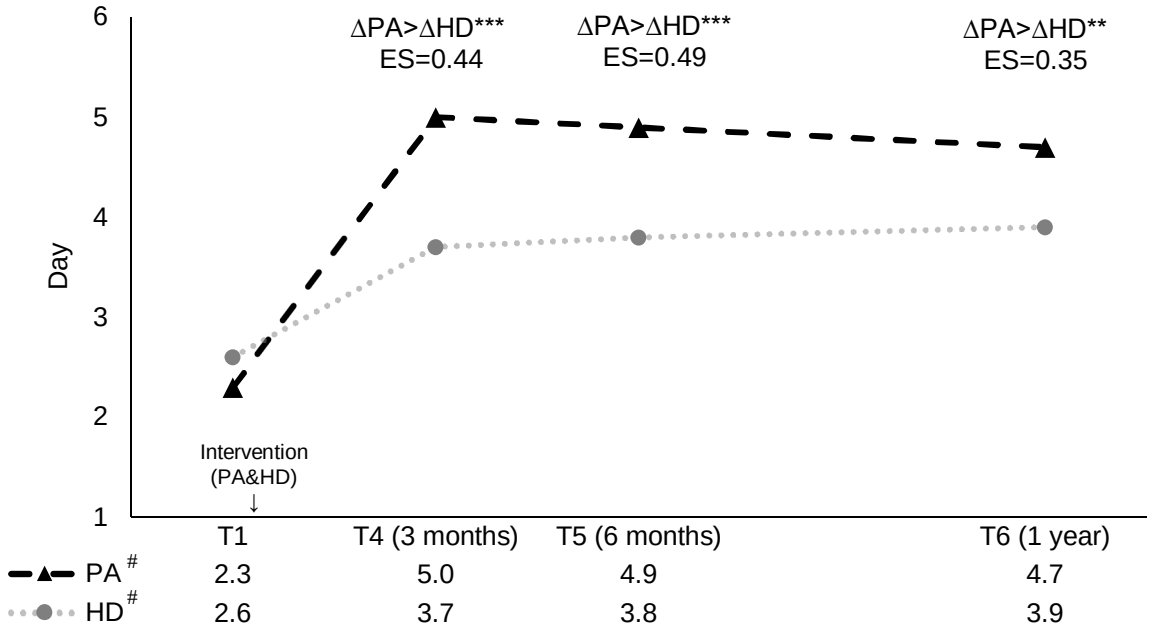



| | T1 | T4 (3 months) | T5 (6 months) | T6 (1 year) |
|---|---|---|---|---|
| PA | 4.5 | 4.2 | 4.3 | 4.3 |
| HD | 4.1 | 4.2 | 4.1 | 4.2 |

***Zero-time Exercise***

Figure 4.9 shows significant increases in ZTEx in both groups. The increases in ZTEx at 3 months, 6 months and 1 year were significantly greater in the PA group than the HD group, indicating the effectiveness of PA intervention with small effect size (ES=0.44, $p$<0.001; ES=0.49, $p$<0.001; and ES=0.35, $p$=0.002, respectively).

Figure 4.9 Days spent doing ZTEx in the last seven days (0-7 days)




Within group comparison: # $p$<0.05

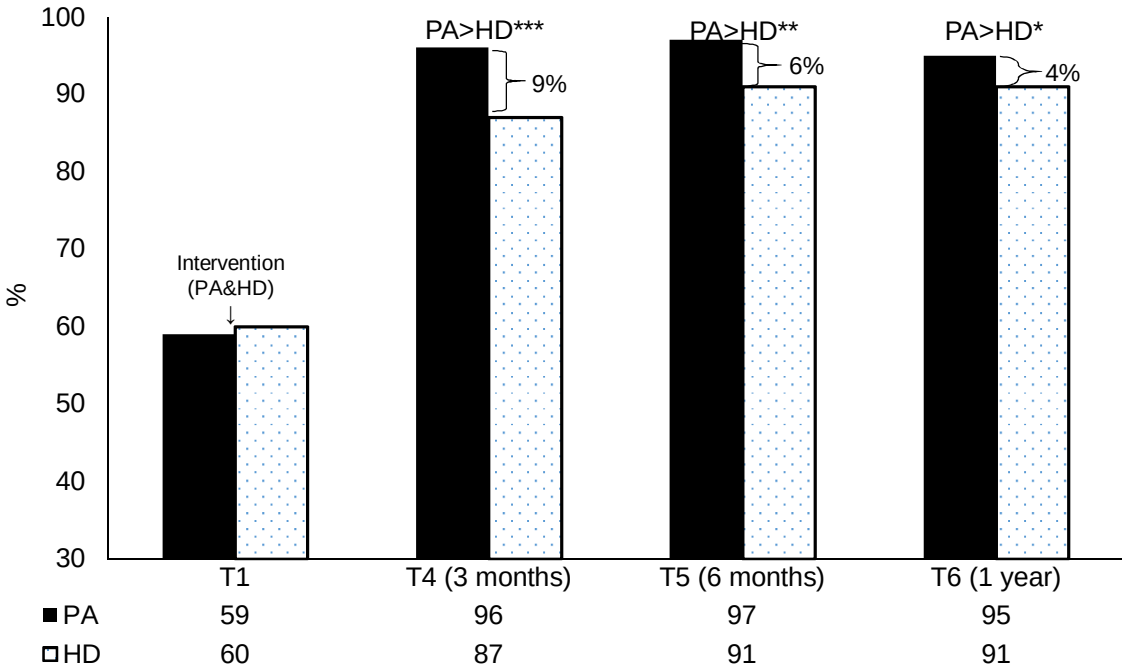
Between group comparison: ** $p$<0.01; *** $p$<0.001

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

Figure 4.10, there was no significant difference in the proportion of participants who performed ZTEx at least one day in the last seven days at baseline assessment.

After intervention, the proportions of participants who performed ZTEx at least one day in the last seven days at 3 months, 6 months and 1 year were significantly greater in the PA group than the HD group (percentage difference=+9%, $p$<0.001; percentage difference=+6%, $p$=0.001; and percentage difference=+4%, $p$=0.025, respectively), indicating the effectiveness of the PA intervention with small effect size.

Figure 4.10 The proportion of participants who performed ZTEx for at least one day in the last seven days (0-100%)




Between group comparison: * $p$<0.05; ** $p$<0.01; *** $p$<0.001

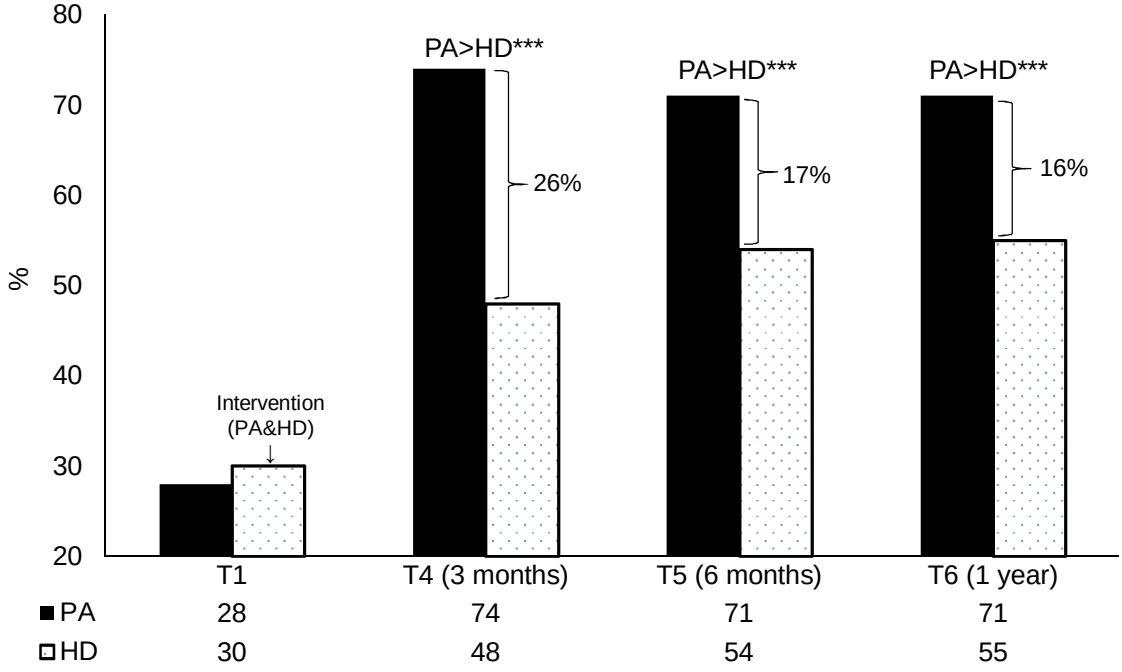
Relative increase at follow-up time point=[(proportion of participants at follow-up time point-proportion of participants at baseline)/proportion of participants at baseline] x 100%

ES=effect size: difference in relative change in percentage between 2 groups (small=30%, medium=50% and large=100%)

Figure 4.11 show no significant difference in the proportion of participants who performed ZTEx at least four days in the last seven days at baseline assessment.

After intervention, the proportions of participants who performed ZTEx at least four days in the last seven days were significantly greater in the PA group than the HD group at 3 months, 6 months and 1 year (percentage difference=+26%, $p$<0.001; percentage difference=+17%, $p$<0.001; and percentage difference=+16%, $p$<0.001, respectively), indicating the effectiveness of PA intervention with medium to large effect size.

Figure 4.11 The proportion of participants who performed ZTEx for at least four days in the last seven days (0-100%)




Between group comparison: *** $p$<0.001

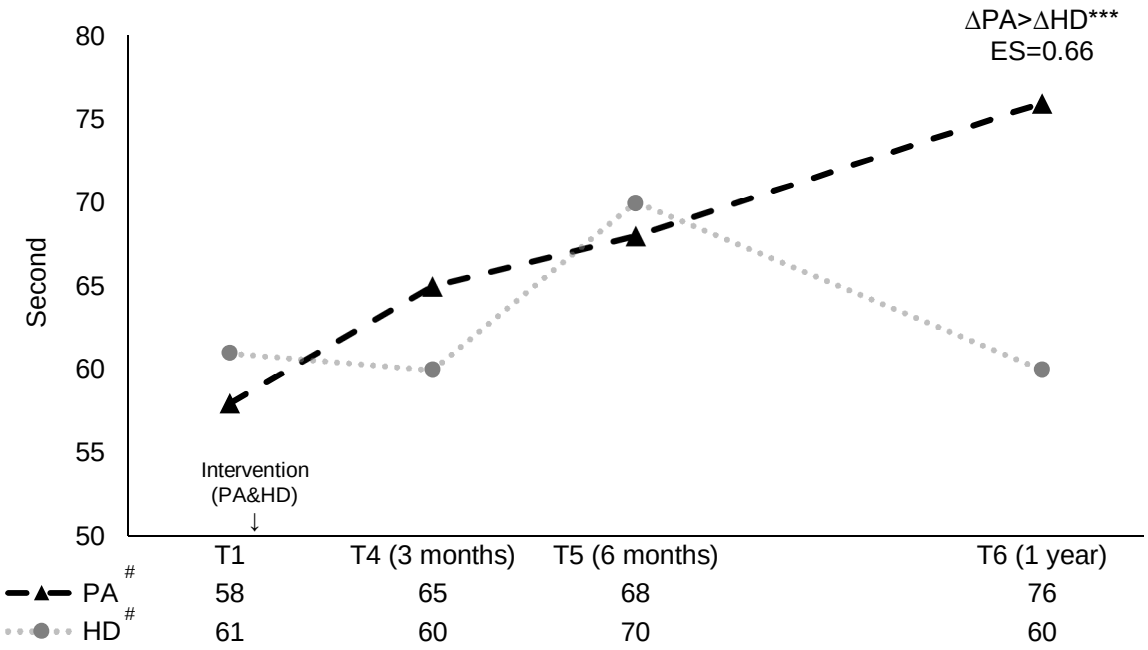
Relative increase at follow-up time point=[(proportion of participants at follow-up time point-proportion of participants at baseline)/proportion of participants at baseline] x 100%

ES=effect size: difference in relative change in percentage between 2 groups (small=30%, medium=50% and large=100%)

***Physical fitness: Foot pedalling***

Figure 4.12 shows significant increase in the duration of foot pedalling in both groups. The increase in the duration of foot pedalling was significantly greater in the PA group than the HD group at 1 year, indicating the long-term effectiveness of PA intervention with medium effect size (ES=0.66, $p$<0.001).

Figure 4.12 Duration of foot pedalling (0-120 seconds)




Within group comparison: # $p$<0.05

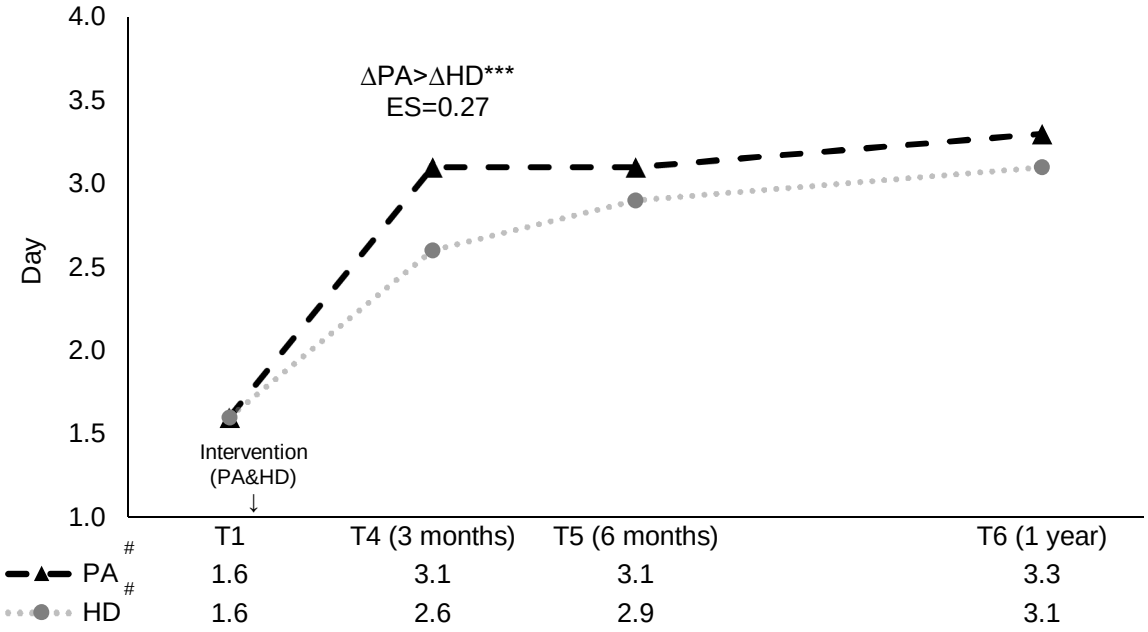
Between group comparison: *** $p$<0.001

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

***Encouraging family members to do ZTEx***

Figure 4.13 shows significant increases in encouraging family members to do ZTEx in both groups. The increase was significantly greater in the PA group than the HD group only at 3 months, indicating the short-term effectiveness of PA intervention with small effective size (ES=0.27, $p<0.001$).

Figure 4.13 Days spent encouraging family members to do ZTEx (0-7 days)




| | T1 | T4 (3 months) | T5 (6 months) | T6 (1 year) |
|---|---|---|---|---|
| PA # | 1.6 | 3.1 | 3.1 | 3.3 |
| HD # | 1.6 | 2.6 | 2.9 | 3.1 |

Within group comparison: # $p<0.05$

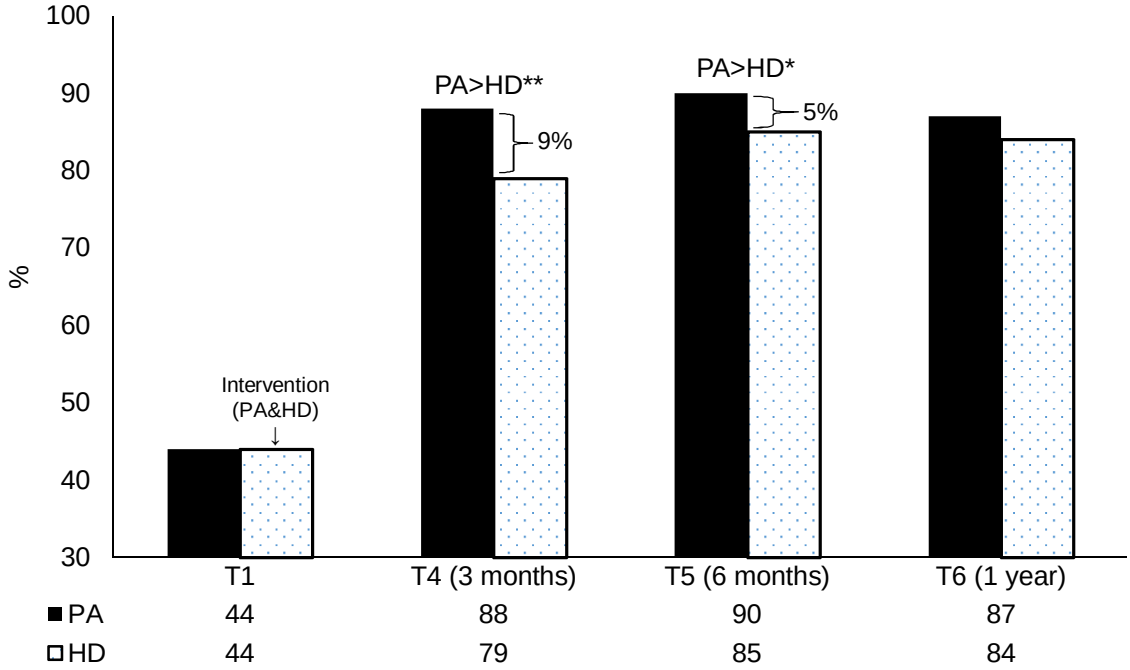
Between group comparison: *** $p<0.001$

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

Figure 4.14 shows no significant difference in the proportion of participants who encouraged family members to perform ZTEx for at least one day in the past seven days at baseline assessment.

After intervention, the proportions of participants, who encouraged family members to perform ZTEx for at least one day in the past seven days only at 3 months and 6 months were significantly greater in the PA group than the HD group (percentage difference=+9%, $p$=0.003 and percentage difference=+5%, $p$=0.034, respectively), indicating the short- to medium-term effectiveness of PA intervention with small effect size.

Figure 4.14 The proportion of participants who encouraged family members to perform ZTEx for at least one day in the past seven days (0-100%)




Between group comparison: * $p$<0.05; ** $p$<0.01

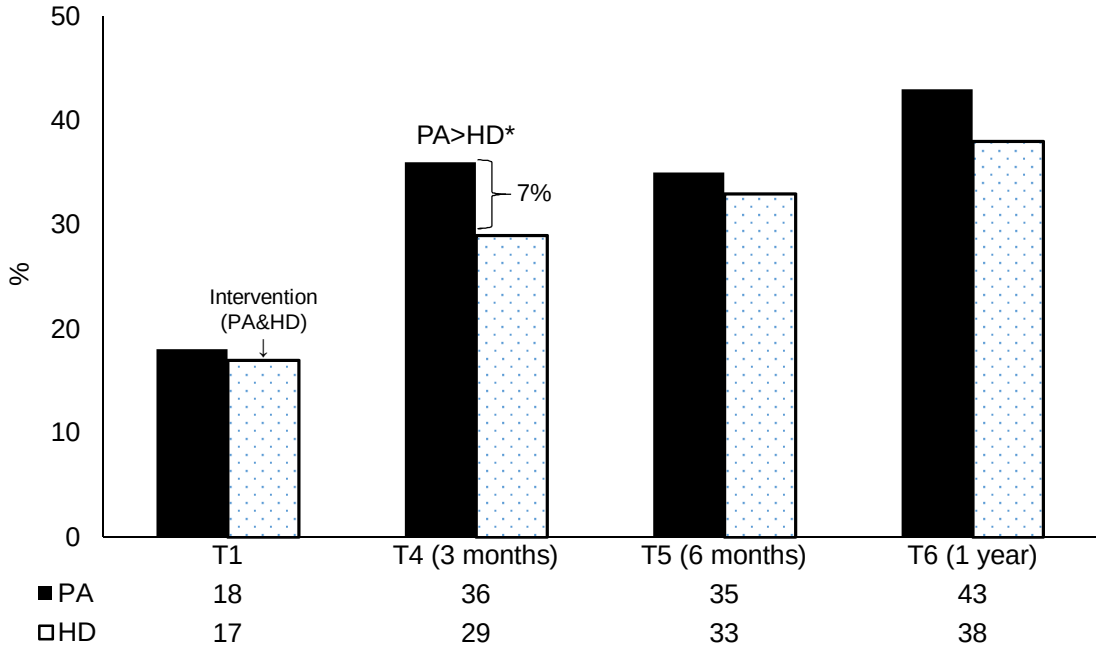
Relative increase at follow-up time point=[(proportion of participants at follow-up time point-proportion of participants at baseline)/proportion of participants at baseline] x 100%

ES=effect size: difference in relative change in percentage between 2 groups (small=30%, medium=50% and large=100%)

Figure 4.15 shows no significant difference in the proportion of participants who encouraged family members to perform ZTEx for at least four days in the past seven days at baseline assessment.

After intervention, the proportion of participants who encouraged family members to perform ZTEx for at least four days in the past seven days only at 3 months was significantly greater in the PA group than the HD group (percentage difference=+9%, *p*=0.041), indicating the short-term effectiveness of the PA intervention with small effect size.

Figure 4.15 The proportion of participants who encouraged family members to perform ZTEx for at least four days in the past seven days (0-100%)




Between group comparison: * *p*<0.05

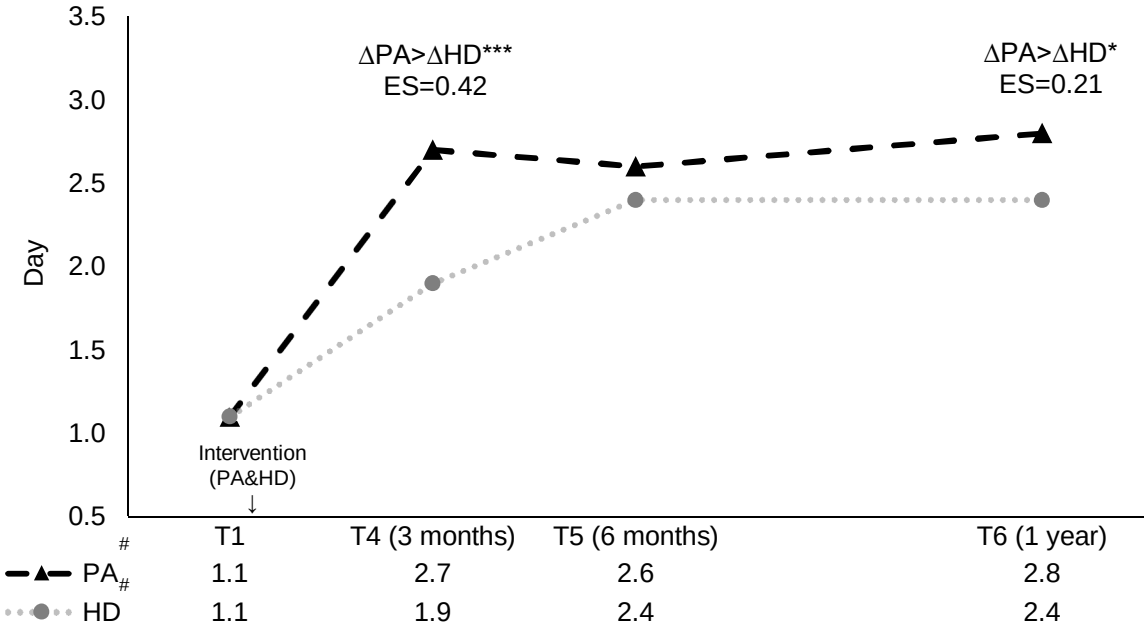
Relative increase at follow-up time point=[(proportion of participants at follow-up time point-proportion of participants at baseline)/proportion of participants at baseline] x 100%

ES=effect size: difference in relative change in percentage between 2 groups (small=30%, medium=50% and large=100%)

***Doing ZTEx with family members***

Figure 4.16 shows significant increases in doing ZTEx with family members in both groups. The increases were significantly greater in PA group than in HD group only at 3 months and 1 year, indicating the effectiveness of PA intervention with small effect size (ES=0.42, $p<0.001$ and ES=0.21, $p=0.025$, respectively).

Figure 4.16 Days spent doing ZTEx with family (0-7 days)




| | T1 | T4 (3 months) | T5 (6 months) | T6 (1 year) |
|---|---|---|---|---|
| PA# | 1.1 | 2.7 | 2.6 | 2.8 |
| HD | 1.1 | 1.9 | 2.4 | 2.4 |

Within group comparison: # $p<0.05$

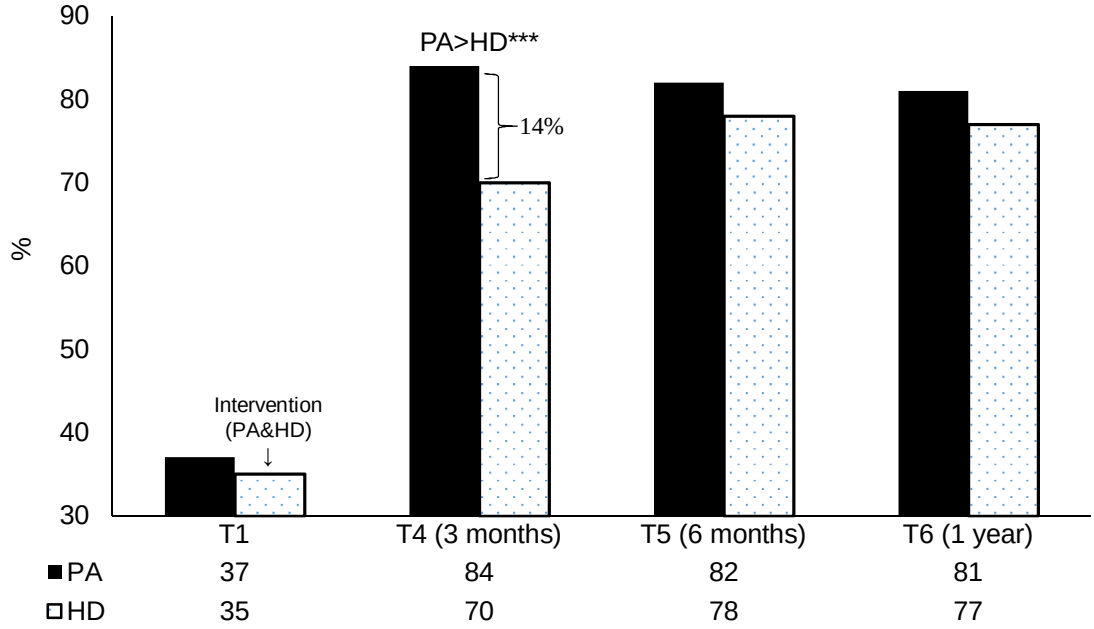
Between group comparison: * $p<0.05$; *** $p<0.001$

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

Figure 4.17 shows no significant difference in the proportion of participants who encouraged family members to perform ZTEx for at least four days in the past seven days at baseline assessment.

The proportion of participants who did ZTEx with family members at least one day in the last seven days in the PA group was significantly greater than in the HD group only at 3 months (percentage difference=+34%, $p$<0.001), indicating the short-term effectiveness of the PA intervention with small effect size.

Figure 4.17 The proportion of participants who did ZTEx with family members for at least one day in the past seven days (0-100%)




Between group comparison: *** $p$<0.001

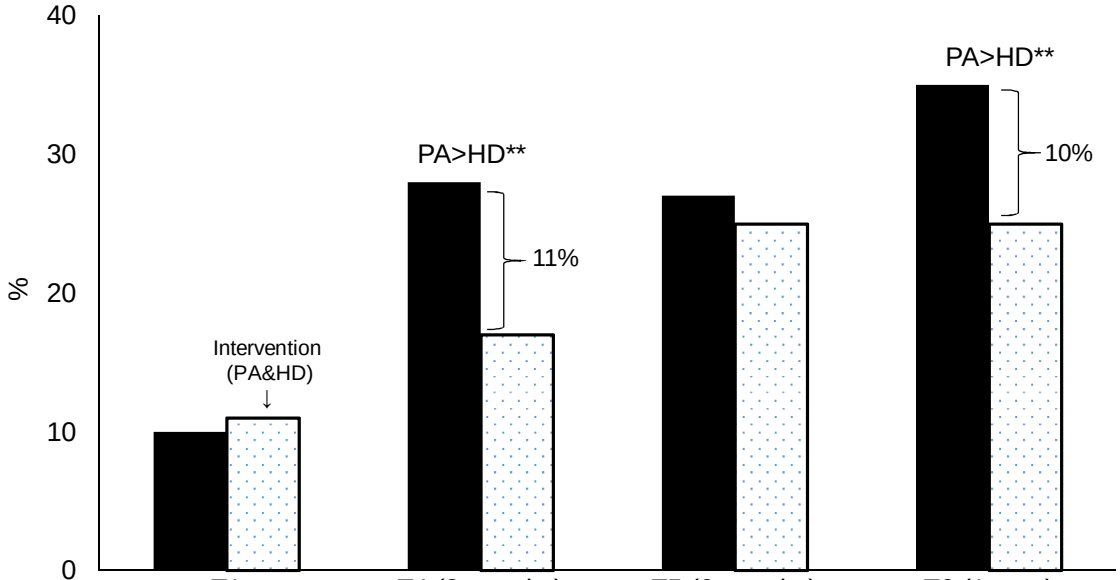
Relative increase at follow-up time point=[(proportion of participants at follow-up time point-proportion of participants at baseline)/proportion of participants at baseline] x 100%

ES=Effect size: difference in relative change in percentage between 2 groups (small=30%, medium=50% and large=100%)

Figure 4.18 shows no significantly difference in the proportion of participants who encouraged family members to perform ZTEx for at least four days in the past seven days at baseline assessment.

The proportions of participants who did ZTEx with family members at least four days in the last seven days in the PA group were significantly greater than the HD group at 3 months and 1 year (percentage difference=+11%, $p$=0.001 and percentage difference=+10%, $p$=0.010, respectively), indicating the short to long-term effectiveness of PA intervention with small to large effect size.

Figure 4.18 The proportion of participants who did ZTEx with family members for at least four days of the past seven days (0-100%)




| | T1 | T4 (3 months) | T5 (6 months) | T6 (1 year) |
|---|---|---|---|---|
| ■PA | 10 | 28 | 27 | 35 |
| □HD | 11 | 17 | 25 | 25 |

Between group comparison: ** $p$<0.01

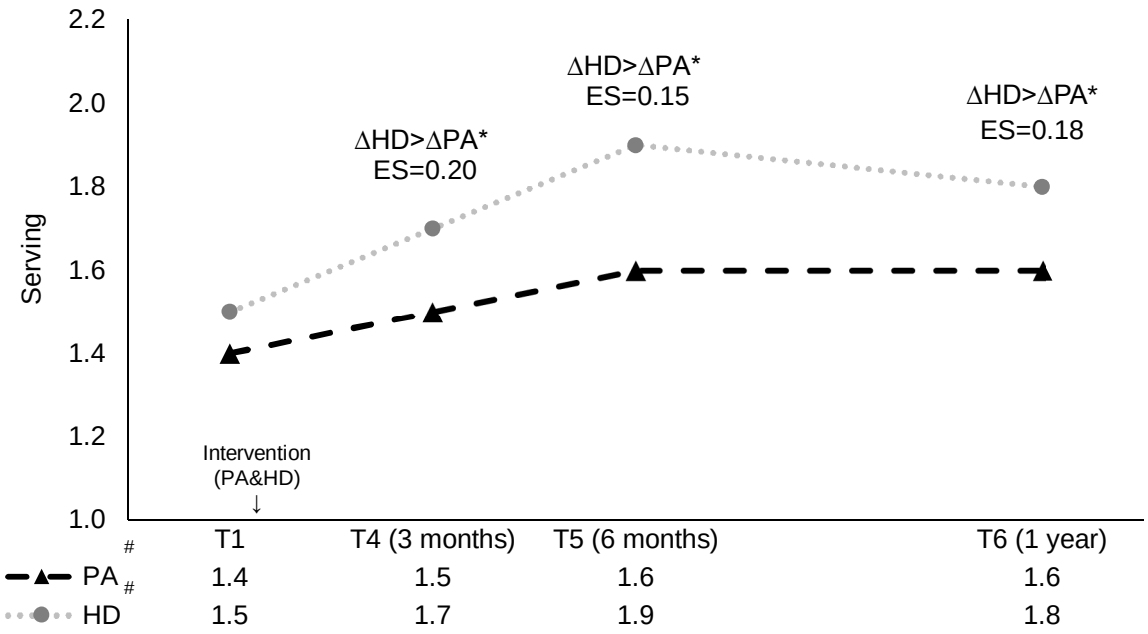
Relative increase at follow-up time point=[(proportion of participants at follow-up time point-proportion of participants at baseline)/proportion of participants at baseline] x 100%

ES=effect size: difference in relative change in percentage between 2 groups (small=30%, medium=50% and large=100%)

***Daily consumption of fruits***

Figure 4.19 shows significant increases in daily consumption of fruits in both group the PA and HD groups. The increases in daily consumption of fruits were greater in the HD group than the PA group at 3 months, 6 months and 1 year, indicating the effectiveness of HD intervention with small effect size (ES=0.20, *p*=0.018; ES=0.15, *p*=0.048; and ES=0.18, *p*=0.020, respectively)

Figure 4.19 Average daily fruits consumption in the last seven days (0-5 servings)




Within group comparison: # *p*<0.05

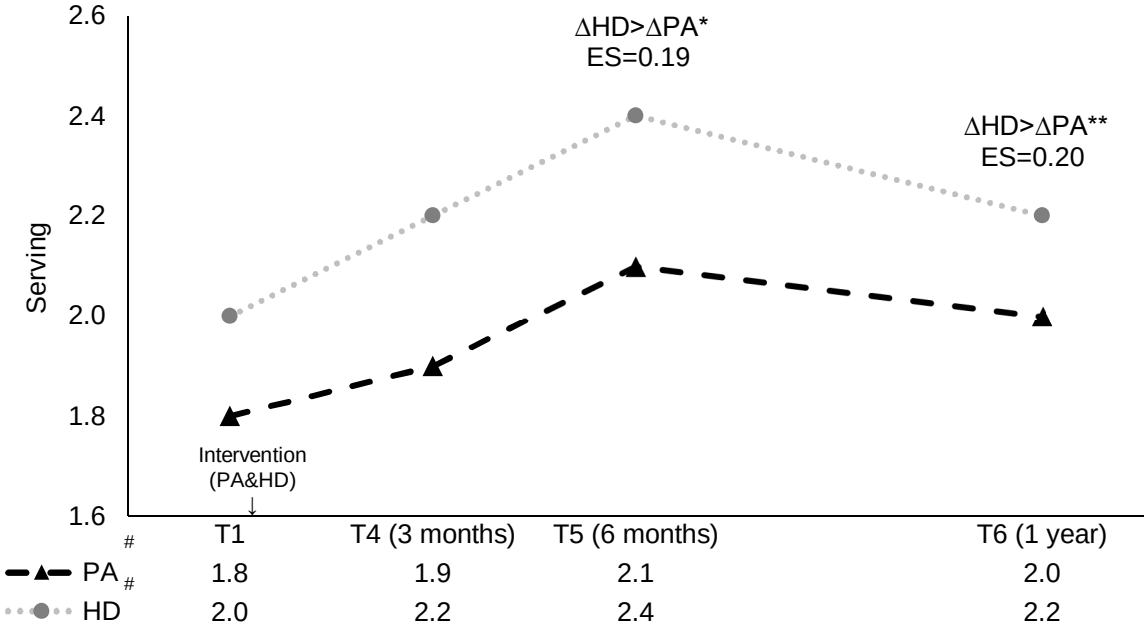
Between group comparison: * *p*<0.05

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

***Daily consumption of vegetables***

Figure 4.20 shows significantly increases in daily consumption of vegetables in both the PA and HD group during the one-year study period. The increases in daily consumption of vegetables were significantly greater in the PA group than the HD group at 6 months and 1 year with small effect size, indicating the effectiveness of HD intervention with small effect size (ES=0.16, *p*=0.013 and ES=0.20, *p*=0.011, respectively).

Figure 4.20 Average daily consumption of vegetables in the last seven days (0-5 servings)




Within group comparison: # p<0.05

Between group comparison: * p<0.05; ** p<0.01

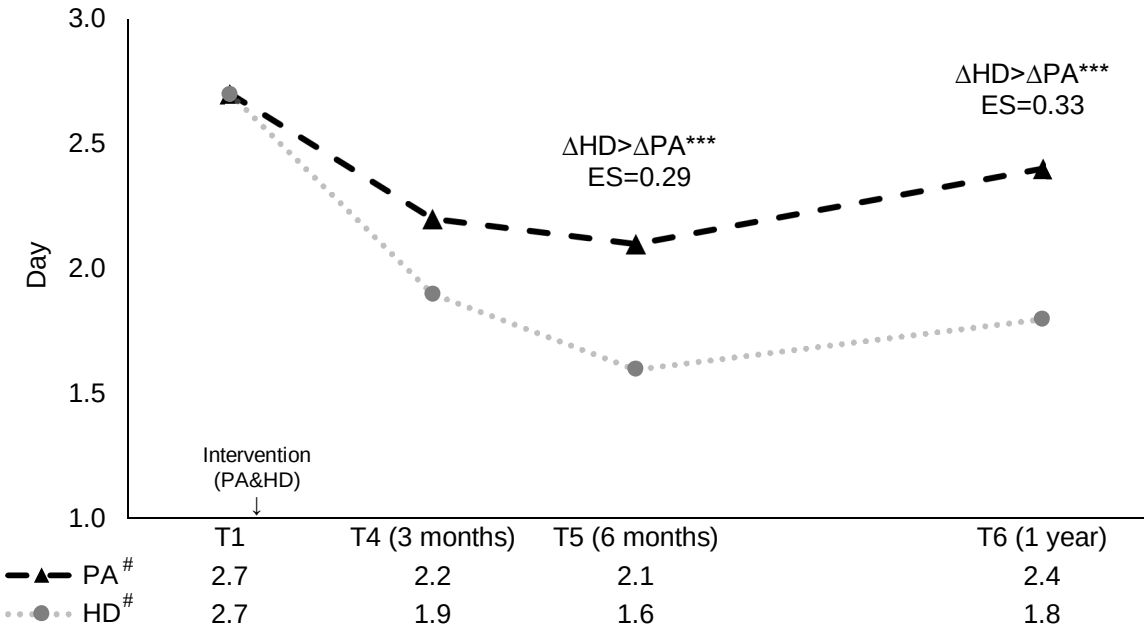
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

***Consumption of sweetened beverages***

Figure 4.21 shows significant decreases in drinking sweetened beverages in both the PA and HD groups during the one-year study period. The decreases in consumption of sweetened beverages at 6 months and 1 year were greater in the PA group than the HD group, indicating the effectiveness of HD intervention with small effect size. (ES=0.29, $p$<0.001 and ES=0.33, $p$<0.001, respectively).

During the one-year study period, the HD group showed a significantly greater decrease in sweetened beverages consumption than in the PA group, which indicated the effectiveness of HD intervention with small effect size (ES=0.38, $p$<0.001).

Figure 4.21 Days drank sweetened beverages in the last seven days (0-7 days)




Within group comparison: # $p$<0.05

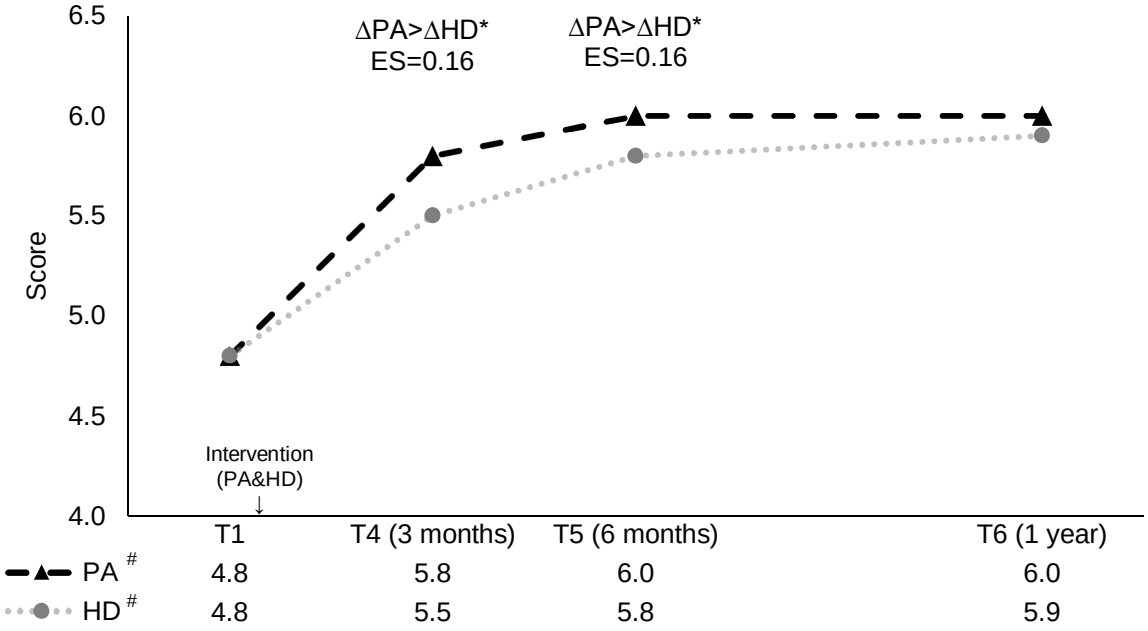
Between group comparison: *** $p$<0.001

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

***Self-reported personal health***

Figure 4.22 shows significantly improvements in self-reported personal health in both the PA and HD groups during the one-year study period. The improvements in self-reported personal health were greater in the PA group than the HD group only at 3 months and 6 months, indicating the effectiveness of PA intervention with small effect size (ES=0.16, *p*=0.015 and ES=0.16, *p*=0.045, respectively).

Figure 4.22 Self-reported personal health (0-10)




Within group comparison: # *p*<0.05

Between group comparison: * *p*<0.05

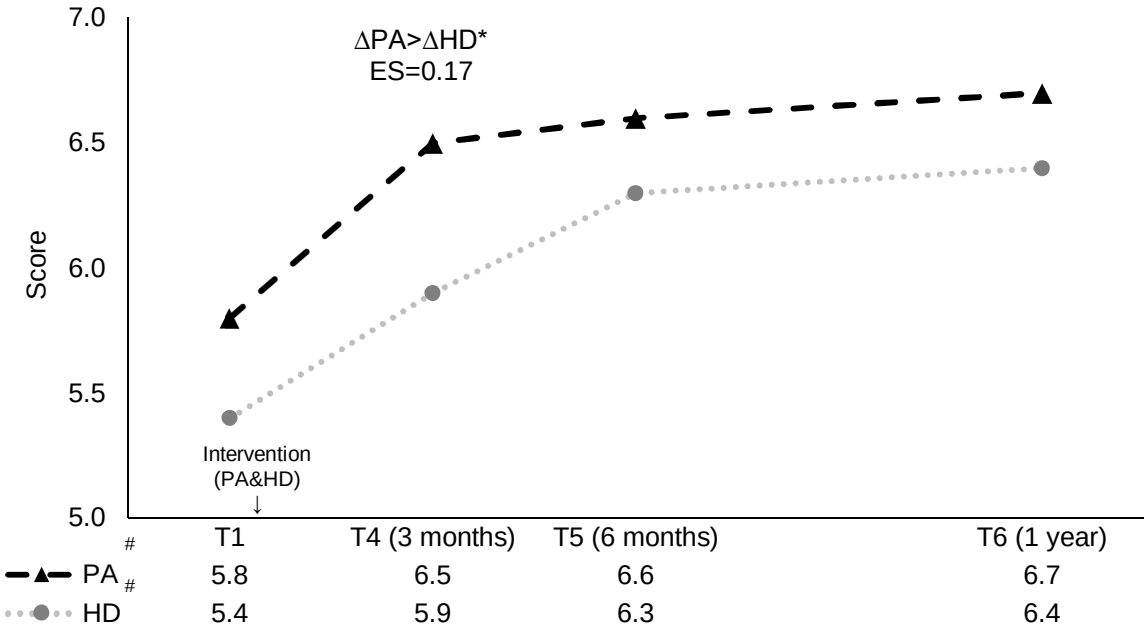
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

11-point Likert scale: "0=very unhealthy" to "10=very healthy"

***Self-reported personal happiness***

Figure 4.23 shows significant improvements in self-reported personal happiness in both the PA and HD groups during the one-year study period. The improvement in self-reported personal happiness was significantly greater in the PA group than in the HD group only at 3 months, indicating the effectiveness of PA intervention with small effect size (ES=0.17, *p*=0.026).

Figure 4.23 Self-reported personal happiness (0-10)




| | T1 | T4 (3 months) | T5 (6 months) | T6 (1 year) |
|---|---|---|---|---|
| PA # | 5.8 | 6.5 | 6.6 | 6.7 |
| HD | 5.4 | 5.9 | 6.3 | 6.4 |

Within group comparison: # *p*<0.05

Between group comparison: * *p*<0.05

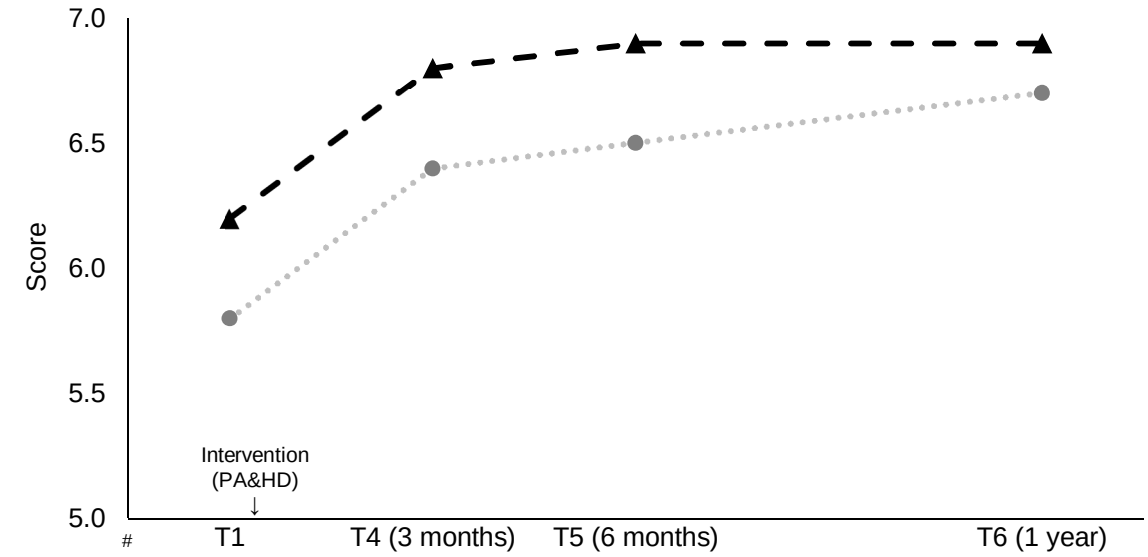
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

11-point Likert scale: "0=very unhappy" to "10=very happy"

***Self-reported FAMILY harmony***

Figure 4.24 shows significant improvements in self-reported FAMILY harmony in both the PA and HD groups and no significant differences in improvement between two groups.

Figure 4.24 Self-reported FAMILY harmony (0-10)




| | T1 | T4 (3 months) | T5 (6 months) | T6 (1 year) |
|---|---|---|---|---|
| PA# | 6.2 | 6.8 | 6.9 | 6.9 |
| HD | 5.8 | 6.4 | 6.5 | 6.7 |

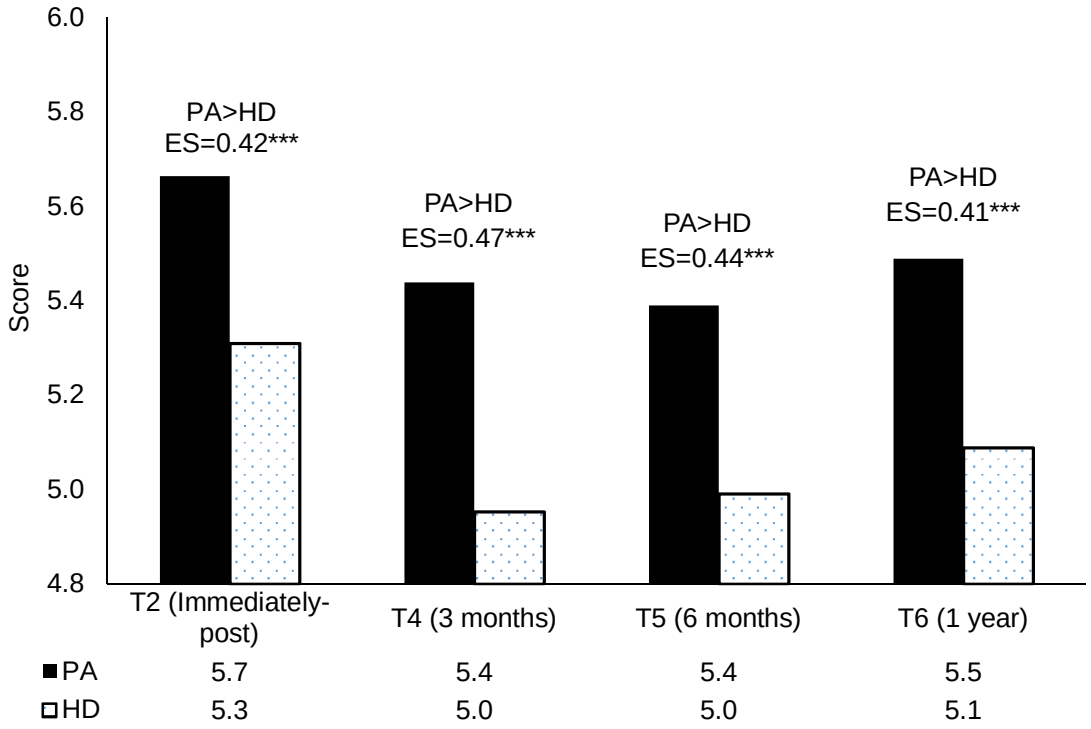
Within group comparison: # $p<0.05$

11-point Likert scale: “0=very unharmonious” to “10=very harmonious”

***Intention to do ZTEx***

Figure 4.25 shows that the intention to do ZTEx were significantly greater in the PA group than HD group immediately after the core session, at 3 months, 6 months and 1 year (ES=0.41-0.47, $p$<0.001), indicating the effectiveness of PA intervention with small effect size.

Figure 4.25 Intention to do ZTEx (1-6)




Note. Intention to do ZTEx was not measured at baseline

Between group comparison: *** $p$<0.001

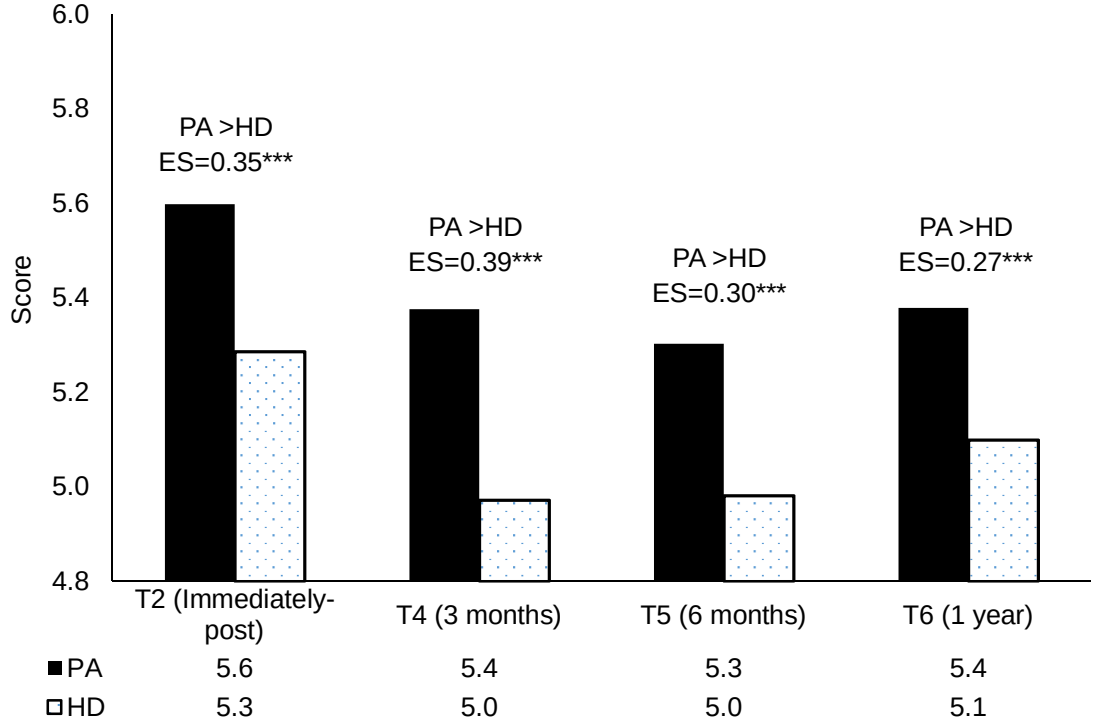
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

6-point Likert scale: "1=not at all true" to "6=exactly true"

***Intention to encourage family members to do ZTEx***

Figure 4.26, the intention to encourage family members to do ZTEx immediately after, at 3 months, 6 months and 1 year after the core session were significantly greater in the PA group than HD group, indicating the effectiveness of PA intervention with small effect size. (ES=0.27-0.49, $p$<0.001).

Figure 4.26 Intention to encourage family members to do ZTEx (1-6)




Note. Intention to encourage family members to do ZTEx was not measured at baseline

Between group comparison: *** $p$<0.001

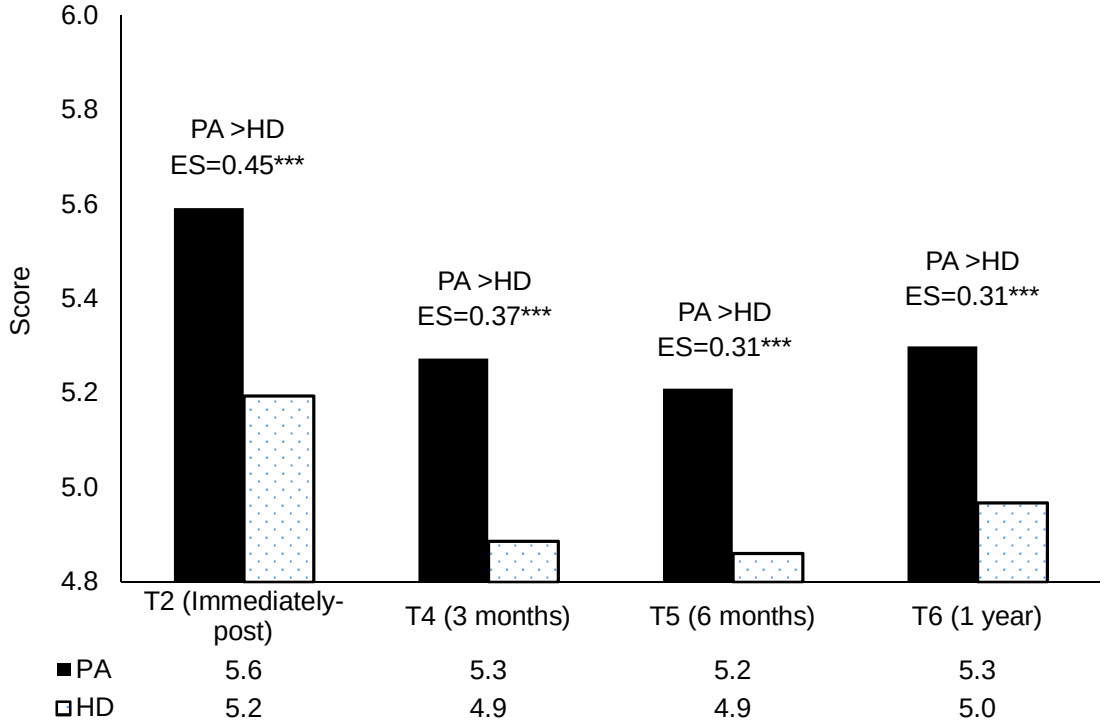
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

6-point Likert scale: "1=not at all true" to "6=exactly true"

***Intention to do ZTEx with family members***

Figure 4.27 shows the intention to do ZTEx with family members were significantly greater in the PA group than the HD group immediately after the core session and at 3 months, 6 months and 1 year, indicating the effectiveness of PA intervention with small effect size. (ES=0.31-0.45, $p$<0.001).

Figure 4.27 Intention to do ZTExs with my family members (1-6)




Note. Intention to do ZTEx with family members was not measured at baseline

Between group comparison: *** $p$<0.001

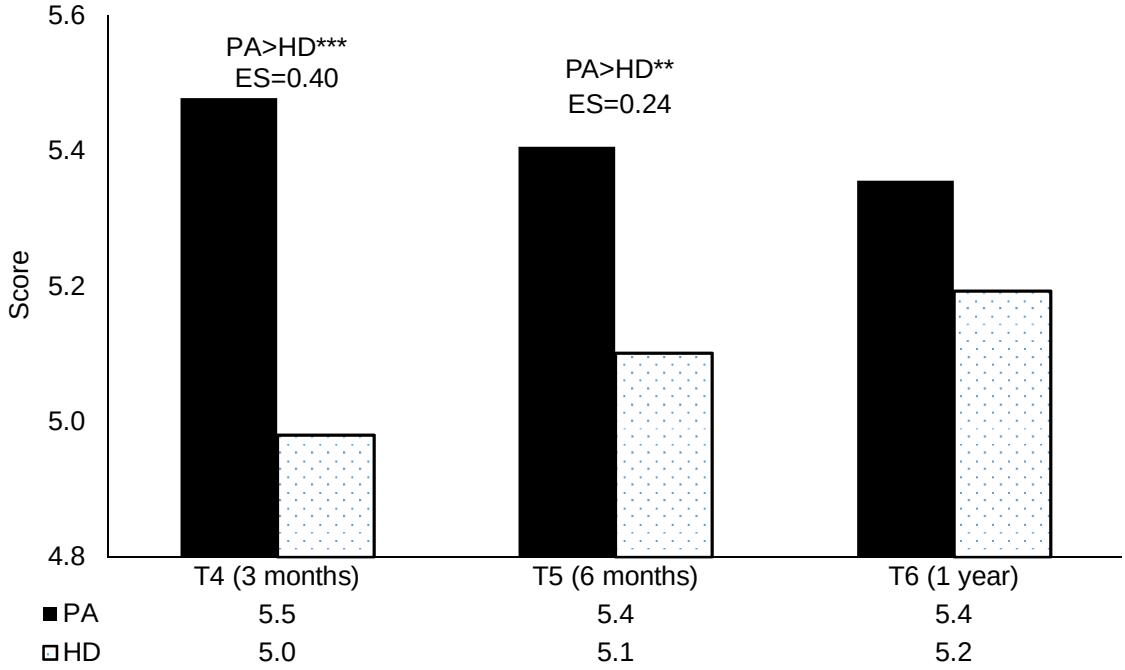
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

6-point Likert scale: "1=not at all true" to "6=exactly true"

***Subjective change in ZTEx***

Figure 4.28 shows that the subjective or self-reported changes in ZTEx were significantly greater in the PA group than the HD group only at 3 months and 6 months, indicating medium term effectiveness of PA intervention with small effect size (ES=0.40, $p$<0.001 and ES=0.24, $p$=0.004, respectively).

Figure 4.28 Subjective change in ZTEx (1-7)




Note. Subjective change was not measured at baseline and immediately after the first session

Between group comparison: ** $p$<0.01; *** $p$<0.001

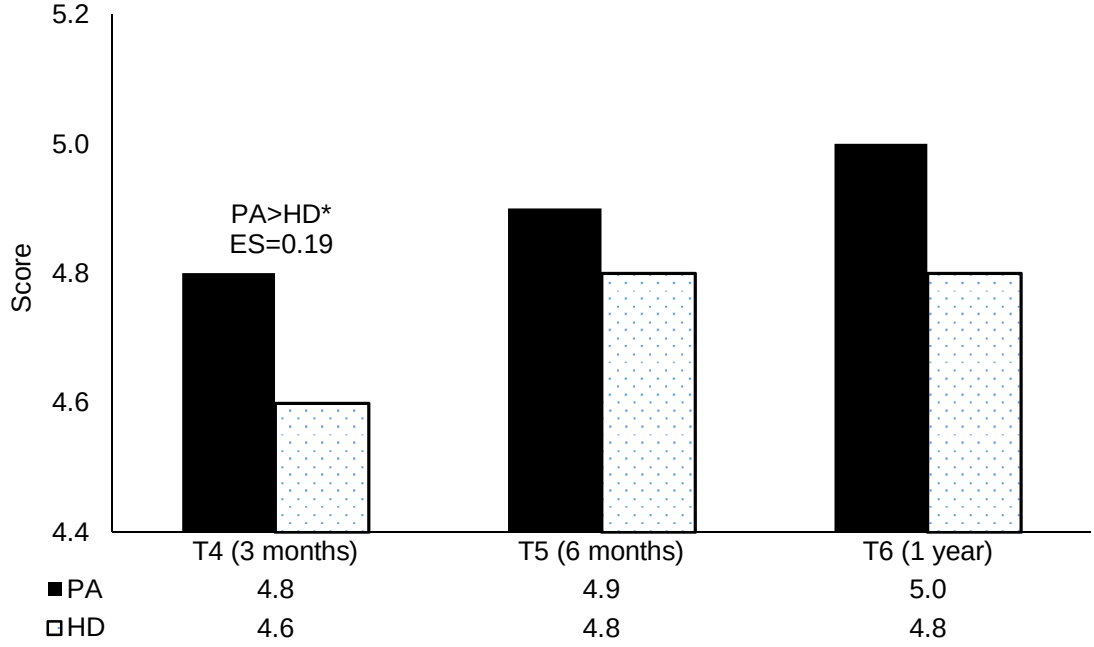
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

7-point Likert scale: "1=decreased a lot" to "7=increased a lot"

***Subjective change in doing ZTEx with family members***

Figure 4.29 shows the subjective or self-reported change in doing ZTEx with family members was significantly greater in the PA group than the HD group only at 3 months, indicating the short-term effectiveness of PA intervention with small effect size (ES=0.19, *p*=0.018).

Figure 4.29 Subjective change in doing ZTEx with family members (1-7)




Note. Subjective change was not measured at baseline and immediately after first session assessments

Between group comparison: * *p*<0.05

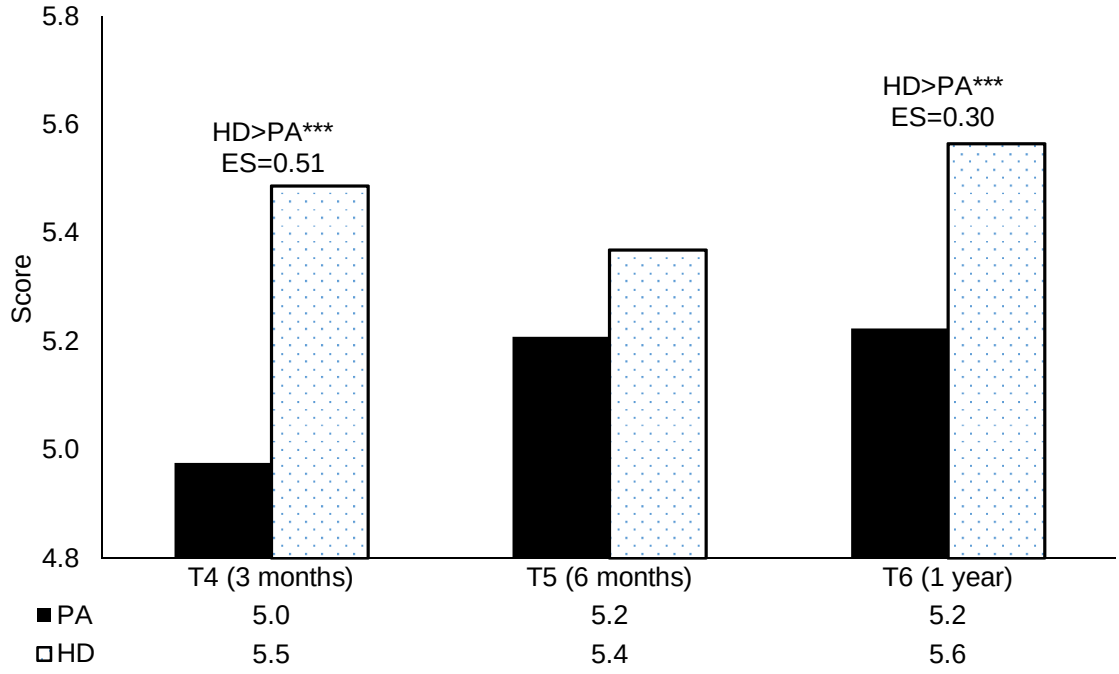
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

7-point Likert scale: "1=decreased a lot" to "7=increased a lot"

***Subjective change in daily fruits and vegetables consumption***

Figure 4.30 shows the increases in subjective or self-reported changes in daily fruits and vegetables consumption were significantly greater in the HD group than the PA group only at 3 months and 1 year, indicating the effectiveness of HD intervention with small to medium effect size (ES=0.51, p<0.001 and ES=0.30, *p*<0.001, respectively).

Figure 4.30 Subjective change in daily fruits and vegetables consumption (1-7)




Note. Subjective change was not measured at baseline and immediately after first session assessments

Between group comparison: *** *p*<0.001

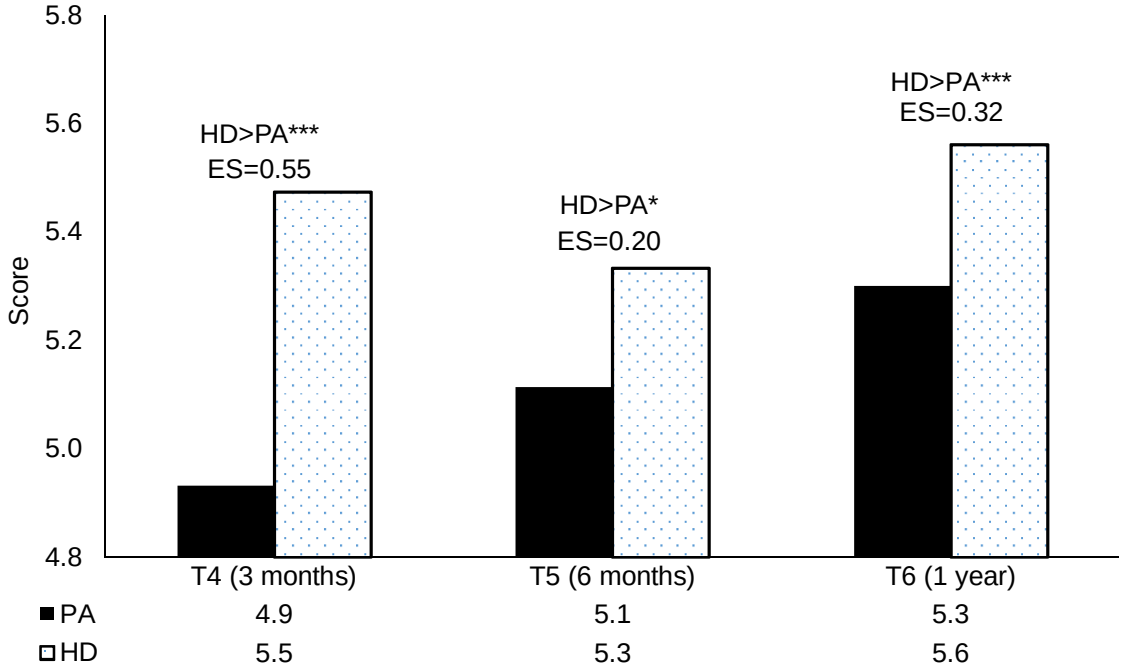
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

7-point Likert scale: "1=decreased a lot" to "7=increased a lot"

***Subjective change in fruits and vegetables consumption with family members***

Figure 4.31 shows that the increases in subjective or self-reported changes in fruits and vegetables consumption with family members at 3 months, 6 months and 1 year assessments were significantly greater in the HD group than the PA group, indicating the effectiveness of HD intervention with small to medium effect size (ES=0.55, $p$<0.001; ES=0.20, $p$=0.033; and ES=0.32, $p$<0.001, respectively).

Figure 4.31 Subjective change in fruits and vegetables consumption with family members (1-7)




Note. Subjective change was not measured at baseline and immediately after first session assessments

Between group comparison: * $p$<0.05; *** $p$<0.001

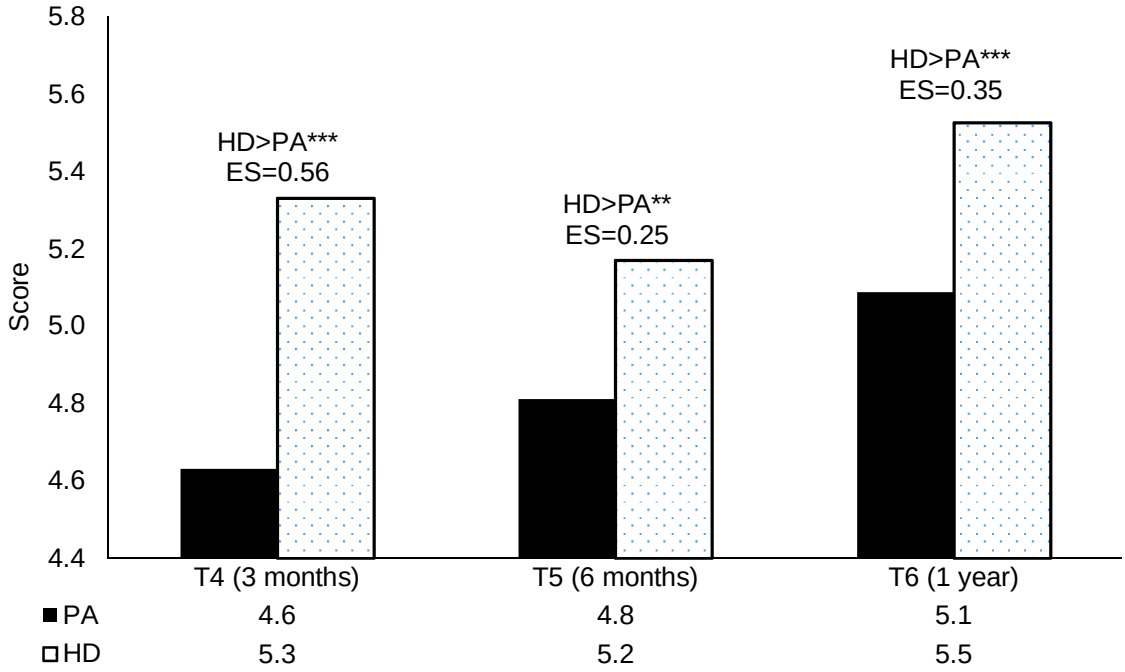
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

7-point Likert scale: "1=decreased a lot" to "7=increased a lot"

***Subjective change in sweetened beverages consumption***

Figure 4.32 shows that the decreases in subjective or self-reported changes in sweetened beverage consumption at 3 months, 6 months and 1 year assessments were significantly greater in the HD group than the PA group indicating the effectiveness of HD intervention with small to medium effect size (ES=0.56, $p$<0.001; ES=0.25, $p$=0.003; and ES=0.35, $p$<0.001, respectively).

Figure 4.32 Subjective changes in sweetened beverages consumption (1-7)




Note. Subjective change was not measured at baseline and immediately after first session assessments

Between group comparison: ** $p$<0.01; *** $p$<0.001

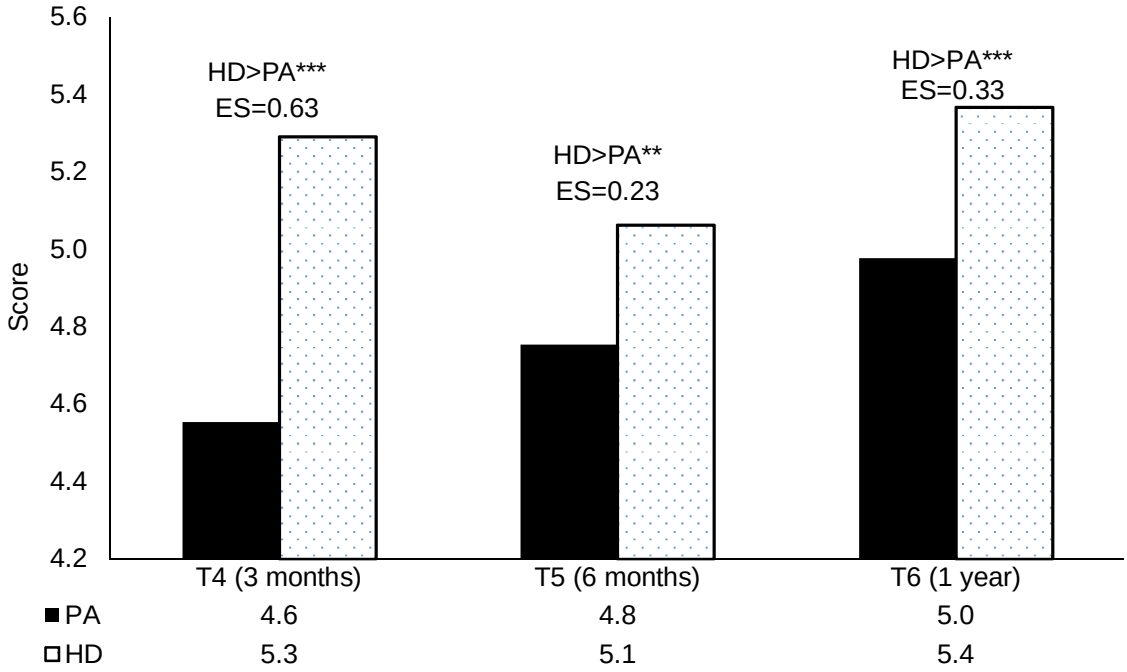
ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

7-point Likert scale: "1=decreased a lot" to "7=increased a lot"

***Subjective change in sweetened beverages consumption with family members***

Figure 4.33 shows that the subjective or self-reported changes in the decreases in drinking sweetened beverages at 3 months, 6 months and 1 year assessments were significantly greater in the HD group than the PA group, indicating the effectiveness of HD intervention with small to medium effect size (ES=0.63, $p$<0.001; ES=0.23, $p$=0.007; and ES=0.33, $p$<0.001, respectively).

Figure 4.33 Subjective changes in drinking sweetened beverages with family members of days implementing “Less sugar” diet with family (1-7)




Note. Subjective change was not measured at baseline and immediately after first session assessments

Between group comparison: ** $p$<0.01; *** $p$<0.001

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

7-point Likert scale: “1=decreased a lot” to “7=increased a lot”

***Feedback from participants***

From the on-site direct observation, the participants were highly involved with active participation and enthusiasm in the training. They appreciated the programme, particular in the ZTEx demonstration and in-class practice, and lots of interaction between interventionists and participants. The workshops were conducted in joyful atmosphere with participants' active participation.

Immediately following the programme, participants rated the quality of intervention content as 9.0±1.2 on a scale of 0 to 10, the higher score the better. The level of utility of the intervention was rated as 9.0±1.2 on the same scale. All participants (100%) reported that they would recommend this intervention programme to their friends and families.

#### 4.1.4.4 Summary of quantitative results

Overall, the results of the Parent Education Programme showed that the intervention was feasible, acceptable and effective. Process measures indicated that the study was successful in its execution. Retention rates were high, and the programme was completed on time and within budget. Programme evaluation and feedback from the participants indicated that the programmes were well-accepted by the service users.

During the one-year study period, both the PA and HD groups showed significantly increased physical activity and fitness performance, ZTEx, and involvement of family members in ZTEx. These increases were significantly greater in the PA group than the HD group indicating the effectiveness of PA intervention with medium and small effect size (ES=0.23-0.66, $p<0.05$). In addition, both groups significantly increased the consumption of fruits and vegetables, and significantly decreased in the consumption of sweetened beverages. These changes were significantly greater in the HD group than PA group with small effect size (ES=0.18-0.33, $p<0.05$), indicating the effectiveness of PA intervention. Furthermore, both groups also showed significant improvements in self-reported personal health, happiness, and FAMILY harmony after interventions, suggesting the effectiveness of both interventions. The self-reported personal health and happiness of the PA group showed greater improvements with small effects size (ES=0.16-0.17, $p<0.05$), compared with the HD group.

These results suggested that ZTEx is an effective and innovative approach to increase physical activity, ZTEx and physical fitness performance, family involvement in ZTEx and self-reported personal health. These activities were designed to offer an easy behavioural change that can be readily integrated into daily life and introduced to family members.

## 4.2 Train-the-Trainer and Ambassador Programme

### 4.2.1 Introduction

The TTTA aimed to promote trainees' health knowledge and behaviour in relation to physical activity, ZTEx, family communication, and self-reported well-being. It composed of nine training workshops, which provided the foundation knowledge and skills to service workers, who were responsible for designing and implementing similar interventions for their service users. The training workshops empowered the volunteers who served as community health ambassadors to assist in the activities of their corresponding IFSCs, and helped build knowledge and workforce capacity at the local level.

Eight IFSCs nominated their staff and community health ambassadors to attend the training workshops. Nine single-session training workshops were organised during May 2016 to August 2016 in eight IFSC. 180 trainees including 167 staff and 13 volunteers joined the workshops.

Table 4.4 Details of training workshops

| Workshop date | | Workshop venue | Number of participants |
|---|---|---|---|
| For staff: | 10 May, 2016 | Caritas IFSC-Aberdeen | 22 |
| | 11 May, 2016 | Caritas IFSC-Tsuen Wan | 25 |
| | 11 May, 2016 | Caritas IFSC-Sha Tin | 17 |
| | 12 May, 2016 | Caritas IFSC-Tin Shui Wai | 22 |
| | 19 May, 2016 | Caritas IFSC-Shau Kei Wan | 22 |
| | 25 May, 2016 | Caritas IFSC-Fanling | 22 |
| | 13 July, 2016 | Caritas IFSC-Tuen Mun | 24 |
| | 12 August, 2016 | Caritas IFSC-Tung Tau | 13 |
| For volunteers: | 13 May, 2016 | Caritas IFSC-Tung Tau | 13 |
| | | Totals | 180 |

### 4.2.2 Objectives

- To enhance trainees' health knowledge, attitude and behaviour in relation to ZTEx;
- To promote trainees' health knowledge and skills related to conducting or assisting in the implementation of community-based ZTEx activities;
- To encourage trainees to share health information and influence the health behaviour of their families;
- To enhance the trainees' personal and family well-being; and
- To obtain feedback from the trainees.

## 4.2.3 Methods

### 4.2.3.1 Training workshops

The 2.5-hour interactive training session focused on information in relation to ZTEx, designed to minimise the barriers of doing physical activity. The training workshops were implemented by experienced trainers, who had conducted workshops for the participating parents of the FEP. These workshops not only provided the staff with health-related knowledge in relation to ZTEx and family involvement in exercise, but also offered simple physical fitness assessments designed to attract participants' attention to and raise their awareness of their health. The training which embraced simplicity and conciseness in content, structure and methods, was easy to understand and convenient to practice. An experiential learning approach was adopted through the application of diverse methodologies, including lectures, videos, small-group discussions, games, and demonstration and practice of exercises.

### 4.2.3.2 Measurements

*Primary outcomes:*

- Physical activity including ZTEx.

*Secondary outcomes:*

- Physical fitness performance;
- Family communication in relation to ZTEx;
- Dietary habits;
- Self-reported well-being; and
- Feedback of the TTTA.

Perceived knowledge, self-efficacy, attitude, and intention in relation to ZTEx were assessed by asking trainees to indicate the extent of their agreement with six statements. For example, "I am confident that I am able to do ZTEx regularly". Responses were made on a 6-point Likert scale, ranging from "1=strongly disagree" to "6=strongly agree". Prior to the training, self-reported physical activity was assessed by three questions, which were adopted and modified from the International Physical Activities Questionnaire-Chinese version (IPAQ-C). We assessed physical activity levels by asking the number of days they did (1) at least 10-minute moderate physical activities, (2) at least 10-minute vigorous physical activities and (3) ZTEx in the last seven days. Responses ranged from "0 day" to "7 days". We assessed sedentary behaviour by asking one question: On a typical weekday in the last seven days, how much time (hours per day) did you spend sitting?".

Standardized protocols were used to assess physical fitness, specifically grip strength for both hands measured by a dynamometer [69, 70], and balance assessed by a single leg stance test [71]. Statements about general health were asked before the physical fitness assessments. All trainees completed the physical fitness assessments with no complaint or discomfort.

We asked the trainees to indicate their assessment of their self-reported FAMILY harmony, self-reported personal well-being by three questions: “Do you think your family is harmonious?”; “Do you think you are happy?” and “Do you think you are healthy?”. Each item allowed response on a scale ranging from "0=very unhealthy/unhappy/disharmonious" to "10=very healthy/happy/harmonious".

Feedback on the training workshops was asked after training. Individual phone interviews to obtain trainees’ feedback were conducted three months after training.

#### 4.2.3.3 Statistical analysis

Analyses were conducted using SPSS 24.0. All significance tests were 2-sided with a 5% level of significance. Regression analysis was used to detect the difference between males and females with adjustment for age. By intention-to-treat analysis missing data were replaced by baseline values (i.e. assuming no changes). The training effect was assessed by paired sample t-tests. 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 2-sided with a 5% level of significance [29].

All qualitative interviews were audio-taped and transcribed verbatim in Cantonese to capture every nuance of expression unique to the dialect. At least 10% of the transcripts were double-checked with the recordings. Coding was processed by two project team members, one of whom attended the interviews. Transcripts were analysed by thematic content analysis, following the guidelines recommended by Morse and Field [67] and assisted by NVivo 11.0 (QSR International; Melbourne VIC, Australia). Each transcript was analysed sentence by sentence and coded for the respondents’ meaning. The transcripts were reviewed again by another member of the project team to validate the thematic analysis and to ensure that all meaningful interview data had been analysed.

### 4.2.4 Results

#### 4.2.4.1 Demographic characteristics

One hundred and eighty trainees attended the training workshops. All agreed to join the study. One hundred and eighty pre-training (T1) and 179 immediately post-training (T2) questionnaires were collected. Three social workers completed phone interviews three months after training.

Table 4.5 shows that most trainees were female (n=144, 80%), and aged 40 years old or above (n=137, 76%). They included 109 (61%) registered social service workers, 27 (15%) programme workers, 25 (13%) clerical or other staff, and 20 (11%) volunteers.

Table 4.5 Demographic characteristics (n=180)

| Characteristic | n (%) |
|---|---|
| | |
| **Sex** | |
| Male | 36 (20.0) |
| Female | 144 (80.0) |
| **Age group (years)[a]** | |
| 18-29 | 15 (8.5) |
| 30-39 | 28 (15.8) |
| 40-49 | 45 (25.4) |
| 50-59 | 65 (36.8) |
| ≥60 | 24 (13.6) |
| **Education[b]** | |
| Primary or below level | 8 (4.5) |
| Secondary level | 45 (25.4) |
| Tertiary or above level | 124 (70.1) |
| **Job title** | |
| Registered social worker | 109 (60.6) |
| Programme worker | 27 (15.0) |
| Clerical or other staff | 24 (13.3) |
| Volunteer | 20 (11.1) |
| **Years of work/volunteer experience in social service[c]** | |
| ≤4 | 34 (20.7) |
| 5-9 | 22 (13.4) |
| ≥10 | 108 (65.9) |
| **Years of work/volunteer experience in Caritas[d]** | |
| ≤4 | 45 (27.6) |
| 5-9 | 26 (16.0) |
| ≥10 | 92 (56.4) |

[a] n(missing)=3; [b] n(missing)=3; [c] n(missing)=16; [d] n(missing)=17

#### 4.2.4.2 Reaction to training content

From the on-site direct observation, the trainees they appreciated the training design and content, particularly during physical fitness assessments, ZTEx demonstration and in-class exercise, and the interaction between interventionists (trainers) and trainees. The atmosphere of the workshops was joyful, and the trainees were highly involved with enthusiasm in the training workshops. The trainees were excited when they were comparing their own fitness with the normative values and their colleagues.

Immediately following training, trainees rated the quality of intervention content as 8.5±1.0 on a scale of 0 to 10, the higher score the better. The level of utility of the intervention was rated as 8.7±1.0 on the same scale. All participants (100%) reported that they would recommend this intervention workshop to their friends and families.

#### 4.2.4.3 Gains in competence and motivation in relation to ZTEx

As shown in Table 4.6, trainees reported significant increases with small to large effect sizes in competence (perceived knowledge and self-efficacy) and motivation (attitude and intention) in relation to doing ZTEx and encouraging their family members to do ZTEx.

Table 4.6 Participants' competence and motivation in relation to ZTEx

| | Pre-training (T1) n=180 | Immediately after the training (T2) n=180 | Pre→Post |
|---|---|---|---|
| | Mean (SD) | | *p*-value[a]/ES[b] |
| **Competence** | | | |
| Perceived knowledge of the general concept of ZTEx[c] | 4.19 (1.40) | 5.50 (0.72) | <0.001***/0.33 |
| Self-efficacy to do ZTEx in daily life[c] | 4.32 (1.20) | 4.98 (0.89) | <0.001***/0.63 |
| **Motivation** | | | |
| Intention to do ZTEx[c] | 4.39 (1.08) | 5.03 (0.80) | <0.001***/0.67 |
| Intention to encourage family members to do ZTEx[c] | 4.01 (1.14) | 4.73 (0.98) | <0.001***/0.68 |
| Intention to do ZTEx with family[c] | 3.84 (1.17) | 4.63 (1.03) | <0.001***/0.72 |
| Attitude towards ZTEx, which is able to enhance personal and family well-being[c] | 4.26 (1.14) | 5.19 (0.86) | <0.001***/0.92 |

[a] Difference between pre- and post-training comparison: *** $p<0.001$

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

[c] 6-point Likert scale: "1=strongly disagree" to "6=strongly agree"

### 4.2.4.4 Physical activity

Table 4.7 shows that men did significantly more moderate physical activity than women, indicating that men are more active than women. Yet, the average sitting time in a working day and vigorous physical activity showed no significant differences between men and women.

Table 4.7 Participants' physical activity by gender (n=180)

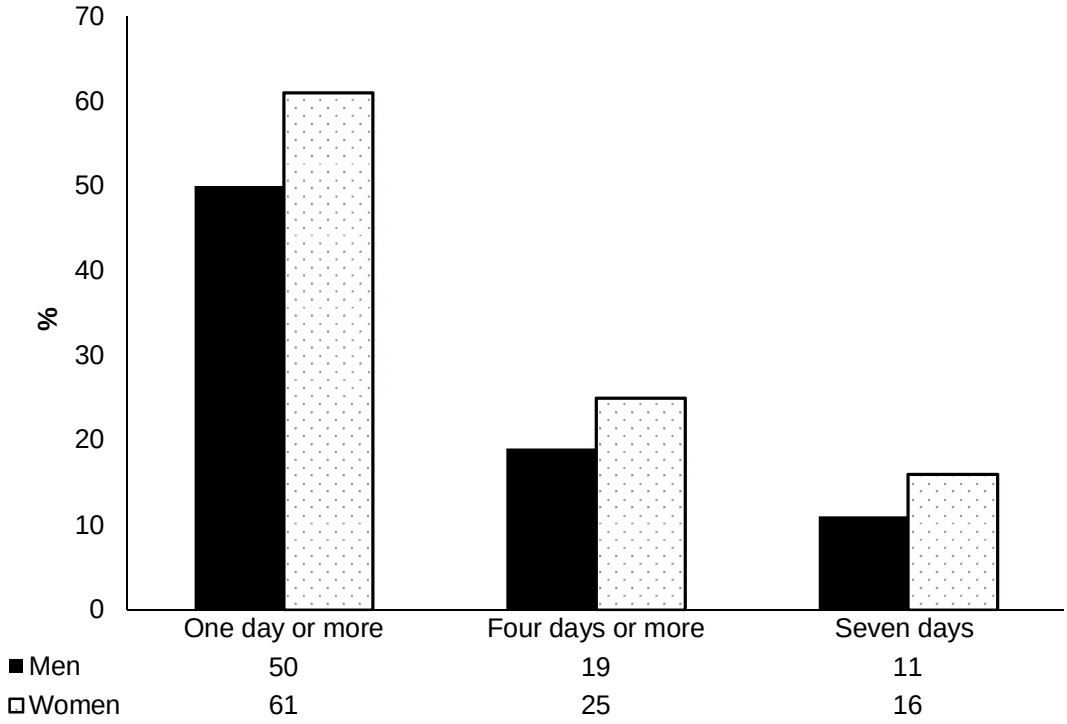
| | Men (n=36) | Women (n=144) | *p*-value[a] |
|---|---|---|---|
| | Mean (SD) | | |
| Average time (in hours) spent sitting on a week day in the last 7 days | 8.92 (3.15) | 9.22 (2.91) | 0.58 |
| Days did at least 10-minute moderate physical activity in the last 7 days | 2.72 (2.47) | 1.76 (2.02) | 0.035* |
| Days did at least 10-minute vigorous physical activity in the last 7 days | 1.11 (1.50) | 0.76 (1.37) | 0.18 |

[a] Difference between pre- and post-training comparison: * $p<0.05$

### 4.2.4.5 Zero-time Exercise

Figure 4.24 shows no significant differences in proportions of trainees who did ZTEx between men and women.

Figure 4.24 The proportion of participants who did ZTEx in the last seven days by sex (0-100%)



#### 4.2.4.6 Physical fitness performance

The average grip strength of men was 40±7 kg for the left hand and 43±8 kg for the right hand. The average grip strength of women was 25±5 kg for left hand and 27±6 kg for right hand. The average time spent standing on one leg was 105±24 seconds in men and 101±32 seconds in women.

#### 4.2.4.7 Self-reported personal well-being and FAMILY harmony

On a scale of 0 to 10, the higher score the better, the average scores for self-reported personal health, personal happiness and FAMILY harmony were 5.7, 7.0 and 7.3 respectively.

#### 4.2.4.8 Trainees' implemented community program

Five trainees reported that they implemented programmes for their service targets.

Table 4.8 Trainees' implemented community programmes

| Programme Date | Programme Venue | Targeted participants | Number of participants |
|---|---|---|---|
| 8/6/2016 | Carine Road Caritas Centre | Clerical staff | 25 |
| 22/6/2016 | Caritas IFSC-Tin Shui Wai | Volunteers | 30 |
| 26/7/2016 | Valtorta College | Secondary school students | 35 |
| 18/8/2016 | Caritas IFSC-Shau Kei Wan | Parents | 20 |
| 24/9/2016 | Shau Kei Wan Community Hall | Parents | 200 |
| 9/12/2016 | Caritas IFSC-Tuen Mun | Volunteers | 12 |

### 4.2.5 Discussion

#### Strengthening competence and motivation in relation to ZTEx

In general, the training workshops were effective in improving trainees' competence (perceived knowledge and self-efficacy) and motivation (intention and attitude) in relation to ZTEx.

#### Needs to increase physical activity

Trainees' physical activity was less than the recommendations of WHO on physical activity. Women did significantly less moderate physical activity than men. These findings showed that our participants needed more physical activity, less time spent on sitting and regular breaks in prolong sitting time.

**Effectiveness of the strategies used in the training workshops**

Engaging games, experiential activities, sharing sessions and group discussions were adopted in the training programme to deliver the concepts of ZTEx. These approaches were found to be effective and enjoyable for most trainees. It is likely that these methods and processes contributed to the effectiveness of the workshops.

### 4.2.6 Conclusions

Trainees received benefits from the training workshops. In general, they showed high acceptance of the training workshop and improved competence and motivation in relation to ZTEx. The workshops helped promote trainees' competence (knowledge and self-efficacy) and motivation (intention and attitude) in conducting or assisting to implement similar programmes to their service users.

## 4.3 Qualitative Evaluation of FAMILY Education Project

### 4.3.1 Introduction of the focus groups

Focus group interviews and individuals' phone interviews were conducted with the intervention programme participants from the participating IFSCs after the Parent Education Programmes, and the social workers from the TTTA respectively, to obtain their qualitative feedback. We also conducted in-depth interviews with community stakeholders to obtain their opinions on the FEP.

The aims of the interviews were to explore the opinions and experiences related to the programme from the participants' and trainees' perspectives. This kind of information would be useful to evaluate the effectiveness of the project, explain and interpret the quantitative findings, and improve future project design and delivery.

### 4.3.2 Objectives

The specific objectives are listed below:

**Focus group interviews with community participants**

- To assess the extent to which the Parent Education Programmes had enhanced healthy living habits, including physical activity, dietary habits, and positive family communication;
- To explore the barriers to practicing healthy living habits, including physical activity, dietary habits, and positive family communications; and
- To examine whether the intervention programmes had helped improve personal and family well-being.

**Phone interviews with the trainees of the TTTA**

- To assess the effectiveness of the TTTA;
- To obtain feedback and opinions on the programme; and
- To explore whether the workshops were effective in influencing work atmosphere and organization practice.

**In-depth individual interviews with the committee members and IFSC staff**

- To capture views and suggestions in relation to this project; and
- To collect comments and suggestions for future improvement.

## 4.3.3 Methods

### 4.3.3.1 Data collection

Programme participants were invited to attend post-intervention focus group interviews. A total of four focus group interviews were successfully conducted in September 2016, one year after the programme was completed.

The inclusion criteria for participants were as follows:

- Participated in Core session, Booster session, Tea gathering session and Holistic health session;
- Aged 18 or above years; and
- Able to speak in Cantonese.

Four focus group interviews were conducted with community participants in a quiet venue at Caritas IFSCs. Each focus group interview lasted for about 60 minutes and was managed by a panel of one moderator and one note-taker. The discussions were conducted in Cantonese and audio-taped. A HK$50 supermarket voucher was offered to each participant of the focus group interviews as an incentive.

A total of three social workers' who joined the TTTA, received phone interviews conducted in November 2016, three months after training. Each phone interview lasted for about 20 minutes.

A total of nine social workers were invited to join the in-depth interviews in January 2017. All in-depth interviews lasted for about 60 minutes.

Participation in the interviews was voluntary, and written consent (with a questionnaire on demographic characteristics) was collected from each participant before the discussion began. All personal information collected was kept confidential and was used for research purposes only. The discussions were semi-structured. An open-ended interview guide was provided to the moderator and questions were designed according to the objectives of the project.

#### 4.3.2.2 Data analysis

To maximize the data quality, all focus group interviews were transcribed verbatim into Cantonese in order to capture every nuance of expression unique to the dialect. At least 10% of the transcripts were double-checked against the tape recordings. The transcripts were analysed by thematic content analysis, following the guidelines recommended by Morse and Field [34]. 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.

## 4.3.4 Results and discussion

### 4.3.4.1 Focus group interviews with community participants

#### *4.3.4.1.1 Composition of focus group*

A total of 32 participants were interviewed, with 7 to 10 in each group. Details of group composition are shown in Table 4.9. A total of 3 groups of participants were involved in the theme physical activity and 1 in healthy diet.

Table 4.9 composition of participant focus groups

| Community Participant Group | Theme | Number of participants |
|---|---|---|
| Group 1 | Physical activity | 7 |
| Group 2 | Physical activity | 7 |
| Group 3 | Physical activity | 10 |
| Group 4 | Healthy diet | 8 |

#### *4.3.4.1.2 Demographic Characteristics*

Table 4.10 shows that the majority were female (97%) and aged 30-49 years (94%). 84% of them received secondary level education or below. 81% of them were housewives or unemployed and 35% had low monthly household income of less than HK$10,000.

Table 4.10 Demographic characteristics of participants in focus group (n=32)

| Characteristics | n (%) |
|---|---|
| **Sex** | |
| Male | 1 (3.1) |
| Female | 31 (96.9) |
| **Age group (years)** | |
| 30-39 | 13 (40.6) |
| 40-49 | 17 (53.1) |
| 50-59 | 1 (3.1) |
| 60-64 | 1 (3.1) |
| **Marital status** | |
| Never married | 1 (3.1) |
| Married | 25 (78.1) |
| Widowed | 1 (3.1) |
| Divorced/separated | 5 (15.6) |
| **Education** | |
| Primary or below level | 4 (12.5) |
| Secondary level | 23 (71.9) |
| Tertiary or above level | 5 (15.6) |
| **Employment status** | |
| Employed | 4 (12.5) |
| Unemployed/retired | 2 (6.2) |
| Housewife | 26 (81.3) |
| **Household monthly income[a]** | |
| CSSA & <$10,000 | 11 (35.5) |
| $10,000-$19,999 | 12 (38.7) |
| $20,000-$29,999 | 7 (22.6) |
| >=$30,000 | 1 (3.2) |

| Characteristics | n (%) |
|---|---|
| **Age of children[b]** | |
| 3-5 | 8 (25.8) |
| 6-12 | 24 (77.4) |
| 13-18 | 8 (19.4) |

[a] n(missing)=1; [b] n(missing)=1

#### *4.3.4.1.3 Qualititative findings of focus group interviews with community participants*

The main themes generated from the focus groups included “general impression”, “behaviour changes”, “perceived positive outcomes”, “challenges and barriers” and “suggestions and recommendations”. The main themes, subthemes, and categories relevant to the research questions in Chinese are illustrated below with translated quotations in English.

Table 4.11 Quotes from community participants

| Theme | Subtheme | Quotes |
|---|---|---|
| General impression | / | ***An enjoyable project***<br><br>“真係好多謝馬會舉辦呢個活動，我哋都學識咗好多嘢…我覺得幫助好大嘅。” (家庭主婦，30-39 歲，4P08)<br>“I really appreciate The Jockey Club for organizing this project and we have learnt a lot…It is very helpful to me.” (Housewife, 30-39 yr, 4P08)<br><br>“都投入嘅，個個都幾開心呀。一邊做一邊笑，幾好。” (家庭主婦，40-49 歲，3P06)<br>“(The participants) were very involved, and quite happy. They were laughing while doing exercise. Quite good!” (Housewife, 40-49 yr, 3P06)<br><br>***Interested in health-related programme***<br><br>“真係好奇心，咩係三零（運動），學多樣都唔緊要啦。” (家庭主婦，50-59 歲，1P03)<br>“It was my curiosity about 3-Zero (Exercise). It does not matter to learn new thing.” (Housewife, 50-59 yr, 1P03)<br><br>“幾好㗎，搞下啲營養嘅嘢比我哋啲師奶知多啲。” (家庭主婦，40-49 歲，3P09) |

| Theme | Subtheme | Quotes |
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| | | "Quite good. Organising some nutrients related programmes for us, housewives, to know how about them." (Housewife, 40-49 yr, 3P09)<br><br>***Good facilitator***<br><br>"（導師）教得好好呀…即係好活潑囉。" (家庭主婦，40-49 歲，2P07)<br>"(The tutor) was good at teaching…Very lively." (Housewife, 40-49 yr, 2P07)<br><br>"OK 嘅佢哋（導師）講得都，都好認真提醒我哋嘅。" (家庭主婦，40-49 歲，3P06)<br>"They (the tutor) taught well and reminded us quite seriously." (Housewife, 40-49 yr, 3P06)<br><br>***Believed in programme outcome***<br><br>"我覺得如果個個人都投入得到同埋 keep（保持）得好，對身體都好，見到家庭、各方面都會好啲。" (家庭主婦，30-39 歲，1P05)<br>"I think if each of us are involved (in this programme) and kept practicing, it would be beneficial to our health, family and every aspect." (Housewife, 30-39 yr, 1P05)<br><br>"我覺得嗰啲（拉筋運動）應該幾好，應該係對身體有益嘅。" (家庭主婦，30-39 歲，3P02)<br>"I think those (stretches) were quite good, and they should be beneficial to health." (Housewife, 30-39 yr, 3P02)<br><br>***Flexible arrangement***<br><br>"我欣賞你哋分開三個時間，我本身唔係依個時間嘅，我就 WhatsApp 話可唔可以調過來依日…可以彈性處理。" (家庭主婦，40-49 歲，2P04)<br>"I really appreciate that you (conducted this programme) in |

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| | | three sessions. Originally, I did not belong to this session, I WhatsApp to ask whether I can take today's session…It could be done in a flexible way." (Housewife, 40-49 yr, 2P04)<br><br>"參加依個 programme （計劃）嗰幾十人，分開三組時間，睇吓邊個時間 OK。" (家庭主婦，40-49 歲，2P03)<br>"A few dozens of us were divided into three groups, to see which time slot was suitable for us." (Housewife, 40-49 yr, 2P03)<br><br>***<u>Enjoyed tea gathering session</u>***<br><br>"佢哋（子女）都好開心，有得玩有得食喎。" (家庭主婦，30-39 歲，2P02)<br>"They (children) were very happy since they could play and eat." (Housewife, 30-39 yr, 2P02)<br><br>"可以同一班朋友一齊咁樣食嘢，gathering（聚會），咁樣一齊玩囉，又可以上台一齊咁樣做運動。" (家庭主婦，40-49 歲，2P04)<br>"(We) could have meals and gatherings with friends. We played together and went on stage to do exercises together." (Housewife, 40-49 yr, 2P04)<br><br>***<u>Looking forward to phase 2</u>***<br><br>"呢啲計劃下次仲會唔會再做？去完，下年仲有無機會做？" (家庭主婦，30-39 歲，1P06)<br>"Will this kind of project be organised again? After participating in this project, can we join the next project?" (Housewife, 30-39 yr, 1P06)<br><br>"仲有咁樣嘅（計劃）都希望你哋叫返我哋來參加，學習到好多嘢。" (家庭主婦，30-39 歲，4P08)<br>"If there would be similar projects, we hope you could invite us again. We learnt a lot from it." (Housewife, 30-39 yr, 4P08) |

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| Behavioural change after participation | Personal changes | ***<u>Do more exercise in daily lives</u>***<br><br>“以前呢，就未有接觸呢個（三零）運動之前呢，等車嗰時唔識話做吓啲運動咁樣，依家就知道，等車嘅時候都可以做運動，就醒起可以單腳企喎，可以踮腳喎。” (受僱，女，40-49 歲，3P10)<br><br>“Before I knew this (3-Zero) Exercise, I did not know we could exercise while waiting for transports. Now I know, I can do exercise during waiting time. Remember to do single leg stand and stand on toes.” (Employee, female, 40-49 yr, 3P10)<br><br>“我參加咗依個活動之後，我自己會郁多咗。” (家庭主婦，40-49 歲，2P05)<br><br>“After I participated in this project, I think I move more.” (Housewife, 40-49 yr, 2P05)<br><br>***<u>Eat more vegetables and fruits in diet</u>***<br><br>“以前屋企唔會水果㗎，依家都會買，總之屋企都一定要有水果，每晚煮飯都要一份菜囉。” (家庭主婦，30-39 歲，4P01)<br><br>“We used to eat no fruits at home, but I will buy now. Anyway, fruit is a must at home. Every night I cook a serving of vegetables for dinner.” (Housewife, 30-39 yr, 4P01)<br><br>“多果多蔬，食多咗蔬菜水果。” (家庭主婦，30-39 歲，4P05)<br><br>“More fruits and more vegetables. (I) have eaten more vegetables and fruits.” (Housewife, 30-39 yr, 4P05)<br><br>***<u>Reduced daily intake of sugar</u>***<br><br>“依家(知道咁多糖)真係唔敢買啦，XXX（乳酸飲品牌子）更加唔敢買…以前（小朋友）朝早一支，晏晝（放學）返來又一支，依家叫我買都唔敢買。” (家庭主婦，30-39 歲，4P08)<br><br>“Now I do not dare to buy (after knowing its high sugar content), especially XXX (a certain brand of lactic acid |

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| | | drinks). In the past, (my kids) drank a bottle of that in the morning and another bottle in the afternoon (after school) every day. Now I do not dare to buy even if people ask me." (Housewife, 30-39 yr, 4P08)<br><br>"之前以為啲 XXX （豆奶牌子） 好有營養，依家（知道咁多糖）都唔敢飲啦。" (家庭主婦，30-39 歲，4P07)<br><br>"I thought XXX (a certain brand of premade soy milk) was nutritious, but now (after knowing its high sugar content) I do not dare to drink it." (Housewife, 30-39 yr, 4P07) |
| | Family changes | ***Implication of ZTEx as family activity***<br><br>"親子，多咗樣活動一齊玩囉！" (家庭主婦，40-49 歲，2P04)<br>"Closer to children, a new activity to play together!" (Housewife, 40-49 yr, 2P04)<br><br>"大家可以坐住，無聊咁咪一齊做吓運動。" (家庭主婦，40-49 歲，4P03)<br>"We can sit together, and do some exercises together when feeling bored." (Housewife, 40-49 yr, 4P03)<br><br>***Improved family diet***<br><br>"從飲食呢度注意，從多菜多果、少糖少油少鹽呢啲做起，帶動一家都向呢個好嘅習慣。" (家庭主婦，30-39 歲，4P06)<br>"Begin with diets. Start with eating more vegetables and fruits, and consuming less sugar, oil and salt. It can drive my family to develop this good habit." (Housewife, 30-39 yr, 4P06)<br><br>"以前就「咁難食嘅，咁淡嘅媽咪，無味嘅。」，依家攞咗啲單張比佢哋知道（健康飲食）呢，依家佢哋接受啦。" (家庭主婦，30-39 歲，4P08)<br>"In the past, "It tastes bad. It tastes so bland, Mom. It is tasteless." (they often said). Now I have given them some |

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| | | leaflets and made them aware of (healthy diet). They have accepted this by now." (Housewife, 30-39 yr, 4P08)<br><br>***<u>Encouragement among family members</u>***<br><br>"都係提吓啲細路仔「有無做（運動）呀？做唔做（運動）呀？」。" (受僱，女，40-49 歲，3P05)<br>"(I often) remind the children, "Have you done (exercise)? Will you do (exercise)?"" (Employee, female, 40-49 yr, 3P05)<br><br>"有時呢，我睇電視坐喺屋企呢，佢（仔女）返來就話「三零運動呀！你今日未做呀！」，係佢提醒我。" (家庭主婦，40-49 歲，3P06)<br>"Sometimes when I sit down and watch TV at home, they (my children) come back from school and remind me, "3-Zero Exercise! Have you done it today?" (Housewife, 40-49 yr, 3P06)<br><br>***<u>New conversation topics</u>***<br><br>"有時你打你嘅機，我打我嘅機，大家都唔理大家咁，依家唔係嘅，多咗話題，大家做運動啦，大家做完運動又可以大家 share（分享）嗰啲開心嘅片呀。" (家庭主婦，40-49 歲，3P06)<br>"Sometimes we played video games on our own and did not talk with each other. Now it has changed. We have new topics, we exercise together. We can discuss exercise. After exercising we share those funny video clips." (Housewife, 40-49 yr, 3P06)<br><br>"我同佢講話做呢個（三零）運動呢，對扁平足有用嘅話呢，做吓做吓咪多啲話題講嘢囉。" (家庭主婦，40-49 歲，2P05)<br>"I told him that doing this (3-Zero) exercise could be helpful to flat feet. And it generates more topics to talk." (Housewife, 40-49 yr, 2P05) |

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| Perceived positive outcomes | / | ***A new exercise approach***<br><br>“唔知平時咁樣做都算係運動，唔識把握咁樣嘅時機同做咁樣動作，唔係一定話跑步呀、跳舞呀、游水呀先算係運動。” (家庭主婦，30-39 歲，4P06)<br>“(I) did not know this is also a form of exercise. (I) did not know how to take those opportunities to work out. Not only running, dancing or swimming are considered as exercises.” (Housewife, 30-39 yr, 4P06)<br><br>“三零運動，對我哋來講幫助好大呀，唔講唔知，呢啲平時都會攰咗之後不知不覺做嘅運動，對自己身體有幫助，都係運動來嘅。” (家庭主婦，30-39 歲，4P08)<br>“3-Zero Exercise, it helps us a lot. We did not realise that the movements we unintentionally did when we felt tired could be a kind of exercise and benefit our health.” (Housewife, 30-39 yr, 4P08)<br><br>***Self-efficacy in ZTEx***<br><br>“參加咗呢度之後呢，提醒咗我就係零時間，得閒既時間就做運動，提醒咗我。” (家庭主婦，40-49 歲，3P04)<br>“After this project, it reminds me of the concept of “Zero-time”. It reminds me that we can do exercise in any spare time.” (Housewife, 40-49 yr, 3P04)<br><br>提醒咗自己就算任何時間，（例如） 搭軚企喺度、扶手電梯、咩嘢，都可以做到少少運動。(家庭主婦，40-49 歲，2P03)<br>“It reminds me that for any time, in elevator, escalator, or other places, we can do a little exercise.” (Housewife, 40-49 yr, 2P03)<br><br>***Gain in positive emotion***<br><br>“我覺得係開心咗嘅，做咗運動個人精神咗，真係開心咗。” (家庭主婦，30-39 歲，1P04) |

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| | | “I feel happier. After doing exercise, I become more energetic. I really feel happier.” (Housewife, 30-39 yr, 1P04)<br><br>“自己本身感覺開朗咗，個人真係會慍少咗，自己覺得有啲嘢（運動）投入緊做緊，已經唔得閒去慍，發脾氣。” (家庭主婦，40-49 歲，2P05)<br>“I became more cheerful, and was less likely to lose temper. I think maybe because I am focusing on something (exercise) and doing it, so I do not have time to lose temper.” (Housewife, 40-49 yr, 2P05)<br><br>***<u>Self-efficacy in healthy lifestyle</u>***<br><br>“可以改善到好多自己嘅生活習慣，做多啲運動呀、少糖呀、食多啲蔬菜水果呀。” (家庭主婦，40-49 歲，4P03)<br>“It can improve a lot of my living habits. (Now I) do more exercise, consume less sugar, and eat more vegetables and fruits.” (Housewife, 40-49 yr, 4P03)<br><br>“有時唔知點樣去健康，應該係叫我哋參加呢個活動先會知我哋應該點樣去注重健康，從邊度做起。” (家庭主婦，30-39 歲，4P06)<br>“Sometime we did not know how to be healthy. After this project, we know how to pay attention to health and how to begin.” (Housewife, 30-39 yr, 4P06)<br><br>***<u>Risk perception to sugary diet</u>***<br><br>“我知佢（飲品）係甜呀，但我唔知嗰個黑加侖子（汁）成十幾粒糖，我真係唔知，我以前都會飲㗎。” (家庭主婦，40-49 歲，3P09)<br>“I knew they (beverages) were sweetened, but I did not know blackcurrant (juice) contains more than ten cubes of sugar. I really have no idea. I used to drink this.” (Housewife, 40-49 yr, 3P09)<br><br>“因為我哋以前飲都唔知一杯嘢有幾多糖，依家佢分享咗講完之後呢就提醒咗自己。” (家庭主婦，40-49 歲，3P06) |

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| | | "Because we did not know how much sugar was contained in a glass of drink. Now I am reminded after their sharing (such knowledge to me)." (Housewife, 40-49 yr, 3P06)<br><br>***<u>Knowledge in motivating others</u>***<br><br>"因為你講得出，譬如講唔好飲飲品啦，因為嗰支飲品已經有幾多粒糖，當你講嘅時候佢都會驚…我哋真係有呢方面嘅知識去講出來，去令到佢信服囉。" (家庭主婦，30-39 歲，4P06)<br>"Because we are able to tell, let's say not to drink certain drink, this drink already contains that amount of sugar. Once we told them, they were shocked. We truly have such kind of knowledge to tell them, to convince them." (Housewife, 30-39 yr, 4P06)<br><br>"好有自信咁同佢哋講，「呢個飲品你哋唔好以為無乜嘢，有幾多糖份喺度㗎，全部都唔係有益嘅嘢」，我哋講出呢個唔好飲係有根據。" (家庭主婦，30-39 歲，4P01)<br>"(I) confidently told them, "Do not think it is not a big deal to drink this drink. it contains that amount sugar. None of them is good to your health." We can tell them not to drink with evidence." (Housewife, 30-39 yr, 4P01)<br><br>***<u>Improvement in physical health</u>***<br><br>"踩（空氣）單車，大便又好啲。" (家庭主婦，30-39 歲，1P01)<br>"(I do) seated cycling. Improvement in bowel habit." (Housewife, 30-39 yr, 1P01)<br>"我自己身體的確有好咗少少，我驗血報告出來話好返啲，之前血壓好高。" (家庭主婦，30-39 歲，1P06)<br><br>"My health has improved a little bit. My blood test results show some improvement. My blood pressure used to be quite high." (Housewife, 30-39 yr, 1P06)<br><br>***<u>Felt happy when doing ZTEx together</u>***<br><br>"媽咪果陣成日叫我做（運動），我就好懶唔肯做，而家我做（三零運動）反而成間屋最開心係我阿媽，阿媽就話「你終 |

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| | | 於肯做啦，有伴！」” (受僱，女，30-39 歲，1P06)<br>“My mom always asked me to do (exercise) before, but I was too lazy to do that. Now I do (3-Zero Exercise) and my mom is the happiest person in my family. She said, ‘You are finally willing to do it. I now have a companion!’” (Employee, female, 30-39 yr, 1P06)<br><br>“佢（女兒）7 歲，平時都會郁手郁腳，同佢郁吓呢啲咁佢都會好開心媽咪幫我托吓腳(拉筋)，幾好。” (家庭主婦，40-49 歲，1P02)<br>“She (my daughter) is seven years old and often move her limbs. She would be happy when I hold her leg (for stretching), and it is really good.” (Housewife, 40-49 yr, 1P02)<br><br>***<u>Better family relationship</u>***<br><br>“一齊做吓運動，學返來啲嘢佢又教我，而家關係好好多。” (家庭主婦，40-49 歲，1P07)<br>“(We) did exercise together and he would teach me what he has learnt. Now we have built a better relationship.” (Housewife, 40-49 yr, 1P07)<br><br>“關係就應該好咗嘅，因為起碼一齊做運動呀，即係話題會多咗啲。” (家庭主婦，40-49 歲，2P07)<br>“Our relationship is better. At least we exercise together, and thus have more topics (to talk about).” (Housewife, 40-49 yr, 2P07) |
| Challenges and strategies | Challenges in personal behavioural changes | ***<u>Unable to engage in PA due to time limit</u>***<br><br>“有時功課多做唔晒，嗰日可能都做唔到（運動）…有時功課做得晏，搞掂就要瞓覺無做到(運動)，多數禮拜會做（運動）囉。” (家庭主婦，30-39 歲，1P05)<br>“Sometimes they have too much homework, so they are unable to do (exercise). Sometimes they do homework till so late and almost time to sleep, they are also unable to do (exercise). Most of the time, they exercise during the weekends.” (Housewife, 30-39 yr, 1P05) |

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| | | “同埋做運動呢啲呀，好似我哋呢啲家庭主婦呀，湊仔，又要送埋飯，無時間做運動。” (家庭主婦，40-49 歲，4P04)<br>“For physical activity, housewives like us need to take care of children, and deliver meals to them, we do not have time to exercise.” (Housewife, 40-49 yr, 4P04)<br><br>***<u>Embarrassment in practicing ZTEx</u>***<br><br>“佢（身邊既人）話我傻嘅，話我哋幾婆孫都傻嘅。” (家庭主婦，50-59 歲，1P03)<br>“They (people around us) thought I was crazy, and so are my grandchildren.” (Housewife, 50-59 yr, 1P03)<br><br>“我成日送細路返學，fing（擺）吓手 fing（擺）吓腳一路返，人地都覺得「癲婆呀？」。” (家庭主婦，30-39 歲，4P08)<br>“When I walk my kids to school, I swung my hands and legs. Other people thought, ‘Are you crazy?’” (Housewife, 30-39 yr, 4P08)<br><br>***<u>Laziness in maintaining the habit of ZTEx</u>***<br><br>“其實呢個運動我覺得係好好㗎，即係如果推廣起上來，不過問題係我自己懶囉真係…” (家庭主婦，40-49 歲，2P07)<br>“Actually, I believe this exercise is very good, I mean if it could be promoted widely, but the problem is my laziness…” (Housewife, 40-49 yr, 2P07)<br><br>“知道係有益啦，知道平時要多了解，知道可以多啲做吓運動呀，對身體好。其實都知嘅，不過平時懶。” (家庭主婦，40-49 歲，3P09)<br>“I know it was beneficial; I know I should know more about it; I know I can do more exercises and they are good to our health. I know that, but I am just lazy.” (Housewife, 40-49 yr, 3P09)<br><br>***<u>Difficulties in reading food labels</u>***<br><br>“又唔會話好認真睇個標籤，而且個標籤都好老實講真係好細。” (家庭主婦，40-49 歲，3P09) |

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| | | “We would not carefully read the food label, and to be honest, the food label was too small.” (Housewife, 40-49 yr, 3P09)<br><br>“睇但係睇唔明佢寫乜嘢，除非佢係中文字，但好多時都係英文無中文嘅，所以睇嚟都嘥氣（費氣力）。” (家庭主婦，30-39 歲，4P08)<br><br>“(I) have tried to read (food label) but cannot understand. Unless it is written in Chinese, but most of the time they are written in English, so it is meaningless to read.” (Housewife, 30-39 yr, 4P08) |
| | Barriers in motivating family member | ***Enough exercise already***<br><br>“我老公返工好辛苦，成日叫親做運動佢都話「好攰呀，我夠曬運動啦」。” (家庭主婦，40-49 歲，3P09)<br><br>“My husband work strenuously. Whenever I tell him to do exercise, he says, “So tired. I have enough exercise already.” (Housewife, 40-49 yr, 3P09)<br><br>“我老公本身有打網球，的確又 fit（健碩）過我，所以永遠話「呢啲嘢你自己搞得㗎喇，我有足夠運動」。 (家庭主婦，30-39 歲，1P06)<br><br>“My husband plays tennis, and he is indeed fitter than me. Therefore, he always tells me, ‘Do not get me involved in this. I already have enough exercise.’” (Housewife, 30-39 yr, 1P06)<br><br>***Need frequent reminders***<br><br>“有時嗌佢就做一陣間（運動），即要你喺度睇實佢先至做囉，同佢一齊做囉。” (家庭主婦，40-49 歲，3P07)<br><br>“Sometimes when I ask him to do (exercise), I have to be here to watch him or do it together with him.” (Housewife, 40-49 yr, 3P07)<br><br>“話佢咪郁兩嘢囉，有時見佢打機，我話「伸直吓條腰啦」，佢咪真係直一直囉。” (家庭主婦，40-49 歲，3P09)<br><br>“When I tell him to do exercises, he would make some movements. Sometimes when I see sim playing video |

| Theme | Subtheme | Quotes |
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| | | games, I asked him, 'Keep sitting straight!' And he sits straight." (Housewife, 40-49 yr, 3P09) |
| | Strategies | ***Calendar worksheet facilitated habit formation***<br><br>"見到張（日曆工作）紙先會記到（做三零運動），做多兩吓啦。(受僱，女，40-49 歲，3P10)<br>"When I saw it (calendar worksheet), I remembered to do (3-Zero Exercise). Then practice a while." (Employee, female, 40-49 yr, 3P10)<br><br>"如果你唔係貼喺度呢，呀細佬唔提我好多時都唔記得㗎，因為貼咗喺門嘅後邊呢，啲細路睇見貼咗張嘢喺度，「阿媽咪你今日做咗未呀？要剔㗎！」，咁你先記得㗎嘛。" (家庭主婦，40-49 歲，3P09)<br>"If you did not post it here, most of the time I would forget without my children's reminders. Because it was posted on the back of the door, the children saw it and would ask, 'Mom, have you done it today? You need to tick here!' Then you remember." (Housewife, 40-49 yr, 3P09)<br><br>***Electronic message as a good reminder***<br><br>"姑娘都有時候都成日打來，WhatsApp 提我哋。" (家庭主婦，40-49 歲，2P05)<br>"Sometimes they gave use a phone call, or reminded us via WhatsApp." (Housewife, 40-49 yr, 2P05)<br><br>"（短訊）時時提醒我哋添呀。" (家庭主婦，30-39 歲，4P08)<br>"(Electronic messages) always reminded us." (Housewife, 30-39 yr, 4P08)<br><br>***Demonstrate a role model to children***<br><br>"你照做（示範）比佢睇，唔好刻意講，講反而有種抗拒，你唔講照做佢其實就喺度學緊，遲早一日佢一定會用得返。" (受僱，女，30-39 歲，1P06)<br>"(You should) just demonstrate to him and do not deliberately tell them. Well you tell them, they may resist. Even without explanation, they are still learning. They will practice sooner or later." (Employee, female, 30-39 yr, 1P06) |

| Theme | Subtheme | Quotes |
|---|---|---|
| | | “佢（仔）又唔想做嘅時候就會話「好煩呀，阿媽」， 咁我自己會做，佢睇睇吓就會跟住做。” (家庭主婦，30-39 歲，2P02)<br>“When he (my son) did not want do exercise, he would say, ‘You are so annoying, Mom!’ Then I would do it by myself and he would follow me after he watched for a while.” (Housewife, 30-39 yr, 2P02)<br><br>***<u>Family influence</u>***<br>“我老公都係唔係好想郁，但慢慢都一齊做，同埋個女，個女叫佢先肯。” (家庭主婦，40-49 歲，1P07)<br>“My husband was reluctant to try, but gradually he has started doing with us together, only if our daughter asks him to.” (Housewife, 40-49 yr, 1P07)<br><br>“我都覺得係嘅，叫佢（老公）去游水又唔願郁，細佬叫佢就乜都得。” (家庭主婦，40-49 歲，3P09)<br>“I thought so. (If I) asked him (husband) to swim, he was unwilling to go. If our son asks him to, he will do anything.” (Housewife, 40-49 yr, 3P09)<br><br>***<u>Prepare for family members</u>***<br>“我朝早洗咗擺喺廳攞個兜裝住呀嘛，返來都個個自動自覺食，依樣嘢好。” (家庭主婦，30-39 歲，4P08)<br>“In the morning, I wash (fruit) and put them in a box in the living room. They will initiatively eat fruit when they come home, which is good!” (Housewife, 30-39 yr, 4P08)<br><br>“我個女朝朝早都叫我帶一個蘋果比佢，咁驚個蘋果變色呀嘛，咁我用鹽水浸住佢。” (家庭主婦，40-49 歲，4P04)<br>“My daughter asks me to bring an apple to her every morning, but the apple would go brown, and so I soak it into brine.” (Housewife, 40-49 yr, 4P04) |
| Suggestions and Recommenda-tions | / | ***<u>Invite other family members</u>***<br><br>“我諗係多啲親子一齊參與，唔係淨係大人。” (家庭主婦，40-49 歲，2P03) |

| Theme | Subtheme | Quotes |
|---|---|---|
| | | "I think more parent-child participation, not just only adults." (Housewife, 40-49 yr, 2P03)<br><br>"除咗自己健康，可能有時會邀請先生一齊做…始終都係講緊一個 family（家庭）咁計，邀請埋佢嘅時候先係做到個目標。" (家庭主婦，40-49 歲，1P07)<br>"Apart from personal health, sometime may also invite my husband to do together…Anyway, this programme is about family, must include him to achieve the aim." (Housewife, 40-49 yr, 1P07)<br><br>***<u>More interactive activities</u>***<br><br>"活動其間唔好大家坐喺度，可以多啲互動，可能做唔同運動…可能氣氛會開心啲，唔會好似次次都來淨係坐定定。" (家庭主婦，50-59 歲，1P03)<br>"Not to sit still during the activity. More interaction, maybe do some different exercises…Maybe the atmosphere would be much happier, so it will not seem every time we come we just sit still." (Housewife, 50-59 yr, 1P03)<br><br>"真係要多啲互動，其實嚟得呢啲活動都係想認識多啲，變咗多啲一齊起身做運動，郁吓會好啲。" (家庭主婦，30-39 歲，1P06)<br>"Really need to be more interactive. In fact, people join this programme to know more (health information), so do more exercise together will be better." (Housewife, 30-39 yr, 1P06)<br><br>***<u>Reduce the duration between each session</u>***<br><br>"可以密少少，即係唔好咁疏囉！" (家庭主婦，40-49 歲，2P04)<br>"The schedule could be packed closer together, that the interval between sessions could be shorter!" (Housewife, 40-49 yr, 2P04)<br><br>"多啲堂數同埋時間唔好隔得太耐。" (家庭主婦，30-39 歲，4P08) |

| Theme | Subtheme | Quotes |
|---|---|---|
| | | "(Better to have) more sessions with shorter intervals." (Housewife, 30-39 yr, 4P08)<br><br>***<u>Include outdoor activities</u>***<br><br>"真係出去室外嘅地方玩活動囉！" (家庭主婦，40-49 歲，2P04)<br>"Really go outdoors to conduct activities!" (Housewife, 40-49 yr, 2P04)<br><br>"我會提議呢，如果真係提倡我哋做運動，最好帶我哋去室外，一邊講嘢一邊做吓運動，咁就最好㗎啦，反而來個室內呢，出唔到汗呀。" (家庭主婦，30-39 歲，4P08)<br>"I would suggest that if you really want us to do more exercise, maybe you could bring us to the outdoors. Introduce the content while doing exercises, that would be better. Instead we stayed indoors, we could not get to sweat." (Housewife, 30-39 yr, 4P08)<br><br>***<u>Include yoga exercises</u>***<br><br>"可以加多瑜伽方面嘅運動。" (家庭主婦，30-39 歲，3P02)<br>"Could include some yoga exercise." (Housewife, 30-39 yr, 3P02)<br><br>"其實瑜伽都好嘅，對身心健康嘅，我都有玩㗎！" (家庭主婦，40-49 歲，3P09)<br>"Actually, yoga is good and it is beneficial to both physical and mental health. I practice yoga as well!" (Housewife, 40-49 yr, 3P09)<br><br>***<u>More reference materials</u>***<br><br>"可以有短片，做完可能唔記得，可以播返比佢睇，播得多就記得㗎嘛。" (家庭主婦，30-39 歲，1P01) |

| Theme | Subtheme | Quotes |
|---|---|---|
| | | "Could have some short videos. Maybe we forgot after practicing, so we can play back. We play back a couple times, then we can remember." (Housewife, 30-39 yr, 1P01)<br><br>"我都好鍾意做運動啦，但你話做運動又好似無乜方向，因為個個人既情況都唔同，即好唔好好似食糖咁整本書仔...等我揀。" (家庭主婦，40-49 歲，3P04)<br>"I really like doing exercise as well. Sometime I do not know where to start, as everyone's situations are unique. Can you just like promoting healthy diet that we have a booklet…to choose exercise from it." (Housewife, 40-49 yr, 3P04) |

#### 4.3.4.2 Phone interviews with the social workers in the TTTA

Three registered social workers expressed their opinions and feedbacks on the training workshop through phone interviews in November 2016, at three months after training.

The main themes from the focus groups included "Impression on the training workshop", "Views on the effectiveness", and "Influence on organisation practice". The trainees commented that the workshops used an innovative approach and were comprehensive. The training increased the awareness of health and improved their communication in the family. The atmosphere of exercising in the office was strong. They applied the learning in developing activities for their service users.

The main themes, subthemes, and categories relevant to the research questions in Chinese are illustrated below with translated quotations in English.

Quotes from the social workers who joined the phone interviews are summerized in table 4.12.

Table 4.12 Quotes from the social workers in the TTTA

| Theme | Subtheme | Quotes |
|---|---|---|
| Impression on the training workshop | Precious experience | ***An innovative approach***<br><br>“首先，我覺得，因為我哋要 deliver（傳達）呢啲訊息俾啲服務使用者，我覺得來個（三零運動）係好新嘅類型，咁幾好嘅。因為唔係成日淨係坐喺度理性講咁樣啦，咁幾動態同埋可以擺入去生活當中，咁我覺得不單止對服務使用者有一個幫助啦，而且我又覺得係另類一啲囉。” (社工，女，9 年經驗，電話訪談 1，P01)<br><br>“Firstly, I think, as we need to deliver these messages to our service users, this (3-Zero Exercise) is innovative, which is good. Since participant did not just sit here to listen to lecture, but quite interactive and easy to integrate into daily life. I think not only benefit to our service users, it is new to us as well.” (Social worker, female, 9 yr experience, phone interview 1, P01)<br><br>“三零好欣賞呢，就係因為喺三零運動裡面呢，我覺得喺香港做 Family work（家庭服務）係少咗範疇，覺得 health（健康）唔係禁重要嘅，成日講 relationship（關係），但係無諗過一啲其實唔駛禁嚴肅，即可能一齊，我哋做一個三零運動，其實可能同 health（健康）有關，笑吓，咁已經係好簡單。” (社工，女，29 年經驗，電話訪談 3，P01)<br><br>“3-Zero Exercise, I really appreciate because this is the aspect that is omitted by the family service in Hong Kong. We did not think health is important, we just focused on relationship. We did not try something less formal. Maybe just do some 3-Zero Exercise together, it is related to our health, some laughter, that simple.” (Social worker, female, 29 yr experience, phone interview 3, P01)<br><br>***A comprehensive workshop including different elements***<br><br>“我反而都幾鍾意個短片呀…因為呢好似唔駛成日你喺度講囉，好似佢哋有啲特約演員喺度做咁囉。” (社工，女，9 年經驗，電話訪談 1，P01)<br><br>“Instead, I like those video clips very much… Since it was not just lecturing all the time, there were some actors |

| Theme | Subtheme | Quotes |
|---|---|---|
| | | performing in the video." (Social worker, female, 9 yr experience, phone interview 1, P01)<br><br>"兩個小時，其實係一個簡單嘅體驗，介紹吓三零運動係啲乜啦，何謂「三零」啦，有啲咩特點呀。跟住一啲 experience（體驗）啦，Exercise（運動）去體驗吓，坐喺度有咩運動可以做吓，或者企喺度，有啲咩運動做吓，一齊做囉。" (社工，男，10 年經驗，電話訪談 2，P01)<br>"A two-hour workshop, which provided a simple experience. Introduced what 3-Zero Exercise is. What was the concept of "3-Zero" and its characteristics. Experienced some exercises could be done while sitting or standing. Practice together." (Social Worker, male, 10 yr experience, phone interview 2, P01) |
| | Views on the effectiveness | ***Increased health awareness***<br><br>"我覺得都幾好，會知道原來平衡力咁重要，尤其是我哋…aging population （人口老化）啦，...咁我覺得呢個係個好好嘅 awareness（意識）呀，比啲人知道多啲囉咁。" (社工，女，9 年經驗，電話訪談 1，P01)<br>"I think it was quite good, make me aware that balance is so important, especially there is an aging population… So I think it raises our awareness. We should let more people know." (Social worker, female, 9 yr experience, phone interview 1, P01)<br><br>***Enhanced family communication***<br><br>"原來我十世都未掂過我個囡㗎，做吓三零運動摸吓佢呢，呢個好特別嘅接觸，我哋覺得好，同埋容易入腦。" (社工，女，29 年經驗，電話訪談 3，P01)<br>"I have not touched my daughter for many years. Doing ZTEx enables me to this special contact with her. We think this is good and easy to learn." (Social worker, female, 29 yr experience, phone interview 3, P01) |

| Theme | Subtheme | Quotes |
|---|---|---|
| | Influence on organisation practices | ***Promoted exercise atmosphere in workplace***<br><br>"「你哋都有 family（家人） 㗎…噚你照顧好自己先，office（公司）裡面做咗三零，返屋企做咗三零」，咁佢哋就覺得，機構關心佢哋嘅 family health（家庭健康）喎，又關心佢哋 staff（職工）嘅 well-being（福祉）喎，咁其實幾易入腦，咁我哋覺得呢，如果呢類 project（計劃）容易讓人去 integrate（融入生活）。" (社工，女，29 年經驗，電話訪談 3，P01)<br><br>"We told our colleagues, 'You all have family. Take care yourself by doing 3-Zero Exercise in the office first. And then bring this home.' Then those staff would have thought their organisation is concerned about their family health, and also their own well-being. Actually, it is easy to learn. And we also believe this kind of project is easy to be integrated to their daily lives." (Social worker, female, 29 yr experience, phone interview 3, P01)<br><br>***Applied the learning in practice***<br><br>"我有試過喺我 run（運作）緊嘅男士組嗰度試過，咁就接連一啲關於運動嘅 activity（活動）一齊去做咁囉，有一節做三零運動，之後可能做一啲打乒乓波呀，一啲 outing（戶外）嘅 activity（活動）…" (社工，男，10 年經驗，電話訪談 2，P01)<br><br>"I have tried (3-Zero Exercise) in an ongoing male group. Integrated in those activities related to exercising, for example a session of ZTEx, and then followed by ping-pong ball session, or other outing activity." (Social worker, male, 10 yr experience, phone interview 2, P01)<br><br>"因為我主力其實都係負責一啲義工服務，所以都同同事一齊夾就喺 6 月份，今年嘅 6 月份，就搞咗一個義工嘅交流會，咁就係一個三零運動嘅簡單體驗工作坊。" (社工，男，10 年經驗，電話訪談 2，P01)<br><br>"My major duties include coordinating volunteering service. So, I discussed with other colleagues that in June, June of this year, to organise a sharing session among the volunteers, which is a simple 3-Zero Exercise experiencing workshop." (Social worker, male, 10 yr experience, phone interview 2, P01) |

#### 4.3.4.3 In-depth individual interviews with the committee members and IFSC staff

##### *4.3.4.3.1 Composition of the interviews*

A total of five in-depth interviews were conducted with eight registered social workers and one clerical staff. The interviewees included:

- Three registered social workers, who were the members of the steering committee;
- Two key registered social workers, who delivered the interventions;
- One clerical staff, who was responsible for the clerical work of the programme; and
- Three registered social workers of Integrated Family Service Centres.

##### *4.3.4.3.2 Demographic Characteristics*

A total of nine committee or IFSC staff were interviewed in January 2016. Table 4.13 shows that two-third of the respondents were female (67%) and 90% of respondents had tertiary education.

Table 4.13 Demographic characteristics of participants in in-depth interview (n=9)

| Characteristics | n (%) |
|---|---|
| **Sex** | |
| Male | 3 (33.3) |
| Female | 6 (66.7) |
| **Age of group (years)** | |
| 25-34 | 3 (33.3) |
| 35-44 | 3 (33.3) |
| 45-54 | 2 (22.2) |
| 55-64 | 1 (11.1) |
| **Education** | |
| Secondary 6-7 | 1 (11.1) |
| Bachelor Degree and above level | 8 (88.9) |

#### *4.3.4.3.3 Qualitative findings*

Table 4.14 Quotes from the committee members and IFSC staff

| Themes | Subthemes | Quotes |
|---|---|---|
| General impression towards project | Positive image | “大家都會覺得係正面，好容易接受嘅計劃來嘅。” (社工，女，5 年經驗，深入訪談 3，P02)<br>“They felt this project positive and easy to accept.” (Social Worker, female, 5 yr experience, in-depth interview 3, P02)<br>“成個計劃係輕鬆啦，好正面嘅，家長嘅反應其實都係喜歡嗰個活動咁樣。” (社工，女，26 年經驗，深入訪談 3，P01)<br>“The entire project was easy and positive. Participants’ reactions were they like this project.” (Social worker, female, 26 yr experience, in-depth interview 3, P01) |
| | Interactive design | “佢哋可以喺個活動裡面有經驗，然後返到去會實踐，跟住再返來講返佢個真實體驗。” (社工，女，26 年經驗，深入訪談 3，P01)<br>“They could gain experiences from the programme, bring home to implement and come back to share their practices.” (Social Worker, female, 26 yr experience, in-depth interview 3, P01)<br>“第一次個 client（參加者）來呢，就好似一個 game day（同樂日）咁，輕鬆啲，唔係淨係有啲問卷填咁複雜，佢哋好自然覺得來四次無問題。” (社工，女，29 年經驗，深入訪談 4，P01)<br>“The first time the client (participant) came, it was like a game day. It was easy, not like filling some complicated questionnaires. Therefore, they were willing to attend four times.” (Social worker, female, 29 yr experience, in-depth interview 4, P01) |
| | Bring impacts to whole community | “你搵一個家庭來 train up（培訓）佢，其實一路會散開去囉，咁嗰個咪就係社會，一定係會影響到，用一個家庭來做一個基石我覺得係啱嘅一個方向。” (社工，女，28 年經驗，深入訪談 5，P01)<br>“You train up a family, the influence will spread out, which is society. Therefore, it brings changes to society. I believe targeting family as the cornerstone is a right direction.” (Social worker, female, 28 yr experience, in-depth interview 5, P01) |

| Themes | Subthemes | Quotes |
|---|---|---|
| | | “我自己覺得呢，如果受眾越多呢，就影響到社會，因為佢哋知道健康重要，而健康係好難買返來，但係亦都唔駛用好多努力。咁如果大家全部關注返個身體健康呢，可能對將來社會老年化嚟講呢，其實個公共衛生嘅開支係幫緊政府慳緊錢囉。” (社工，女，29 年經驗，深入訪談 4，P01)<br><br>“I believe, with the more beneficiaries, it will bring more positive impact to society. Since they know the importance of health, which is not purchasable, meanwhile not much effort is needed. If everyone all concern about their physical health, in terms of an aging society, the expenditure in public health is saving money for the government.” (Social worker, female, 29 yr experience, in-depth interview 4, P01) |
| | Participants interested in health-related programme | “佢哋（參加者）so far（到目前為止）無論係做運動同埋健康飲食，姐我諗講緊一個健康嘅生活模式，我諗其實佢哋都有興趣嘅。” (社工，女，5 年經驗，深入訪談 3，P02)<br><br>“Regardless exercise or healthy diet, I think it was more like a healthy life style, I believe they (participants) were interested.” (Social worker, female, 5 yr experience, in-depth interview 3, P02)<br><br>“我諗牽涉健康、飲食都比較興奮同雀躍，因為比較貼近自己嘅健康，咁所以都好嘅。” (社工，女，7 年經驗，深入訪談 1，P03)<br><br>“I think if it was about health or diet, they were more excited and motivated. Since it was more related to their health, therefore it was also good.” (Social worker, female, 7 yr experience, in-depth interview 1, P03) |
| | Focus in both health and parental relationship | “又唔係淨係話做運動，搵老師教你健康咁簡單，而係加入咗 involve family cohesion（家庭凝聚力）嘅元素...係可以同啲小朋友或者返屋企同老人家增強親子關係。” (社工，女，29 年經驗，深入訪談 4，P01)<br><br>“It was not only about physical activity, or as simple as inviting a speaker to teach you how to be healthy, it involved the element of family cohesion. It enabled enhancement of close relationship with children and elderly at home.” (Social worker, female, 29 yr experience, in-depth interview 4, P01) |

| Themes | Subthemes | Quotes |
|---|---|---|
| | | “就係我哋唔係淨係講運動飲食，而係我哋會攏（連）到去講家庭關係，希望參加者帶呢啲訊息返去，同佢仔女呀、屋企家人一齊做。” (社工，女，28 年經驗，深入訪談 5，P01)<br>“That we were not only covering physical activity and diet, we linked it to family relationship. We hoped participants to bring home these messages, to practice with their children and other family members.” (Social worker, female, 28 yr experience, in-depth interview 5, P01) |
| | Territory-wide coverage | “Coverage（覆蓋面）係好廣嘅，因為佢喺 IFSC（（綜合家庭服務中心），姐係分佈喺香港、九龍、新界都有。” (社工，男，16 年經驗，深入訪談 2，P01)<br>“The coverage was very wide as they worked with IFSC, which were scattered throughout Hong Kong Island, Kowloon and New Territories.” (Social worker, male, 16 yr experience, in-depth interview 2, P01)<br>“去到嘉年華嘅時候（參加者）話：「吓咁多人㗎咩？咩原來咁多人都一齊做呢一樣嘢㗎？」，因為覺得唔係淨係自己，甚至乎去到全港九喇基本上，原來大家有好多同行者，感覺好鼓舞。” (社工，女，7 年經驗，深入訪談 1，P03)<br>“Arriving at the carnival, ‘That many people? That many people are doing this thing together?’ (a participant) said. Since they did not feel that they were only on their own, it was basically all over the Hong Kong. Actually they had so many accompanies. They felt so enthusiastic.” (Social worker, female, 7 yr experience, in-depth interview 1, P03) |
| | Practical information | “佢用雙眼去睇、用 motor（身體活動）多嘅，就唔係需要好多 verbal（言語）喇，因為其實有啲 client（參加者）講嘢能力唔係好高。” (社工，女，29 年經驗，深入訪談 4，P01)<br>“They relied on their eyes to observe and motor skills more, which mean not requiring much verbal skills. Actually some clients’ (participants’) verbal skills were not good.” (Social worker, female, 29 yr experience, in-depth interview 4, P01)<br>“佢哋可以喺個活動裡面有經驗，然後返到去會實踐，跟住再返來講返佢個真實個體驗。” (社工，女，26 年經驗，深入訪談 3，P01)<br>“They could gain experiences from the programme, brought home to implement and came back to share their |

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| | | experiences." (Social worker, female, 26 yr experience, in-depth interview 3, P01) |
| | Good family time and gathering | ***Provide valuable family time***<br><br>"雖然個場地呢未必係最理想，即係未必你可以好大聲呀，好靜咁樣聽到，但係成個氣氛，係好好，亦都好欣賞好多謝個 project（計劃），可以俾到一個咁樣嘅機會，一家人一齊來。" (社工，女，28 年經驗，深入訪談 5，P01)<br>"Although the venue might not be ideal, like you could not speak loudly or listen quietly, the atmosphere was great. I really appreciated and thankful to the project allowing such an opportunity for the participants to come with their family." (Social worker, female, 28 yr experience, in-depth interview 5, P01)<br><br>"其實我觀察自助餐（茶聚）嗰日其實就除咗我哋食之外，中間仲有好多活動同佢哋一齊影相啊、一齊做吓運動，咁就有啲獎勵，其實都見到一家大細係好開心一齊去參與囉。" (社工，男，12 年經驗，深入訪談 1，P01)<br>"During the day of buffet (tea gathering), I observed that besides dining, many activities, like photo shooting and exercising, were designed for families in between the activities. I saw that the families were participating together happily." (Social worker, male, 12 yr experience, in-depth interview 1, P01)<br><br>***Bring impact to family***<br><br>"其實透過一個 buffet（茶聚），佢可以邀請埋佢屋企人來一齊參加，起碼有一個咁樣嘅 means（方法）讓到佢屋企裡面其他嘅成員呢都知道原來呢個就係三零運動。" (社工，男，10 年經驗，深入訪談 1，P02)<br>"With a buffet (tea gathering), they could invite their family members to join them. At least having such means to enable their family members to know this is called ZTEx." (Social worker, male, 10 yr experience, in-depth interview 1, P02) |

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| | | “因為成個家庭去做 intervention（干預）呢，咁就個家長、小朋友一齊去，一齊去做三零運動呢，我覺得個果效係好嘅。” (社工，男，16 年經驗，深入訪談 2，P01)<br><br>“As we conducted intervention to the whole family, the parents and children attended and practiced ZTEx together. I believe the effectiveness was good.” (Social worker, male, 16 yr experience, in-depth interview 2, P01) |
| | Innovative ZTEx | ***Suitable to the whole community***<br><br>“我哋嗰區比較多基層一啲嘅市民嘅時候，變咗佢哋未必可以每個月用好多嘅費用去做健康嘅嘢，咁佢哋知道有呢樣嘢嘅時候，對佢哋來講其實係簡單、易學、好用，其實好好喇。” (社工，男，12 年經驗，深入訪談 1，P01)<br><br>“When there were more grass-roots citizens in our district, they might not be able to spend much money to do something related to their health. Once they have known this, which is something simple, easy to learn and useful to them, that is already very good.” (Social worker, male, 12 yr experience, in-depth interview 1, P01)<br><br>“之前啲同事會覺得其實家庭（服務使用者）唔做運動係因為大家無時間、無資源，咁所以要慢慢令佢感受到唔係一定要好多時間嘅，唔係一定要好多錢，亦都唔係一定要有間 gym room（健身室）咁先可以嘅。” (社工，女，29 年經驗，深入訪談 4，P01)<br><br>“Previously our colleagues felt some families (service users) were not doing exercise because they did not possess time and resources. Therefore, we shell gradually let them experience that exercising is not necessarily time consuming, costly, and need not be in a gym room.” (Social worker, female, 29 yr experience, in-depth interview 4, P01)<br><br>***Believe in exercise outcome***<br><br>“因為其實都易實踐嘅，即係個三零運動，咁所以其實你話，係咪真係做到嗰個果效（提升體能活動量）呀，我覺得都做到嗰個果效嘅。” (社工，男，16 年經驗，深入訪談 2，P01) |

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| | | "Since it was actually quite pragmatic, I mean the ZTEx, so if you want to know whether it will achieve the purpose (enhancing participants' activity level), yes it can." (Social worker, male, 16 yr experience, in-depth interview 2, P01)<br><br>"即係都會覺得呢個（三零運動）係好簡單易學嘅一樣嘢，係好值得去推廣俾…尤其是我哋嗰度啲基層市民多呢，變咗真係可以再落多步。" (社工，男，12 年經驗，深入訪談 1，P01)<br>"That is, I feel this (3-Zero Exercise) is something very simple and easy to learn. It worth promoting to… Especially there are many grass-roots residents in my district, actually we truly should disseminate it further." (Social worker, male, 12 yr experience, in-depth interview 1, P01) |
| Collaboration between FAMILY Project Team and Caritas IFSC | Academic input from FAMILY Project Team | "我諗我哋作為慈善社工未必咁知道一啲嘅知識嘅時候，咁變咗香港大學呢邊去講多啲呢個部份係好嘅，有啲嘢就容易啲講解。" (社工，男，12 年經驗，深入訪談 1，P01)<br>"I believe we as charity social workers, there was some particular knowledge that we might not know well. Letting HKU to cover those parts would be good, since the explanation would be easier. " (Social worker, male, 12 yr experience, in-depth interview 1, P01)<br><br>"可能健康或者運動有啲咩好處嗰啲就大學嗰邊可以提供好多專業知識嘅分享啦。" (社工，女，7 年經驗，深入訪談 1，P03)<br>"Maybe things like health or benefits of physical activity, HKU can provide much precise professional knowledge for sharing." (Social worker, female, 7 yr experience, in-depth interview 1, P03) |
| | Reputation of HKU | "如果社工去講健康講飲食呢，就唔係我哋嘅專長喇，但係大學呢林教授話做咩嘢嘅運動、點樣飲食、各樣嘢呢，我覺得社區嗰到，就會好受落呀，即係相信程度都會高。" (社工，女，28 年經驗，深入訪談 5，P01)<br>"If letting social workers to introduce health and diets, those were not our specialties. If it was HKU's Professor Lam explaining some kind of exercises, how to eat and drink, or any other things else, it would be convincing. I mean it would |

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| | | be more persuasive." (Social worker, female, 28 yr experience, in-depth interview 5, P01)<br><br>"HKU（香港大學）公共衞生學院，咁你有哂科學引證，譬如話林教授一個醫生...唔係 social worker（社工）講，係一個 professional（專業人士）。" (社工，女，29 年經驗，深入訪談 4，P01)<br>"HKU School of Public Health, with all your scientific evidence, like Professor Lam as a doctor, not Social worker, but a professional." (Social worker, female, 29 yr experience, in-depth interview 4, P01) |
| | Practical experiences from IFSC | "咁同埋我諗係我哋嘅經驗啦，因為我哋多 centre（中心）呢，乜（新事物）都有同事試，咁試完我哋又會 share（分享）返呢啲經驗。" (社工，女，29 年經驗，深入訪談 4，P01)<br>"And I think it is our experience. Since we have many centres, we have colleagues to try out (any new method). And they will also share their experiences." (Social worker, female, 29 yr experience, in-depth interview 4, P01)<br><br>"我哋有啲位呢其實係前期嗰度我哋都好極力爭取，我哋話：「係唔係可以唔好咁樣呀？」，咁我覺得嗰個堅持同埋我哋認識啲 users（服務使用者），係好重要嘅。" (社工，女，28 年經驗，深入訪談 5，P01)<br>"Some particular occasions in the early stage that we pursued persistently, 'Is it possible not to do that way?' we said. I believed the determination and our understanding of our users (participants) were very important." (Social worker, female, 28 yr experience, in-depth interview 5, P01) |
| | Unfamiliar topic for IFSC | "哪一般呢，我哋（家庭服務）真係少去主力講個健康、講飲食、做運動呢樣嘢嘅，一般我哋都係講家庭關係。" (社工，女，28 年經驗，深入訪談 5，P01)<br>"Basically, we (family service) rarely focused on topics like health, diet or physical exercise. Mostly we talk about family relationship." (Social worker, female, 28 yr experience, in-depth interview 5, P01)<br><br>"如果牽涉到一啲健康、一齊去為著自己嘅健康做啲嘢呢，咁我諗喺我哋 centre（中心）係少嘅。" (社工，男，10 年經驗，深入訪談 1，P02) |

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| | | “Topics involving health or doing something for their health together are rarely included in our centres.” (Social worker, male, 10 yr experience, in-depth interview 1, P02) |
| | Relatively more active and positive approach for IFSC | “（慣常）家長教育或者家長小組的模式較為...problem solving（解決問題）...好多時候將個注意力擺咗喺佢哋個問題呀、做唔到呀、困難上面。佢（「健易樂」）會分享佢（參加者）自己做得到嘅地方、有咩好，焦點係一個正面嘅方面去處理。” (社工，女，26 年經驗，深入訪談 3，P01)<br><br>“ (Usually) the patterns of parent education or parent group are more…problem solving. Most of the time they put the attention to their problems, what they cannot do or the obstacles. This project enabled them (participants) to share what they are capable to do and the benefits. The focus was handling problem in a positive way.” (Social worker, female, 26 yr experience, in-depth interview 3, P01)<br><br>“其實 IFSC（綜合家庭服務中心）俾街坊印象可能都係一啲補救性，專係處理啲問題家庭嗰啲咁，好多 programme（活動）都係 problem oriented（問題主導），今次果個計劃我覺得好正面嘅，係一個 de-labelling（去標籤化）嘅效果，一啲正向嘅活動，因為透過運動去促進大家嘅關係。” (社工，男，16 年經驗，深入訪談 2，P01)<br><br>“Actually, the image of IFSC to the community is remedial, which is specialized to handle those families with problems. Many of our programmes are problem oriented. I felt this project was positive. It gave a “de-labelling” effect with some positive programmes, since it aimed at enhancing relationship through exercising.” (Social worker, male, 16 yr experience, in-depth interview 2, P01) |
| | Smooth recruitment done by IFSC | ***Enthusiastic response during recruitment***<br><br>"咁我哋收其實最多係 90 人，咁後尾我就同 XXX（專責社工）傾可唔可以加位，咁後尾加到百二啦。” (社工，男，10 年經驗，深入訪談 1，P02)<br><br>“Our recruitment was at most 90 participants, but at the end I discussed with XXX (Project social worker) to see if it was possible to open up some quota. At last we expanded to 120.” (Social worker, male, 10 yr experience, in-depth interview 1, P02) |

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| | | “其實我哋真係唔係話落好多時間做宣傳，但係就好快去到我哋目標個人數囉。” (社工，男，12 年經驗，深入訪談 1，P01)<br>“Actually, we didn’t spent much time in publicity, but we reached targeted recruitment number soon after.” (Social worker, male, 12 yr experience, in-depth interview 1, P01)<br><br>***<u>Good preparation work</u>***<br><br>“本身個計劃已經有個 screening（篩選）嘅問卷借俾我哋去幫手做 screening（篩選）呢，我哋都會即刻有個初步嘅接觸。” (社工，男，12 年經驗，深入訪談 1，P01)<br>“This project provided us a questionnaire for screening purpose, and we would have an immediate follow up.” (Social worker, male, 12 yr experience, in-depth interview 1, P01)<br><br>“我哋 screening（篩選）就唔係太困難，因為即係其實都好 details（詳細），即係你哋直情有埋嗰個電話篩選指引呢，即係我哋都係跟住講㗎即。” (社工，男，10 年經驗，深入訪談 1，P02)<br>“Our screening procedures were not difficult. As it was actually so detailed, in which telephone screening instructions were provided, we were just following the scripts.” (Social worker, male, 10 yr experience, in-depth interview 1, P02)<br><br>***<u>Not a problem solving approach</u>***<br><br>"因為可能健康呢個 topic（主題）都關於自身嘅嘢，相對來講你話好似去參加啲「促進親子關係」，咁反而更加令到小朋友會抗拒唔肯去，但係如果一齊做運動，咁反而都願意去一齊做吓。” (社工，女，7 年經驗，深入訪談 1，P03)<br>"Maybe because this topic, health, is related to themselves. Comparatively speaking, like attending a “promoting parental relationship” programme, children would resist to go. As if it is doing exercise together, they are willing to go |

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| | | together." (Social worker, female, 7 yr experience, in-depth interview 1, P03)<br><br>"（計劃）其實比較…因為佢唔 labelling（標籤）啊，所以 client（參加者）嘅參與率呢係比較容易嘅。" (社工，女，29 年經驗，深入訪談 4，P01)<br>"(This project) is comparatively…Since it was not labelling, so client's (participant's) participation rate would be easier to achieve." (Social worker, female, 29 yr experience, in-depth interview 4, P01) |
| Impacts of Parent Education Programme | Promoted health awareness | "可能（同小朋友）玩呢一樣嘢對於佢哋（參加者）來講可能相對上覺得：「嘩無時間喎，讀書喎，咁你仲去玩？」…我諗我哋當初用呢個模式去帶入一啲（健康）訊息嘅時候，（提醒參加者）原來生活裡面除咗趕功課、趕讀書等等嘅時候呢，原來呢啲概念重要㗎喎。" (社工，女，5 年經驗，深入訪談 3，P02)<br>"Maybe play (with children) was something 'Oh we do not have time for that. We need to study, cannot play' to them (participants)... I believe we introduced some (health-related) messages with this method, (it reminded participants) apart from homework and studies, these kind of concepts are also important to their daily lives." (Social worker, female, 5 yr experience, in-depth interview 3, P02)<br><br>"其實我會觀察到佢哋真係會關顧多啲自己或者身邊家人嘅健康。" (社工，男，12 年經驗，深入訪談 1，P01)<br>"Actually I observed that they care more about their own or family members' health." (Social worker, male, 12 yr experience, in-depth interview 1, P01) |
| | Enhanced positive family communication | "讓家長可以喺生活裡面多一啲同仔女溝通嘅話題，或者可能喺佢哋相處上面好似多咗啲新嘅元素。" (社工，女，5 年經驗，深入訪談 3，P02)<br>"Enable participants to have some new topics for conversation with their children, or maybe some new elements among them." (Social worker, female, 5 yr experience, in-depth interview 3, P02)<br><br>"我見到啲參加者分享都話，其實藉住呢個咁樣嘅 means（途徑）呢，即係三零運動或者健康飲食，佢哋多咗個話題 |

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| | | 同埋多咗一個促進家人關係嘅媒介，去促進親子關係，咁家人關係好咗，呢個係最大得著。” (社工，男，16 年經驗，深入訪談 2，P01)<br>“Some participants shared to me: Through such means, which is ZTEx or healthy diet, they have a new conversation topic and a platform to promote family cohesion, to enhance parent-child relationship. The improved family relationship are their major benefits.” (Social worker, male, 16 yr experience, in-depth interview 2, P01) |
| | Enhanced FAMILY happiness | “咁佢（參加者）話好開心呀，咁同埋佢就會臨瞓前同啲小朋友一齊去玩對腳底嗰啲運動呢，佢覺得好過癮啦。” (社工，男，10 年經驗，深入訪談 1，P02)<br>“A participant said she is happy. Usually before she sleeps, she plays an exercise of pushing the feet with her child. She found it very satisfying.” (Social worker, male, 10 yr experience, in-depth interview 1, P02)<br>“同啲參加者傾過有時都會返屋企都同啲小朋友一齊做運動咁樣，都開心嘅。咁起碼鬧少咗啲交啦，咁都會同大家做吓運動嘅時候落吓啖氣啦，咁都好嘅。” (社工，女，7 年經驗，深入訪談 1，P03)<br>“Ever discussed with some participants that they occasionally go home to do some exercises with their children and actually feeling happy. At least argue less frequently, and let go of the negative emotions while exercising, which is good.” (Social worker, female, 7 yr experience, in-depth interview 1, P03) |
| | Enhanced communication with father | “其實爸爸都多咗參與嘅喺屋企裡面...即嗰個快樂同和諧都係一個正面嘅效果出來嘅。” (社工，女，5 年經驗，深入訪談 3，P02)<br>“Actually the fathers were more involved in the family. The happiness and harmony are the positive outcomes.” (Social worker, female, 5 yr experience, in-depth interview 3, P02)<br>“咁佢話多咗同啲仔女一齊做三零運動啦，開心咗，even（即使）個老公有時可能開頭都係觀察嘅啷，咁但係後尾都...有啲家長嘅老公一齊玩埋添，做埋三零運動咁樣。” (社工，男，16 年經驗，深入訪談 2，P01) |

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| | | “A participant said she practiced 3-Zero Exercise with her children more, felt happier. Even her husband was just observing at the beginning, some husbands played together eventually, practiced 3-Zero Exercise.” (Social worker, male, 16 yr experience, in-depth interview 2, P01) |
| | Improved physical health | “而家城市生活呢，都會有唔同嘅痛症啊，咁有啲 client（參加者）就成日覺得周身痛，但係原來呢個運動有啲嘢係處理到嘅，咁佢哋會試囉。” (社工，女，29 年經驗，深入訪談 4，P01)<br><br>“Urban life, we usually have different kind of pain. Our clients (participants) reported pains all over their bodies, but actually this (3-Zero) exercise can relief their pains, so they are willing to try.” (Social worker, female, 29 yr experience, in-depth interview 4, P01)<br><br>“佢哋 feedback（反饋）都話好咗嘅，有啲話原本佢個仔女係扁平足嘅，好似都有改善咗呀咁。” (社工，男，16 年經驗，深入訪談 2，P01)<br><br>“Their feedbacks were feeling better. Some said their children have flat feet, and now seem to have improved.” (Social worker, male, 16 yr experience, in-depth interview 2, P01) |
| Impacts from TTTA | An innovative exercise approach | “突破咗一啲對運動嘅觀念，即係有少少以前就覺得一定要做帶氧啊、做肌肉嘅訓練呢先係運動來㗎嘛，咁原來而家唔係㗎喎，三零喎，即係其實係辦公室做到，返到屋企都可以做到。” (社工，男，10 年經驗，深入訪談 1，P02)<br><br>“Broke some mind-sets about exercising. I thought exercise should be aerobic or muscle training. Now I know it is not necessarily to be that way. 3-Zero, which mean it can be done in the office or at home.” (Social worker, male, 10 yr experience, in-depth interview 1, P02)<br><br>“一開始我就覺得你講啲咁小兒科嘅嘢呀，（依家）我就發覺係無時無刻我都喺度郁呀，無時無刻我都做緊啲三零嘢㗎。” (社工，女，28 年經驗，深入訪談 5，P01)<br><br>“At the beginning I thought what you were teaching was just too simple. (Now) I realize I am exercising at any time. I am practicing this 3-Zero Exercise anytime, anywhere.” (Social worker, female, 28 yr experience, in-depth interview 5, P01) |

| Themes | Subthemes | Quotes |
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| | Promoted staff health awareness | “咁我哋成個中心啲同事個個都知道哂唔好坐定定呀，係要有運動呀，我諗起碼意識上面大家都已經係吸收咗、接受咗。” (社工，女，28 年經驗，深入訪談 5，P01)<br>“All colleagues of our centre know not to be sitting still and need exercises. I think at least in terms of awareness, everyone has absorbed and accepted.” (Social worker, female, 28 yr experience, in-depth interview 5, P01)<br>“員工會多啲留意自己嗰個身體啦，即係著重自己健康啦，因為個 feedback（反饋）就話佢哋多坐定定呀嘛，咁其實我諗一般打工仔都成日都係坐定定喺 office（辦公室），咁我覺得對佢哋來講係一個提醒囉。” (社工，男，16 年經驗，深入訪談 2，P01)<br>“Staff are concerned about their bodies more, emphasize their health more. Since the feedback was saying they sit still most of the time. Actually, I believe workers in general are sitting still all day, so I think this is a reminder to them.” (Social worker, male, 16 yr experience, in-depth interview 2, P01) |
| | Enhanced self-efficacy in promoting ZTEx | “同事係好新奇咁樣，佢覺得喺中心得閒就舉吓咁樣，即係都有做囉，反而我覺得佢哋更加想去推廣出去囉。” (社工，女，7 年經驗，深入訪談 1，P03)<br>“Colleagues are curious. They feel they can practice during their free time in office, which means they are really practicing. But I think they wish more to promote this to the side.” (Social worker, female, 7 yr experience, in-depth interview 1, P03)<br>“咁同埋我哋容易 integrate（融合）落我哋嘅有 programme（活動）。” (社工，女，29 年經驗，深入訪談 4，P01)<br>“And we can easily integrate (3-Zero Exercise) into our existing programmes.” (Social worker, female, 29 yr experience, in-depth interview 4, P01) |
| | New perspectives on current work model | “如果淨係 social worker（社工）自己做呢，就可能我哋無咗 outsider view（旁觀者角度）…如果多啲同不同 professional（專業人士）合作呢，其實同事嘅視嘢會闊啲啦。” (社工，女，29 年經驗，深入訪談 4，P01)<br>“If it is only social workers, we might lack outsider views. If we are collaborating with more other professionals, our |

| Themes | Subthemes | Quotes |
|---|---|---|
| | | colleagues will have a boarder vision." (Social worker, female, 29 yr experience, in-depth interview 4, P01)<br><br>"New initiative（新倡議），咁因為過往無嗰啲藉住啲運動去即係促進親子溝通嘅活動，今次係一個新嘅嘗試，俾我哋一啲新嘅 input（注入）。" (社工，男，16 年經驗，深入訪談 2，P01)<br><br>"This is a new initiative. Since we never have programme that motivate parent-child communication via physical exercise, this is a new attempt providing us some new inputs." (Social worker, male, 16 yr experience, in-depth interview 2, P01) |
| Difficulties encountered | Long duration | "我諗係對於一啲咁樣一年時間嘅研究呢，係有少少擔心嘅。" (社工，女，28 年經驗，深入訪談 5，P01)<br><br>"I thought regarding to studies that last for a year like this, we were quite worried." (Social worker, female, 28 yr experience, in-depth interview 5, P01)<br><br>"一開始參加活動到完結呢，其實可能都要一年嘅時間，咁我諗呢個 commitment（承諾）係比較長嘅。" (社工，女，5 年經驗，深入訪談 3，P02)<br><br>"From the beginning to the end, it might take a year. I believed the commitment to the programme was relatively long." (Social worker, female, 5 yr experience, in-depth interview 3, P02) |
| | Insufficient manpower | "我哋單位多，而佢唔係集中喺一處，咁變咗佢哋每間單位唔同，咁有陣時有啲 contingency（突發事件）呢，如果得一個 project worker（專責社工）呢，佢就好慘。" (社工，女，29 年經驗，深入訪談 4，P01)<br><br>"We have many centres, and they are not concentrated at one area. So all centres are different. Sometime there would be some contingencies, if there is only one project worker, he or she would be desperate." (Social worker, female, 29 yr experience, in-depth interview 4, P01)<br><br>"好似今次咁樣，我哋一定要喺某一個月份做哂第一節嘅，或者幾個月之後要 follow up（跟進） 嘅， 咁我諗喺執行上會有困難，所以就要有人手多囉。" (社工，女，5 年經驗，深入訪談 3，P02) |

| Themes | Subthemes | Quotes |
|---|---|---|
| | | “Just like this time, we must complete all first sessions in a particular month. Or maybe a follow up session a few months later. I think in terms of implementation, there will be some difficulties. Therefore, we need more manpower.” (Social worker, female, 5 yr experience, in-depth interview 3, P02) |
| | Too many questionnaires | “有啲小組可能一節填兩次（問卷）嘅，咁當然梗係想即時見到嗰個效果，但我覺得可能對於啲家長來講佢哋都有少少吃力嘅。” (社工，女，5 年經驗，深入訪談 3，P02)<br>“Some groups might complete two questionnaires in one session. So want to see the effects at one. Buy I feel parents might have some difficulties.” (Social worker, female, 5 yr experience, in-depth interview 3, P02)<br>“以往嘅經驗呢，都知道要攞嘅資料呢會好詳細呀，或者好擔心（參加者）填果啲（問卷）真係太複雜啦，填到驚咗。” (社工，女，28 年經驗，深入訪談 5，P01)<br>“From past experiences, knew the information to be collected would be very detailed. Or worried that participants felt the (questionnaires) too complicated and anxious in completing.” (Social worker, female, 28 yr experience, in-depth interview 5, P01) |
| | Varies in language proficiency | “佢哋（參加者）學術水平無咁高，可能佢填寫問卷嘅時候…有啲字眼上面佢唔係好清楚，即可能佢會較難去填到佢嗰個真實情況。” (社工，女，26 年經驗，深入訪談 3，P01)<br>“Some (participants’) educational level was not high. Maybe when they were filling questionnaire, some wordings they were not so sure, so they felt harder to reflect their actual situations.” (Social worker, female, 26 yr experience, in-depth interview 3, P01)<br>“可能佢識字，但係有陣時啲字識哂都未必明。” (社工，女，29 年經驗，深入訪談 4，P01)<br>“Maybe they could read, but sometimes they knew all the words but did not understand fully.” (Social worker, female, 29 yr experience, in-depth interview 4, P01) |
| | Difficult to include child | “我覺得（參加者）同埋小朋友來佢哋都唔會可以好專注咁聽…啲細路係咁走、係咁嘈，其實呢咪即係等於我要比間房去托兒，同啲小朋友玩，咁你 defeat（違背）咗嗰個 |

| Themes | Subthemes | Quotes |
|---|---|---|
| | | purpose（原意）。” (社工，女，28 年經驗，深入訪談 5，P01)<br>“I believe if they (participants) come with their children, they could not focus on the programme. Those children would just run around and make noise, so I have to arrange a room for babysitting and play with those children. Therefore, the purpose was defeated.” (Social worker, female, 28 yr experience, in-depth interview 5, P01)<br>“不過係點樣夾啲小朋友即，因為嗰啲小朋友好忙㗎嘛，去返學、學校假期、補習、課外活動等等，咁其實如果每一節都係親子呢就唔係咁簡單嘅。” (社工，男，16 年經驗，深入訪談 2，P01)<br>“It is a matter of matching children’s schedules. Since children are so busy. They go to school, holidays, tutorial classes, extra-curricular activities, etc. Therefore, it will be not easy to make every session a parent-child session.” (Social worker, male, 16 yr experience, in-depth interview 2, P01) |
| | Unforeseeable contingency | “我哋好似啱啱撞正有啲星期六係家長日啊！咁嗰啲小朋友要去家長日，家長又要去，咁就要調啲日子囉。” (社工，女，7 年經驗，深入訪談 1，P03)<br>“Just like we just clashed some Saturdays which were school parent days. The children needed to attend the parent day, so did the parents, then we had to change the date for the programme.” (Social worker, female, 7 yr experience, in-depth interview 1, P03)<br>“我哋遇到嗰個喺中間呢段時間佢懷孕咗，咁呢個家庭計劃我哋預計唔到，因為都一年㗎嘛，咁變咗佢來咗一開頭中間後面佢都來唔到囉。” (社工，男，12 年經驗，深入訪談 1，P01)<br>“We had met a situation that a participant became pregnant in the middle of the programme. Such family planning was beyond our expectations, since it last for an entire year. Therefore, she attended from the beginning to the middle, but not till the end.” (Social worker, male, 12 yr experience, in-depth interview 1, P01) |

| Themes | Subthemes | Quotes |
|---|---|---|
| Strategies during implementa-tion | Formed a committed workgroup | “我哋就 set up（建立）咗嗰個 team（團隊）啦，咁好開心嘅呢就係我哋真係搵到一班好好嘅同事...非常之投入，非常之 committed（承擔）呀，喺成個 project（計劃）。” (社工，女，28 年經驗，深入訪談 5，P01)<br><br>“We had set up a workgroup team. I was very happy that we had a team of colleagues who were very devoting and committed in the entire project.” (Social worker, female, 28 yr experience, in-depth interview 5, P01)<br><br>“我哋呢要定期都要打電話跟進佢哋嘅...所以同事要用好多功夫、時間、心機啦，咁今次個 project worker（專責社工）做得好，就係佢會自己主力跟返。” (社工，女，29 年經驗，深入訪談 4，P01)<br><br>“We needed to do follow up phone call from time to time. Therefore, it took our colleagues some effort, time, and patience. This time, the project worker was doing well, that she was trying to handle these on her own.” (Social worker, female, 29 yr experience, in-depth interview 4, P01) |
| | Good preparation | “好似我哋 pre group（活動前工作坊）可以知道返個詳細個內容，其實有個心理準備會好啲嘅。” (社工，男，12 年經驗，深入訪談 1，P01)<br><br>“Just like we could know the details of the programme from the pre-group workshop. Actually, preparation mentally was good.” (Social worker, male, 12 yr experience, in-depth interview 1, P01)<br><br>“有啲嘢因為你地係 standardised（統一）嘅 model（模式），係 concrete（具體）嘅，咁變咗唔係好多抽象嘢都要同事慢慢演繹，咁佢跟返照做，同埋顯淺易明，咁同事又唔使去做好多 preparation work（預備工作）。” (社工，女，29 年經驗，深入訪談 4，P01)<br><br>“Because there were some standardized models, which were concrete. Therefore, not much abstract ideas were needed to be interpreted by our colleagues. They just followed the instructions, which were also simple and reader friendly. So our colleagues did not need much preparation work.” (Social worker, female, 29 yr experience, in-depth interview 4, P01) |

| Themes | Subthemes | Quotes |
|---|---|---|
| | Good resources for Programme implementation | “每次你有 coupon（禮券），中間有 tea buffet（茶聚）喇，之後又會繼續有 coupon（禮券）、有禮物、紀念品嗰啲，係好吸引。” (社工，女，28 年經驗，深入訪談 5，P01)<br>“We got coupons for every session, a tea gathering in between, and followed by more coupons, gifts and souvenirs. It was very attractive.” (Social worker, female, 28 yr experience, in-depth interview 5, P01)<br>“我會覺得真係好吸引喇，嗰啲內容、紀念品...即係你話淨係食 buffet（茶聚）都抵喇真係講真。” (社工，男，12 年經驗，深入訪談 1，P01)<br>“I would say it was very attractive, those contents, souvenirs…Even though just the tea buffet gathering was worth it already.” (Social worker, male, 12 yr experience, in-depth interview 1, P01) |
| | Reminder via different channels | “透過譬如 sms（手機短訊）、message（訊息）或者 XXX（社交平台）呀、社區推廣、賣報紙呀等等，用唔同嘅途徑去連繫啲家庭，亦都可能係一個提醒去鼓勵佢哋去實踐我哋帶出嘅一啲健康生活嘅信息囉。” (社工，女，5 年經驗，深入訪談 3，P02)<br>“For example, via SMS, message or XXX (social network), community promotion, newspaper, etc. Utilized different channels to connect with those families, and also a reminder to encourage them to implement the healthy information we taught them.” (Social worker, female, 5 yr experience, in-depth interview 3, P02)<br>“咁有部份家長都會回覆（短訊）返比佢哋嘅，咁我覺得 as（當作）一個 reminder（提醒）咁其實係好，因為成個 project（計劃）要 last（持續）成年呢，咁中間如果無 input（輸入）其實就係難啲 sustain（持續）到嘅。” (社工，男，16 年經驗，深入訪談 2，P01)<br>“Some participants replied (messages) to us. I think as a reminder, they were good. Since the duration of the project was a year. If there was no input in between, it was hard to sustain.” (Social worker, male, 16 yr experience, in-depth interview 2, P01) |
| | Souvenirs act as reminders | “有啲家長都提到話有啲紀念品真係涉及一啲運動性質嘅，例如握手器、啞鈴咁樣。嗰啲佢覺得係好好嘅一個提醒，即係 |

| Themes | Subthemes | Quotes |
|---|---|---|
| | | 擺返喺屋企，一唔記得嘅時候望到個啞鈴：「啊係時候又要去做喇」。” (社工，男，10 年經驗，深入訪談 1，P02)<br><br>“Some participants said those souvenirs involved the exercise elements, for example, hand grip, dumbbell-shaped water bottle. They thought those were a good reminder, which they kept at home and once they saw the dumb bell, “Oh time to do again”.” (Social worker, male, 10 yr experience, in-depth interview 1, P02)<br><br>“啲參加者都好喜歡啲紀念品啊，即係個啞鈴水壺啦同埋嗰個掛袋仔都好喜歡，因為好多提醒，有時呢一掛喺度，望到：「啊係喎健易樂要做運動喎」。” (社工，女，7 年經驗，深入訪談 1，P03)<br><br>“Participants loved those souvenirs, both the dumbbell-shaped water bottle or the wall hanging bag. Since they were also a reminder. Sometime they were just hanged there, but when you saw them, they reminded you “Oh! Be Heathy So Easy! Need to do exercise now!”.” (Social worker, female, 7 yr experience, in-depth interview 1, P03) |
| | Questionnaire serve as a reminder | “有個參加者同我講話問到一啲問題例如：「過去一個禮拜你有無做到某一啲健康嘅運動呢？」，係一個提醒，真係無做喎，又要做返多啲喇。咁佢就提到就話填嘅過程裡面好似有啲 alert（警醒）返自己個健康嘅情況。” (社工，男，10 年經驗，深入訪談 1，P02)<br><br>“A participant told me some questions like “During the past week, did you do any specific healthy exercise?”, it was a reminder. He/she realised he/she actually did not do recently, so it was time to start doing again. So he/she mentioned during questionnaire filling process, there was an alert to their health status.” (Social worker, male, 10 yr experience, in-depth interview 1, P02)<br><br>“工作紙我會見到係實質啲睇得返佢哋即係有無做到呀，或者個 frequency（頻率）呀咁樣 ... 會見到多啲佢哋嗰個 outcome（成效）。” (社工，男，16 年經驗，深入訪談 2，P01)<br><br>“Worksheet could more vividly reflect whether they had practiced or not, or the frequency…We could know more about the outcome.” (Social worker, male, 16 yr experience, in-depth interview 2, P01) |

| Themes | Subthemes | Quotes |
|---|---|---|
| Further dissemination | Incorporation in existing programme | “我哋呢有個婦女組，我哋嘅同事已經帶咗（三零運動）入去嗰個婦女組嗰到。” (社工，女，28 年經驗，深入訪談 5，P01)<br>“We had a women group, that our colleagues already introduced it (3-Zero Exercise).” (Social worker, female, 28 yr experience, in-depth interview 5, P01)<br>“咁睇吓會唔會譬如話喺社區裡面繼續去搞三零運動啲活動，又或者一啲親子嘅 groups（小組）會唔會都可以其中一節係用三零運動呢個手法去促進家人關係呢？咁其實我哋都諗緊嗰個 integration（融合）。” (社工，男，16 年經驗，深入訪談 2，P01)<br>“Let say if it is possible for us to keep organising events related to 3-Zero Exercise in the community. Or maybe a session of 3-Zero Exercise among those parent-child groups to promote their family relationship? Actually we are considering the integration.” (Social worker, male, 16 yr experience, in-depth interview 2, P01) |
| | Further dissemination to other units | “另外就其實我哋明愛呢就好推廣誇服務嘅合作，即係除咗家庭服務，可唔可以同 child care（照顧兒童）嘅 service（服務）合作呢？” (社工，女，29 年經驗，深入訪談 4，P01)<br>“Beside, we Caritas promotes inter-service cooperation, for example, beside family service, is it possible to collaborate with child care service?” (Social worker, female, 29 yr experience, in-depth interview 4, P01)<br>“呢個健易樂 project（計劃）諗住睇吓點樣 integrate（融合）落去唔同嘅 service（服務）裡面，可能我哋 youth and community（青年及社區）、elderly（老人）、rehab（復康）等等，咁希望可以藉住喺唔同嘅 service（服務）裡面都可以推廣三零運動呢，就希望可以藉住呢個運動促進家人關係，咁就回應我哋教區個家庭年。” (社工，男，16 年經驗，深入訪談 2，P01)<br>“This Be Healthy, So Easy project can integrate into different service, for example, youth and community, elderly, rehabilitation, etc. By promoting 3-Zero Exercise in different services, we hope to promote family relationship via this exercise, and hence to echo our diocese’s focus on family this year.” (Social worker, male, 16 yr experience, in-depth interview 2, P01) |

# CHAPTER 5 STAGE 3-PROJECT CONSOLIDATION

## 5.1 Family Holistic Health Day

### 5.1.1 Introduction and objectives

The Family Holistic Health Day was organised with the following objectives:

- To further promote the concept of FAMILY Holistic Health in the community;
- To acknowledge the work and achievement of the staff and participants of the IFSCs; and
- To share the preliminary findings of the Parent Education Programmes.

### 5.1.2 Activities of the Family Holistic Health Day

The Family Holistic Health Day was held on 17 December 2016 at the Voltorta College in Tai Po. It consisted of three parts: media event, closing ceremony and carnival.

#### Media event

Prior to the official commencement of the closing ceremony, a media event was organized on the first Floor of Voltora College. It aimed to introduce the project to the media and share the preliminary findings of the Parent Education Programme. Ms Imelda Chan, Head of Hong Kong Jockey Club Charities Trust (Grant Making-Elderly, Rehabilitation, Medical, Environment & Family), Ms Elisa Lam, Head of Family Service of the Caritas-Hong Kong, and Professor Lam Tai Hing, the Principal Investigator of FAMILY Project gave speeches on the development and implementation of the project and shared the findings of the community-based Parent Education Programme. Two parent representatives attended the media event and shared their personal experiences after joining the Parent Education Programme.

#### Closing ceremony

The closing ceremony was held immediately after the media event at the main hall of Voltora College. About 30 staff and 300 community participants of the eight IFSCs attended the ceremony.

The ceremony opened with a speech from Reverend Joseph Yim, Chief Executive of Caritas-Hong Kong. He introduced the missions of the FEP to promote positive parenting, enhance positive parent-child interactions, and promote regular physical exercise and a healthy diet. This was followed by speeches delivered by honorary officiating guests. Ms Imelda Chan, the head of Hong Kong Jockey Club Charities Trust (Grant Making-Elderly, Rehabilitation, Medical, Environment & Family), addressed the importance of this project to encourage behaviour changes in family communication and health behaviours among families at the community

level. In addition, Mr Fung Man Chung, Assistant Director of the Social Welfare Department, expressed that the project disseminated the 3Hs message and strengthened the communication between family members. Mrs Patricia Chu, conveyor of sub-committee on Family Support division of Family Council emphasised on the positive impacts on the participants and FAMILY harmony. Lastly, Professor Lam Tai Hing, Principal Investigator of FAMILY Project shared his experience and his changes in personal and family well-being. Thereafter, the prizes were presented to the winners of the photo contest and slogan competition, and certificates of appreciation were given to the representatives of the eight participating IFSCs.

### Carnival

All guests and participants were invited to join a carnival after the ceremony, in which the FAMILY Project Team and the eight Caritas IFSCs organized different game booths to promote FAMILY Holistic Health. The participants joined in happily and enthusiastically and enjoyed the activities thoroughly. The details of each game booth are listed in the Table 5.1 below:

Table 5.1 Details of game booths

| Institution | Booth name | Theme |
|---|---|---|
| HKU-SPH FAMILY Project Team | 體能挑戰站 | Physical fitness assessments: Hand grip strength, vertical jump and body composition. |
| Caritas IFSC-Tin Shui Wai | 拍出康和樂 | Instant family photo |
| Caritas IFSC-Tsuen Wan | 「三零」運動知多少? | ZTEx |
| Caritas IFSC-Tuen Mun | 親子「三零」GO GO GO | ZTEx |
| Caritas IFSC-Tung Tau | 拼出「三零」無難度 | ZTEx |
| Caritas IFSC-Shau Kei Wan | 食物標籤要識 LOOK | Healthy diet |
| Caritas IFSC-Aberdeen | 多蔬多果最 EASY | Healthy diet |
| Caritas IFSC-Fanling | OUT 走高糖我最叻 | Healthy diet |
| Caritas IFSC-Sha Tin | 禮物換領處 | Redemption of souvenirs |

IFSC=Integrated Family Service Centre

## 5.1.3 Media coverage

A variety of media including newspapers and magazines featured Family Holistic Health Day. Details are listed in Table 5.2 below:

Table 5.2 Media coverage of the Family Holistic Health Day

| | Date | Channel | Title |
|---|---|---|---|
| **Newspaper** | | | |
| 1 | 18/12/2016 | Oriental Daily | 「三零」運動善用時間 促進家庭和諧 |
| 2 | 6/01/2017 | Sing Tao District (All 5 districts) | 「三零」運動 增親子互動 促進家庭健康 |
| 3 | 9/01/2017 | Headline Daily | 明愛「健易樂」家庭教育計劃· 提倡「三零」運動 促進「家有康和樂」 |
| 4 | 9/01/2017 | Sing Tao Daily | 明愛「健易樂」家庭教育計劃· 提倡「三零」運動 促進「家有康和樂」 |
| 5 | 10/01/2017 | Sky Post | 明愛「健易樂」家庭教育計劃閉幕禮暨家庭健康嘉年華 |
| 6 | 12/01/2017 | Economic Times | 明愛「健易樂」家庭教育計劃閉幕禮暨家庭健康嘉年華 |
| 7 | 15/01/2017 | Kung Kao Po | 明愛提倡「三零」運動 推動健康推食及正向生活 |
| **Magazine** | | | |
| 8 | 12/01/2017 | Smart Parents | 明愛「健易樂」家庭教育計劃· 「三零」運動 增加親子互動 |

## 5.2 Practice Wisdom Sharing Programme

### 5.2.1 Introduction

Practice Wisdom Sharing Programme composed of two single-session workshops, which were held on 15 October 2016 and 24 February 2017. Table 5.3-5.5 show the details of the workshops. The programme aimed to promote participants' health knowledge in relation to ZTEx, introduce practice tips and preliminary findings of the Parent Education Programmes to social workers, teachers of other service units of Caritas and other parties with interest. A total of 456 participants attended the programme.

Table 5.3 Details of sharing workshops

| | Date | Place | Number of participants |
|---|---|---|---|
| Workshop 1 | 15 October, 2016 | Caritas Kowloon Center-Hall | 397 |
| Workshop 2 | 24 February, 2017 | Caritas Kowloon Center- 7/F activity room | 59 |

Table 5.4 The family service units which joined the workshop on 15 October 2016

| Institution | |
|---|---|
| Caritas Addicted Gamblers | 明愛展晴中心 |
| Caritas Community Support Project on inviting Men against Sexual Offense (M.A.S.O) | 明愛朗天計劃-性健康重建服務 |
| Caritas Family Crisis Support Centre | 明愛向晴軒 |
| Caritas Family Crisis Support Centre | 明愛小耳朵兒童輔導服務 |
| Caritas Family Crisis Support Centre | 明愛飛越愛情輔導服務 |
| Caritas Jockey Club 'Life Coaching' Community Support Network | 明愛賽馬會「家・友・導航」社區伙伴計劃 |
| Caritas Jockey Club Project Cedar-social and emotional support service for men | 明愛賽馬會思達計劃 |
| Caritas Lok Heep Club | 明愛樂協會 |
| Caritas "Love and Chastity" Comprehensive Sex Education Project | 明愛「愛與誠」綜合性教育計劃 |
| Caritas Mental Health Project | 明愛心理健康輔導計劃 |
| Caritas Project for Adult Survivors of Childhood Trauma | 明愛曉暉計劃-童年創傷輔導服務 |
| Caritas School Social Work Service (Secondary school) | 明愛中學學校社會工作服務 |
| Caritas Student Guidance Service (Primary school) | 明愛小學學生輔導服務 |
| Caritas Wong Yiu Nam Centre | 明愛黃耀南中心 |
| Grains of Soul | 心命種籽：心靈創傷社區支援服務計劃 |
| Human Empowerment and Achievement Training (HEAT) Caritas-Hong Kong | 明愛全人發展培訓中心 |
| Caritas Integrated Family Service Centre-Aberdeen (Tin Wan/ Pok Fu Lam) | 明愛香港仔綜合家庭服務中心(田灣) |
| Caritas Integrated Family Service Centre-Fanling | 明愛粉嶺綜合家庭服務中心 |
| Caritas Dr. & Mrs. Olinto de Sousa Integrated Family Service Centre | 明愛蘇沙伉儷綜合家庭服務中心 |
| Caritas Integrated Family Service Centre-Shaukeiwan | 明愛筲箕灣綜合家庭服務中心 |

| Institution | |
|---|---|
| Caritas Integrated Family Service Centre-Tin Shui Wai | 明愛天水圍綜合家庭服務中心 |
| Caritas Integrated Family Service Centre-Tsuen Wan (East) | 明愛荃灣綜合家庭服務中心(東荃灣) |
| Caritas Integrated Family Service Centre-Tuen Mun | 明愛屯門綜合家庭服務中心 |
| Caritas Integrated Family Service Centre-Tung Tau (Wong Tai Sin South East) | 明愛東頭綜合家庭服務中心(黃大仙西南) |

Table 5.5 The service units which joined the workshop on 24 February 2017

| Institution | |
|---|---|
| Hong Kong Buddhist Association Youth Centre | 香港佛教聯合舍青少年中心 |
| Caritas Cheng Shing Fung District Elderly Centre (Sham Shui Po) | 明愛鄭承峰長者社區中心 (深水埗) |
| Caritas Community Centre-Aberdeen | 明愛香港仔社區中心 |
| Caritas District Elderly Centre-Yuen Long | 明愛元朗長者中心 |
| Caritas Elderly Centre-Aberdeen | 明愛香港仔長者中心 |
| Caritas Elderly Centre-Central District | 明愛中區長者中心 |
| Caritas Elderly Centre-Kwun Tong | 明愛觀塘長者中心 |
| Caritas Elderly Centre-Lai Kok | 明愛麗閣長者中心 |
| Caritas Elderly Centre-Lei Muk Shue | 明愛梨木樹長者中心 |
| Caritas Elderly Centre-Ngau Tau Kok | 明愛牛頭角長者中心 |
| Caritas Elderly Centre-Sai Kung | 明愛西貢長者中心 |
| Caritas Elderly Centre-Sha Tin | 明愛沙田長者中心 |
| Caritas Elderly Centre-Tin Yuet | 明愛天悅長者中心 |
| Caritas Elderly Centre-Tung Tau | 明愛東頭長者中心 |
| Caritas Human Empowerment & Achievement Training-Kowloon Centre | 明愛全人發展培訓中心-九龍中心 |
| Caritas Integrated Family Service Centre-Tin Shui Wai | 明愛天水圍綜合家庭服務中心 |
| Caritas Integrated Family Service Centre-Tuen Mun | 明愛屯門綜合家庭服務中心 |
| Caritas Integrated Family Service Centre-Tung Tau (Wong Tai Sin South East) | 明愛東頭綜合家庭服務中心 (黃大仙西南) |

| Institution | |
|---|---|
| Caritas Integrated Family Service Centre-Tsuen Wan (East) | 明愛荃灣綜合家庭服務中心(東荃灣) |
| Caritas Integrated Family Service Centre-Aberdeen (Tin Wan/ Pok Fu Lam) | 明愛香港仔綜合家庭服務中心(田灣) |
| Caritas Jockey Club Hostel-Choi Wan | 明愛賽馬會彩雲宿舍 |
| Caritas Jockey Club Integrated Service for Young People-Cheung Chau | 明愛賽馬會長洲青少年綜合服務 |
| Caritas Jockey Club Integrated Service for Young People-Tak Tin | 明愛賽馬會德田青少年綜合服務 |
| Caritas Lok Miu Early Education and Training Centre | 明愛樂苗 |
| Caritas Pelletier Hall | 明愛培立學校 |
| Caritas Pui Tak Centre | 明愛培德中心 |
| Caritas School Social Work Service-Aberdeen | 明愛香港仔學校社會工作服務 |
| Caritas School Social Work Service Centre-Tsuen Wan & Tin Shui Wai | 明愛荃灣及天水圍學校社會工作服務 |
| Community College of City University | 香港城市大學專上學院 |
| Free Methodist Church Chuk Yuen IVY Club | 循理會竹園耆樂會所 |
| Free Methodist Church Leung Tin Children & Youth Integrated Serices Centre | 循理會屯門青少綜合服務中心 |
| Haven of Hope Christian Service | 基督教靈實協會 |
| Po Leung Kuk Cheung Hong Youth Development Centre | 保良局長康青少年發展中心 |
| Caritas School Social Work Service-Shatin | 明愛沙田學校社會工作 |
| Tung Wah Group of Hospitals-District Elderly Community Centres and Neighbourhood Elderly Centre | 東華三院長者地區中心及長者鄰舍中心 |

### 5.2.2 Objectives

- To introduce the ZTEx and the Parents Education Programmes to social workers; and
- To equip social workers with knowledge and skills in implementing similar community-based family intervention programmes.

### 5.2.3 Methods

The workshops were a three-hour session, jointly organized by the organizing committee of FEP, which included representatives of the FAMILY Project Team and Caritas. Before the start of the workshop, we invited the participants to perform simple physical fitness assessments to enhance their awareness of health and personal fitness performance. The

workshop started with an introduction to ZTEx by Professor LAM Tai Hing, Principal Investigator of FAMILY Project. Prof Lam introduced the ZTEx and shared tips to integrate ZTEx into daily life. Then, Dr. Agnes Lai shared the preliminary findings from the Parent Education Programmes and elaborated on the application of evidence-based and evidence-generating approach in the design and evaluation of family intervention programmes. Two registered social workers introduced the Parent Education Programme practice manual and shared tips to develop and implement the programme. The training emphasized on simplicity and conciseness in content, structure and methods. The intervention to be delivered and shared be easy to understand and convenient to practice. The workshop was delivered in an interactive manner, with creative exercise and discussion. During the workshop, participants actively shared their opinions and responded enthusiastically.

Pre-training and immediate post-training self-administered questionnaire assessments were conducted on the second workshop only. These questionnaires were designed to evaluate changes in participants' knowledge, self-efficacy, attitude, and intention in relation to ZTEx. Comments on the training workshops were invited after the training.

## 5.2.4 Results of the assessment

### 5.2.4.1 Demographic characteristics

Table 5.6 shows the demographic characteristics of the participants. A total of 47 pre-workshop and immediately post-workshop questionnaires were collected. About 70% of the participants were female, 76% of them had tertiary level education, and 74% of them were aged 18-39 years.

Table 5.6 Demographic characteristics (n=47)

| Characteristic | **n (%)** |
|---|---|
| **Sex** | |
| Male | 14 (30) |
| Female | 32 (70) |
| **Age group (years)** | |
| 18-29 | 27 (57) |
| 30-39 | 8 (17) |
| 40-49 | 2 (4) |
| 50-59 | 10 (21) |
| **Education** | |
| Secondary level | 11 (23) |
| Tertiary level | 19 (40) |
| University or above level | 17 (36) |

| Characteristic | n (%) |
|---|---|
| **Occupation** | |
| Social worker | 47 (100) |

[a] n(missing)=1

### 5.2.4.2 Changes in intention, attitude and confidence regarding ZTEx

Table 5.7 shows that participants reported significant increases in intention, attitude towards and confidence in doing ZTEx

Table 5.7 Intention and attitude of participants

| | Pre-workshop (T1) n=47 | Immediately after the workshop (T2) n=47 | Pre→Post |
|---|---|---|---|
| | Mean (SD) | | *p* value[a]/ES[b] |
| **Intention** | | | |
| Intention to do ZTEx[a] | 6.45 (1.90) | 7.64 (1.28) | <0.001***/0.73 |
| Intention to do ZTEx with your family[a] | 5.21 (2.19) | 6.81 (1.97) | <0.001***/0.77 |
| **Attitude** | | | |
| ZTEx is easy to practice[b] | 6.96 (1.69) | 8.15 (1.37) | <0.001***/0.77 |
| ZTEx can improve health[c] | 7.07 (1.62) | 8.09 (1.34) | 0.001**/0.69 |
| Confidence to practice ZTEx regularly[d] | 6.27 (1.79) | 7.38 (1.56) | <0.001***/0.66 |

[a] 11-point Likert scale: “0=no intention at all” to “10=have a great intention”

[b] 11-point Likert scale: “0=very difficult” to “10=very easy”

[c] 11-point Likert scale: “0=absolutely not” to “10=absolutely yes”

[d] 11-point Likert scale: “0=no confidence at all” to “10=have a great confidence”

#### *5.2.4.3* Overall evaluation

Immediately after the completion of the workshop, we asked the participants to grade the quality of content, the speakers, and their perceived knowledge, self-efficacy, attitude using the following statements. In general, high mean scores (8 items had a score of 4.07 to 4.51 of 5) were obtained on the training.

Table 5.8 Overall evaluation of Practice Wisdom Sharing Programme (n=47)

| | Mean (SD) |
|---|---|
| The design of this workshop is good[a] | 4.21 (0.49) |
| The explanation of speakers is clear[a] | 4.40 (0.50) |
| The time arrangement of this workshop is good[a] | 4.18 (0.47) |
| The venue of this workshop is appropriate[a] | 4.02 (0.64) |
| I understand the concept of ZTEx[a] | 4.51 (0.50) |
| This workshop helps me design a ZTEx programme[a] | 4.16 (0.53) |
| This workshop strengthens my confidence that I can design a ZTEx programme[a] | 4.07 (0.60) |
| After this workshop, I will design a ZTEx programme in my service unit[a] | 3.88 (0.71) |

[a] 5-point Likert scale: “1=strongly disagree” to “5=strongly agree”

## 5.3 Community-based Health Education Campaign

### 5.3.1 Slogan competition

To further enhance public awareness of the importance of exercising and family well-being, we organised a slogan competition on “3-Zero Exercise” for kindergarten and primary school students and parents. A total of 645 students from ten kindergartens and nine primary schools participated in the competition. Table 5.9 lists the participating kindergartens and primary schools. The entries were interesting and impressive, showing students’ creativity and artistic skills. The designs were displayed on the competition website for online voting opened to public. The design of the winning entry was used for the cover design of A4 document folders. The folders were distributed to different schools and community centres for health promotion.

Table 5.9 The participating kindergartens and primary schools

| Kindergartens | |
|---|---|
| Caritas Nursery School-Lei Yue Mun | 明愛鯉魚門幼兒學校 |
| Caritas Kai Yau Nursery School | 明愛啟幼幼兒學校 |
| Caritas Nursery School-Ta Kwu Ling | 明愛打鼓嶺幼兒學校 |
| Caritas Nursery School-Yau Tong | 明愛油塘幼兒學校 |

| Kindergartens | |
|---|---|
| Caritas Nursery School-Kennedy Town | 明愛堅尼地城幼兒學校 |
| Caritas Zonta Club of Hong Kong Nursery School | 明愛崇德社幼兒學校 |
| Caritas Ling Yuet Sin Kindergarten | 明愛凌月仙幼稚園 |
| Caritas Nursery School-Sha Tin | 明愛沙田幼兒學校 |
| Caritas Lions Club Hong Kong (Pacific) Nursery School | 明愛太平洋獅子會幼兒學校 |
| **Primary schools** | |
| Price Memorial Catholic Primary School | 天主教博智小學 |
| Kwong Ming School | 光明學校 |
| St. Peter's Catholic Primary School | 聖伯多祿天主教小學 |
| Our Lady Of China Catholic Primary School | 天主教佑華小學 |
| Sha Tin Government Primary School | 沙田官立小學 |
| Mary of Providence Primary School | 天佑小學 |
| Sai Kung Sung Tsun Catholic School (Primary Section) | 西貢崇真天主教學校 (小學部) |
| Pun U Association Wah Yan Primary School | 番禺會所華仁小學 |
| Jordan Valley St. Joseph's Catholic Primary School | 佐敦谷聖若瑟天主教小學 |

### 5.3.2 Photo contest

We also organised a family photo competition for the public to promote family well-being and physical activity. A total of 71 families joined the competition. The entries were interesting and lively, and showed different creative exercise poses. The photos were displayed on the competition website for online voting opened to public. The winning entries were posted in newspapers. Prizes for winning presentations were awarded on Holistic Health Day.

### 5.3.3 Promotion videos

Fifteen short videos were broadcasted in seven Integrated Family Service units for about 3,500 viewers and eleven schools for 13,114 students to promote FAMILY Holistic Health during November to February 2017.

The videos introduced FAMILY 3Hs and FAMILY Holistic Health, promoted a healthy lifestyle with regular physical activity and positive living attitude including positive emotion and positive family communication and relationship. A new ZTEx concept and different examples were introduced to the public and students.

Table 5.10 shows the schools and number of students that joined the community-based health education campaign. The videos were also uploaded to YouTube for wider publicity and promotion.

Table 5.10 The number of students in the school who joined the Health Education Campaign

| Name of Schools | Duration | Number of students |
|---|---|---|
| St Bonaventure College and High School<br>聖文德書院 | September to November 2016 | 1,512 |
| Good Hope School<br>德望學校 | September to November 2016 | 860 |
| Cheung Sha Wan Catholic Secondary School<br>長沙灣天主教英文中學 | September to November 2016 | 1,686 |
| Sai Kung Sung Tsun Catholic School (Secondary Section)<br>西貢崇真天主教中學 (中學部) | September to November 2016 | 1,102 |
| Valtorta College<br>恩主教書院 | September to November 2016 | 1,414 |
| Notre Dame College<br>聖母院書院 | September to November 2016 | 950 |
| Caritas Ma On Shan Secondary School<br>明愛馬鞍山中學 | December 2016 to February 2017 | 498 |
| Pui Shing Catholic Secondary School<br>天主教培聖中學 | December 2016 to February 2017 | 1,480 |
| Chan Sui Ki (La Salle) College<br>陳瑞祺 (喇沙) 書院 | December 2016 to February 2017 | 1,492 |
| Holy Family Canossian College<br>嘉諾撒聖家書院 | December 2016 to February 2017 | 1,530 |
| Yu Chun Keung Memorial College No.2<br>余振強紀念第二中學 | December 2016 to February 2017 | 590 |
| Total | | 13,114 |

## 5.4 Publicity and promotion

### 5.4.1 Media promotions

Connections were made with the media (radio/newspaper) to broadcast the concept of ZTEx and FAMILY Holistic Health. Ways of enhancing positive family communication and FAMILY Holistic Health through physical activity and healthy diet were shared through newspapers.

Facebook pages were used to share photos and related videos among the participants and their families, and with the public. WhatsApps groups were formed to deliver health information

and the upcoming events of the programmes. YouTube was used to broadcast the videos for the promotion of ZTEx. As of February 2017, 778 'Facebook Like': and 4,601 Youtube viewers were recorded. 650 participants joined the "Be Healthy So Easy" WhatsApps groups.

Table 5.11 Media promotion of the project

| | Dates | Channels | Title |
|---|---|---|---|
| | | | |
| **Newspaper** | | | |
| 1 | 08/09/2016 | Sky Post | 齊做「三零」運動・家有康和樂 |
| 2 | 12/09/2016 | Headline Daily | 齊做「三零」運動・家有康和樂 |
| 3 | 24/10/2016 | Headline Daily | 明愛健易樂「三零」運動 GO!-工作篇 |
| 4 | 25/10/2016 | Sky Post | 一家齊做「三零」運動 |
| 5 | 31/10/2016 | Headline Daily | 明愛健易樂「三零」運動 GO!-生活篇 |
| 6 | 7/11/2016 | Headline Daily | 明愛健易樂「三零」運動 GO!-學生篇 |
| 7 | 14/11/2016 | Headline Daily | 明愛健易樂「三零」運動 GO!-家庭篇 |
| 8 | 30/11/2016 | Sky Post | 齊做「三零」運動家中笑聲滿載 |
| **Magazine** | | | |
| 9 | 15/09/2016 | E-zone | 齊做「三零」運動：家有康和樂 |
| 10 | 15/09/2016 | U Magazine | 齊做「三零」運動：家有康和樂 |
| **YouTube** | | | |
| 11 | 17/08/2015 | 健易樂家庭教育計劃 | 林嘉欣：齊來做「三零」運動 |
| 12 | 01/01/2016 | 健易樂家庭教育計劃 | 親子「三零」運動介紹 |
| 13 | 28/02/2016 | 健易樂家庭教育計劃 | 「三零」運動：辦公室篇 |
| 14 | 23/03/2016 | 健易樂家庭教育計劃 | 家庭「三零」運動：遊戲篇 |
| 15 | 06/04/2016 | 健易樂家庭教育計劃 | 家庭「三零」運動：日常篇 |
| 16 | 07/04/2016 | 健易樂家庭教育計劃 | 「三零」運動：個人外出篇 |
| 17 | 07/04/2016 | 健易樂家庭教育計劃 | 「三零」運動：個人家居篇 |
| 18 | 16/10/2016 | 健易樂家庭教育計劃 | 「健易樂」呈獻：《帶著運動去返學》 |
| 19 | 25/10/2016 | 健易樂家庭教育計劃 | 香港大學林大慶教授：「三零」運動 |
| 20 | 25/10/2016 | 健易樂家庭教育計劃 | 香港大學林大慶教授：一家人齊做「三零」運動 |
| 21 | 25/10/2016 | 健易樂家庭教育計劃 | 香港大學林大慶教授：「坐定定」「企定定」有問題嗎？ |
| 22 | 25/10/2016 | 健易樂家庭教育計劃 | 香港大學林大慶教授：做「三零」運動的好處 |
| 23 | 18/12/2016 | 健易樂家庭教育計劃 | 健易樂: 精彩活動花絮 |

| YouTube | | |
|---|---|---|
| 24 | 19/12/2016 | 健易樂家庭教育計劃　健易樂： 長者「三零」運動親子篇 |
| 25 | 19/12/2016 | 健易樂家庭教育計劃　健易樂：長者「三零」運動個人篇 |

### 5.4.2 A practice manual

After the implementation of Parent Education Programme, a practice manual was produced and officially released in February 2017, aiming to share the design and implementation of the community-based intervention programme with all social service workers. The practice manual was a 58-page colour-printed publication. The manual included a DVD with information about ZTEx. It included (1) the introduction of ZTEx and healthy diet habits, (2) the details of design and implementation of the Parent Education Programme and electronic messages to the participants, (3) the preliminary results of the Parent Education Programme, (4) the work of community-based promotion campaign and the media promotions, and (5) the sharing by participants. A total of 2,000 copies of practice manuals were distributed to 454 NGOs and 160 Caritas Service units.

### 5.4.3 Healthy diet booklet and Zero-time exercise leaflet

A total of 1,000 copies of six-page colour printed booklets and 700 copies of ZTEx leaflets were prepared and distributed to all who participated in the Parents Education Programmes and the service users of the eight participating IFSCs. The Healthy diet booklets included information about the current health condition of Hong Kong people and the importance of having good dietary habits. It explained what “More vegetables, more fruits and more fibres” and “Less sugar” diets were. It showed some practical examples of what one serving of fruits and vegetables were. It also illustrated with pictures the amount of sugar in food and drinks. Special tips on decreasing sugar intake and reading food labels were included. The ZTEx leaflets introduced what ZTEx was, with different types of examples. Participants provided very positive feedback on the design, content and application of the booklets and leaflets.

### 5.4.4 Souvenirs

A wide range of souvenirs such as hand grips, magnetic clips, dumbbell-shaped water bottles, zip-up bags, umbrellas, USB flash drives and towels were distributed to the participants. These souvenirs were designed for daily use, and served as reminders to maintain the habit of performing regular exercise and having heathy diet habits. The six-page Healthy Diet booklets and one-page ZTEx leaflets were prepared and distributed to the programme participants. We also issued supermarket coupons and certificates of attendance to the programme participants who joined our intervention sessions. Table 5.12 shows the types and number of souvenirs.

Table 5.12 Types of souvenirs

| Item | Number (unit) |
|---|---|
| Magnetic clip | 1,800 |
| Hand grip | 1,500 |
| Dumbbell-shaped water bottle | 1,000 |
| Towel | 1,000 |
| Zip-up bag | 1,000 |
| Star-shaped hand grip | 800 |
| Umbrella | 500 |
| USB flash drive | 500 |
| Tableware | 200 |
| Skipping rope | 200 |
| Supermarket coupon ($50 each) | 5,050 |

# CHAPTER 6 DISCUSSION AND CONCLUSIONS

## 6.1 Discussion

The FEP was built on the success of the Effective Parenting Programme and the good collaborative and fruitful relationship between the FAMILY Project Team and Caritas Integrated Family Service. This project was successfully completed and has benefited numerous participants and service workers and volunteers, had wide media coverage with strong community impact. The vigorous evaluation has generated new evidence to demonstrate the effectiveness of the brief and innovative behavioural intervention to enhance physical activity, family communication and well-being. The design, implementation and evaluation of this project can serve as a model or reference for future projects that aim to enhance FAMILY Holistic Health.

In the project conception stage, before implementing the community-based Parent Education Programme, we conducted a needs assessment and a pilot trial to identify the needs, resources and feasibility of developing and evaluating a family intervention programme. This information was important to frame the objectives of the intervention programme, and guide the design and content of the community interventions and practice manual.

During programme implementation, as a result of the deep collaboration among eight IFSCs and the working committee of this project, we successfully conducted the Parent Education Programme. The results showed that the PA intervention was more effective in enhancing moderate physical activity, ZTEx, family involvement of ZTEx, and personal health in the PA group than HD group. The HD intervention showed greater effectiveness in improving personal and family practices of consuming more fruits and vegetables and less sugar in the HD group than PA group. The intervention effects were sustained to one year.

Both groups significantly improved in their self-reported personal well-being and FAMILY harmony. The increase in self-reported personal health in the PA group was significantly greater than in the HD group, but there was no significant difference in self-reported personal happiness and FAMILY harmony between the two groups. These were not unexpected as both groups had gone through the interventions which could have led to similar but nonspecific outcomes. The findings also suggest that there may be many mechanisms to enhance personal happiness and FAMILY harmony, and that targeting health related behaviours of different kinds may be effective or similarly effective in improving well-being.

The results from the qualitative study supported the findings from the quantitative assessments with more in-depth and interesting information and touching “stories” from the trainees, participants and service providers. At the focus group interviews, the participants indicated that the programme was well-organized, comprehensive and very successful. The electronic messages helped remind them to perform ZTEx regularly. The positive experience and in-class practice during the programmes increased their self-efficacy, intentions, and practice of ZTEx at home. ZTEx was easy to implement in daily life, good for their health and enjoyable for their families. For many of them, ZTEx have become a part of their daily practice.

Training workshops were conducted for the staff and the community health ambassadors from the eight IFSCs. These workshops aimed to equip the staff with knowledge and skills to

implement similar community-based intervention programmes. The one-session training workshop enhanced the trainees' competence (knowledge and self-efficacy) and motivation (attitude and intention) in relation to ZTEx. The trainees highly appreciated the workshop and its teaching and learning strategies, especially the experiential learning method. We adopted the experiential learning approach, and interactive teaching strategies, including games, sharing sessions and group discussions. These strategies also should be better than didactic programmes in managing the challenge of rapid engagement in prevention programmes. These strategies allow "planning" and the opportunity to receive immediate feedback, both of which are important components in many behaviour change models. Experiential learning approaches have been noted to be powerful teaching and learning tools, and to promote the professional growth of social service workers. The qualitative comments on this study also suggested that these strategies could engage and teach effectively. Furthermore, social service workers were trained to design and deliver a broad range of programs, not a specific, restricted and top down manualised intervention. The utilisation of these strategies has offered a model of what they might further develop and disseminate in the future.

In addition, in-depth interviews were conducted to obtain opinions and feedback from the steering and working committee of this project. The interviews indicated that they faced many difficulties arranging sessions in different centres within a short and fixed period and time frame, and ensuring retention of participants for one year follow-up. During implementation, they were encouraged and empowered by the positive feedback they received from community participants. They suggested that the programme offered a good model and example for implementing similar community programmes.

In the project consolidation stage, a Practice Wisdom Sharing Programme was organised to offer a platform to share and disseminate the preliminary results and practice tips derived from the Parent Education Programme, and to introduce the practice manual. Participants from different service units commented that the workshop was full of innovative ideas, and contained interesting and useful information. A wide range of publicity approaches were used to promote the project, including newspapers, magazines and online media such as Facebook and YouTube. Our publicity efforts provided a good example of using mass media to disseminate the concept of FAMILY Holistic Health. This dissemination can extend the influence of the project and benefit more people. Practice manuals which included details of the Parent Education Programme were distributed and delivered to many social workers and different service units of Caritas.

In summary, FEP was theory-based in development and included rigorous evaluation in all three stages of project conception, implementation and consolidation. The Parent Education Programme using a control group provided strong evidence on its feasibility and effectiveness.

## 6.2 Strengths and limitations

### 6.2.1 Strengths

Our intervention had high acceptability and applicability. There were significant increases in knowledge, self-efficacy, attitude and performance related to ZTEx, family communication, and personal and family well-being.

Implementation science is a rapidly growing discipline. There are often challenges in designing and implementing model-based programmes for a large number of service targets in diverse social contexts. The current TTTA and Practice Wisdom Sharing Programmes used the train-the-trainer educational model with experts empowering the key service workers. This model has been recommended as a mechanism to build capacity and promote the effective utilisation of resources for public health interventions.

Experiential learning approaches have been shown to be an effective mechanism to enhance motivation and performance of the community participants and the professional development of social workers. Through experiential learning, the trainees (the interventionists of community-based programmes) would find it easier to grasp what their service targets needed and wanted. As the targeted behaviour changes are simple, the trainees were empowered to make such changes in themselves and became the first group to be benefited. This enabled them to become role models or change agents not only to themselves, but also to their families and colleagues in their workplaces and beyond. Because of the strong commitment and capacity of Caritas, the experiences and results have been rapidly disseminated from IFSC to many other service units, and beyond. ZTEx has also been introduced to Caritas staff to enhance their health and well-being.

### 6.2.2 Limitations

There were several limitations to our study. First, validated questionnaires were not available; we used outcome-based questions to evaluate the effectiveness of the workshop. We measured perceptions such as perceived knowledge, not actual information or skills acquired. However, the lack of changes in some outcomes suggested that such bias would be minimal. Perception can be influenced by the individual's personality and social desirability bias. Second, the current control group used the same positive psychology theme "Gratitude and Praise" in their intervention. We did not have a control group with no intervention to examine the intervention effect on personal and family well-being. We also noted that the repeated answering of behaviour questions did have some alerting effects on some participants, which could have reduced the differences between the intervention and control groups. Lastly, we did not assess the behaviour changes in participants' families.

## 6.3 Implications and suggestions for future planning

Several suggestions are derived from our findings for developing similar programmes. First, the utilisation of an experiential learning approach, or "learning by doing" and interactive teaching strategies, may be particularly beneficial for engaging and retaining the interest of individuals from a broad set of educational and social backgrounds, who have minimal experiences with absorbing information through didactic teaching. Second, the application of theory-based framework in programme planning, implementation and evaluation are encouraged. Utilisation of theory-based approaches might help the successful implementation of community programmes. Third, the Train-the-Trainer model is recommended to effectively utilise resources and manpower for public health interventions. Third, the template for designing family interventions and the practice manual could be distributed to other service organisations and may help to implement similar interventions. Finally, the deep collaboration between a dedicated NGO and an academic public health unit, with generous support from a

charity is the key to the success of such a large and far-reaching project. The public health/preventive approach using simple and innovative intervention are inexpensive, easy to adopt, and can benefit both the service providers and service users. With strong evidence from the integration, practice and best science, we hope the impacts of the current project will extend beyond Hong Kong and benefit many others.

To conclude, this project was preventive, relatively brief, with vigorous quantitative and qualitative evaluations, and follow up. Evidence from this study is the first step towards the rational development of community interventions that promote FAMILY Holistic Health. In addition, our study demonstrated a successful academic-NGO-community research partnership, which can integrate theory and practice, generate new evidence, promote public health and reduce health disparities.

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# APPENDICES

## Appendix 1

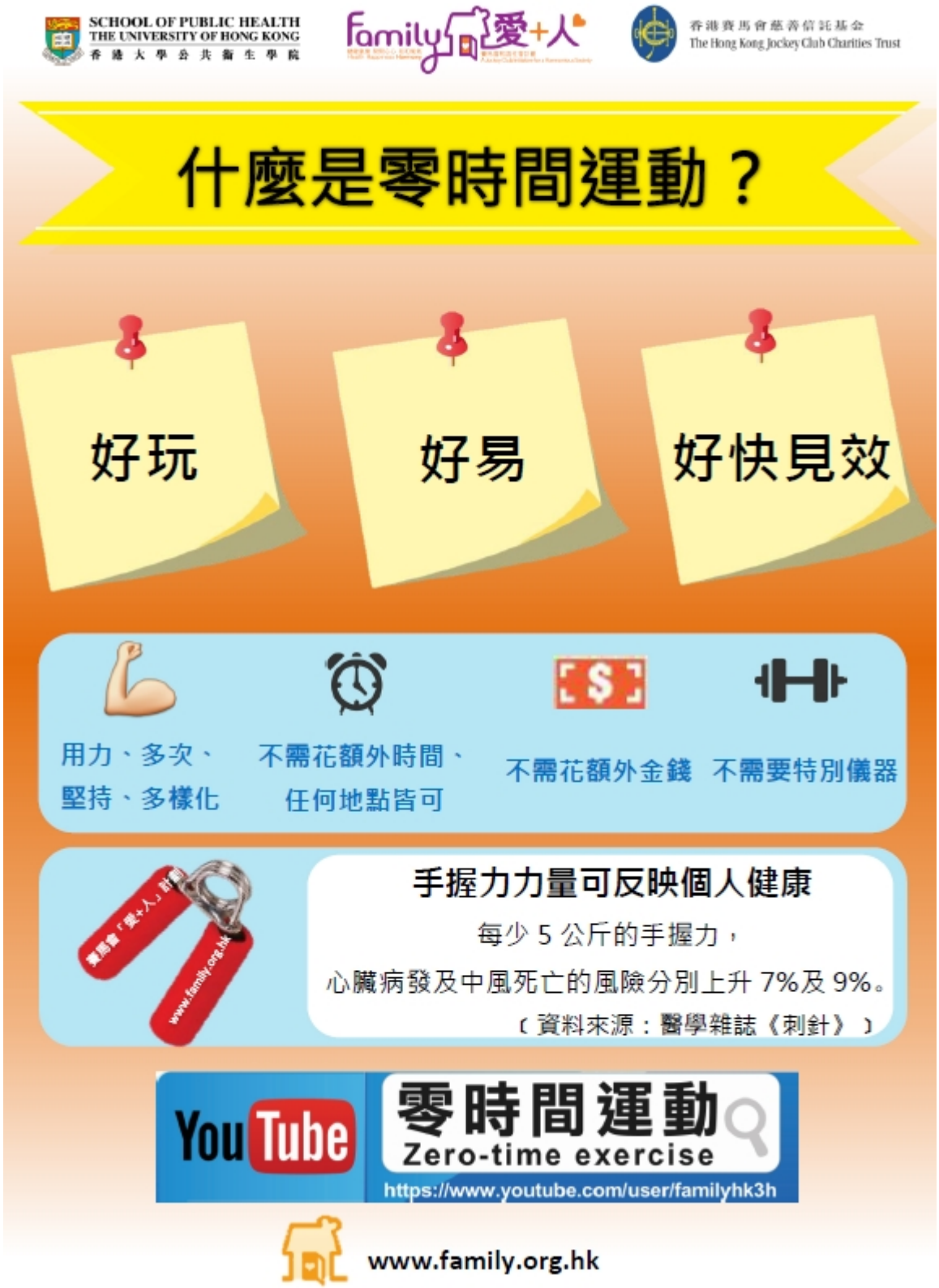
## Practice manual

**Appendix 2**

**Healthy diet booklet**

**Appendix 3**

**Zero-time Exercise leaflet**



## 坐著時

踩空氣單車

坐姿提腿

踮踮腳

## 站著時

腳尖站立

小馬步

單腳站立

## 步行時

蝴蝶開肩

抬腿踏步

活動手部

## Appendix 4

### Electronic messages

| | 「三零」運動小組 | 「健康飲食」小組 |
|---|---|---|
| **1.** | 明愛「健易樂」計劃提提你<br>**「三零」運動推介**<br>坐得耐時鬆鬆肩<br>等待時間踮腳企<br>親子比賽踏單車<br><br>麻煩你將「健易樂」電話加入通訊錄，方便日後聯絡！ | 明愛「健易樂」計劃提提你<br>**「健康飲食」推介**<br>買食物時看標籤<br>外出食飯要少糖<br>多果多蔬最健康<br><br>麻煩你將「健易樂」電話加入通訊錄，方便日後聯絡！ |
| **2.** | 明愛「健易樂」計劃提提你<br>你做咗好好玩、好容易同好有效既「三零」運動未啊？<br>如未開始，請即行動！與家人一起做「三零」運動，一家人更開心、更健康！ | 明愛「健易樂」計劃提提你<br>你實行咗「多果、多蔬和多纖」及「少糖」健康飲食習慣未啊？<br>如未開始，請即行動！與家人一起「多果多蔬」及「少糖」，一家人食得健康 D！ |
| **3.** | 明愛「健易樂」計劃提提你<br>可曾記得你訂下的「三零」運動目標? 我相信你一定做得到。請帶回月曆紀錄表回來，可獲禮物一份！<br>我們即將在第二節活動見面，到時看看你在三零運動方面的進步！ | 明愛「健易樂」計劃提提你<br>可曾記得你訂下的健康飲食目標? 我相信你一定做得到。請帶回月曆紀錄表回來，可獲禮物一份！<br>我們即將在第二節活動見面，到時分享看看你在健康飲食方面的進步！ |
| **4.** | 明愛「健易樂」計劃提提你<br>多做伸展運動可減輕肩背痛；<br>鍛鍊肌肉力量可強化肌腱及關節！<br>轉發「三零」運動短片給家人及朋友！ | 明愛「健易樂」計劃提提你<br>請留意食物標籤，少飲含糖飲品；<br>多吃新鮮天然的蔬果，促進身體健康！<br>轉發「健康飲食」運動短片給家人及朋友！ |
| **5.** | 明愛「健易樂」計劃提提你<br>在過去一個月實行的「三零」運動目標進度如何?<br>坐著時可踏空氣單車，強化腹部及腿部肌肉；<br>站立時可多鬆鬆肩及伸伸背，減少肌肉僵硬，精神抖擻！<br>請即與家人多做「三零」運動！ | 明愛「健易樂」計劃提提你<br>在過去一個月實行的健康飲食目標進度如何?<br>「少糖」可減少蛀牙及有助控制體重；<br>「多蔬多果」多促進腸道健康及預防多種慢性疾病！<br>請即與家人實踐健康飲食習慣！ |

| | 「三零」運動小組 | 「健康飲食」小組 |
|---|---|---|
| **6.** | 明愛「健易樂」計劃提提你<br>無論坐著、站著或步行，你都可以做「三零」運動！<br>揀選適合自己的動作，持之以恆，你會見到明顯果效！<br>我們即將在下星期下午茶家庭茶聚見面，請積極參加親子運動會及分享你實行「三零」運動的進步！ | 明愛「健易樂」計劃提提你<br>外出進食時，記得習慣叫 "少甜"飲品及揀選 "多蔬" 的菜式！<br>只要持之以恆，你會見到明顯果效！<br>我們即將在下星期家庭茶聚見面，請多分享你在健康飲食習慣的進步！ |
| **7.** | 未來日子明愛「健易樂」計劃會以每兩星期發放運動及健康相關訊息，希望家長可以與家人好友分享，一同建立健康生活習慣！ | 未來日子明愛「健易樂」會以每兩星期發放健康飲食相關訊息，希望家長可以與家人好友分享，一同建立健康生活習慣！ |
| **8.** | 各位親愛的家長：<br>明愛「健易樂」計劃鼓勵家庭建立健康生活習慣，多做「三零」運動，亦提倡家庭快樂及和諧，珍惜親子時間，發放正能量！ | 各位親愛的家長：<br>明愛「健易樂」計劃鼓勵家庭建立健康飲食習慣，多蔬果及少糖，亦提倡家庭快樂及和諧，珍惜親子時間，發放正能量！ |
| **9.** | 明愛「健易樂」祝大家和家人有一個輕鬆愉快的復活節假期，同時提提大家在放假期間可以把握一家人做運動的機會，開心又健康！ | 明愛「健易樂」祝大家和家人有一個😊輕鬆愉快的復活節假期，同時提提大家在放假期間繼續實踐多果多蔬及少糖飲食習慣，一家人開心又健康！ |
| **10.** | 提提大家在繁忙生活中多注意身體健康，多做「三零」運動，減少坐定定、企定定的壞影響。<br>明愛「健易樂」現正收集家庭做「三零」運動的照片，歡迎大家分享家庭做運動時的快樂時刻，將照片傳送給我們！ | 提提大家在繁忙生活中多注意身體健康，多吃蔬果，減少不必要的糖分吸收。<br>明愛「健易樂」現正收集家庭健康菜式的照片，歡迎大家拍下你們下廚的美味健康菜式，將照片傳送給我們！ |
| **11.** | 明愛「健易樂」溫馨提示<br>「三零」運動係任何時候、任何地點都做得，特別鼓勵大家邀請家人一齊做，享受家庭時間。<br>下次見面時期待家長變得 fit 啲! 健康啲！ | 明愛「健易樂」溫馨提示<br>夏天來到，蔬果有營養之餘亦可以消暑！<br>特別鼓勵與家人食飯時實踐健康飲食，享受家庭時間。<br>下次見面時期待家長變得 fit 啲! 健康啲！ |

| | 「三零」運動小組 | 「健康飲食」小組 |
|---|---|---|
| **12.** | 還有 3 個月就是明愛「健易樂」最後一節小組活動，期待與大家分享更多健康資訊。<br>希望大家與家人保持健康生活習慣，在日常生活多做「三零」運動！<br>謝謝大家對明愛「健易樂」的支持，記得多做「三零」運動，一家人自然會開心啲！健康啲！ | 還有 3 個月就是明愛「健易樂」最後一節小組活動，期待與大家分享更多健康資訊<br>希望大家與家人保持健康生活習慣，在日常生活多實踐「多蔬多果」及「少糖」飲食！<br>謝謝大家對明愛「健易樂」的支持，記得「多蔬多果」及「少糖」，一家人自然會開心啲！健康啲！ |
| **13.** | 明愛「健易樂」溫馨小提示：<br>「三零」運動好好玩、好容易、好快見效！<br>大家在三日連假有否與家人齊齊做運動，享受親子樂? | 明愛「健易樂」溫馨小提示<br>天氣熱，係咪有時候會買果汁/雪糕消下暑？<br>可考慮多吃新鮮水果，避免進食過量添加糖 |
| **14.** | 明愛「健易樂」溫馨提示<br>又到暑假，家長與子女有更多親子時間，做「三零」運動就最啱啦！<br>最後一節小組再見面就可以齊齊 fit 啲, 健康啲 | 明愛「健易樂」溫馨提示<br>又到暑假，家長與子女有更多親子時間，一齊煮多果多蔬既美食就最啱啦！<br>最後一節小組再見面就可以齊齊 fit 啲, 健康啲 |
| **15.** | 即將就是明愛「健易樂」小組最後一節活動，與大家分享更多健康資訊！請家長預留時間出席！<br>小組日期時間如下<br>X月X日（星期Y）時間 | 即將就是明愛「健易樂」小組最後一節活動，將會分享更多健康資訊，請家長預留時間出席！<br>小組日期時間如下<br>X月X日（星期Y）時間 |
| **16.** | 暑假快到尾聲，孩子準備好新學年了嗎?<br>明愛「健易樂」祝大家開學順利<br>請預留時間參加最後一節小組活動 | 暑假快到尾聲，孩子準備好新學年了嗎?<br>明愛「健易樂」祝大家開學順利<br>請預留時間參加最後一節小組活動 |

**Appendix 5**

**Exercise diary**

香港明愛 Caritas HONG KONG

Family 愛+人 賽馬會「愛+人」計劃

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

7月

我計劃在 _____(地點)

於 _____(時段)，做

_____「三零」運動

健易樂 2015

個人✓；家庭 ♥

| 日 | 一 | 二 | 三 | 四 | 五 | 六 |
|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 31 | |

8月

我計劃在 _____(地點)

於 _____(時段)，做

_____「三零」運動

健易樂 2015

個人✓；家庭 ♥

| 日 | 一 | 二 | 三 | 四 | 五 | 六 |
|---|---|---|---|---|---|---|
| | | | | | | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23/30 | 24/31 | 25 | 26 | 27 | 28 | 29 |

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支持機構 Supporting organization: 家庭議會 Family Council www.familycouncil.gov.hk

## Appendix 6

## Conference Presentation

1. **Lai AYK,** Wan ANT, Lee DPK, TH Lam. 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. 19 Nov 2106.

**ZERO-TIME EXERCISE: A CLUSTERED RANDOMIZED CONTROLLED TRIAL TO PROMOTE PHYSICAL ACTIVITY, HEALTH, HAPPLINESS, AND FAMILY HARMONY UNDER HONG KONG JOCKEY CLUB FAMILY PROJECT**

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[2] Family Service, Caritas, Hong Kong

**Objectives:** About half of Hong Kong people are physically inactive. “Zero-time Exercise" (ZTEx) is a new approach to motivate people to do simple exercises, which need no extra time (Zero-time), money or equipment, and suit anybody, anytime and anywhere (3As). This cluster randomized controlled trial examined the effects of a ZTEx community intervention.

**Methods:** All the eight Caritas Integrated Family Services Centres with their respective community participants were randomized into either a physical activity experimental (PA) group or a control group (4 centres per group). We aimed to enhance the PA participants’ physical activity by increasing their knowledge, motivation and self-efficacy about ZTEx through a 2-hour interactive core session at baseline, a 1.5-hour booster session at 3 months, and six monthly mobile messages. The control group had healthy diet (HD) intervention with the same methods, number of sessions and duration. Primary outcome was the number of days per week in doing ZTEx. Secondary outcomes were personal health, happiness, and FAMILY harmony. Each item allowed response on a 0 to 10 scale ranging from “not at all healthy/happy/harmonious” to “very healthy/happy/harmonious”. We analysed by intention-to-treat method.

**Results (preliminary):** 673 participants (92% f) with at least one child, were recruited into the PA experimental group (n=357) or HD control group (n=316). Both groups had increased ZTEx [PA group: from 2.3 to 5.0 days/week (Cohen’s d=1.14, p<0.001) at three months, and at six months; HD group: from 2.6 to 3.7 days/week (Cohen’s d=0.44, p<0.001) at three months and 3.8 days/week (Cohen’s d=0.49, p<0.001) at six months]. Both groups also had better perceived personal health [PA group: from 4.8 to 5.8 and 6.0 units; HD group: from 4.8 to 5.5 and 5.8 units), happiness (PA group: from 5.8 to 6.5 and 6.6 units; HD group: 5.4 to 6.0 and 6.3 units), and FAMILY harmony (PA group: 6.2 to 6.8 and 6.9 units; HD group: 5.8 to 6.4 and 6.5 units) at three months, and at six months (all p<0.001), respectively. Comparing with the HD control group, the PA experimental group performed more ZTEx by 1.3 days/week (Cohen’s d=0.75, p<0.001), and had greater improvements in perceived personal health by 0.2 unit (Cohen’s d =0.21, p=0.007) and FAMILY harmony by 0.2 unit (Cohen’s d =0.17, p=0.036) at three and six months, adjusting for age, gender, education, income, marital status and their baseline values.

**Conclusions:** Our ZTEx intervention showed preliminary evidence of effectiveness in increasing physical activity, personal health, happiness and FAMILY harmony.

415 words

## Appendix 7

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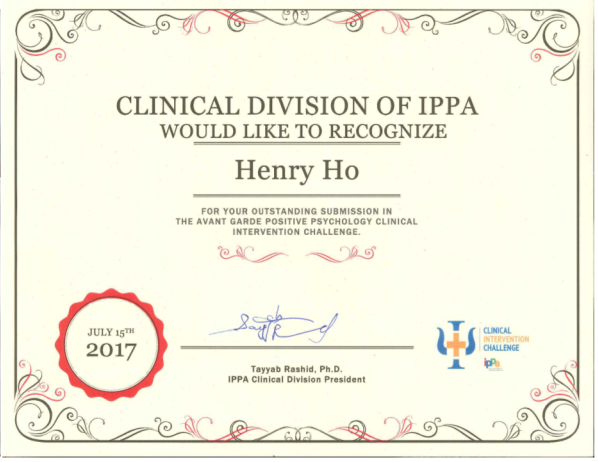
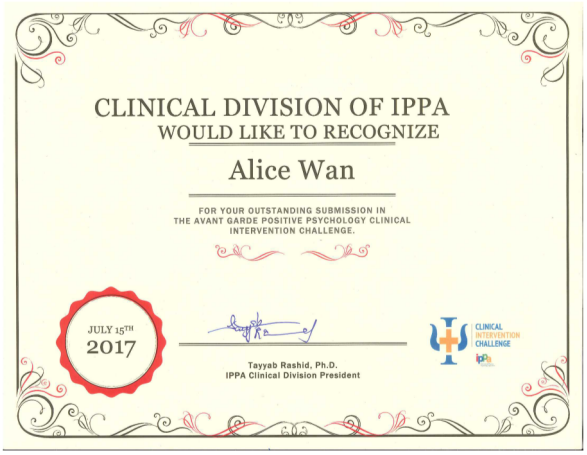
## Appendix 8

## Recognition in the Avant Garde Positive Psychology Clinical Intervention Challenge



**Appendix 9**

**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**

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

**Appendix 10**

**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.

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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.

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