



基督教家庭服務中心
Christian Family Service Centre



SCHOOL OF PUBLIC HEALTH
THE UNIVERSITY OF HONG KONG
香港大學公共衛生學院

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



Community Health Campaign: Fitter Families Project

FAMILY Health, Happiness and Harmony - 3Hs

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Funder:

The Hong Kong Jockey Club Charities Trust

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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 “Community Health Campaign: Fitter Families Project” was successfully implemented in Kwun Tong District in 2015, reaching out to more than 950 individuals from 670 families in public housing estates. Working in partnership with the Christian Family Service Centre (CFSC), the project was designed to promote holistic FAMILY health (physical activity and healthy diet) and the FAMILY 3Hs in the community. Through this report, we hope to demonstrate that simple interventions can be effective in promoting family well-being and increasing neighbourhood cohesion, as well as resilience among families in the community.

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, as well as CFSC 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)

Over the last 60 years, Christian Family Service Centre (CFSC) has had a strong vision for and a mission to promote family well-being in Hong Kong. One of the guiding principles that governs our services is “Family First”, and we thus aim to make positive changes by supporting and strengthening families and community capacity. The “Community Health Campaign: Fitter Families Project” (one of the projects under “FAMILY: A Jockey Club Initiative for a Harmonious Society”) was a community-based campaign that emphasised the use of social capital, collaboration amongst community stakeholders leading neighbourhood participation, and the promotion of FAMILY Health, Happiness and Harmony (3Hs). We are happy to see that with support from community leaders, thousands of residents in Kwun Tong District have benefitted from a series of “Fitter Families Project” community activities. To best utilise the experiences gained from the project, the project’s implementation was coupled with intense evaluation research on project effectiveness conducted by the School of Public Health, The University of Hong Kong. It is our belief that social work practice and best public health science can and should be integrated to generate strong and new evidence for the effectiveness of the project and inform and guide future development of community-based campaigns.

Here, we would like to express our sincere thanks to The Hong Kong Jockey Club Charities Trust for its funding support for this project. We are also extremely grateful to the School of Public Health, The University of Hong Kong for their guidance and encouragement throughout the project period; their expert knowledge and generosity with their time are very much appreciated. Moreover, we wish to thank the auxiliary professionals who gave their time and effort to participate in and support the project’s programme implementation. Last but not least, we wish to convey our profound gratitude to those families in Kwun Tong District who participated in our health talk, booster and gathering sessions as well as mobile community health counters. Their active participation in the project has helped to further our knowledge and skills in promoting “Zero-time Exercise” (ZTE_x) and “FAMILY 3Hs”. Without the generosity of the aforementioned parties, this project would not have been possible. Promoting ZTE_x and FAMILY 3Hs in Hong Kong is no easy task, and there is a long road to traverse. That notwithstanding, we deeply believe that with the support of multi-sector stakeholders and the community, the road ahead will be full of hope and opportunities.



Mr. KWOK Lit Tung, JP
Chief Executive, Christian Family Service Centre

PREFACE (3)

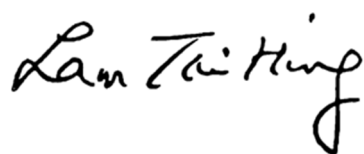
We are most grateful to The Hong Kong Jockey Club Charities Trust which initiated and donated HK\$250 million to fund and launch a citywide project entitled “FAMILY: A Jockey Club Initiative for a Harmonious Society”, in collaboration with the School of Public Health of The University of Hong Kong (HKU-SPH).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

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” (ZTE_x) 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.

The Fitter Families Project (FFP), led by the Christian Family Service Centre (CFSC), in collaboration with the HKU-SPH FAMILY Project Team, is one of the major intervention projects under FAMILY Project. This project adopted the social ecological model and engaged many people in Kwun Tong District to deliver a series of community activities for the residents. These interventions included health talks and providing a handgrip to promote FAMILY 3Hs among family members through ZTE_x.

The FFP, with the strong support of several community partners and governmental departments including the Home Affairs Department and the Social Welfare Department, has been completed with great success. Its benefits have been extended from service workers to the participants and their families. I wish that this report can be shared with community partners and other stakeholders, and the messages and strategies of using ZTE_x to promote healthy lifestyle and positive family relationship can be spread across the territory.

On behalf of the HKU-SPH FAMILY Project Team, I express my sincerest gratitude to CFSC and all collaborating parties for their professionalism, commitment and hard work. We are particularly grateful to many district leaders and volunteers who had gone through the Train-the-Ambassador Programme and contributed a lot to the project.



Professor LAM Tai Hing

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

Sir Robert Kotewall Professor in Public Health

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

FAMILY: A JOCKEY CLUB INITIATIVE FOR A HARMONIOUS SOCIETY

Background

To help build a more harmonious society, The Hong Kong Jockey Club Charities Trust invited the School of Public Health, Li Ka Shing Faculty of Medicine, The University of Hong Kong 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 non-governmental organisations (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:

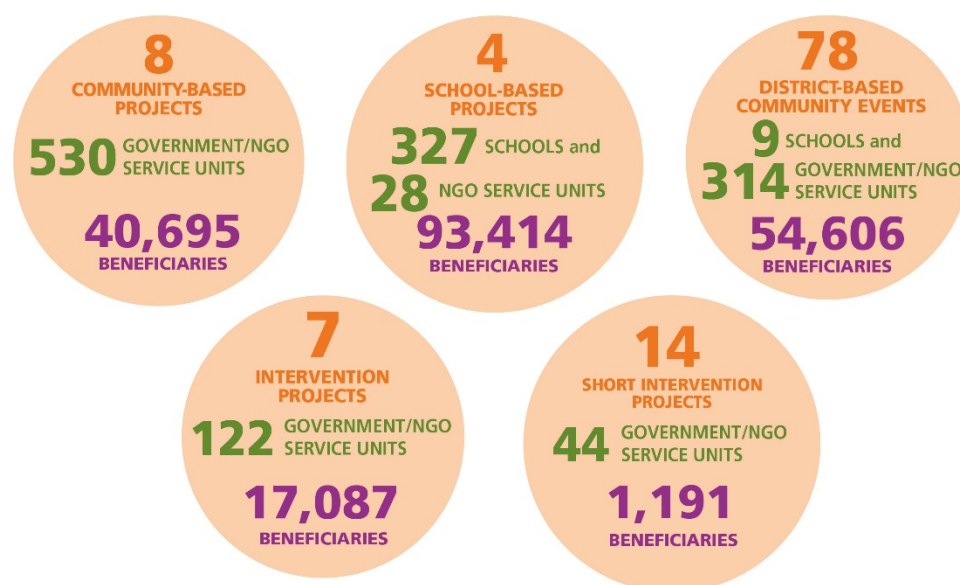
- H.O.P.E. (Hope Oriented Parents Education for Families in Hong Kong) Project
- Harmony @ Home Project
- Effective Parenting Programme
- Happy Transition to Primary One
- Share the Care, Share the Joy
- Boosting Positive Energy Programme
- Be Healthy, So Easy: FAMILY Education Project

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

Building on the past successful experiences and work model of the Learning Family Project implemented in Kwun Tong District during July 2010 to March 2012, Christian Family Service Centre (CFSC) collaborated with the School of Public Health of The University of Hong Kong (HKU-SPH) again to further strengthen the key messages of FAMILY Health, Happiness and Harmony (3Hs) in Kwun Tong District, especially to the underprivileged groups. The “Community Health Campaign: Fitter Families Project” (FFP) was developed and implemented through promoting FAMILY holistic health and Zero-time Exercise (ZTE_x) to enhance resident’s physical health and psychological well-being. ZTE_x is an innovative, simple and low cost approach, which needs no extra time, money or equipment (3 Zeros) to empower people to increase physical activity. We advocate and demonstrate that ZTE_x is easy, enjoyable and effective (3Es) and can be done anytime, anywhere and by anybody (3As) while sitting, standing or walking.

Brief, simple and cost-effective community-based programmes were developed and implemented in collaboration with community stakeholders. The project had potential for great sustainability and wide dissemination since the programmes were easy to administer with low cost. The programmes were family-centred, interactive and designed to encourage positive and sustainable health behaviours among family members. Specifically, the aims of this project were: (1) to promote ZTE_x and enhance FAMILY 3Hs in Kwun Tong District; (2) to encourage community Health Ambassadors (volunteers) to provide neighbourhood support to promote ZTE_x among disadvantaged and low-income families; (3) to examine the benefits on both physical and psychological health after engaging in regular ZTE_x; and (4) to examine the effect of intervention on enhancing neighbourhood cohesion.

By adopting the social ecological model as the guiding framework, CFSC and HKU-SPH worked closely on the project design, implementation and evaluation. Eligible participants were randomised into three groups based on the District Council election constituency boundaries (cluster randomisation): core session with neighbourhood support by Health Ambassadors, booster session at 1 month plus gathering at 1 month and 3 month after the core session (Group A, n=312); Core session with neighbourhood support by Health Ambassadors and providing a hand grip, booster session at 1 month, plus gathering at 1 month and 3 month after the core session (Group B, n=334); and core session plus gathering at 1 month and 3 month after the core session (Group C, n=307). The group with minimum intervention intensity was regarded as the control group (Group C). Core session was delivered by trained social service workers in 1.5-hour single sessions, which included the introduction of ZTE_x and implications of physical fitness. Also, the 15-minute booster sessions to review ZTE_x and to share experience among the participants were implemented for participants in Group A and B at 1 month after the core session. Neighbourhood support was provided through regular telephone reminders by trained Health Ambassadors at 2-week intervals to remind them to perform ZTE_x with family members. During July 2015 to November 2016, a total of 4 training sessions were conducted on 70 trainers and Health Ambassadors (volunteers). A total of 25 core sessions, 19 booster sessions, and 33 gathering sessions were conducted on 953 participants. Questionnaire assessments were conducted at baseline (T1), immediately post-core session (T2), 1 month (T3) and 3 month (T4) after the core session.

Physical fitness assessments (hand-grip strength, 30-second chair stand test, chair sit-and-reach test, and 120-second single leg stance test) were conducted at T1, T3 and T4.

Quantitative results showed that the main outcomes including FAMILY 3Hs, neighbourhood cohesion, the frequency of ZTE_x and performance on physical fitness assessments were substantially improved within all three groups at T4. Neighbourhood support by community Health Ambassadors (Groups A and B) showed effectiveness on improving neighbourhood cohesion in Group B, and on subjective improvements in performing ZTE_x and neighbourhood cohesion in Group A. However, the effectiveness of neighbourhood support on improving FAMILY 3Hs, frequency of ZTE_x and performance on physical fitness assessments were not found. Providing a handgrip (Group B) showed effectiveness on improving the frequency of strength exercise and hand grip strength. The successful work model can provide a valuable reference for collaboration between academics and social service providers on large-scale community-based projects to promote happier and fitter families and closer social bonds, especially among low-income groups.

The results from the qualitative study supported the findings from the quantitative assessments. Some participants indicated that the programmes helped them to improve themselves at personal, family and community levels. The results also showed positive effects on behavioural changes, such as increased family communication and ZTE_x, which were associated with improved FAMILY 3Hs, and positive effects on neighbourhood cohesion and relationship. However, some participants also made comments on the programme such as the programme's schedule, content and manpower arrangements. Suggestions and recommendations included rearrangement of the programme content in order to accommodate participants' diverse needs, more involvement of children, parents and elders, acquirement of more professional health information and tips from Health Ambassadors, and reduction of the length and difficulty of the questionnaire.

In summary, the FFP with rigorous evaluation provided strong evidence on the feasibility and success of this large-scale community-based project in Kwun Tong District. The project was successfully conducted with deep collaboration between academics and social service providers. Positive feedback from the qualitative interviews and quantitative outcomes confirmed the successful implementation and showed good evidence of the effectiveness of the project. Future improvements of such simple and large-scale community-based family projects, investigation of sustainability of the intervention effects, and wider dissemination are warranted.

CHAPTER 1 INTRODUCTION

1.1 Background

The Department of Health, Hong Kong Government pointed out that about one-third of local adults were physically inactive in 2014 [1]. Physical inactivity is one of the four major risk factors for non-communicable diseases such as cardiovascular disease, diabetes, and cancer [2-4]. Regular physical activity has many health benefits, such as improving cardio-pulmonary function, and maintaining an optimum body weight as well as healthy bone, muscles, and joints [5]. Moreover, physical activity can also promote psychological well-being and improve the quality of life [6].

According to the Hong Kong Poverty Situation Report 2015, Kwun Tong District had the largest number of poor people (161,300) and highest poverty rate (26.0%) among the 18 districts in Hong Kong [7]. Hong Kong's poor have more health problems, are the unhappiest people in the city and have to grapple with more family problems than wealthier people [8, 9]. Moreover, the low-income group is also more likely to be sedentary than the general population [10].

Under the FAMILY Project, building on the past successful experiences and work model of the Christian Family Service Centre (CFSC) "Learning Families Project (LFP)" implemented in Kwun Tong District during July 2010 to March 2012, CFSC collaborated with the School of Public Health of The University of Hong Kong (HKU-SPH) again to further strengthen the key messages of FAMILY Health, Happiness and Harmony (3Hs) in Kwun Tong District, especially to the underprivileged groups. The "Community Health Campaign: Fitter Families Project" (FFP) was developed and implemented through promoting FAMILY holistic health and Zero-time Exercise (ZTE_x) to enhance residents' physical and psychological well-being. We created a new approach "ZTE_x", which can be done with zero time (i.e. no extra time), zero money and zero equipment (3 Zeros) as well as anywhere, anytime and by anybody (3As). ZTE_x is easy, enjoyable and effective (3Es) for all ages and can be readily shared among all family members together.

As the guiding framework of the community-based intervention programme, the social ecological model proposes that people's behaviours can be influenced at the intra-personal, inter-personal, community and societal levels. This model was used to promote FAMILY 3Hs through learning the knowledge and skills of ZTE_x (intra-personal level), performing ZTE_x with family members (inter-personal level) and receiving neighbourhood support from community Health Ambassadors (volunteers) (community level). Increasing physical activity in the low-income group is an important public health challenge, which involves a process of change in both the mind-set and behaviours. The FFP engaged different stakeholders in the community to build momentum, enhance community cohesion and improve the sustainability of positive change of FAMILY 3Hs.

1.2 Project aims

1. To promote ZTE_x and enhance FAMILY 3Hs in Kwun Tong District;
2. To encourage community Health Ambassadors to provide neighbourhood support to promote ZTE_x among disadvantaged and low-income families;
3. To examine the benefits on both physical and psychological health after engaging in regular ZTE_x; and
4. To examine the effect of intervention on enhancing neighbourhood cohesion.

1.3 Literature review

1.3.1 Physical fitness and health

Physical fitness is a term used to describe a person's ability to do the physical tasks of everyday living [11]. It can be assessed by self-report or objectively measured by tests such as hand grip strength, 30-second chair stand test, chair sit-and-reach test and 120-second single leg stance test. There is evidence to show that objective measures of physical capability are also useful markers of current and future health including frailty, disability and death [12]. As such, studies focusing on these tests and their potential use as simple screening tools in the general population to identify people who may benefit from targeted intervention (such as strength training) or among patient groups to assess response to treatment are emerging [13].

1.3.1.1 Hand grip strength

Hand grip strength, which is measured by a handheld dynamometer, is a simple and inexpensive measurement to indicate overall muscle strength which has been shown to have health-related prognostic value. Evidence suggests that hand grip strength declines from midlife onwards and it is a powerful predictor of future disability, frailty, falls, diabetes, metabolic syndromes and mortality [14-18]. It has been consistently shown that weak hand grip strength is associated with a higher risk of cardiovascular disease incidence and mortality [15, 19, 20]. One possible mechanism might be that hand grip strength is associated with cardiovascular biomarkers such as systolic blood pressure, triglycerides, and plasma insulin and glucose [21]. It has been shown that hand grip strength is equally as important a prognostic factor as systolic blood pressure in predicting cardiovascular disease mortality risk [22]. However, the prediction of absolute hand grip strength on health outcomes may be confounded by body size. Relative hand grip strength (absolute strength adjusted for a measure of body size such as body mass index) has been recommended to address both the confounding of body mass and concomitant health risks of increased body weight and low muscular strength [23].

1.3.1.2 Lower body strength

Lower body strength relates to the most demanding daily life tasks such as climbing stairs, getting out of a chair or rising from a horizontal position. Lower body strength also declines with age and it is associated with balance problems and falls in older people [24]. A 30-second chair stand test is a common method of assessing lower body strength in community settings

[25]. The procedure involves recording the number of chair stands a person can complete in 30 seconds from a seated position without using the arms. Participants should sit in the middle of the chair, place the hands on the opposite shoulders, and keep the feet flat on the floor, the back straight, and the arms against the chest [26]. Table 1.1 shows the normative values of Hong Kong and US elderly people for the 30-second chair stand test [27].

Table 1.1 Normative values of Hong Kong's elderly in 5-year age groups for 30-second chair stand test (mean $\pm$ SD), compared with US norms [27].

Age group (years)	Male (no. of chair stands)		Female (no. of chair stands)	
	Hong Kong (Mean $\pm$ SD)	US (Mean)	Hong Kong (Mean $\pm$ SD)	US (Mean)
60-64	14.0 $\pm$ 4.3	16	12.3 $\pm$ 4.2	15
65-69	12.9 $\pm$ 4.6	15	11.3 $\pm$ 4.5	14
70-74	11.6 $\pm$ 3.3	14	10.1 $\pm$ 3.8	13
75-79	11.3 $\pm$ 4.4	14	9.4 $\pm$ 3.4	12
80-84	11.1 $\pm$ 4.2	12	9.3 $\pm$ 3.1	11
85-89	8.1 $\pm$ 4.0	11	8.3 $\pm$ 2.4	10
90+	5.8 $\pm$ 2.6	10	7.9 $\pm$ 2.7	8

1.3.1.3 Flexibility

Lack of flexibility is associated with low back pains, gait limitations, risks of falling, and susceptibility to musculoskeletal injuries [28-30]. Flexibility can be determined through the chair sit-and-reach test. Participants are asked to extend their preferred leg in front of their hip, with the heel on the floor and foot at approximately a 90° angle, and bend the other leg. With the extended leg as straight as possible and hands on top of each other with palms down, participants are asked to slowly bend forward at the hip joint, keeping the spine as straight as possible and the head in normal alignment with the spine, and then reach down the extended leg to touch the toes. The middle of the toe represents a “zero” score. Reaches short of the toes are recorded as negative scores and reaches beyond the toes are recorded as positive scores [31].

1.3.1.4 Balance

Balance is affected in those with disease processes or trauma. Balance disturbances have also been documented in healthy older people. Impaired standing balance has a detrimental effect on a person's functional ability and increases their risk of falling [32, 33]. Single leg stance is a valid measure to assess balance [34]. The test requires the participant to stand with arms crossed over his/her chest. Timing starts when the participant lifts one foot off the ground. Timing stops when the participant displaces the weight-bearing foot, puts the

suspended foot to the ground, uses the weight-bearing limb to support the suspended limb, or reaches the maximum test time (120 seconds) [35].

1.3.2 Neighbourhood cohesion

Neighbourhood is a geographically localised place where residents interact face-to-face with each other to realise common values, socialise youth and maintain effective social control [36]. Neighbourhood cohesion refers to the extent of the connectedness and solidarity among residents in a community or neighbourhood [37]. Neighbourhood cohesion includes many domains, such as common values, trust, as well as mutual aids and support [38]. Neighbourhood cohesion, a collective characteristic of communities, is associated with better perceived physical and mental health [39-41] as well as lower risks of stroke [42], functional limitations [43] and depression [44]. Possible mechanisms might be that neighbourhood cohesion is associated with healthier behaviours such as less smoking and more physical activity [45-47]. In addition, trust in neighbours is also protective against stress, which might be a plausible mechanism linking trust and mental health [48].

1.3.3 Social ecological model

The social ecological model or social ecological perspective, is a framework to examine the multiple effects and interrelatedness of social elements in an environment [49]. This model emphasises that people's behaviours are affected by factors at different "levels" defined as intra-personal, inter-personal, community, and societal factors [50]. The intervention framework of this project includes:

- Intra-personal level: A person's characteristics such as knowledge, attitudes, intention and beliefs;
- Inter-personal level: A person's closest social circle peers, partners and family members who influence his or her behaviour and contribute to his or her range of experience;
- Community level: The settings, such as schools, workplaces, and neighbourhoods, in which social relationships occur and the subject seeks to identify with the characteristics of these settings; and
- Societal level: Social and cultural norms, social policies, and laws.

CHAPTER 2 PROJECT DESIGN AND METHODS

2.1 Overall project design and methods

The FFP was a community-based research project with three main components for data collection: public education events, Train-the-Trainer and Ambassador Programmes (TTTA), and community-based family interventions. Table 2.1 shows the evaluation framework to assess the project impact at different time points.

Public education event-mobile community health counters

To increase the awareness of community stakeholders and residents towards this project, ZTE_x and family well-being as well as investigate the changes of physical activity behaviours, neighbourhood cohesion and FAMILY 3Hs after the programmes, pre- and post-programme mobile community health counters were set up with the theme of physical activity in different locations and time slots in Kwun Tong District. Participants were invited to complete a one-page questionnaire on physical activity behaviours, FAMILY 3Hs, neighbourhood cohesion and demographics. They were also invited to measure their hand grip strength.

Public education event-opening ceremony

To raise the profile and increase the awareness of community stakeholders and the residents about this project, an opening ceremony was launched in Lei Yue Mun, Kwun Tong District. Celebrities were invited for promotion of the key messages to the public, with an emphasis on physical activity and FAMILY 3Hs. Game booths were also set up to convey health information about ZTE_x and healthy diet to the participants who were invited to take a complimentary photo with their family at the ceremony. Participants of the opening ceremony were invited to complete a one-page questionnaire on physical activity behaviours, FAMILY 3Hs, neighbourhood cohesion and demographics.

Train-the-Trainer

To enhance the health-related knowledge and skills of the social service workers who would eventually deliver community holistic health interventions to their local residents using ZTE_x as a platform, a Train-the-Trainer (TTT) was conducted in the training centre of CFSC. The training included a 3-hour core session at baseline and a 30-minute booster session at 1 month after the core session. Questionnaire evaluations were conducted at three time points: baseline (before the training), 1 month and 3 month after the training. Physical fitness assessments (hand grip strength, 30-second chair stand, and 120-second single leg stance) were also assessed at baseline and 1 month after the training.

Train-the-Ambassador

To enhance the health-related knowledge and skills of the lay volunteers who would conduct various health promotion and related activities as “Health Ambassadors”, a Train-the-Ambassador (TTA) was conducted in the training centre of CFSC. The training included four 2-hour face-to-face group sessions. Questionnaire evaluations were conducted at four time points: baseline (before the training), immediately after the first session, 1 month and 3 months after the training. Physical fitness assessments (hand grip strength, 30-second chair stand, and 120-second single leg stance) were also assessed at baseline and 1 month after the training. The TTTA was jointly developed by the organising committee of the FFP, including

the representatives of the FAMILY Project Team and CFSC. To assess the quality of the interventions, fidelity checks and process evaluations were conducted regularly.

Community-based family interventions

Random assignment was employed to assign participants to three groups (A, B and C) using cluster randomization based on the District Council election constituency boundaries in Kwun Tong District to minimise neighbourhood contamination. The intervention focused on the effects of core session (all three groups), neighbourhood support (Groups A and Group B) and home-based exercise and fitness equipment (Group B). Groups A and B had a core session at baseline, a regular reminder from the Health Ambassadors, and a booster session at 1 month after the core session. Group B was additionally provided with a home-based fitness and exercise equipment (a handgrip). The 1.5-hour core session included the introduction of ZTE_x and physical fitness assessments. Regular telephone contact was conducted by trained Health Ambassadors at 2-week intervals to remind them to perform ZTE_x (Groups A and B) and practise hand grip exercise (Group B) with family members. The 15-minute booster session included the review of ZTE_x and experience sharing among the participants. Groups A and B also had a gathering at 1 month (immediately after the booster) and 3 months after the core session. Group C had a core session at baseline plus two gatherings at 1 month and 3 months after the core session. Questionnaire evaluations were conducted at four time points: before the core session (T1) and immediately after the core session (T2), as well as 1 month (T3) and 3 months (T4) after the core session. Physical fitness assessments (hand grip strength, 30-second chair stand, chair sit-and-reach, and 120-second single leg stance) were also assessed at T1, T3 and T4 to measure physical changes overtime. To assess the quality of the community interventions, fidelity checks and process evaluations were conducted regularly.

Healthy Life Tips Booklet

To share the tips of ZTE_x to families in Hong Kong, 3,000 copies of the Healthy Life Tips Booklet were published and distributed in Kwun Tong District. The booklet contained attractive contents on ZTE_x, physical fitness assessments and experience sharing of programme implementation and participation by Health Ambassadors and programme participants.

Table 2.1 Project evaluation framework

Events	Details	Evaluation methods
Pre-programme mobile community health counter (August-November 2015)	Mobile community health counters were set up for the public in Kwun Tong District to promote the FFP and deliver the messages of ZTE ^x and FAMILY 3Hs. Participants were invited to complete a one-page questionnaire and measure hand grip strength.	Quantitative: - One-page questionnaire; and - Hand grip strength measurement Targets: - Residents in Kwun Tong District
Train-the-Trainer Programme (June 2015)	CFSC and the FAMILY Project Team collaborated to design the TTT for social service workers. The training included a 3-hour core session at baseline and a 30-minute booster session at 1 month after the core session. The training was conducted by academic public health professionals from the FAMILY Project Team.	Quantitative: - Questionnaire assessments at baseline, 1-month and 3-month follow-up; and - Physical fitness assessments at baseline and 1-month follow-up Targets: - Social service workers were invited to complete questionnaire assessments and physical fitness assessments
Train-the-Ambassador Programme (October 2015-June 2016)	CFSC and the FAMILY Project Team collaborated to design the TTA for lay volunteers (Health Ambassadors). The training included four 2-hour face-to-face group sessions. The training was conducted by a multidisciplinary research team, which consisted of academic public health professionals from the FAMILY Project Team and registered social workers from the CFSC.	Quantitative: - Questionnaire assessments at baseline, immediately after the first session, 1-month and 3-month follow-up; and - Physical fitness assessments at baseline and 1-month follow-up Targets: - Lay volunteers (Health Ambassadors) were invited to complete questionnaire

Events	Details	Evaluation methods
		assessments and physical fitness assessments
Opening ceremony (23 January 2016)	An opening ceremony was held for the public in Lei Yue Mun, Kwun Tong District to promote the FFP and FAMILY holistic health.	Quantitative: - One-page questionnaire Targets: - Participants in the event and passers-by in the area were invited to complete the one-page questionnaire
Community-based intervention programme: cluster randomised controlled trial (November 2015-November 2016)	CFSC recruited eligible participants and families. The conceptual framework and length of the programmes were standardised, with the same outcome measurements for each group. Intervention consisted of a 1.5-hour core session, providing a handgrip, a 15-minute booster session and neighbourhood support by Health Ambassadors (a total of 6 telephone reminders). Participants were randomised into three groups - Group A (core session + neighbourhood support + booster session), Group B (core session + hand grip + neighbourhood support + booster session), and Group C (control group) (core session only). Participants in Group A and B had a 15-minute booster session at 1 month after the core session to review ZTEx and share experience on performing ZTEx.	Quantitative: - Questionnaire assessments at baseline (T1), immediately post-intervention (T2), 1-month follow-up before the booster/gathering sessions (T3), and 3-month follow-up before the gathering sessions (T4); and - Physical fitness assessments at T1, T3, and T4 Targets: - All participants aged 9 years or above were invited to complete physical fitness assessments and T1 to T4 questionnaires Quantitative and qualitative: - Reminder checklist form: Health Ambassadors were asked to complete a checklist form recording core message delivery

Events	Details	Evaluation methods
	A 2-hour gathering session was conducted immediately after the booster. Participants in Group C only had a 2-hour gathering session without booster. All participants completed the physical fitness assessments and questionnaire assessments before the booster (Group A and B) or gathering sessions (Group C). 3-month follow-up sessions (5-hour gathering sessions) were held for all the participants. Fidelity checks and process evaluation were conducted to assess the quality of the interventions.	for the telephone contact • Observation form: The FAMILY Project Team staff and student helpers, and also social service workers completed this form as a part of process evaluation • Participants' attendance form: CFSC was asked to submit the participants' attendance form after each session
Post-programme mobile community health counter (August-November 2016)	Mobile community health counters were held for the residents in Kwun Tong District to obtain the information on physical activity, physical fitness, neighbourhood cohesion, and FAMILY 3Hs of the residents after the programmes.	Quantitative: • One-page questionnaire; and • Hand grip strength measurement Targets: • Residents in Kwun Tong District
Train-the-Trainer and Ambassador Programme: focus group interviews (November 2016)	Social service workers and Health Ambassadors attended focus groups after the completion of TTTA, to share their experience and opinions about the programme.	Qualitative: • A focus group interview guide was developed to collect qualitative data from the participating social service workers and Health Ambassadors

Events	Details	Evaluation methods
Community-based programme: focus group interviews (November 2016)	Participants attended focus groups after the completion of the community-based programme, to share their experience and opinions about the programme.	Qualitative: A focus group interview guide was developed to collect qualitative data from the participants
In-depth interviews (November 2016-February 2017)	Individual in-depth interviews with community stakeholders were conducted.	Qualitative: A semi-structured interview guide was developed and utilised to collect comments and suggestions with regard to the programme and its implementation in Kwun Tong District, as well as its potential impact on future family policy developments
Healthy Life Tips Booklet (November 2016)	A total of 3,000 copies of Healthy Life Tips Booklet were published and disseminated to motivate residents in Kwun Tong District to take simple steps to perform ZTE _x and improve FAMILY Holistic Health.	Quantitative: - Healthy Life Tips Booklet evaluation questionnaire Targets: - Recipients of the booklet completed a brief questionnaire for evaluation

2.2 Target population and participants

Table 2.2 shows the expected number of targeted and actual participants of different components of the project. For the TTTA, the targets were social service workers and volunteers (Health Ambassadors), respectively. For the opening ceremony, community-based programme and mobile community health counters, the targets were residents in Kwun Tong District, who were able to communicate in Cantonese/Putonghua. The Healthy Life Tips Booklet was distributed to Kwun Tong residents through CFSC.

Table 2.2 The numbers of target population and actual participants in each event

Events	Expected numbers and target population	Actual numbers of participants
Opening ceremony	300 participants, general public aged 12 years or above	About 1,800 participants
Mobile community health counters	3,000 participants, general public aged 12 years or above	3,013 participants
Train-the-Trainer and Ambassador Programme	50 social service workers and volunteers (Health Ambassadors), general public aged 18 years or above	36 social service workers and 34 volunteers (Health Ambassadors)
Community-based intervention programme	900 participants, general public aged 12 years or above	953 participants
Post-programme focus group interviews for community programme participants	50 community-based programme participants aged 18 years or above	68 participants
Post-programme focus group interviews for TTTA participants	20 social service workers and volunteers (Health Ambassadors) aged 18 years or above	11 social service workers and 11 volunteers (Health Ambassadors)
Post-programme in-depth interviews	5 major community stakeholders	5 participants
Healthy Life Tips Booklet	3,000 copies	3,000 copies were distributed

CHAPTER 3 PUBLIC EDUCATION EVENT - OPENING CEREMONY

3.1 Introduction

The public education event (opening ceremony) was held at Lei Yue Mun Praya Road Middle (the former Hoi Bun School basketball court) on 23 January 2016. The officiating guests who attended the ceremony were Ms. Imelda Chan, Executive Manager of Charities of The Hong Kong Jockey Club, Ms. Florence Hui, Under Secretary for Home Affairs, Mr. Gilford Law, District Officer (Kwun Tong), Ms. Siu Ming Ip, District Social Welfare Officer (Kwun Tong) of Social Welfare Department, Mr. Nicholas Chiu, Chairperson of the Board of Directors, CFSC, and Professor Tai Hing Lam, Principal Investigator of FAMILY Project.

3.2 Objectives

1. To assess the current status of physical activity behaviours, neighbourhood cohesion and FAMILY 3Hs of Kwun Tong residents; and
2. To publicise the event to the community and promote ZTEEx and FAMILY 3Hs to the public.

3.3 Procedures

The opening ceremony started with a kung fu performance provided by Tak Chi Martial Art. Then, speeches were delivered by Ms. Imelda Chan, Ms. Florence Hui, and Mr. Nicholas Chiu. Afterwards, awards were presented for outstanding Health Ambassadors and participating organizations. All representatives of Health Ambassadors and participating organizations had group photos with the officiating guests. The Drama Gallery provided a wonderful performance to introduce ZTEEx and Professor Tai Hing Lam gave the demonstration.

The event featured game booths to convey health information on ZTEEx and healthy diet to the participants. Souvenirs such as towels and water bottles were distributed to the participants. They were also invited to take a complimentary photo with their family at the ceremony. To evaluate the effect of the opening ceremony and investigate the current status of residents' physical activities, neighbourhood cohesion and FAMILY 3Hs, a brief one-page questionnaire was completed by the participants.

3.4 Results of the questionnaire assessment

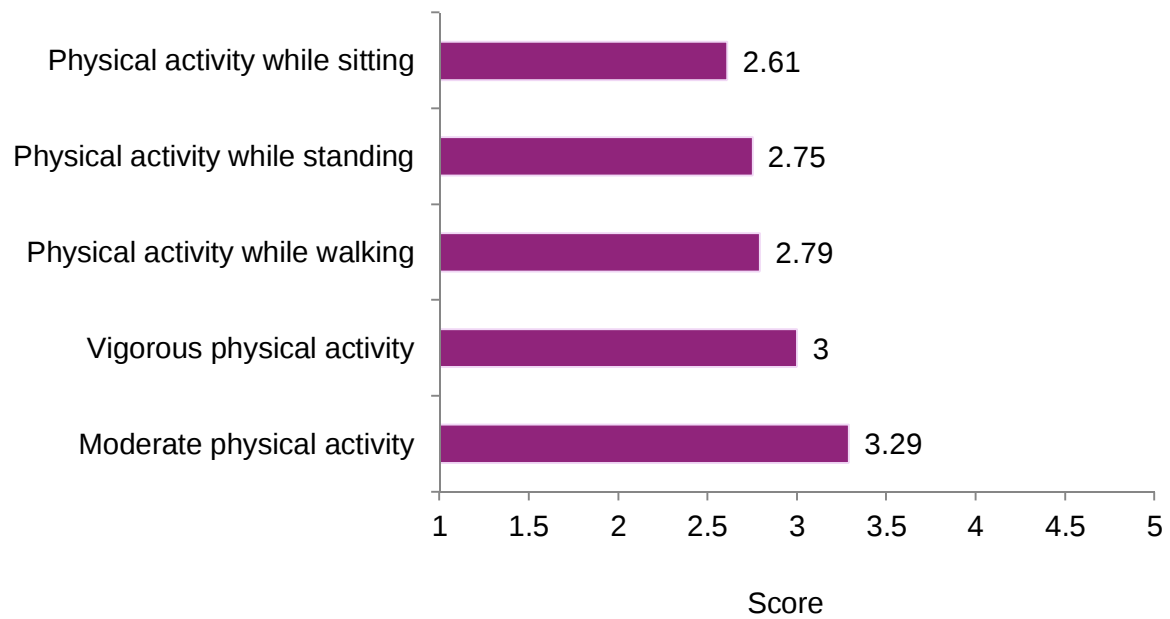
There were about 1,800 participants in the opening ceremony, and 28 valid questionnaires were received. Of these 28 participants, 15 (53.6%) were female, and over half (57.1%) were adolescents younger than 18 years. Participants were asked to rate their frequency of performing physical activity when sitting, standing and walking in the past weeks on a scale from 1 to 5 (1 for "never", and 5 for "very frequent"). Figure 3.1 shows that the mean scores of physical activity frequency when sitting, standing and walking were 2.61, 2.75, and 2.79,

respectively. Participants were then asked to rate their self-reported FAMILY health, happiness and harmony on a scale of 0 to 10 (0 for “very unhealthy/unhappy/disharmonious”, and 10 for “very healthy/happy/harmonious”), with higher scores indicating better self-reported FAMILY health, happiness and harmony. The mean scores were 7.43, 7.50 and 7.89, respectively. Participants were also asked to rate neighbourhood cohesion in their community on a 5-item neighbourhood cohesion scale. Each item was scored from 1 to 5, with higher scores indicating higher neighbourhood cohesion. The neighbourhood cohesion score is the average score of the 5 items. The mean score of neighbourhood cohesion scale was 3.20.

Table 3.1 Demographic characteristics of the opening ceremony participants (n=28)

Characteristics	n (%)
Sex	
Male	13 (46.4)
Female	15 (53.6)
Age group (years)	
≤11	2 (7.1)
12-17	14 (50.0)
18-44	9 (32.1)
45-64	3 (10.7)
Education	
Primary or below	8 (28.6)
Secondary	16 (57.1)
Tertiary or above	4 (14.3)
Employment status	
Student	17 (63.0)
Full-time employee	4 (14.8)
Part-time employee	2 (7.1)
Housewife	3 (10.7)
Retired	1 (3.7)
Marital status	
Single	18 (64.3)
Married	8 (28.6)
Divorced/Widowed	2 (7.1)

Figure 3.1 The frequency of physical activity behaviours in the past week (n=28)



^a 5-point Likert scale: "1=never" to "5=always"

CHAPTER 4 TRAIN-THE-TRAINER AND AMBASSADOR PROGRAMME

4.1 Introduction

Preventive interventions in public health have to be cost-effective. So they must be practical, brief, and easily spread broadly and widely across the population by trained personnel in order to reach a large number of people in the community [51]. The train-the-trainer educational approach has been suggested to build workforce capacity in communities [52]. Experts train key personnel (such as lay volunteers) to deliver the service [53], ideally in focused programmes with minimum time and cost burden, resulting in efficient and effective utilization of available human and community resources.

Studies have shown that when lay volunteers were provided with training and supervision, their participation in the community-based intervention programme had significant effects on the outcomes [54, 55]. Lay health promoters have been trained for programmes that enhanced health related outcomes, such as physical activity [56-58].

In view of enhancing the health-related knowledge and skills of the social service workers and lay volunteers and meeting the required manpower of the large community-based projects, a TTTA was conducted to build the capacity for the implementation of FFP. The TTTA was jointly developed by the organising committee of the FFP, including the representatives of the FAMILY Project Team and CFSC.

The training programme included:

- A two-workshop TTT for the staff of CFSC in June 2015; and
- Three batches of TTA workshops for lay volunteers to be “Health Ambassadors” during October 2015 to June 2016.

The training was designed to be brief so that a large number of trainees could be trained quickly to assist in developing and implementing the community programmes within a short project duration. A total of 70 trainees including 36 social service workers and 34 volunteers attended the workshops.

4.2 Train-the-Trainer Programme for social service workers

The training was delivered first to social service workers (a combination of registered social workers and related service workers) who would eventually deliver community holistic health interventions through ZTE_x to their local residents.

4.2.1 Objectives

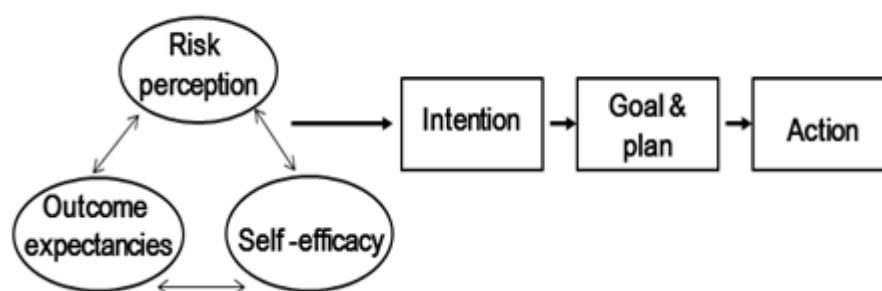
- To enhance trainees' knowledge, self-efficacy, attitude and behaviour for engaging in healthy living habits, particularly ZTE_x; and its application to design and implement intervention for their service users;
- To promote trainees' physical activity and fitness performance;
- To encourage trainees to share the health information and experiences with their family members, friends and service users and influence their health behaviour;
- To enhance trainees' personal and FAMILY well-being (3Hs); and
- To examine the feasibility of using a ZTE_x intervention to enhance trainees' physical activity before application to the community-based interventions by trainees.

4.2.2 Design and content

A training programme was conducted for social service workers in the training centre of CFSC in Kwun Tong. The training included a 3-hour core session at baseline and a 30-minute booster session at 1 month after the core session. The training was conducted by academic public health professionals from the HKU-SPH.

Figure 4.1 shows the framework used in the core session, guided by the Health Action Process Approach (HAPA). HAPA proposes that behaviour change is the result of motivation enhancement. These processes enhance intention, goal setting and planning, and promote its conversion to action [59]. Our goal was to determine whether we could get and maintain attitude and behaviour changes over the short to medium term.

Figure 4.1 The framework of the core session of the training workshop



At the beginning of the core session, physical fitness assessments were conducted with the aim of increasing trainees' interests in their own health status and the intervention that followed.

First, the interventionists (we) explained and discussed the clinical relevance of age- and gender-specific physical fitness reference values with the trainees [60-65] and encouraged them to compare their own results with normative data. We wanted to enhance knowledge and self-awareness on the harmful effects of physical inactivity and obesity. We tried to induce cognitive dissonance [66] using the trainees' beliefs and behaviour by inviting them to talk about their health beliefs and their existing exercise habits. We got them to pledge openly and loudly together that they would perform ZTE_x and share with their family afterwards. The goals were to arouse trainees' intrinsic motivation to increase physical activity and reduce sedentary behaviour, and to benefit their family members because they loved them. Then, we introduced

and demonstrated to the trainees examples of different types of ZTE_x such as simple stretching and movements of different body parts, and requested that they follow the simple movements. The interventionists shared their personal experiences and benefits of performing ZTE_x with the trainees, emphasising the “3Es” (easy, enjoyable, and effective) and “3As” (ZTE_x can be done anytime, anywhere, and by anybody). This enhanced their self-efficacy, interest and positive feeling of achievement and strengthened the outcome expectancies. We encouraged discussion regarding the various times and places that these exercises could be easily incorporated into daily life and the methods and plans to share their new learning with their family members. Lastly, we asked the trainees to set their goals, state the time, location and types of ZTE_x to be done, and document the plan on a worksheet. We highlighted the importance of having physical activity with family members.

The booster session included physical fitness and questionnaire reassessment and sharing of “success stories”. It aimed to further strengthen trainees’ motivation to perform ZTE_x regularly. Trainees were invited to share their experiences and discuss the barriers they faced when engaging in and introducing ZTE_x to their families. We highlighted any positive changes they reported, reassured the trainees that positive changes were likely to come with engaging in ZTE_x regularly, and reminded them of the negative consequences of physical inactivity.

In communicating the content, open-ended questions were asked to discuss obesity-related health consequences. Diversified learning methods were used, including didactic instruction, practice as a group, using laser pointers to make responses to questions, games, role plays and group discussions.

The fidelity of the intervention was assessed by two research staff separately, using a checklist with items corresponding to the ZTE_x intervention described above. The fidelity assessment on the intervention aimed to ensure the quality of training. All listed objectives in the checklists for the core and booster sessions were achieved and completed within the pre-set time frame in all training sessions.

Thirteen social service workers were assigned to design and implement the community intervention activities of the FFP. We provided continuous post-training support to them, including monthly meetings, regular phone contacts and technical assistance such as assistance with the use of the dynamometer to measure grip strength.

4.2.3 Evaluation methods

Both qualitative and quantitative methods were used. Self-administrated questionnaires were used to assess all the self-reported outcomes at three time points: at baseline, 1 month and 3 months after the core session. Physical fitness assessments were performed at baseline and 1-month follow-up. Two semi-structured focus group interviews with the trainees were conducted after finishing the FFP, at 1.5 years after the core session.

Key outcome measures included (i) reactions to the intervention content, (ii) competence and attitude in relation to ZTE_x, (iii) physical activity including ZTE_x, (iv) physical fitness performance, (v) performing ZTE_x with family members, and (vi) personal and family well-being.

Trainees indicated the extent of their agreement on statements in relation to (i) applying the learning (positive psychology and ZTE_x) to enhance trainees' self-esteem and family well-being; and (ii) their knowledge, self-efficacy, outcome expectancies, and plan on engaging in ZTE_x. (For example, "I am confident that I am able to do ZTE_x regularly"). Each item was measured on a scale from "0" indicating "strongly disagree" to "10" indicating "strongly agree".

Self-reported physical activity was assessed by questions adopted and modified from the International Physical Activities Questionnaire – Chinese version (IPAQ-C) [67, 68]. We assessed sedentary behaviour by asking a question ("On a typical weekday in the last seven days, how many hours per day did you typically spend seated?"). We assessed the frequency (number of days) trainees engaged in physical activity in the last seven days by asking five questions. (For example, "In the last seven days, on how many days did you perform at least 10 minutes of moderate physical activities?"). Response options ranged from "0 days" to "7 days".

Trainees were asked to indicate their self-reported personal well-being and FAMILY 3Hs using five questions: "Do you think your family is healthy?"; "Do you think your family is happy?" and "Do you think your family is harmonious?". Each item was measured on a scale scoring from "0" indicating "very unhealthy/unhappy/disharmonious" to "10" indicating "very healthy/happy/harmonious".

Physical fitness assessments with standardised protocols were used to assess physical fitness at baseline and 1-month follow-up. They were body mass index, hand grip strength measured by a dynamometer, lower limbs strength assessed by 30-second chair stand test recording the number of stands from the chair in 30 seconds, and balance assessed by single leg stance test recording the time that the individual could effectively balance on one leg (for a maximum of 120 seconds). Questions about general health were asked before the physical fitness assessments.

Repeated measures analysis of variance and the Friedman test were used to compare the parametric data and non-parametric data at three time points, respectively. Paired t-tests and Wilcoxon tests were used to compare the continuous parametric and non-parametric data between two time points, respectively. The McNemar test was used to examine the changes in categorical data between two time points. Following convention, an effect size of 0.2 to <0.5 was considered as small, 0.5 to <0.8 as medium, and 0.8 or above as large [69]. All significance tests were 2-sided with a 5% level of significance. By intention-to-treat (ITT) analysis, missing data of participants who resigned from the participating organisations, were lost to follow-up, or declined to complete the questionnaire, were replaced by baseline values (i.e. assuming no changes). Sensitivity analysis was performed by using "complete-case analysis" on trainees with complete assessments at baseline, 1 month, and 3 months.

All qualitative interviews were audio-taped and transcribed verbatim in Cantonese. Two FAMILY Project Team members, one of whom attended the interviews, coded the transcripts. Transcripts were analysed by thematic content analysis, following the guidelines recommended by Morse and Field [70] using NVivo 11.0. Mixed Method Triangulation design was used to interrelate and interpret the qualitative and quantitative data to validate the results [71].

4.2.3.1 Quantitative evaluation

Thirty-six social service workers were assigned by CFSC to attend the training workshop. One trainee refused to join the study. Six trainees were occupied by other activities and did not complete the 1-month follow-up. Three trainees resigned from their service units and three more trainees declined to complete the 3-month follow-up. Thus, 35 questionnaires were collected before and immediately after training, and 29 were collected at 1-month and 23 at 3-month follow-up (Figure 4.2). Table 4.1 shows the socio-demographic characteristics of trainees, 54% were aged 20-29 years, 63% were female, and 57% were registered social workers.

Figure 4.2 The CONSORT flow chart

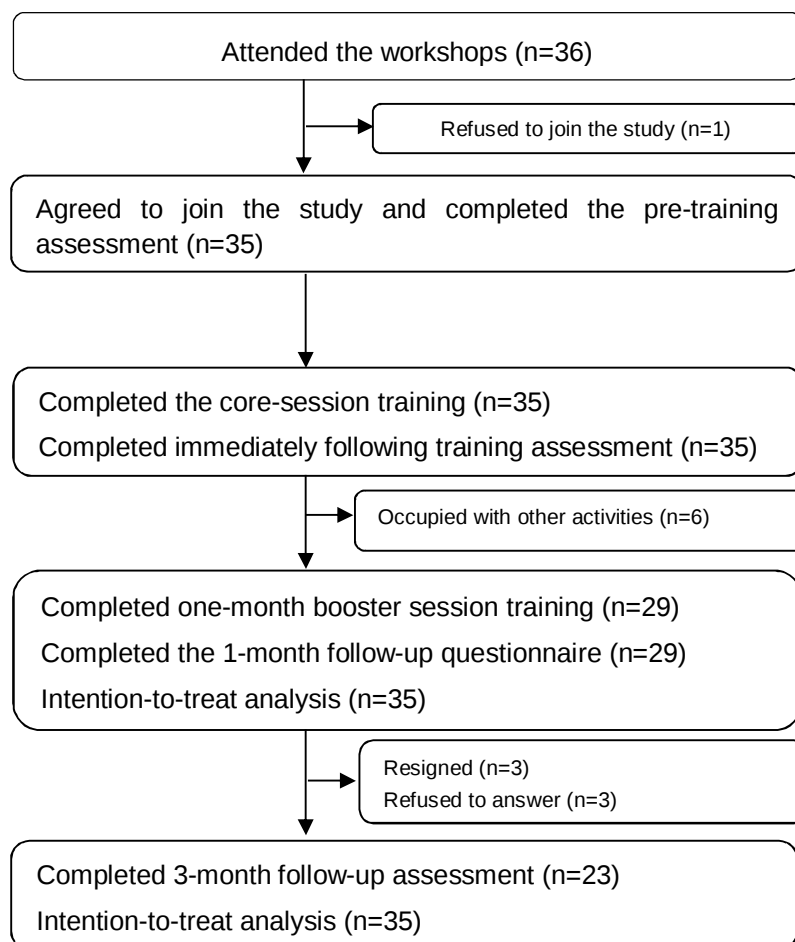


Table 4.1 Socio-demographic characteristics of trainees (n=35)

Characteristics	n (%)
Sex	
Male	13 (37.1)
Female	22 (62.9)
Age group (years)	
20-29	19 (54.3)
30-39	10 (28.6)
40-49	6 (17.1)
Education	
Secondary	6 (17.1)
Tertiary	29 (82.9)
Job title	
Registered social worker	20 (57.2)
Programme, clerical, and other staff	15 (42.8)

Table 4.2 shows significant increases in knowledge, outcome expectancies and plan to perform ZTEEx with medium to large effect size ($ES=0.67-1.51$, $p<0.05$) at 1 month and 3 months. The intention to perform ZTEEx significantly increased with small effect size ($ES=0.47$, $p=0.011$) only at 1 month. The self-efficacy of performing ZTEEx significantly increased with medium effect size ($ES=0.50$, $p=0.043$) only at 3 months.

Table 4.2 Competence and attitude regarding ZTEEx^c (n=35)

	Pre- training	1 month	3 months	Pre→ 1 month	Pre→ 3 months
	Mean (SD)			<i>p</i> -value ^a /ES ^b	
Competence					
Knowledge of ZTE _x	4.57 (2.44)	7.34 (2.41)	6.31 (3.01)	<0.001***/ 1.51	<0.001***/ 1.08
Self-efficacy of performing ZTE _x regularly	5.71 (1.95)	6.29 (1.99)	6.34 (1.71)	0.21/ 0.31	0.043*/ 0.50
Attitude					
Outcome expectancies of performing ZTE _x regularly	6.03 (1.87)	7.71 (1.58)	6.86 (1.72)	<0.001***/ 1.28	0.010*/ 0.65
Intention to performing ZTE _x regularly	5.62 (2.23)	6.29 (2.04)	6.09 (1.94)	0.011*/ 0.47	0.16/ 0.34
Plan for performing ZTE _x regularly	4.31 (2.01)	5.83 (2.12)	5.51 (2.27)	<0.001*/ 0.99	0.001**/ 0.88

^a p-value for the difference between pre-training, and 1-month and 3-month follow-ups:

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

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

^c 11-point Likert scale: "0=strongly disagree" to "10=strongly agree"

Table 4.3 shows significant decreases in average time spent seated (ES=0.51-0.83, $p<0.05$) at 1 month and 3 months, indicating the intervention in reducing the sedentary behaviour with medium to large effect size. However, moderate and vigorous physical activity did not significantly increase.

Table 4.3 Seated time and physical activity (n=35)

	Pre-training	1 month	3 months	Pre→ 1 month	Pre→ 3 months
	Mean (SD)			<i>p</i> -value ^a /ES ^b	
Average time spent seated on a week day (working day) in the last 7 days, (hours)	7.31 (2.65)	6.80 (2.59)	6.32 (2.91)	0.040*/ 0.51	0.002**/ 0.83
Days did at least 10-minute moderate physical activity in the last 7 days, (0-7 days)	2.74 (2.92)	2.34 (2.59)	2.31 (2.62)	0.36/ 0.22	0.25/ 0.28
Days did at least 10-minute vigorous physical activity in the last 7 days, (0-7 days)	1.13 (1.82)	1.57 (2.09)	0.89 (1.64)	0.10/ 0.40	0.16/ 0.34

^a *p*-value for the difference between pre-training, and 1-month and 3-month follow-ups:

* $p<0.05$; ** $p<0.01$

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

Tables 4.4 shows a marginally significantly increase in engaging exercises while sitting only at 3 months with small effect size (ES=0.41, $p=0.093$). However, engaging exercises while standing and walking did not significantly increase at 1 month and 3 months.

Table 4.4 Zero-time Exercise (n=35)

	Pre- training	1 month	3 months	Pre→ 1 month	Pre→ 3 months
	Mean (SD)			p -value ^a /ES ^b	
Days spent performing ZTE _x in a week when sitting in the last 7 days, (0-7 days)	2.11 (2.65)	2.46 (2.15)	2.83 (2.76)	0.40/0.21	0.093 [†] /0.41
Days spent performing ZTE _x in a week when standing in the last 7 days, (0-7 days)	2.51 (2.77)	2.29 (2.23)	3.00 (2.80)	0.55/0.15	0.24/0.29
Days spent performing ZTE _x in a week when walking in the last 7 days, (0-7 days)	2.24 (2.87)	2.15 (2.40)	2.65 (2.65)	0.86/0.04	0.36/0.22

^a p -value for the difference between pre-training, and 1-month and 3-month follow-ups: [†] $p<0.10$

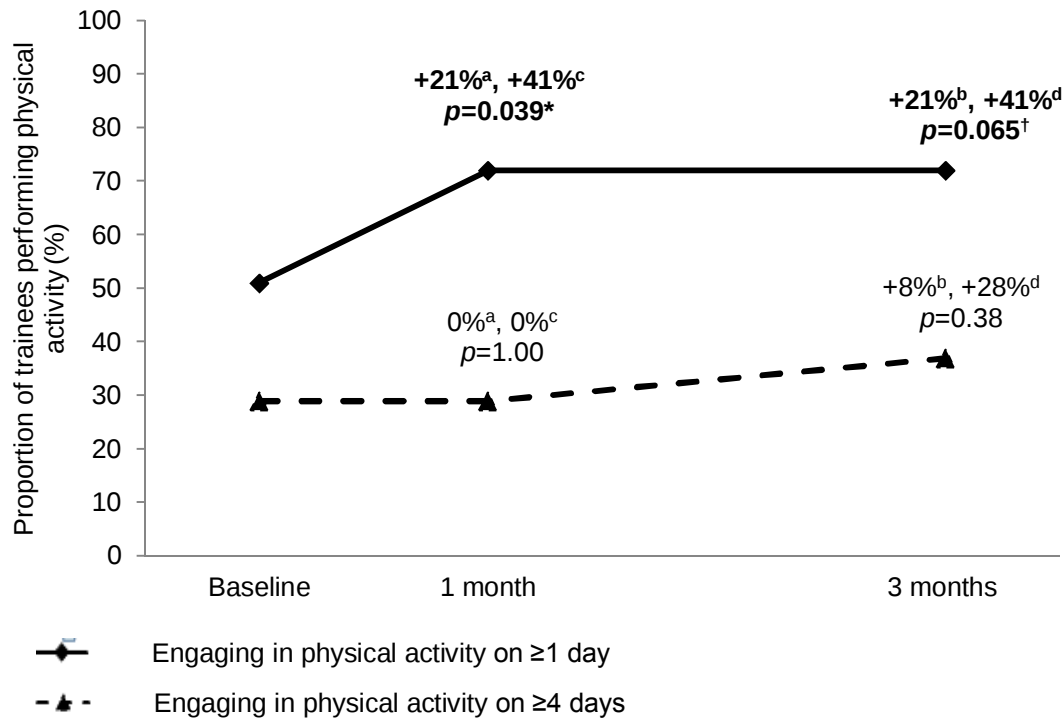
^b ES=effect size (Cohen's d): small=0.20; medium=0.50; large=0.80

Figure 4.3-4.5 shows a significant increase in the proportion of trainees engaging in physical activity while seated in one day or more in a week with a relative increase of 41% ($p=0.039$) [relative increase=(increased percentage divided by percentage of participation at baseline) $\times 100\%$] at 1 month and a marginally significant increase with a relative increase of 41% at 3 months ($p=0.065$). The proportion of trainees engaging in physical activity while walking in 1 day or more in a week significantly increased with a relative increase of 58% ($p=0.008$) only at 3 months.

The proportion of trainees engaging in physical activity while walking in 1 day or more in a week significantly increased with a relative increase of 58% ($p<0.05$) only at 3-month follow-up.

The proportion of trainees engaging in physical activity while walking in 1 day or more in a week and 4 days or more in a week were not significantly increased at 1-month and 3-month follow-ups.

Figure 4.3 Performing physical activity while sitting (n=35)



^a Increased percentage at 1-month follow-up=percentage of participation at 1-month follow-up minus percentage of participation at baseline.

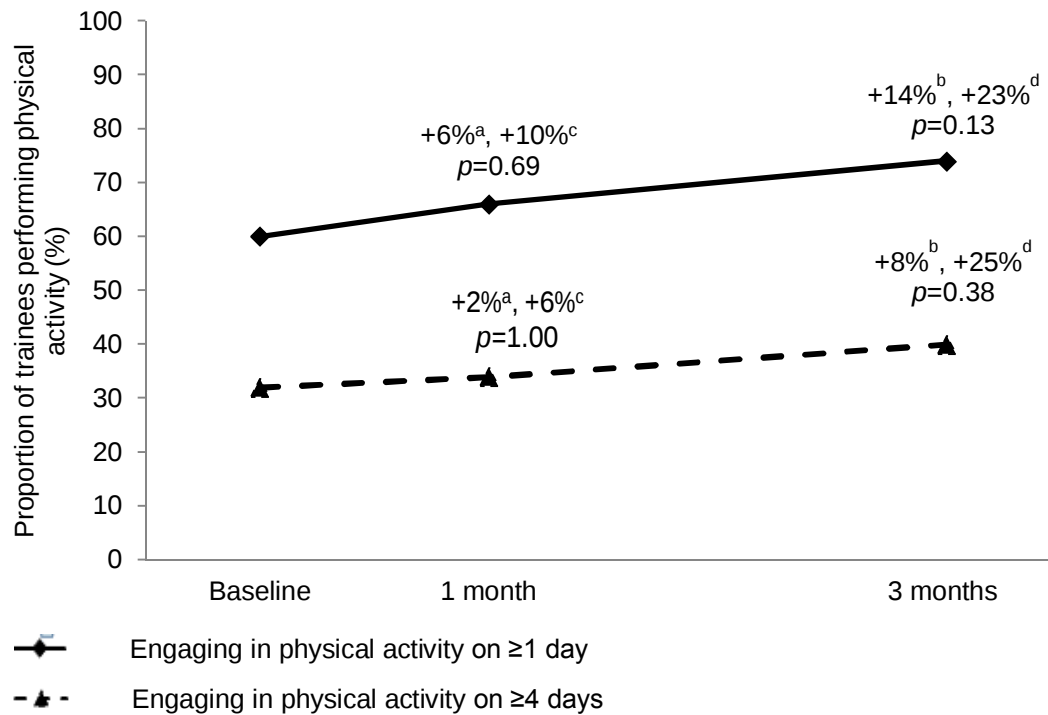
^b Increased percentage at 3-month follow-up=percentage of participation at 3-month follow-up minus percentage of participation at baseline.

^c Relative increase at 1-month follow-up=Increased percentage at 1-month follow-up divided by percentage of participation at baseline x 100%.

^d Relative increase at 3-month follow-up=Increased percentage at 3-month follow-up divided by percentage of participation at baseline x 100%.

p -value of McNemar's test for assessing the difference between the two time points: $^\dagger p<0.10$; $^* p<0.05$

Figure 4.4 Performing physical activity while standing (n=35)



^a Increased percentage at 1-month follow-up=percentage of participation at 1-month follow-up minus percentage of participation at baseline.

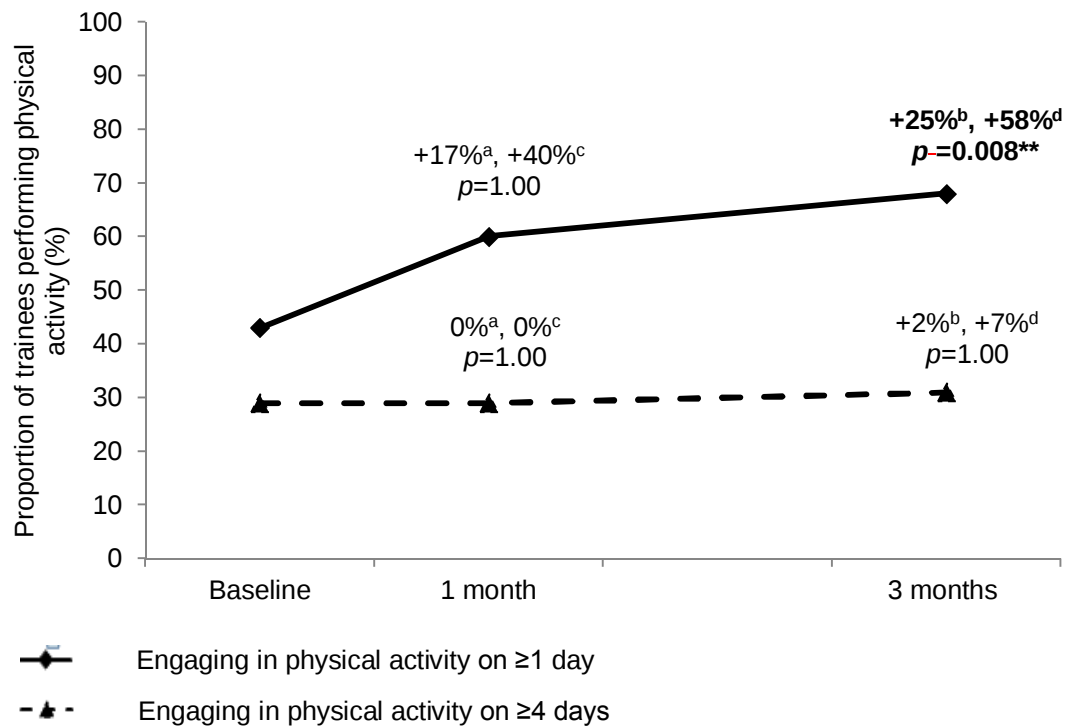
^b Increased percentage at 3-month follow-up=percentage of participation at 3-month follow-up minus percentage of participation at baseline.

^c Relative increase at 1-month follow-up=Increased percentage at 1-month follow-up divided by percentage of participation at baseline x 100%.

^d Relative increase at 3-month follow-up=Increased percentage at 3-month follow-up divided by percentage of participation at baseline x 100%.

p-value of McNemar's test for assessing the difference between the two time points

Figure 4.5 Performing physical activity while walking (n=35)



^a Increased percentage at 1-month follow-up=percentage of participation at 1-month follow-up minus percentage of participation at baseline.

^b Increased percentage at 3-month follow-up=percentage of participation at 3-month follow-up minus percentage of participation at baseline.

^c Relative increase at 1-month follow-up=Increased percentage at 1-month follow-up divided by percentage of participation at baseline $\times 100\%$.

^d Relative increase at 3-month follow-up=Increased percentage at 3-month follow-up divided by percentage of participation at baseline $\times 100\%$.

p -value of McNemar's test for assessing the difference between the two time points: $** p < 0.01$

Table 4.6 shows no significant changes in body weight (consistent with our expectation) and the left hand grip strength. The number of chair to stand cycles in 30 seconds significantly increased by an average of 4.5 cycles with large effect size (ES=0.90, $p<0.001$). Time for standing on one leg increased by 15 seconds with small effect size (ES=0.40, $p=0.032$). Right hand grip strength marginally significantly increased by an average of 1.1 kg with medium effect size (ES=0.59, $p=0.071$).

Table 4.6 Physical fitness performance (n=35)

	Pre-training	1 month	<i>p</i> -value ^a /ES ^b
	Mean (SD)		
Body weight (kg)	62.83 (16.55)	62.20 (16.58)	0.20/0.22
30-second chair stand test (no. of chair stands)	22.29 (5.79)	26.90 (6.80)	<0.001***/0.90
Single leg stance test (0-120 seconds)	85.00 (43.00)	100.27 (33.8)	0.032*/0.40
Hand grip strength - left (kg)	29.14 (9.58)	29.93 (9.67)	0.21/0.22
Hand grip strength - right (kg)	31.11 (10.54)	32.21 (11.14)	0.071 [†] /0.59

^a *p*-value for the difference between baseline and 1-month follow-ups: [†] $p<0.10$; * $p<0.05$; *** $p<0.001$

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

Table 4.7 shows significantly increased discussing ZTE_x and performing ZTE_x with family members with medium to large effect size (ES=0.74-1.00, $p<0.01$) at 1 month and 3 months. These findings showed the effectiveness of intervention in engaging family members in ZTE_x.

Table 4.7 Performing ZTE_x with family members^c (n=35)

	Pre- training	1 month	3 months	Pre→ 1 month	Pre→ 3 months
	Mean (SD)			p -value ^a /ES ^b	
Discussing ZTE _x with family members during last four weeks	1.60 (0.70)	2.92 (0.89)	2.20 (0.91)	<0.001*** /1.00	0.004**/ 0.74
Performing ZTE _x with family members during last four weeks	1.34 (0.54)	1.86 (0.94)	1.91 (0.85)	0.001**/ 0.89	<0.001**/ 0.99

^a p -value for the difference between pre-training, and 1-month and 3-month follow-ups:

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

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

^c 5-point Likert scale: "1=never" to "5=daily"

Table 4.8 shows a significant increase in self-reported well-being with medium effect size (ES=0.51, $p=0.039$) at 1 month, and a marginally significant increase in self-reported FAMILY health with small effect size (ES=0.28, $p=0.071$) at 3 months. These findings showed the effectiveness of ZTE_x intervention to enhance well-being in health.

Table 4.8 Trainees' self-reported well-being (0-10^c)

	Pre- training	1 month	3 months	Pre→ 1 month	Pre→ 3 months
	Mean (SD)			p -value ^a /ES ^b	
Self-reported personal health	5.74 (1.93)	6.37 (1.82)	6.00 (1.89)	0.039*/0.51	0.45/0.18
Self-reported personal happiness	6.91 (1.60)	6.57 (1.90)	6.43 (1.70)	0.31/0.25	0.17/-0.34
Self-reported FAMILY health	6.54 (1.52)	6.54 (1.70)	6.83 (1.42)	1.00/0.00	0.071 [†] / 0.28
Self-reported FAMILY happiness	7.26 (1.48)	6.77 (1.78)	6.91 (1.58)	0.10/-0.40	0.13/0.37
Self-reported FAMILY harmony	7.29 (1.47)	6.83 (1.76)	7.26 (1.50)	0.12/0.38	0.87/0.04

^a p -value for the difference between pre-training, and 1-month and 3-month follow-ups:

[†] $p<0.10$; * $p<0.05$

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

^c 11-point Likert scale: "0=strongly disagree" to "10=strongly agree"

Table 4.9 shows a significant increase in physical quality of life with medium effect size (ES=0.66, $p=0.009$) only at 3 months.

Table 4.9 Trainees' quality of life

	Pre- training	1 month	3 months	Pre→ 1 month	Pre→ 3 months
	Mean (SD)			p -value ^a /ES ^b	
Mental quality of life	45.5 (7.32)	46.52 (7.76)	48.39 (9.72)	0.66/ 0.11	0.20/0.31
Physical quality of life	52.59 (8.98)	53.3 (8.40)	50.17 (7.76)	0.39/ 0.21	0.009**/ 0.66

^a p -value for the difference between pre-training, and 1-month and 3-month follow-ups: ** $p<0.01$

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

4.2.3.2 Feedback on training workshops

From the on-site observation, the trainees were high engaged with active participation and enthusiasm in the training. They enjoyed the training and appreciated the training design and content, particularly the physical fitness assessments and the ZTE_x demonstration. The workshop atmosphere was joyful, especially when the trainees were comparing their own physical fitness assessment results with the normative values and performing in-class ZTE_x.

Immediately following the training, trainees reported the quality of intervention content as 8.1 ± 1.3 units and level of utility of the workshop rated as 8.3 ± 1.4 units. Ninety-seven percent of the trainees indicated that they would recommend the workshop to their friends and family.

4.2.3.3 Summary of quantitative results

Trainees actively participated with good interaction with the interventionists (trainers) and indicated that the training was comprehensive and applicable in real life practice.

During the 3-month study, the TTT showed significant improvements in trainees' competence (knowledge and self-efficacy), attitude (outcome expectancies, intention and plan) towards performing ZTE_x with small to large effect size ($ES=0.47-1.51$, $p<0.05$). Trainees reported a significant decrease in seated time with medium to large effect size ($ES=0.51-0.83$, $p<0.05$); and significant increases in engaging ZTE_x with their family members, and improvements in physical fitness performance with small to large effect size ($ES=0.40-0.90$, $p<0.05$). Physical quality of life significantly increased with small effect size to medium to large effect size ($ES=0.66$, $p=0.009$) only at 3 months. The improvements of outcomes in both self-reported and objective measures persisted through the study period.

The findings support a very brief and simple intervention that shows benefits in terms of enhancing stamina and strength, and that might serve as an initial, simple and low cost step in the process of developing habitual exercise.

Some teaching and learning strategies, such as engaging games, experiential activities, sharing sessions and group discussions, were adopted in the training programme to deliver the concepts of ZTE_x and ways of involving family to do exercise in a simple way. Such approaches were found to be effective and enjoyable by most trainees. It is suggested that these methods and processes contributed to enhancing the effectiveness of the training programme.

4.3 Train-the-Ambassador Programme

Three batches of TTA workshops were conducted for the lay volunteers during October 2015 to June 2016.

4.3.1 Objectives

- To enhance the trainees' competence, attitude and behaviour in relation to engaging in healthy living habits, particularly ZTE_x;
- To promote trainees' health knowledge and skills of assisting to implement community-based activities of the FFP;
- To encourage trainees to share the health information and influence the health behaviour of their family members; and
- To enhance the trainees' personal and FAMILY well-being (3Hs).

4.3.2 Recruitment

The programme was publicised by highlighting physical fitness assessments and physical activity in the flyers and posters.

Trainees were invited to participate in the TTA if they fulfilled the following inclusion criteria:

- Ethnic Chinese 18 years of age or older;
- Able to read Chinese and speak Cantonese;
- Residents of Kwun Tong District; and
- Willing to carry out the duties of lay unpaid "Health Ambassador" in the FFP.

All trainees were offered training as "Health Ambassadors". They were trained to conduct various health promotion and related activities including recruiting participants at mobile community health counters and by door-to-door canvassing. Trainees were also offered the option to serve as group leaders. Each leader was to be assigned a group of 10-15 participants in the community intervention programs. The responsibilities of the leaders were to monitor the community activities, help the participants perform physical fitness assessments and answer questionnaires, and make regular phone calls to provide reminders and encouragement to the community participants.

4.3.3 Design and content

4.3.3.1 Pre-training phase

We first conducted needs assessment in September 2015 to obtain the input of the representatives of residents in the targeted areas to inform the intervention design and planning. The goals were to identify the needs, resources and feasibility of implementing and evaluating community-based interventions; and obtain input relevant to enhancing the acceptability and applicability of the TTA and community-based interventions.

4.3.3.2 Training phase

Three batches of training workshops were conducted at the training centre in CFSC during October 2015 to May 2016. Each batch of workshops comprised four 2-hour face-to-face group workshops (sessions). The workshops were conducted by a multidisciplinary research team consisting of academic public health professionals with experiences in developing health promotion and interventions in the community, and registered social workers from the CFSC who were experienced with training volunteers.

Session I “Knowledge, Self-efficacy and Motivation Enhancement” was a knowledge, self-efficacy and motivation enhancement session. The key components of the FFP were introduced, including positive psychology, ZTE_x, as well as personal and family well-being. At 1 week after session I, session II “Interpersonal Communication and Leadership Skills” was delivered. Session II was focused on the interpersonal communication skills, the roles and responsibilities of Health Ambassadors, and the importance of neighbourhood relationships. Session III “Motivation Enhancement” at 1 month after session I was designed to maintain motivation. Trainees were invited to share their experiences and discuss the barriers they faced when engaging in and introducing ZTE_x to their families and community participants. In session IV “Experience Sharing” at 3 months after session I, trainees shared their experiences of being Health Ambassadors and discussed barriers in communicating with community participants.

The fidelity of the interventions delivered was assessed by two observers (research assistants of the FAMILY Project Team) separately. They used checklists with items derived from the outline of the training curriculum to ensure the quality of each training session.

At the completion of training, every trainee was invited to join a graduation ceremony and received a certificate for training completion and an appointment letter for being health promoters. “Excellent Health Ambassador” awards were issued to those who completed 70 service-hours or more in the FFP.

4.3.3.3 Post-training phase

Post-training support to trainees consisted of ongoing guidance, supervision and consultation. Monthly meetings and regular phone calls were held with CFSC social workers to discuss the logistics and implementation of the FFP. Trainees were encouraged to contact the training team if they had questions or concerns, by electronic messages or an established hotline.

4.3.4 Evaluation methods

The training workshops were systematically assessed on four dimensions adapted from Kirkpatrick's Four-Level Training Evaluation [72]. Key outcome measures included trainees': (i) reactions to the training content and design; (ii) changes in competence and attitude regarding ZTE_x and interpersonal communication skills; (iii) changes in physical activity, fitness and well-being; and (iv) knowledge sharing and the results of the community activities they implemented. Self-administered questionnaires were used to assess the outcomes at baseline, immediately after session I, and at 1-month and 3-month follow-up. Physical fitness assessments were performed at baseline and 1 month after the session I. A semi-structured

focus group interview with the trainees was conducted after the completion of FFP, at 1 year after the training.

By ITT analysis, baseline values were used to replace the missing data of trainees who did not attend the follow-up sessions. Repeated measures analysis of variance and the Friedman test were used to compare the parametric data and non-parametric data at different time points, respectively. Paired t-tests and the Wilcoxon test were used to compare the continuous parametric and non-parametric data between two time points, respectively. Transcripts were analysed by thematic content analysis, following the guidelines recommended by Morse and Field [70] and using NVivo 11.0. Mixed Method Triangulation design was used to interrelate and interpret the qualitative and quantitative data to validate the results [71]. The details of analysis methods have been presented in Section 4.2.3.

4.3.4.1 Quantitative evaluation of the training workshops for the volunteers (Health Ambassadors)

Twenty-eight trainees (71% females and 46% ≥ 60 years) were recruited for the training workshops during October 2015 to June 2016. All trainees attended the training sessions at baseline and 1 week later, three did not attend the training session at 1-month follow-up and four did not attend the training session at 3-month follow-up. 28 questionnaires were completed both before and immediately after the session I, and 25 and 21 at 1-month and 3-month follow-up, respectively (Figure 4.4).

Figure 4.4 The CONSORT flow chart

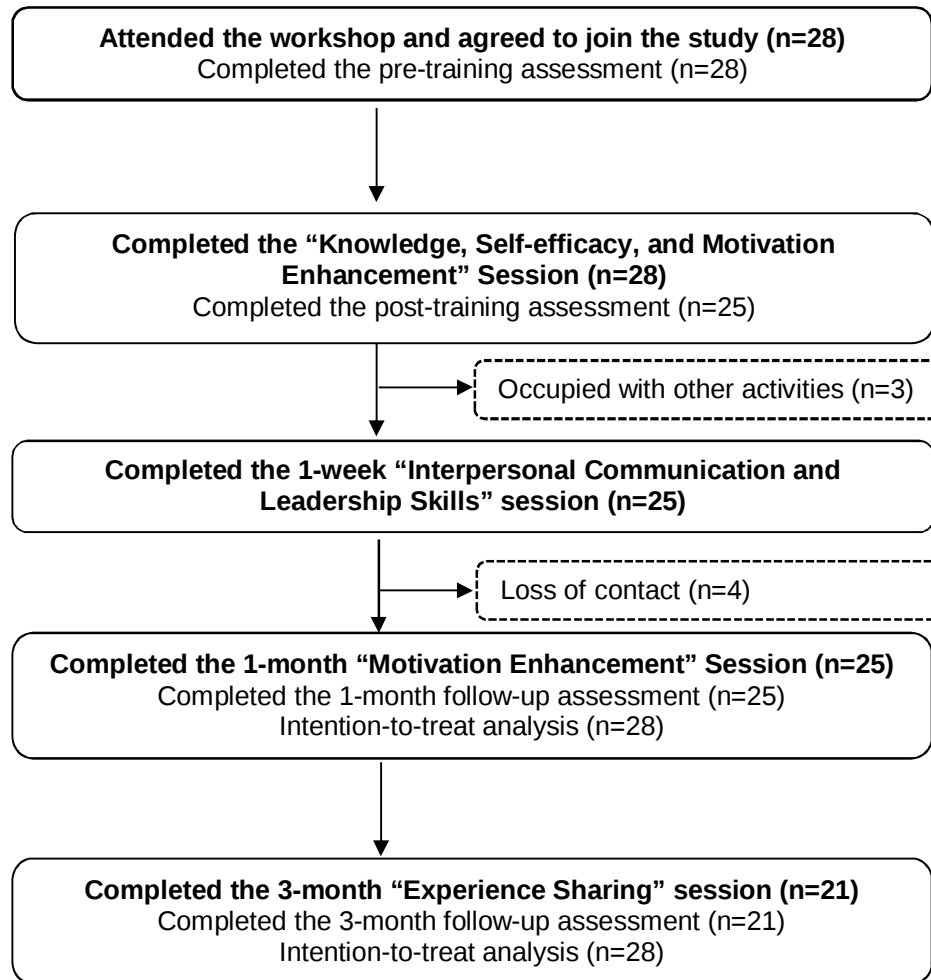


Table 4.10 shows socio-demographic characteristic of trainees. Over 70% of trainees were female (20, 71%) and aged 50 years or over (20, 71%).

Table 4.10 Socio-demographic characteristics (n=28)

Characteristics	n (%)
Sex	
Male	8 (29)
Female	20 (71)
Age group (years)	
30-39	2 (7)
40-49	6 (21)
50-59	7 (25)
≥60	13 (46)
Employment status	
Employed	10 (36)
Retired/Unemployed	14 (50)
Housewife	4 (14)
Education	
Primary or below	2 (6)
Secondary	14 (50)
Tertiary or above	12 (44)

Table 4.11 shows significant increases in knowledge, outcome expectancies, intention, and plan towards engaging in ZTE_x regularly (ES=0.42-0.60, $p<0.05$) at 1 month and 3 months with small to medium effect size. However, the self-efficacy showed a significant increase only immediately after the session I with small effect size (ES=0.45-0.61, $p<0.05$).

Table 4.11 Competence and attitude in relation to ZTE_x^d (n=28)

	Baseline	Immediately after session	1 month	3 months	Difference between ^a		
					Pre→ Immediately after session I	Pre→ 1 month	Pre→ 3 months
					<i>p</i> -value ^b /ES ^c		
Mean (SD)							
Competence							
Knowledge of the general concept of ZTE _x	6.14 (3.29)	7.91 (2.41)	8.00 (2.02)	8.11 (2.51)	0.007**/ 0.56	0.005*/ 0.61	0.004**/ 0.60
Self-efficacy of performing ZTE _x regularly	6.71 (2.59)	7.80 (2.10)	7.31 (2.10)	7.36 (2.20)	0.026*/ 0.45	0.11/ 0.59	0.10/ 0.33
Attitude							
Outcome expectancies of performing ZTE _x regularly	7.07 (3.18)	8.39 (1.97)	8.39 (1.87)	7.96 (2.90)	0.042*/ 0.43	0.015*/ 0.53	0.037*/ 0.42
Intention to performing ZTE _x regularly	6.96 (2.56)	7.90 (2.10)	8.04 (1.69)	7.79 (2.20)	0.038*/ 0.42	0.023*/ 0.48	0.032*/ 0.44
Plan for performing Zero-time Exercise regularly	6.00 (2.74)	7.40 (2.11)	7.32 (1.83)	7.07 (2.42)	0.005**/ 0.60	0.015*/ 0.51	0.009**/ 0.54

^a Repeated Measures Analysis of Variance and paired t-test to compare data at three time points and between two time points, respectively.

^b Difference between two time points: * $p<0.05$, ** $p<0.01$

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

^d 11-point Likert scale: "0=strongly disagree" to "10=strongly agree"

84% and 90% of the trainees reported improved knowledge on interpersonal communication skills; and 80% and 90% of the trainees reported improved skills for establishing relationships with the community participants at 1-month and 3-month follow-up, respectively.

Table 4.12 shows significant decrease in time spent seated on a week day with small effect size only at 3-month (ES=0.42, $p=0.008$), and significant decrease on a weekend day with small effect size at 1 month and 3 months (ES=0.43-0.45, $p<0.05$). Engaging in moderate physical activity significantly increased with medium effect size only at 3 months (ES=0.58, $p=0.007$). These findings showed the effectiveness of intervention in reducing sedentary behaviour and enhancing moderate physical activity.

Table 4.12 Seated time and physical activity (n=28)

	Pre- training	1 month	3 months	Pre→ 1 month	Pre→ 3 months
	Mean (SD)			<i>p</i> -value ^a /ES ^b	
Average time spent seated on a week day (working day) in the last 7 days, (hours)	4.21 (2.94)	4.05 (2.78)	3.46 (2.63)	0.49/ -0.08	0.008**/ -0.42
Average time spent seated on a weekend day (nonworking day) in the last 7 days, (hours)	4.32 (1.89)	3.66 (2.14)	3.64 (2.31)	0.025*/ -0.45	0.033*/ -0.43
Days did at least 10-minute moderate physical activity in the last 7 days, (0-7 days)	3.41 (3.08)	4.37 (2.53)	5.20 (2.43)	0.19/ 0.28	0.007**/ 0.58
Days did at least 10-minute vigorous physical activity in the last 7 days, (0-7 days)	1.63 (2.37)	2.48 (2.82)	2.44 (2.62)	0.098 [†] / 0.34	0.13/ 0.33

^a *p*-value for the difference between pre-training, and 1-month and 3-month follow-ups:

[†] $p<0.10$; * $p<0.05$; ** $p<0.01$

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

Tables 4.13 shows significant increases in engaging exercises while sitting, standing and walking with at 3 months, indicating the intervention to enhance ZTEx with medium effect size (ES=0.45-0.61, $p<0.05$).

Table 4.13 Zero-time Exercise (n=28)

	Pre- training	1 month	3 months	Pre→ 1 month	Pre→ 3 months
	Mean (SD)			p -value ^a /ES ^b	
Days spent doing ZTEx in a week when sitting in the last 7 days, (0-7 days)	3.43 (3.13)	4.36 (2.50)	5.36 (2.33)	0.15/ 0.27	0.010*/ 0.58
Days spent engaging in ZTEx in a week when standing in the last 7 days, (0-7 days)	4.86 (2.78)	5.14 (2.22)	6.04 (1.43)	0.51/ 0.10	0.045*/ 0.46
Days spent engaging in ZTEx in a week when walking in the last 7 days, (0-7 days)	3.85 (3.20)	4.33 (2.66)	5.59 (2.19)	0.44/ 0.16	0.009**/ 0.61

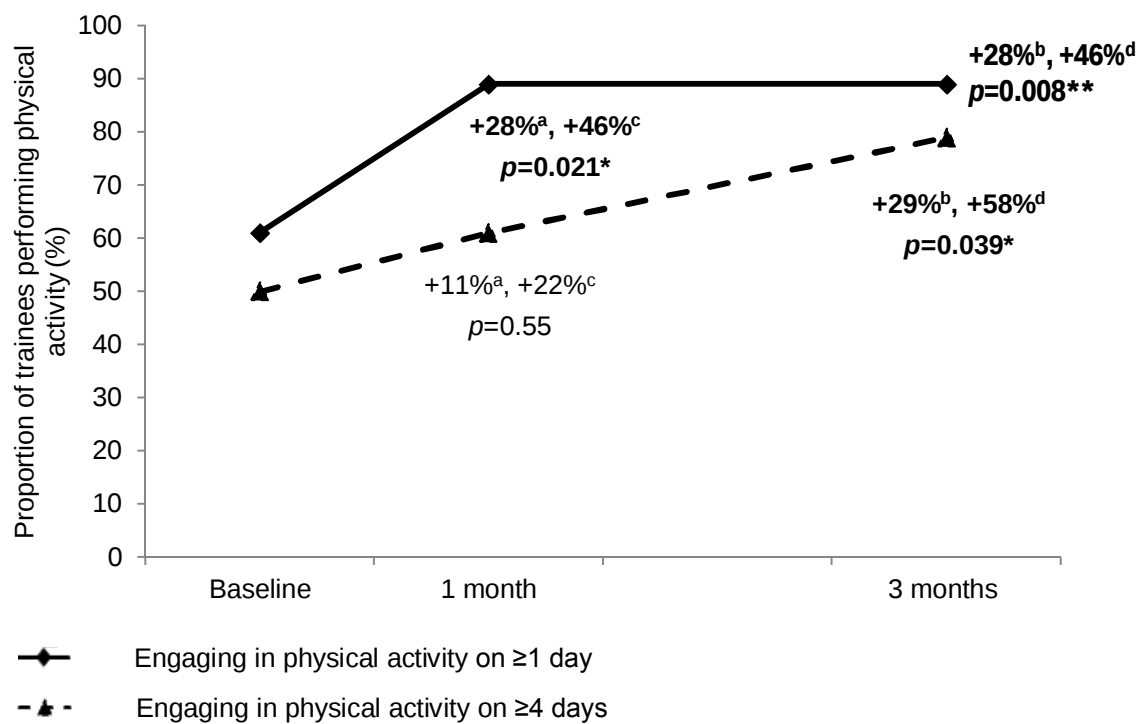
^a p -value for the difference between pre-training, 1-month and 3-month follow-ups:

* $p<0.05$; ** $p<0.01$

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

Figure 4.14-4.17 shows significant increase in the proportion of trainees engaging in physical activity while seated on 1 day or more in a week with relative increase [relative increase=(increased percentage divided by percentage of participation at baseline)x100%] of 46% at 1 month and 3 months. The proportions of trainees engaging in physical activity while seated 4 days or more in a week increased with a relative increase of 46% ($p<0.05$) only at 3 months. The proportions of trainees engaging in physical activity while walking on 1 day or more in a week significantly increased only at 3 months (relative increase: 37%-64%, $p<0.05$)

Figure 4.14 Performing physical activity while seated (n=28)



^a Increased percentage at 1-month follow-up=percentage of participation at 1-month follow-up minus percentage of participation at baseline.

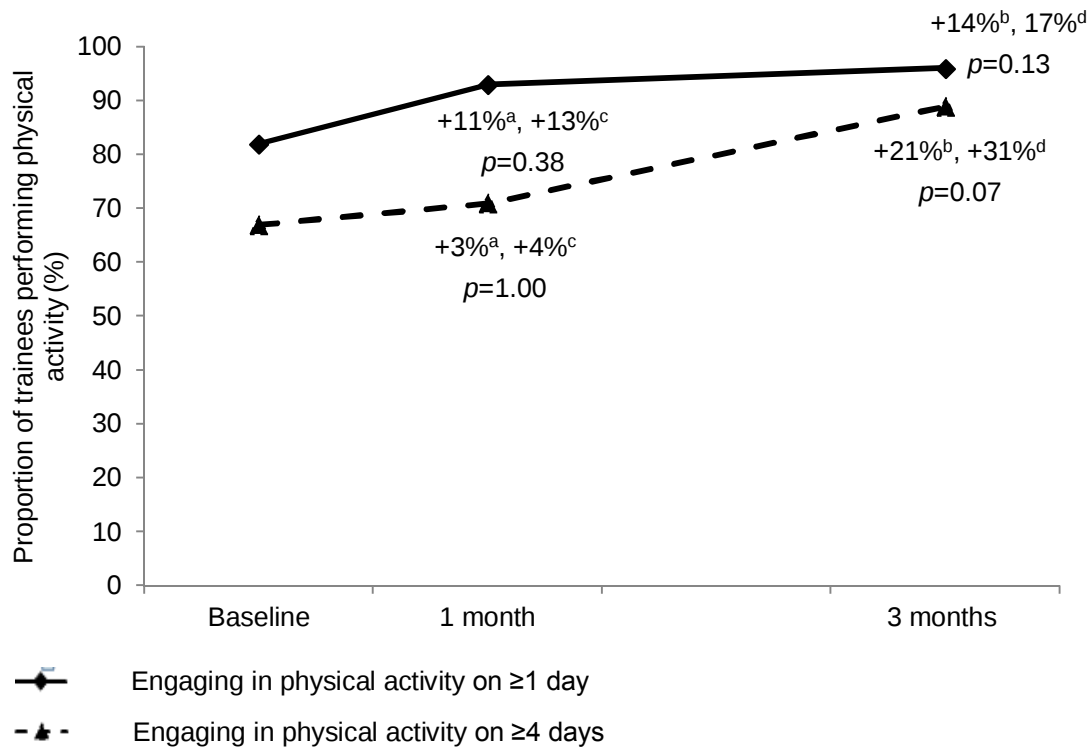
^b Increased percentage at 3-month follow-up=percentage of participation at 3-month follow-up minus percentage of participation at baseline.

^c Relative increase at 1-month follow-up=Increased percentage at 1-month follow-up divided by percentage of participation at baseline x100%.

^d Relative increase at 3-month follow-up=Increased percentage at 3-month follow-up divided by percentage of participation at baseline x100%.

p -value of McNemar's test for assessing the difference between the two-time points: * $p<0.05$; ** $p<0.01$

Figure 4.16 Performing physical activity while standing (n=28)



^a Increased percentage at 1-month follow-up=percentage of participation at 1-month follow-up minus percentage of participation at baseline.

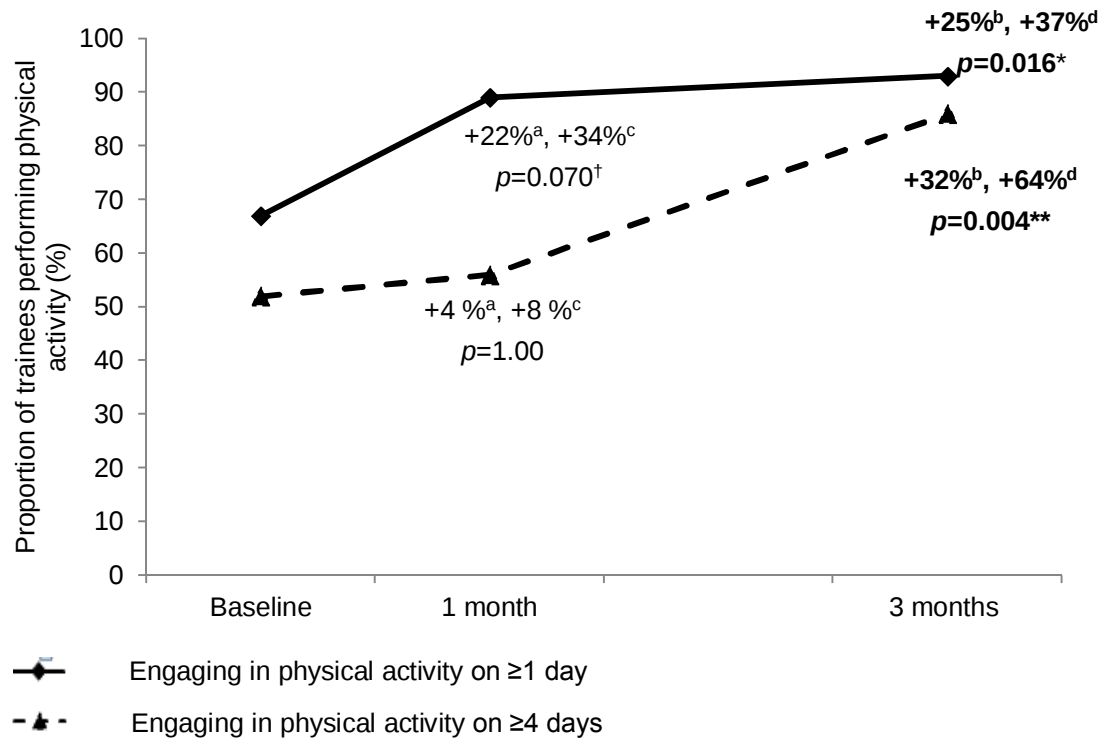
^b Increased percentage at 3-month follow-up=percentage of participation at 3-month follow-up minus percentage of participation at baseline.

^c Relative increase at 1-month follow-up=Increased percentage at 1-month follow-up divided by percentage of participation at baseline x100%.

^d Relative increase at 3-month follow-up=Increased percentage at 3-month follow-up divided by percentage of participation at baseline x100%.

p-value of McNemar's test for assessing the difference between the two time points

Figure 4.17 Performing physical activity while walking (n=28)



^a Increased percentage at 1-month follow-up=percentage of participation at 1-month follow-up minus percentage of participation at baseline.

^b Increased percentage at 3-month follow-up=percentage of participation at 3-month follow-up minus percentage of participation at baseline.

^c Relative increase at 1-month follow-up=Increased percentage at 1-month follow-up divided by percentage of participation at baseline x100%.

^d Relative increase at 3-month follow-up=Increased percentage at 3-month follow-up divided by percentage of participation at baseline x100%.

p -value of McNemar's test for assessing the difference between the two time points: [†] $p<0.10$; * $p<0.05$;

** $p<0.01$

Physical fitness performance

Table 4.17 shows significant increase in duration of individuals standing on one leg and right hand grip strength at 1 month with medium effect size ($ES=0.58-0.69$, $p<0.01$), respectively; and marginally significant increase in number of stands in 30-second chair stand test and left hand grip strength with small effect size ($ES=0.38-0.39$, $p=0.06$). These findings showed the effectiveness of intervention to enhance physical fitness. All trainees completed the physical fitness assessments with no complaint or discomfort.

Table 4.17 Physical fitness performance (n=28)

	Pre-training	1 month	<i>p</i> -value ^a / <i>ES</i> ^b
	Mean (SD)		
Body weight (kg)	64.36 (13.70)	64.51 (13.93)	0.39/0.18
30-second chair stand test (no. of chair stands)	22.39 (5.94)	24.70 (7.27)	0.06 [†] /0.39
Single leg stance test (0-120 seconds)	58.96 (44.11)	79.85 (44.28)	0.001**/0.69
Hand grip strength - left (kg)	25.65 (7.22)	26.94 (6.88)	0.06 [†] /0.38
Hand grip strength - right (kg)	26.55 (7.72)	28.98 (8.11)	0.005**/0.58

^a *p*-value for the difference between baseline and 1-month follow-up: [†] $p<0.10$; ** $p<0.01$

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

Table 4.18 shows both discussing ZTE_x and doing ZTE_x with family significant increases with medium to large effect size (ES=0.60-1.14, $p<0.05$) at 1 month and 3 months, indicating the effectiveness.

Table 4.18 Performing ZTE_x with family^c

	Pre- training	1 month	3 months	Pre→ 1 month	Pre→ 3 months
	Mean (SD)			p -value/ES ^b	
Discussing ZTE _x with family during last four weeks	2.50 (1.11)	3.04 (0.92)	2.96 (0.96)	0.023*/0.65	0.035*/0.60
Doing ZTE _x with family during last four weeks	2.14 (1.01)	2.86 (1.08)	3.07 (0.77)	0.002**/0.90	<0.001***/ 1.14

^a p -value for the difference between pre-training, and 1-month and 3-month follow-ups:

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

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

^c 5-point Likert scale: "1=never" to "5=daily"

Table 4.19 shows significant increases in self-reported personal health and happiness with small to medium effect size ($ES=0.43-0.56$ $p<0.05$) and marginally significantly increase in self-reported FAMILY health and FAMILY happiness with small effect size ($ES=0.42-0.48$, $p<0.05$), only at 3 months.

Table 4.19 Self-reported well-being^c

	Pre- training	1 month	3 months	Pre→ 1 month	Pre→ 3 months
	Mean (SD)			<i>p</i> -value ^a / <i>ES</i> ^b	
Self-reported personal health	6.86 (1.53)	7.00 (1.49)	7.43 (1.48)	0.61/0.10	0.030*/0.43
Self-reported personal happiness	7.29 (1.82)	7.36 (1.83)	7.82 (1.63)	0.77/0.05	0.007**/0.56
Self-reported FAMILY health	7.25 (1.62)	7.18 (1.77)	7.54 (1.52)	0.77/0.07	0.088 [†] /0.42
Self-reported FAMILY happiness	7.32 (1.61)	7.21 (1.61)	7.71 (1.68)	0.62/0.12	0.054 [†] /0.48
Self-reported FAMILY harmony	7.43 (1.83)	7.43 (1.85)	7.71 (1.65)	1.00/0.00	0.147/0.36

^a *p*-value for the difference between pre-training, and 1-month and 3-month follow-ups:

[†] $p<0.10$; * $p<0.05$; ** $p<0.01$

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

^c 11-point Likert scale: "0=strongly disagree" to "10=strongly agree"

Table 4.20 shows no significant change in quality of life at 1 month and 3 months.

Table 4.20 Quality of life (0-100)^c

	Pre- training	1 month	3 months	Pre→ 1 month	Pre→ 3 months
	Mean (SD)			<i>p</i> -value ^a /ES ^b	
Mental quality of life	55.58 (10.53)	54.02 (10.8)	63.79 (9.41)	0.35/0.23	0.21/0.46
Physical quality of life	49.21 (7.40)	49.55 (11.2)	46.54 (9.01)	0.83/0.05	0.06 [†] /0.02

^a *p*-value for the difference between pre-training, and 1-month and 3-month follow-ups: [†] *p*<0.10

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

^c Quality of life assessed by SF-12; Short Form-12 Health Survey, scores range from 0-100

Table 4.21 shows that mean score for the perceived change (when compared with baseline) in knowledge of interpersonal communication skills, and technique of establishing good relationships with teammates ranged from 4.12 to 4.52, indicating some improvements

The improvement in technique of establishing good relationships with team mates was significant by greater at 3-month than at 1-month follow-up (ES=0.72, $p=0.004$).

Table 4.21 Interpersonal communication skills^c

	1 month	3 months	<i>p</i> -value ^a /ES ^b
	Mean (SD)		
Change in the knowledge of interpersonal communication skills	4.29 (0.72)	4.52 (0.68)	0.10/0.38
Change in the technique of establishing good relationships with team mates	4.10 (0.83)	4.52 (0.68)	<0.004**/0.72

^a p -value for the difference between 1-month and 3-month follow-ups: ** $p<0.01$

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

^c 6-point Likert scale: "1=no improvement at all" to "6=much improved"

4.3.4.2 Feedback on training workshops

From the on-site observation, the trainees were highly engaged in the training with active participation and enthusiasm. They showed great interests in the physical fitness assessments, particularly the grip strength and single leg stance. They liked the ZTEx demonstration and were actively doing in-class ZTEx with enthusiasm. The workshop atmosphere was joyful, and trainees had great fun in comparing their physical fitness assessment results with the normative values and their peers' results and performing in-class ZTEx.

Immediately following training, trainees rated the quality of the workshop content as 8.4 ± 1.4 units and the level of utility as 8.2 ± 1.4 units. Ninety-eight percent ($n=59$) trainees indicated that they would recommend this programme to their friends and family.

4.3.4.3 Summary of quantitative evaluation

Trainees indicated a high level of satisfaction with the programme. The TTA enhanced trainees' competence and attitude towards engaging in ZTEx, and increased their physical activity and fitness. Trainees reported improved interpersonal communication skills and personal well-being.

During the 3-month study, the trainees who participated in the TTA showed significant improvements in competence (knowledge and self-efficacy), attitude (outcome expectancies, intention, and plan) towards performing ZTEx with small to medium effect size ($ES=0.42-0.61$, $p<0.05$). Trainees reported significant increases in physical activity, physical fitness and ZTEx with small to large effect size ($ES=0.42-0.83$, $p<0.05$). Engaging in ZTEx with family members and self-reported personal well-being significantly increased with small to large effect size ($ES=0.43-1.14$, $p<0.05$). The improvements of outcomes in both self-reported and objective measures persisted through the study period.

The results of the training workshops have shown that a simple physical fitness assessment was an important component of the training. The personal gains in health and happiness and the feedback from the community participants provided a synergistic effect on the lay health promoters' well-being. That some outcome measures showed no changes after intervention suggested that the positive responses and improvements were not substantially due to social desirability bias (i.e. that respondents were likely to over-report socially desirable answers).

The current study shows good evidence of the effectiveness of a TTA that trained lay volunteers to be Health Ambassadors; and ZTEx was innovative, attractive and effective approach to enhance physical activity. One unique component of this programme was the emphasis on promoting the concept of being role models. Trainees first engaged themselves to increase physical activity, before helping in the implementation of the FFP. The intervention not only benefited the community participants but also the Health Ambassadors themselves.

4.4 Overall discussion and conclusion for the TTTA Programmes

The social service workers and lay volunteers were benefited from the TTT and TTA, respectively. In general, the training programmes:

- showed high acceptability and applicability;
- enhanced competence on (knowledge and self-efficacy), attitudes toward (outcome expectancies, intention and planning) and practice of using the training content in trainees' interventions;
- increased physical activity and ZTE_x and improved physical fitness performance;
- enhanced competence (knowledge and self-efficacy), attitude (outcome expectancies, intention and planning) and practice of applying the construct of positive psychology and ZTE_x in daily life;
- increased engaging family members in ZTE_x; and
- improved self-reported well-being.

We have (i) designed brief evidence-based evidence-generating training programmes with theoretical conceptual model and innovation to meet the needs of the services; (ii) implemented our programmes with guidelines and provided post-training support; and (iii) systematically evaluated them with model-based approach, and quantitative and qualitative methods.

The training content included the general constructs of positive psychology and ZTE_x. Experiential and diversified teaching and learning methods were used, including physical fitness assessments, experiential learning strategy, role-plays, games, group discussion, and didactic talks. After the training, continuous support including ongoing guidance, supervision and consultation, was provided to the trainees.

Trainees indicated that the training was easy-to-understand and comprehensive; the electronic messages were useful and reminded them of the health behaviours; and the souvenirs were attractive and practical to use. The training not only helped their work, but also improved their health behaviour and physical fitness and benefited personal well-being and FAMILY 3Hs. The trainees reported having a great sense of achievement and better relationships with family and people around. They disseminated their learning to their friends, families and participants of their implemented programmes. The qualitative feedback corroborated and enriched the quantitative results, with touching and enlightening messages.

There were several limitations in our study. First, because validated questionnaires were not available, we developed our outcome-based questionnaire to assess the changes in trainees. We measured perceptions and not actual knowledge and skills. Perceived knowledge and skills may not reflect actual knowledge and skills acquired and can be influenced by the individual's personality, self-perception [73], and may be under- or over-estimated depending upon numerous factors in play at the time when completing the questionnaire. In addition,

social desirability bias might have exaggerated the positive findings. We did get indirect information about actual knowledge and skills by examining the trainees' proposals, the design and content of the programs and the delivery process, which fulfilled our requirement. Objective measures or tests/examinations of specific knowledge and skills, and a control group of trainees who do not receive the program would provide stronger evidence in future studies. Our sample size was small, and the workers we included might not be representative of their profession across other agencies. Replications with more workers and in other contexts are needed. We cannot be certain about which of our strategies resulted in effective learning. Elucidation of the active ingredients of an intervention and the mediation components that are responsible for change, typically are undertaken after an intervention is proven to be effective. Examination of the effective components of our training strategies would be a future direction for research, and may allow refinement of the program for broader dissemination. Using a control group would be desirable.

Our evidence-based and evidence-generating training programmes has offered practical examples of the well-structured development and model based evaluation of capacity building programmes, which should be helpful to others seeking to develop such programmes in diverse communities. Our work has laid good foundations for deeper collaboration between social service organisations and academics in advocating the fusion of the “Best Science” with “Best Practice”, and empowered social and related service organisations to integrate scientific practices into their existing and future programmes, and policy formulation.

CHAPTER 5 COMMUNITY-BASED FAMILY INTERVENTION PROGRAMMES

5.1 Introduction

Based on the strong foundation of the LFP conducted by CFSC and FAMILY Project Team during 2010 to 2012 in Tsui Ping (South) Estate in Kwun Tong District, the present community-based family intervention programmes showed greater scientific rigour and impact than the previous LFP by adoption of a cluster randomised controlled trial to promote physical activity, family holistic health, and neighbourhood cohesion in the entire Kwun Tong District. The community-based interventions were family-centred, interactive and designed to motivate behaviour changes and thus empower the positive and sustainable health actions among family members. In addition, the programmes also engaged neighbourhood support and provided reminders through trained community Health Ambassadors for the participants.

Results from the LFP showed that the community-based family intervention programmes were well-received by families and significantly improved family communication, FAMILY 3Hs and neighbourhood cohesion in the intervention estate [74, 75]. As such, the previous conceptual framework (social ecological model) was adopted on the FFP. The social ecological model proposes dynamic interrelations among various personal and environmental factors [49]. The model emphasises that people's behaviours are affected by intra-personal, inter-personal, community and societal factors. The community-based programmes promoted the concepts of ZTE_x and FAMILY 3Hs to the participants (intra- and inter-personal level), and was innovative in extending across multiple levels of factors. The community-based programmes provided a platform for family members to spend time together and communicate with each other through performing simple and enjoyable ZTE_x (inter-personal level), as well as for neighbours to interact and build social networks through participating in the community activities and regularly contacting with Health Ambassadors (community level).

CFSC and the FAMILY Project Team worked closely in the design, implementation and evaluation of the community-based intervention programme. Trained social service workers designed and implemented the community-based intervention programme, which were guided by a standard protocol. The programmes included a combination of the following parts depending on the randomisation:

- A core session of about 1.5 hours (all three groups);
- Neighbourhood support: regular telephone contacts provided by Health Ambassadors at 2-week intervals (Groups A and B);
- Providing a hand grip for easy practice of handgrip strength exercise (a kind of ZTE_x) (Group B);
- A booster session of about 15 minutes (Groups A and B); and
- Gathering sessions on activities unrelated to intervention (all three groups) (Figure 5.1)

A total of 25 core sessions to motivate and empower the participants to perform ZTE_x were organised in CFSC headquarters. The sessions covered an introduction to the FFP and demonstration of ZTE_x and physical fitness assessments. Core messages included the

concept and practice of ZTE_x, motivation of performing ZTE_x with family members, the clinical implications of physical fitness (hand grip strength and how to improve by using the handgrip provided without using extra time i.e. while walking, lower body strength, flexibility and balance), and goal setting for performing ZTE_x.

A total of 19 booster sessions were conducted on the HKU medical campus at 1 month after the core session. The booster session included a review of the knowledge and skills of ZTE_x and experience sharing of performing ZTE_x among the participants.

A total of six telephone contacts for each family to remind them to perform ZTE_x were conducted by Health Ambassadors at 2-week intervals from the end of the core session to the 3-month follow-up sessions. Health Ambassadors reminded the participants to perform ZTE_x every day with their family members and to practice hand grip strength exercises (only for Group B).

A total of 33 gathering sessions were conducted at 1 month (HKU campus visit) and 3 months (lunch gathering) after the core session in HKU campus, Lei Yue Mun and Whitehead. No specific intervention was delivered at gathering sessions.

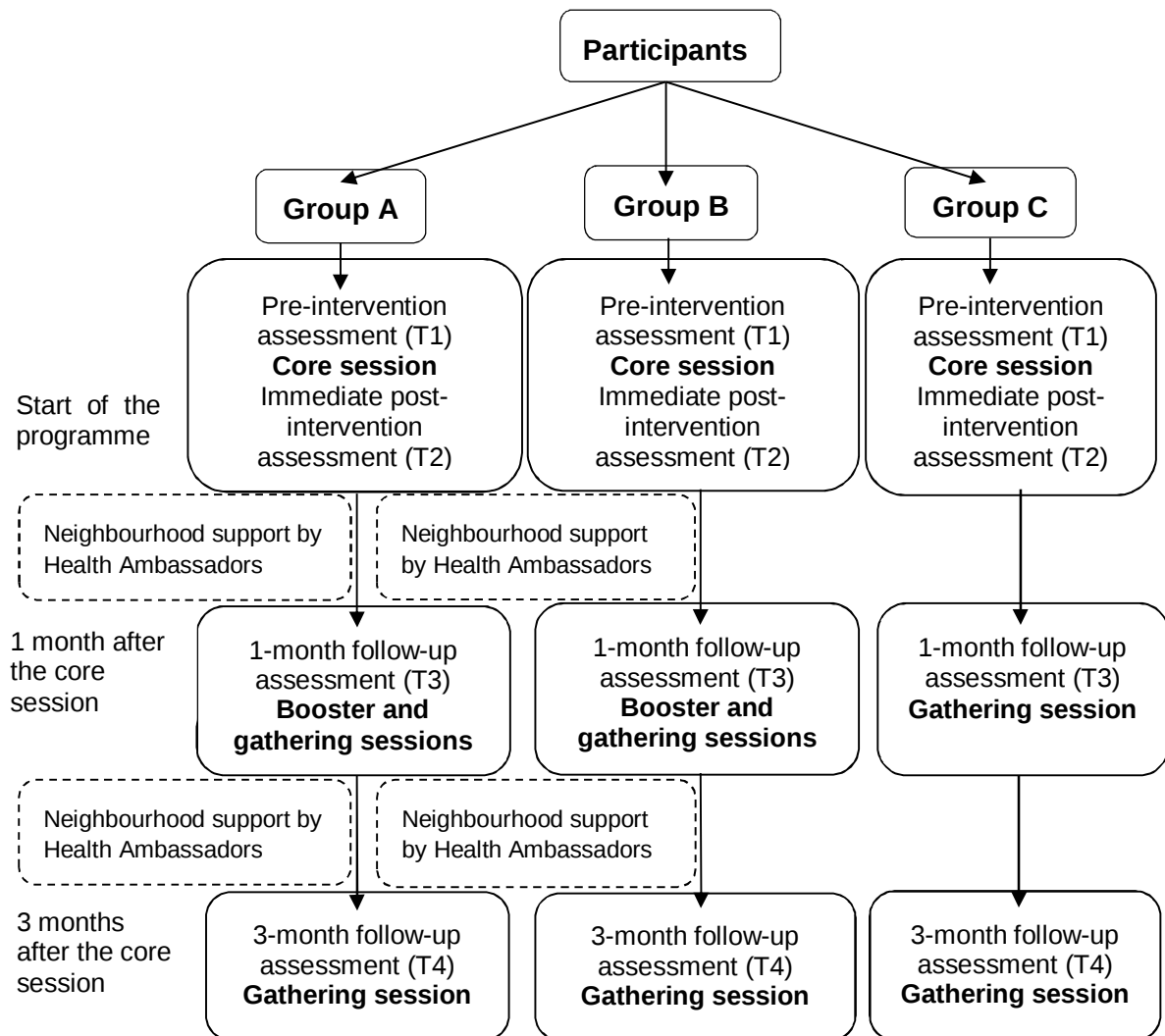
5.2 Cluster randomised controlled trial design

Participants were randomly allocated into three groups based on District Council election constituency boundaries in Kwun Tong District where they lived as allocation of individuals was not practicable and would lead to contamination. Table 5.1 shows the allocation details of the participants.

Table 5.1 Intervention programmes categorised by District Council election constituency boundaries

Intervention groups	District Council election constituencies
Group A	Jordan Valley, Shun Tin, Sheung Shun, On Lee, Po Tat, Sau Mau Ping North, King Tin, Tsui Ping, Po Lok, Yuet Wah, Hip Hong, Hong Lok
Group B	Kwun Tong Central, Kowloon Bay, Kai Yip, Lai Ching, Ping Shek, Sheung Choi, Ting On, Ngau Tau Kowk, To Tai, Lok Wah North, Lok Wah South, On Tat Estate
Group C	Hiu Lai, Sau Mau Ping South, Hing Tin, Lam Tin, Kwong Tak, Ping Tin, Pak Nga, Yau Tong East, Yau Lai, Chui Cheung, Yau Tong West, Laguna City

Figure 5.1 Cluster randomised controlled trial design



Questionnaire evaluation was conducted at four time points for all groups: before the core session (baseline assessment, T1), immediately after the core session (T2), 1 month after the core session (conducted before the booster sessions in Groups A and B, and gathering sessions in Group C, T3), and 3 months after the core session (conducted before the gathering in all groups, T4). Physical fitness assessments were conducted for all the participants at T1, T3 and T4 to objectively measure physical changes over time.

Health Ambassadors and social service workers were also involved in the data collection (questionnaire assessment and physical fitness assessments) process, which was guided by the FAMILY Project Team. The majority of the questionnaires were completed by the participants themselves and for some groups, such as the elderly, children or mentally challenged participants, individual assistance was provided by Health Ambassadors and social service workers. The process of data collection was jointly supervised by social service workers and the FAMILY Project Team.

Qualitative data were collected after the community-based intervention programme through focus groups of community programme participants and in-depth interviews of community

stakeholders for in-depth understanding of the attitudes and behaviours that motivated them towards family holistic health. To assess the quality of the interventions, fidelity checks and process evaluations were conducted regularly.

Table 5.2 Contents of questionnaire assessment and physical fitness assessment

Measurements ^a	Details	T1	T2	T3	T4
Knowledge	1-item question rating the understanding of ZTE _x concept, score from 0 to 10	√	√	√	√
Attitude	1-item question rating the confidence to perform ZTE _x , score from 0 to 10	√	√	√	√
Intention	1-item question rating the intention to perform ZTE _x , score from 0 to 10	√	√	√	√
Programme evaluation	3 separate questions rating the enjoyment and perceived usefulness of the programme as well as the willingness to recommend the programme to family and friends, score from 0 to 10		√		
Self-reported FAMILY 3Hs	3 separate questions rating FAMILY health, happiness, and harmony, score from 0 to 10	√		√	√
Self-reported personal health	1-item question rating personal health, score from 0 to 10	√		√	√
Self-reported personal happiness	1-item question rating personal happiness, score from 0 to 10	√		√	√
Neighbourhood cohesion	5-item neighbourhood cohesion scale [76], score from 1 to 5	√		√	√
Physical activity behaviours	Frequency of performing ZTE _x , moderate exercise, vigorous exercise, and strength exercise in the past week	√		√	√
Subjective change	Subjective changes in performing ZTE _x and neighbourhood cohesion compared with the status before the programme, score from 1 to 5			√	√
Relationship with Health Ambassadors	1-item question rating the relationship with Health Ambassadors, score from 0 to 10			√	√

Measurements ^a	Details	T1	T2	T3	T4
Demographic information	Sex, age, education, monthly household income, marital status, employment status, and place of birth	√			
Hand grip strength	Hand grip strength test, as shown in Section 1.3.1.1	√		√	√
Lower body strength	30-second chair stand test, as shown in Section 1.3.1.2	√		√	√
Flexibility	Chair sit-and-reach test, as shown in Section 1.3.1.3	√		√	√
Balance	Single leg stance test, as shown in Section 1.3.1.4	√		√	√

^a For the questionnaire measurements, higher scores indicate better outcomes

5.3 Recruitment of participants

The community programmes aimed to recruit at least 900 participants in Kwun Tong District. Participants aged 12 years and above, able to communicate in Cantonese and read in Chinese were eligible to participate. A total of 953 participants from 672 families were recruited. Details of attendance, received questionnaires, and fitness records in each group are shown in Figure 5.2.

5.3.1 Participant retention in Group A

A total of 427 participants from 300 families were allocated to Group A, and 312 eligible participants from 241 families attended the core session, completed T1 questionnaires and physical fitness assessments while 115 participants were absent. All the participants who attended the core session completed the T2 questionnaires. 1 month after the core session, 273 participants from 211 families attended the booster and gathering sessions and completed the T3 questionnaires and physical fitness assessments while 39 participants were absent, with a retention rate of 87.5%. Reasons for dropping out of T3 included being occupied with other activities (n=20), illness (n=1), not in Hong Kong (n=7), school transfer of the children (n=6), family issues (n=1), being uncontactable (n=2) and unknown reasons (n=2). 3 months after the core session, 272 participants from 213 families attended the gathering session and completed the T4 questionnaires and physical fitness assessments while 40 participants were absent, with a retention rate of 87.2%. Reasons for dropping out at T4 included being occupied with other activities (n=21), illness (n=5), not in Hong Kong (n=4), school transfer of the children (n=3), family issues (n=1), being uncontactable (n=4) and unknown reasons (n=2).

5.3.2 Participant retention in Group B

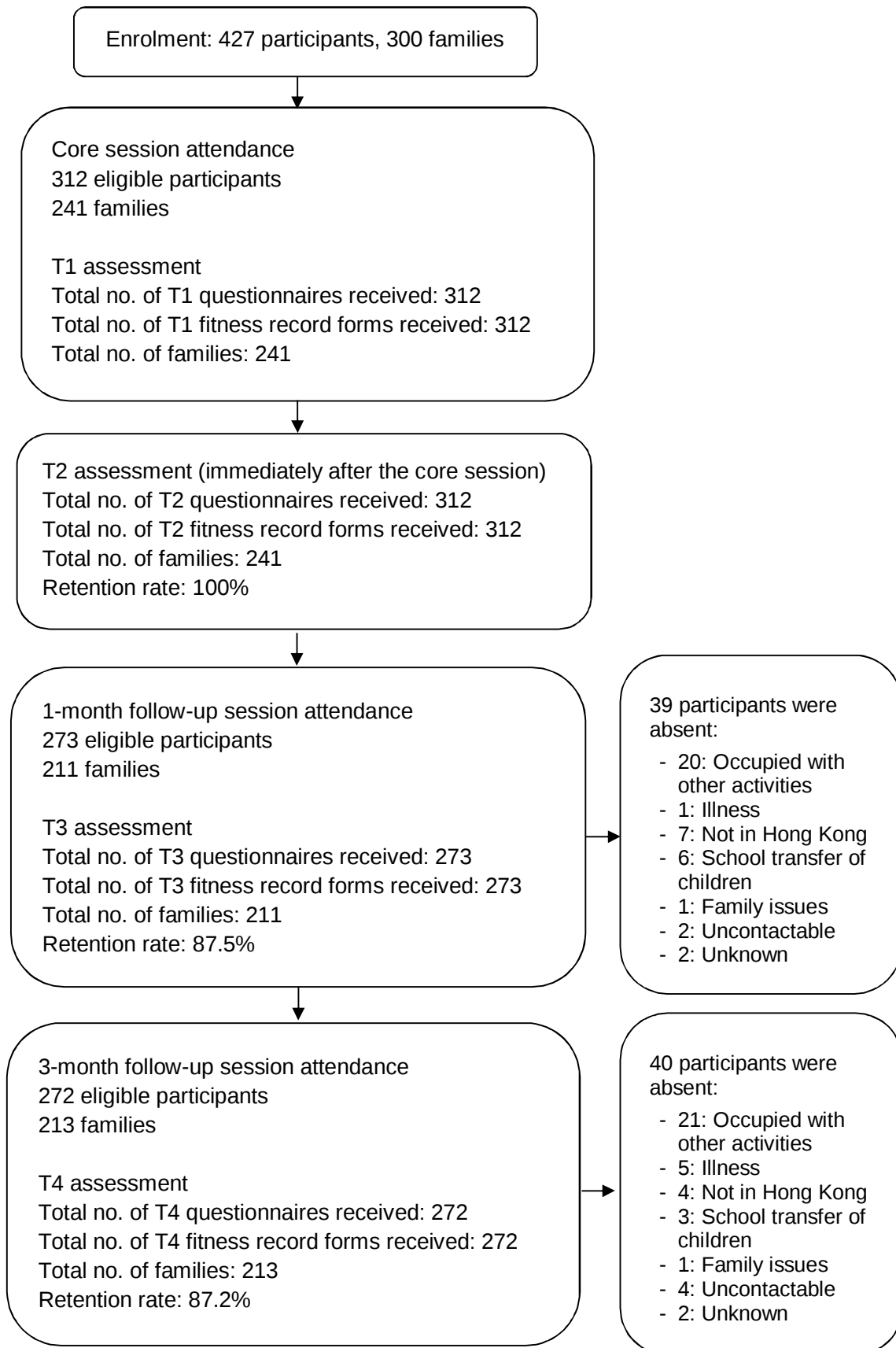
A total of 524 participants from 319 families were allocated to Group B, and 334 eligible participants from 220 families attended the core session, completed T1 questionnaires and physical fitness assessments while 190 participants were absent. All the participants who attended the core session completed the T2 questionnaires. 1 month after the core session, 274 participants from 188 families attended the booster and gathering sessions and completed the T3 questionnaires and physical fitness assessments while 60 were absent, with a retention rate of 82.0%. Reasons of dropping out of T3 included being occupied with other activities (n=29), illness (n=7), not in Hong Kong (n=4), school transfer of the children (n=9), family issues (n=2), being uncontactable (n=4) and unknown reasons (n=5). 3 months after the core session, 284 participants from 192 families attended the gathering session and completed T4 questionnaires and physical fitness assessments while 50 were absent, with a retention rate of 85.0%. Reasons for dropping out at T4 included being occupied with other activities (n=27), illness (n=7), not in Hong Kong (n=7), school transferring of the children (n=3), and unknown reasons (n=6).

5.3.3 Participant retention in Group C

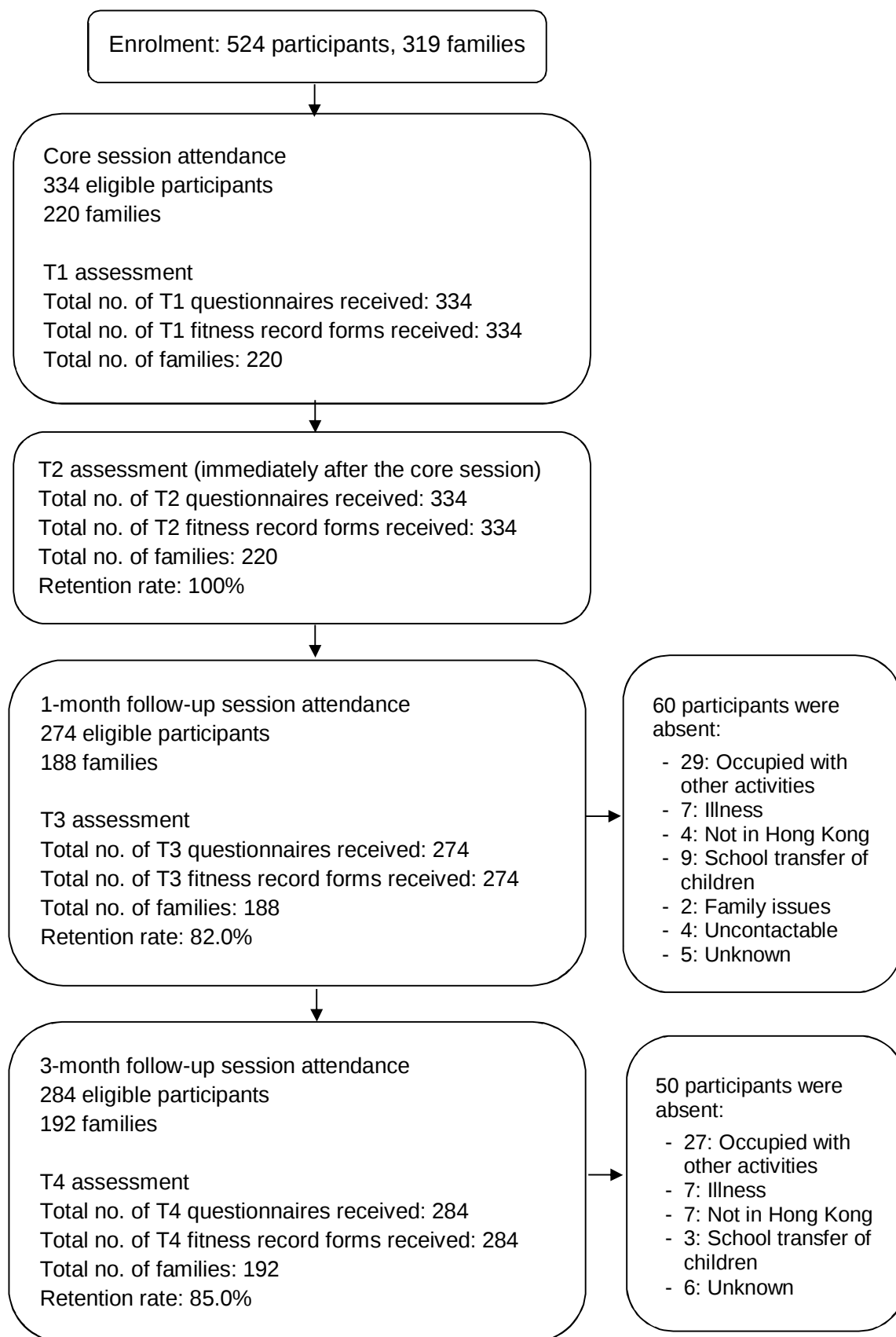
A total of 471 participants from 285 families were allocated to Group C, and 307 eligible participants from 211 families attended the core session, completed T1 questionnaire and physical fitness assessments while 164 participants were absent. All the participants who attended the core session completed the T2 questionnaires. 1 month after the core session, 240 participants from 174 families attended the gathering session and completed T3 questionnaires and physical fitness assessments while 67 were absent, with a retention rate of 78.2%. Reasons for dropping out at T3 included being occupied with other activities (n=35), illness (n=1), not being in Hong Kong (n=2), school transfer of the children (n=1), and unknown reasons (n=28). 3 months after the core session, 279 participants from 191 families attended the gathering session and completed T4 questionnaires and physical fitness assessments while 28 were absent, with a retention rate of 90.9%. Reasons for dropping out at T4 included being occupied with other activities (n=15), not in Hong Kong (n=2), school transfer of the children (n=4), and unknown reasons (n=7).

Figure 5.2 CONSORT flow diagram

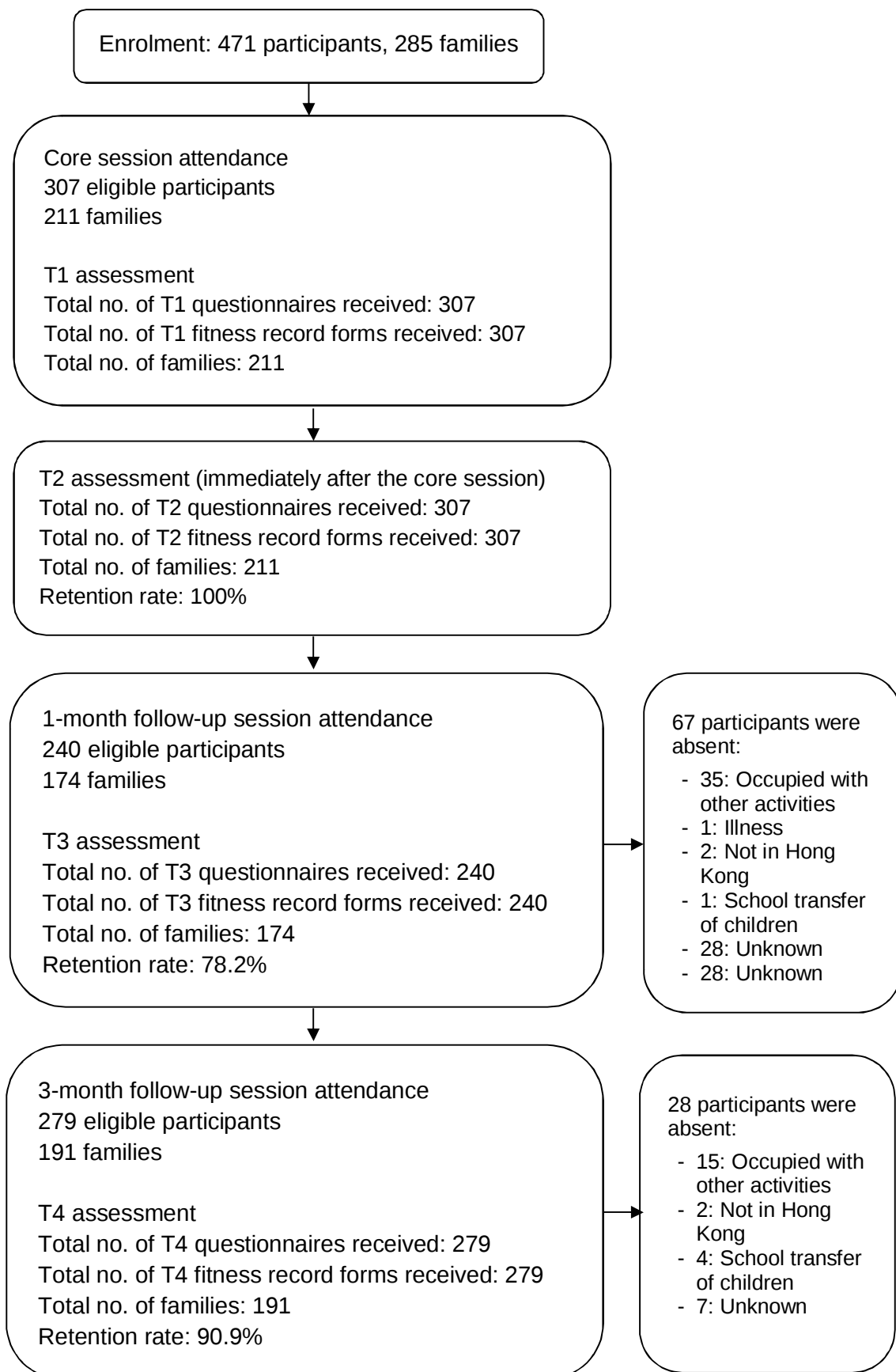
Group A



Group B



Group C



5.4 Statistical analysis

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 test and general linear model were conducted to compare the demographic characteristics and baseline scores among the groups. Within group changes over time were determined by paired t-test in all the three groups. The effectiveness of the intervention was examined by assessing whether there were differences in the outcome changes between Group A and Group C and between Group B and Group C. The mixed model was used to account for the correlations within a family, and cluster effect of individuals who came from the same District Council election constituency, adjusting for age, sex and education. Analysis was done on an ITT basis, and missing data resulting from dropping out after the baseline assessment or missing certain assessments were imputed from the baseline values (i.e. assuming there were no changes).

Sensitivity analysis based on complete case analysis approach was conducted and the results were consistent. Therefore, only the results based on ITT are presented. We also conducted another sensitivity analysis when assessing the effectiveness of intervention on changes in performing ZTE_x by using dichotomised outcomes of ZTE_x, i.e. weekly ZTE_x (≥ 1 day/week vs. < 1 day/week), frequent ZTE_x (≥ 4 days/week vs. < 4 days/week), and frequency improvement of ZTE_x (yes vs. no).

All analyses were performed with STATA 13.0. A *p*-value less than 0.05 was considered statistically significant and effect size (Cohen's *d*) was computed to measure the size of difference. A positive effect size indicated an increase in the mean score of the outcome, while a negative effect size indicated a decrease. An effect size (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.

5.5 Results

5.5.1 Baseline demographic characteristics of participants

Most participants in each group were female (79.6%, 75.6%, and 72.9% in Groups A, B, and C, respectively) and aged above 18 years (93.6%, 95.7%, and 95.0% in Groups A, B, and C, respectively) (Table 5.3).

Table 5.3 also shows that Group A had more participants aged above 65 years than Groups B and C. Other demographic factors such as sex, education, household income, employment status, marital status, and place of birth were similar among the three groups (all $p>0.05$). The three groups were quite comparable in terms of some socio-demographic characteristics but not others, indicating the limitation of cluster randomisation.

Table 5.3 Baseline demographic characteristics of the three groups

Characteristics	Group A	Group B	Group C	<i>p</i> -value ^a
	n (%)	n (%)	n (%)	
Sex ^c				
Male	63 (20.4)	81 (24.4)	83 (27.1)	0.14
Female	246 (79.6)	251 (75.6)	223 (72.9)	
Age group (years) ^b				
<18	20 (6.4)	14 (4.3)	15 (5.0)	0.04*
18-39	60 (19.2)	77 (23.6)	82 (27.1)	
40-64	108 (34.6)	125 (38.2)	121 (39.9)	
≥65	124 (39.7)	111 (33.9)	85 (28.1)	
Education ^d				
Primary or below	120 (40.5)	110 (35.4)	89 (30.6)	0.10
Secondary	147 (49.7)	168 (54.0)	161 (55.3)	
Tertiary or above	29 (9.8)	33 (10.6)	41 (14.1)	
Monthly household income ^{e i}				
<\$10,000	133 (51.4)	123 (43.3)	114 (44.9)	0.06
\$10,000-\$19,999	88 (34.0)	130 (45.8)	99 (39.0)	
≥\$20,000	38 (14.7)	31 (10.9)	41 (16.1)	

Characteristics	Group A	Group B	Group C	p-value ^a
	n (%)	n (%)	n (%)	
Marital status ^f				
Single	19 (6.8)	29 (9.6)	12 (4.4)	0.12
Married	200 (71.4)	220 (72.9)	220 (79.7)	
Divorced/Widowed	61 (21.8)	53 (17.6)	44 (15.9)	
Employment status ^g				
Employed	53 (17.9)	76 (24.5)	78 (26.4)	0.06
Housewife	112 (37.7)	116 (37.4)	120 (40.7)	
Unemployed/Retired	109 (36.7)	103 (33.2)	79 (26.8)	
Student	23 (7.7)	15 (4.8)	18 (6.1)	
Place of birth ^h				
Hong Kong	80 (27.2)	102 (32.3)	72 (24.5)	0.09
Guangdong Province	157 (53.4)	156 (49.4)	142 (48.3)	
Other places in Mainland China	57 (19.4)	58 (18.4)	80 (27.2)	

^a *p*-values for two-sided Pearson's chi-square tests: * *p*<0.05

Number of participants: ^b n=942; ^c n=947; ^d n=898; ^e n=797; ^f n=858 adults; ^g n=902; ^h n=904

ⁱ US \$1=HK \$7.8

5.5.2 Baseline comparison of programme outcome measures

Table 5.3 shows that Group A had a higher level of self-reported FAMILY harmony at baseline. Self-reported FAMILY happiness and health were similar in the three groups. Group B had a lower neighbourhood cohesion score than Groups A and C. Group C had better physical fitness assessment results including hand grip strength, 30-second chair stand test, and single leg stance test than Groups A and B. The frequency of performing strength exercise and ZTE_x were similar in the three groups. Again, such differences indicated the limitation of cluster randomisation.

Table 5.3 Comparison of baseline main outcomes in the three groups

	Group A	Group B	Group C	<i>p</i> -value ^a
	Mean (SD)			
Self-reported FAMILY health (0-10) ^b	7.04 (2.06)	6.79 (2.02)	6.95 (2.02)	0.28
Self-reported FAMILY happiness (0-10)	7.23 (2.02)	6.93 (2.14)	7.02 (2.03)	0.17
Self-reported FAMILY harmony (0-10)	7.32 (2.03)	6.91 (2.11)	7.06 (2.06)	0.04*
Self-reported personal health (0-10)	6.45 (1.98)	6.41 (2.07)	6.25 (2.02)	0.43
Self-reported personal happiness (0-10)	7.05 (2.01)	6.60 (2.19)	6.73 (2.13)	0.02*
Neighbourhood cohesion (1-5) ^c	3.41 (0.62)	3.31 (0.55)	3.48 (0.54)	0.001**
Frequency of strength exercise (days/week)	0.70 (1.85)	0.92 (2.09)	1.00 (2.12)	0.23
Frequency of ZTE _x (days/week)	2.83 (2.94)	2.78 (2.94)	2.77 (2.86)	0.97
Frequency of ZTE _x with family members (days/week)	1.36 (2.17)	1.22 (2.14)	1.26 (2.08)	0.75
Hand grip strength - left (kg)	22.4 (7.87)	22.8 (8.56)	26.0 (9.08)	<0.001***
Hand grip strength - right (kg)	23.9 (8.07)	24.5 (9.30)	27.6 (9.20)	<0.001***
Hand grip strength - total (kg)	46.3 (15.6)	47.3 (17.6)	53.6 (18.0)	<0.001***

	Group A	Group B	Group C	<i>p</i> -value ^a
	Mean (SD)			
30-second chair stand test (no. of chair stands)	20.7 (6.53)	21.2 (7.13)	22.8 (6.75)	<0.001***
Chair sit-and-reach test (cm)	1.04 (8.70)	1.57 (10.8)	2.01 (10.4)	0.49
Single leg stance test (0-120 seconds)	76.1 (45.7)	75.5 (43.9)	86.0 (44.1)	0.005**

^a * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

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

^c 5-point Likert scale: "1=strongly disagree" to "5=strongly agree"

5.5.3 Changes in outcomes within each group at each time point

Table 5.4 shows that self-reported FAMILY health, happiness, and harmony improved slightly but non-significantly at T3, but increased significantly at T4 in Group A ($d=0.25$; $d=0.18$; and $d=0.18$, respectively). The following improvements were all statistically significant, with small to medium effect size. Neighbourhood cohesion also improved at T4 ($d=0.34$). The frequency of ZTE_x increased at T3 and T4 ($d=0.65$ and $d=0.78$, respectively). The frequency of performing ZTE_x with family members also increased at T3 and T4 ($d=0.35$ and $d=0.38$, respectively). The performance of physical fitness assessments also increased at T3 and T4.

Table 5.4 Changes in outcomes at different time points in Group A

	T1	T3	T4	T3-T1 ^a	T4-T1 ^a
	Mean (SD)			ES ^b	
Self-reported FAMILY health (0-10) ^c	7.04 (2.06)	7.20 (1.85)	7.37 (1.77)	0.13	0.25**
Self-reported FAMILY happiness (0-10)	7.23 (2.02)	7.35 (1.91)	7.47 (1.73)	0.09	0.18*
Self-reported FAMILY harmony (0-10)	7.32 (2.03)	7.46 (1.89)	7.54 (1.85)	0.12	0.18*
Self-reported personal health (0-10)	6.45 (1.98)	6.63 (1.79)	6.91 (1.79)	0.14	0.37***
Self-reported personal happiness (0-10)	7.05 (2.01)	7.18 (1.91)	7.41 (1.70)	0.08	0.28***
Neighbourhood cohesion scale (1-5) ^d	3.41 (0.62)	3.41 (0.57)	3.57 (0.54)	-0.01	0.34***
Frequency of strength exercise (days/week)	0.70 (1.85)	1.41 (2.41)	1.32 (2.32)	0.36***	0.33***
Frequency of ZTE _x (days/week)	2.83 (2.94)	4.34 (2.59)	4.60 (2.61)	0.65***	0.78***
Frequency of ZTE _x with family members (days/week)	1.36 (2.17)	1.95 (2.27)	2.01 (2.20)	0.35***	0.38***
Handgrip strength - left (kg)	22.4 (7.87)	22.9 (7.78)	23.1 (8.10)	0.21**	0.29***
Handgrip strength - right (kg)	23.9 (8.07)	24.2 (8.18)	24.4 (8.03)	0.12	0.18*

	T1	T3	T4	T3-T1 ^a	T4-T1 ^a
	Mean (SD)			ES ^b	
Handgrip strength - total (kg)	46.3 (15.6)	47.1 (15.5)	47.5 (15.8)	0.18*	0.25**
30-second chair stand test (no. of chair stands)	20.7 (6.53)	23.6 (7.67)	24.2 (7.46)	0.66***	0.74***
Chair sit-and-reach test (cm)	1.04 (8.70)	2.26 (7.25)	2.56 (7.79)	0.31***	0.38***
Single leg stance test (0-120 seconds)	76.1 (45.7)	77.2 (45.0)	76.9 (46.5)	0.22*	0.19*

^a * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

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

^c 11-point Likert scale: "0=very unhealthy/unhappy/disharmonious" to "10=very healthy/happy/harmonious"

^d 5-point Likert scale: "1=strongly disagree" to "5=strongly agree"

Table 5.5 shows that in Group B, self-reported FAMILY health, happiness, and harmony improved at T3 ($d=0.29$; $d=0.30$; and $d=0.33$, respectively), and sustained at T4 with slightly smaller effect size ($d=0.21$; $d=0.16$; and $d=0.17$, respectively). Neighbourhood cohesion also improved at T3 and T4 ($d=0.35$ and $d=0.39$, respectively). The frequency of strength exercise increased at T3 and T4 ($d=0.69$ and $d=0.75$, respectively), and hand grip strength also increased at T3 and T4 ($d=0.39$ and $d=0.40$, respectively). The frequency of ZTE_x increased at T3 and T4 ($d=0.60$ and $d=0.76$, respectively). The frequency of performing ZTE_x with family members also increased at T3 and T4 ($d=0.44$ and $d=0.43$, respectively). The performance on other physical fitness assessments also improved at T3 and T4. All the above improvements were statistically significant, with small to medium effect size.

Table 5.5 Changes in outcomes at different time points in Group B

	T1	T3	T4	T3-T1 ^a	T4-T1 ^a
	Mean (SD)			ES ^b	
Self-reported FAMILY health (0-10) ^c	6.79 (2.02)	7.10 (1.94)	7.05 (2.02)	0.29***	0.21**
Self-reported FAMILY happiness (0-10)	6.93 (2.14)	7.26 (2.00)	7.12 (1.98)	0.30***	0.16*
Self-reported FAMILY harmony (0-10)	6.91 (2.11)	7.27 (2.14)	7.12 (2.00)	0.33***	0.17*
Self-reported personal health (0-10)	6.41 (2.07)	6.73 (2.00)	6.66 (2.01)	0.21**	0.16*
Self-reported personal happiness (0-10)	6.60 (2.19)	7.01 (2.01)	6.99 (1.93)	0.29***	0.26**
Neighbourhood cohesion scale (1-5) ^d	3.31 (0.55)	3.45 (0.56)	3.47 (0.52)	0.35***	0.39***
Frequency of strength exercise (days/week)	0.92 (2.09)	2.50 (2.83)	2.67 (2.80)	0.69***	0.75***
Frequency of ZTE _x (days/week)	2.78 (2.94)	4.06 (2.81)	4.36 (2.68)	0.60***	0.76***
Frequency of ZTE _x with family members (days/week)	1.22 (2.14)	2.03 (2.54)	1.98 (2.37)	0.44***	0.43***
Handgrip strength - left (kg)	22.8 (8.56)	23.9 (8.40)	24.0 (8.27)	0.42***	0.41***
Handgrip strength - right (kg)	24.5 (9.30)	25.4 (9.22)	25.6 (9.21)	0.31***	0.33***
Handgrip strength - total (kg)	47.3 (17.6)	49.3 (17.3)	49.5 (17.2)	0.39***	0.40***

	T1	T3	T4	T3-T1 ^a	T4-T1 ^a
	Mean (SD)			ES ^b	
30-second chair stand test (no. of chair stands)	21.2 (7.13)	23.8 (7.82)	24.9 (9.54)	0.65***	0.70***
Chair sit-and-reach test (cm)	1.57 (10.8)	2.91 (9.12)	2.27 (10.2)	0.24**	0.14
Single leg stance test (0-120 seconds)	75.5 (43.9)	78.3 (44.8)	76.1 (44.5)	0.25**	0.11

^a * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

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

^c 11-point Likert scale: "0=very unhealthy/unhappy/disharmonious" to "10=very healthy/happy/harmonious"

^d 5-point Likert scale: "1=strongly disagree" to "5=strongly agree"

Table 5.6 shows that in Group C, self-reported FAMILY happiness and harmony improved at T3 ($d=0.20$ and $d=0.23$, respectively) and further improved at T4 ($d=0.33$ and $d=0.32$, respectively). Neighbourhood cohesion did not increase at T3, but improved at T4 ($d=0.29$). The frequency of ZTE_x increased at T3 and T4 ($d=0.65$ and $d=0.78$, respectively). The frequency of performing ZTE_x with family members also increased at T3 and T4 ($d=0.31$ and $d=0.50$, respectively). The performance on physical fitness assessments improved at T3 and T4. All the above improvements were statistically significant, with small to large effect size.

Table 5.6 Changes in outcomes at different time points in Group C

	T1	T3	T4	T3-T1 ^a	T4-T1 ^a
	Mean (SD)			ES ^b	
Self-reported FAMILY health (0-10) ^c	6.95 (2.02)	7.13 (1.83)	7.28 (1.84)	0.16	0.26**
Self-reported FAMILY happiness (0-10)	7.02 (2.03)	7.23 (1.90)	7.40 (1.84)	0.20*	0.33***
Self-reported FAMILY harmony (0-10)	7.06 (2.06)	7.32 (1.93)	7.44 (1.83)	0.23**	0.32***
Self-reported personal health (0-10)	6.25 (2.02)	6.66 (1.90)	6.95 (1.87)	0.31***	0.49***
Self-reported personal happiness (0-10)	6.73 (2.13)	7.05 (1.95)	7.25 (1.95)	0.25**	0.99***
Neighbourhood cohesion scale (1-5) ^d	3.48 (0.54)	3.46 (0.52)	3.59 (0.58)	-0.06	0.29***
Frequency of strength exercise (days/week)	1.00 (2.12)	1.14 (2.20)	1.40 (2.48)	0.09	0.18
Frequency of ZTE _x (days/week)	2.77 (2.86)	4.14 (2.81)	4.45 (2.55)	0.65***	0.78***
Frequency of ZTE _x with family members (days/week)	1.26 (2.08)	1.68 (2.19)	2.11 (2.32)	0.31***	0.50***
Handgrip strength - left (kg)	26.0 (9.08)	27.0 (8.93)	26.4 (8.97)	0.38***	0.12
Handgrip strength - right (kg)	27.6 (9.20)	28.5 (9.20)	28.1 (9.33)	0.36***	0.17*

	T1	T3	T4	T3-T1 ^a	T4-T1 ^a
	Mean (SD)			ES ^b	
Handgrip strength - total (kg)	53.6 (18.0)	55.5 (17.9)	54.5 (18.0)	0.42***	0.16
30-second chair stand test (no. of chair stands)	22.8 (6.75)	26.3 (7.25)	26.8 (8.00)	0.94***	0.86***
Chair sit-and-reach test (cm)	2.01 (10.4)	3.02 (10.3)	3.32 (9.74)	0.19*	0.26**
Single leg stance test (0-120 seconds)	86.0 (44.1)	87.4 (42.3)	89.6 (41.6)	0.12	0.20*

^a * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

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

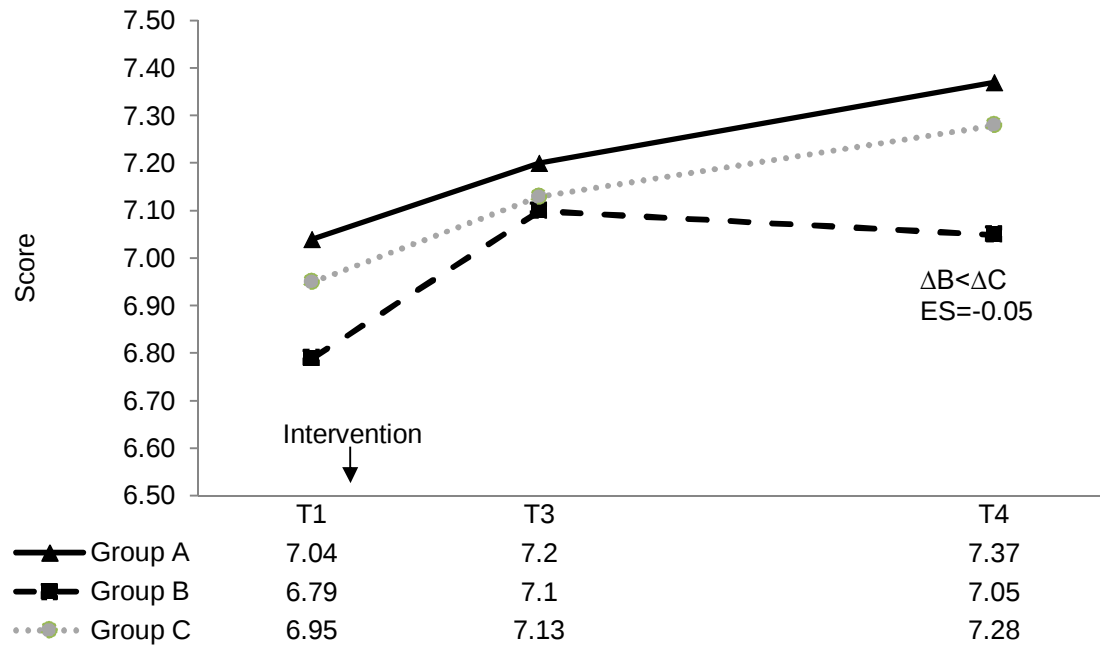
^c 11-point Likert scale: "0=very unhealthy/unhappy/disharmonious" to "10=very healthy/happy/harmonious"

^d 5-point Likert scale: "1=strongly disagree" to "5=strongly agree"

5.5.4 Changes in outcomes between groups at each time point

Figure 5.3 to 5.5 show that the improvements of self-reported FAMILY 3Hs were similar in Groups A and C as well as in Groups B and C at both T3 and T4.

Figure 5.3 Self-reported FAMILY health (0-10)

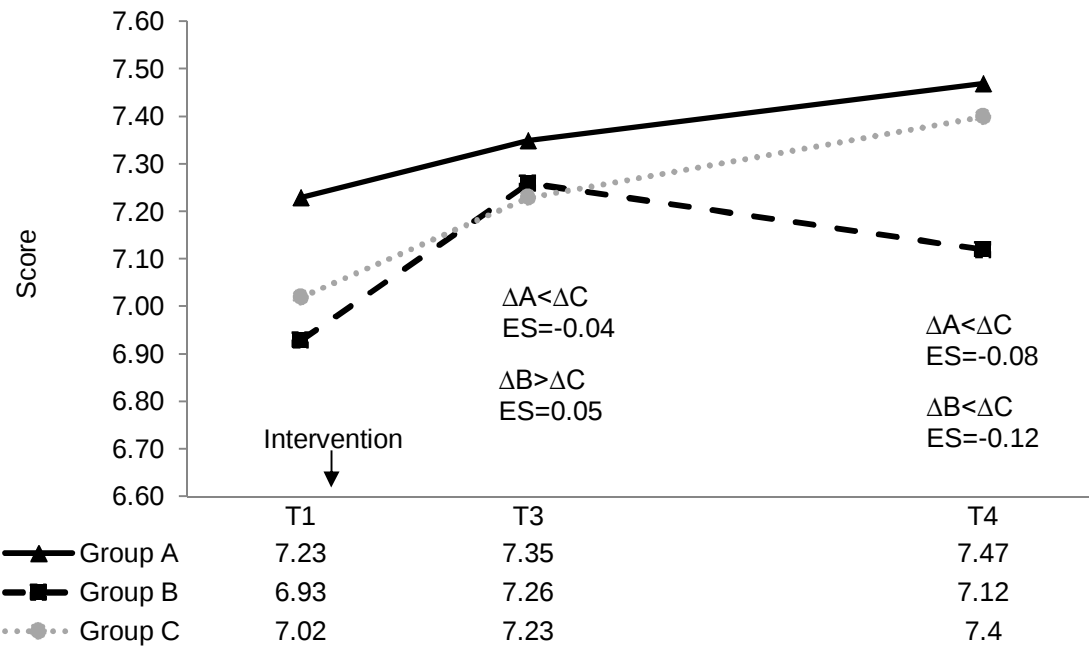


At T3: $\Delta = T3 - T1$ in Groups A, B, and C, respectively

At T4: $\Delta = T4 - T1$ in Groups A, B, and C, respectively

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

Figure 5.4 Self-reported FAMILY happiness (0-10)

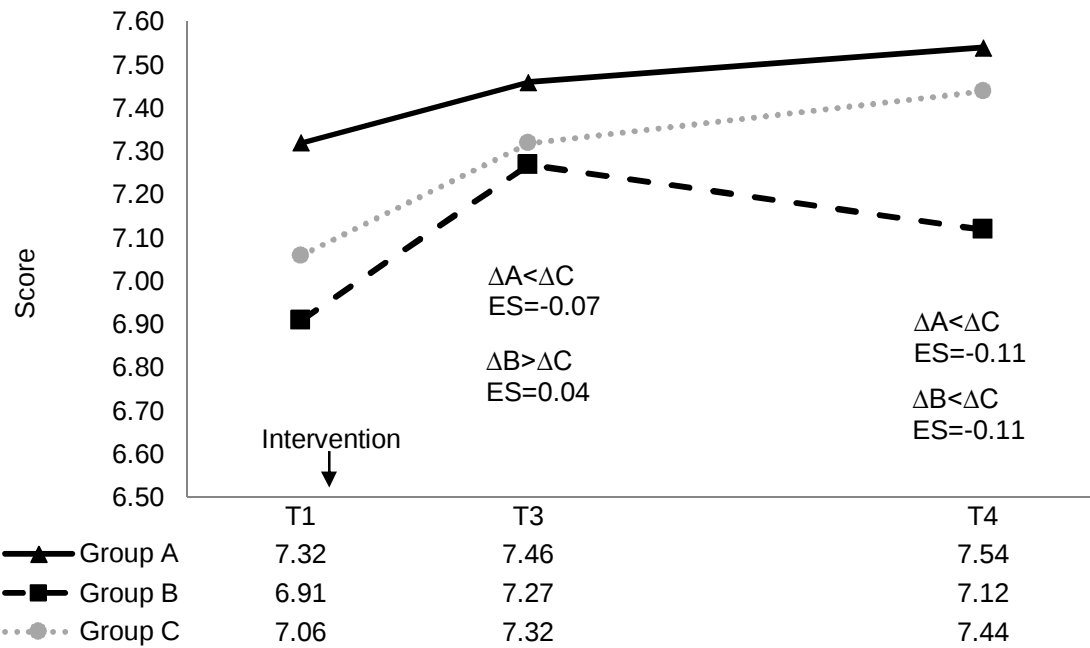


At T3: $\Delta = T3 - T1$ in Groups A, B, and C, respectively

At T4: $\Delta = T4 - T1$ in Groups A, B, and C, respectively

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

Figure 5.5 FAMILY harmony (0-10)



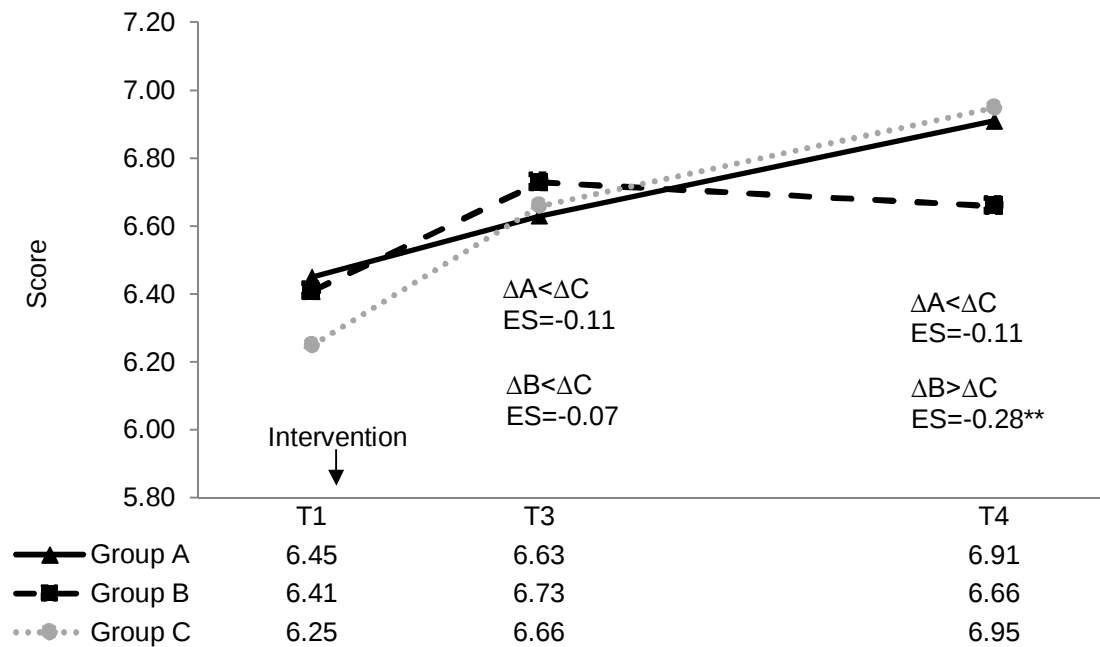
At T3: $\Delta = T3 - T1$ in Groups A, B, and C, respectively

At T4: $\Delta = T4 - T1$ in Groups A, B, and C, respectively

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

Figure 5.6 and 5.7 show that the improvement of self-reported personal health was significantly lower in Group B than that in Group C at T4 ($d=-0.28$). The improvements of personal health and happiness were similar in Groups A and C at both T3 and T4.

Figure 5.6 Self-reported personal health (0-10)



At T3: $\Delta = T3 - T1$ in Groups A, B, and C, respectively

At T4: $\Delta = T4 - T1$ in Groups A, B, and C, respectively

** $p < 0.01$

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

Figure 5.7 Self-reported personal happiness (0-10)

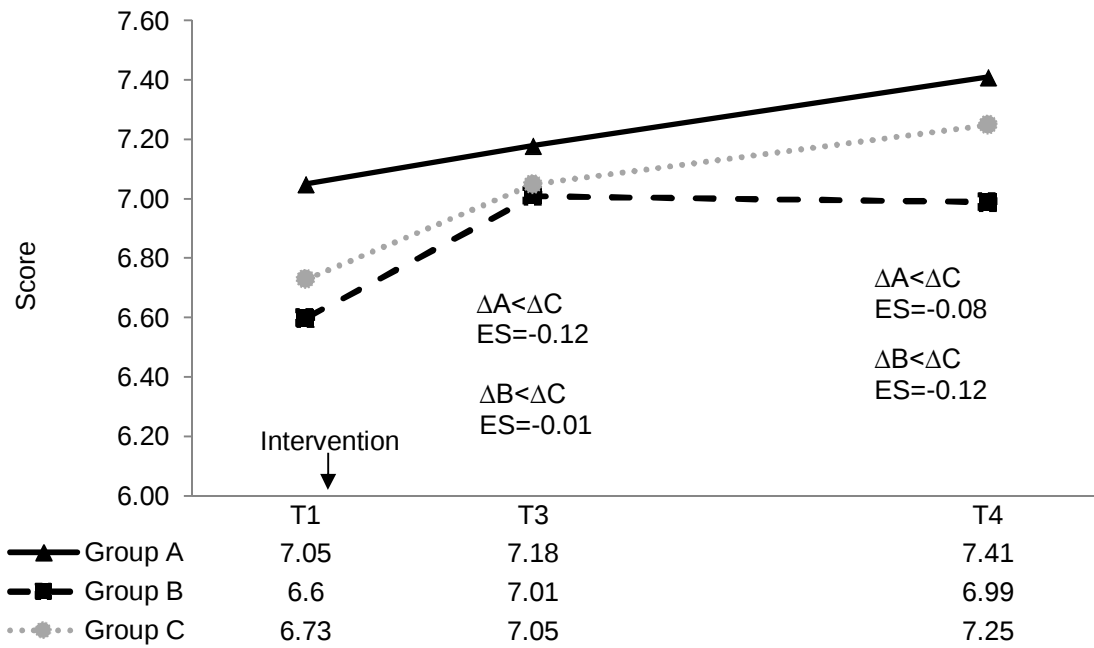


Figure 5.8 shows that the improvement in neighbourhood cohesion was significantly greater in Group B than that in Group C at T3 ($d=0.23$), but this difference was not sustained at T4. The improvement of neighbourhood cohesion was similar in Groups A and C at both T3 and T4.

Figure 5.8 Neighbourhood cohesion (5 items, 1-5)

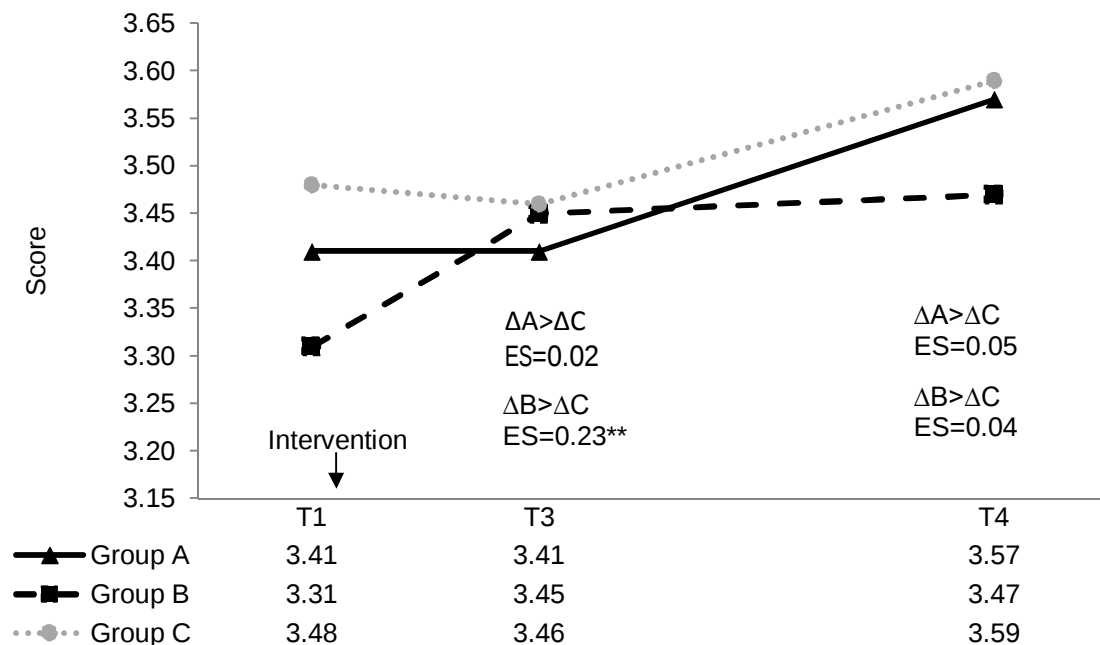
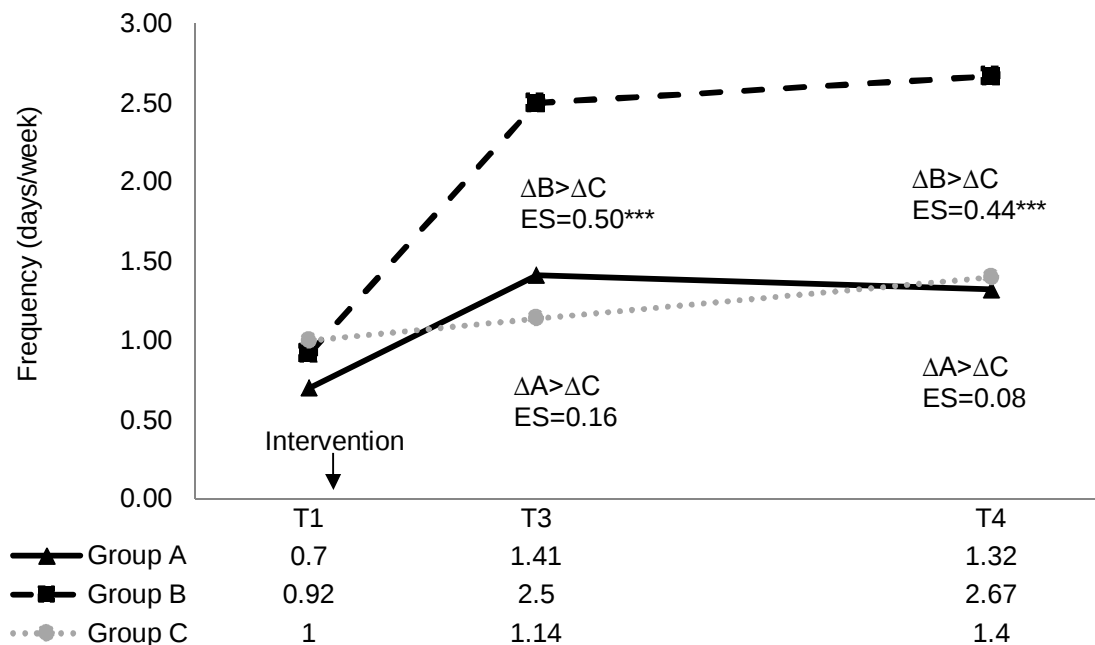


Figure 5.9 shows that the improvement of strength exercise frequency was significantly greater in Group B than that in Group C at both T3 ($d=0.50$) and T4 ($d=0.44$). The improvement of strength exercise frequency was slightly but non-significantly greater in Group A than in Group C at T3, but was similar at T4.

Figure 5.9 Frequency of strength exercise (days/week)



At T3: $\Delta = T3 - T1$ in Groups A, B, and C, respectively

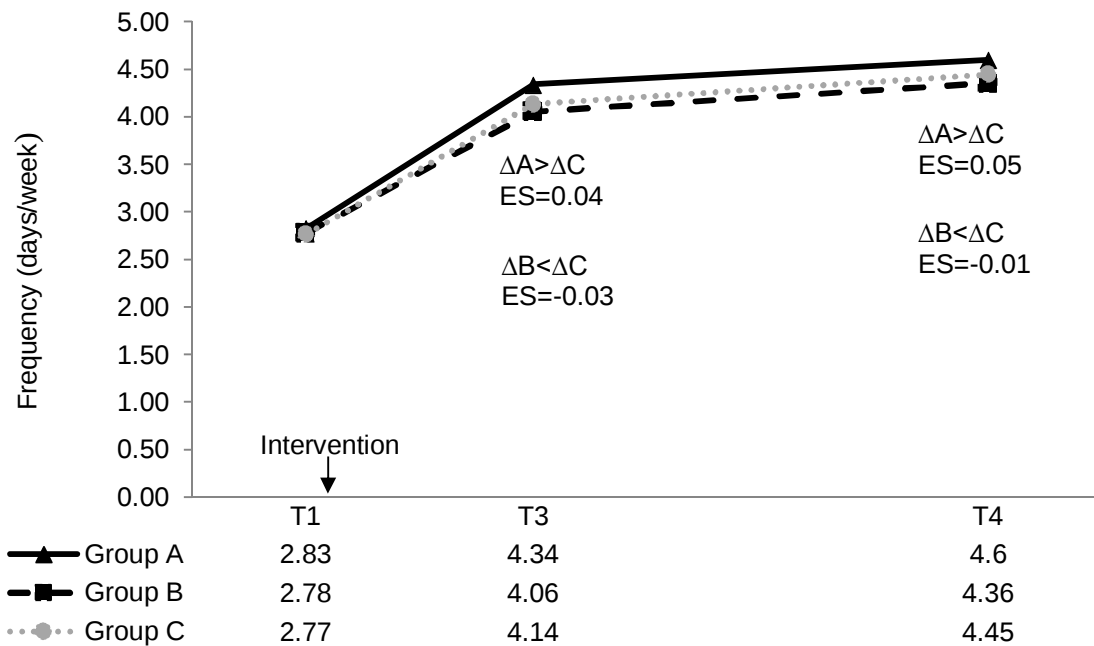
At T4: $\Delta = T4 - T1$ in Groups A, B, and C, respectively

*** $p < 0.001$

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

Figure 5.10 shows that the improvement of ZTEEx frequency was similar in Groups A and C as well as in Groups B and C at both T3 and T4. Figure 5.11 shows similar results for the improvement of performing ZTEEx with family members. Sensitivity analysis using dichotomised outcomes including weekly ZTEEx (≥ 1 day/week vs. < 1 day/week), frequent ZTEEx (≥ 4 days/week vs. < 4 days/week), and improvement of ZTEEx frequency (yes vs. no) also did not find between-group differences (data not shown).

Figure 5.10 Frequency of performing ZTEEx (days/week)

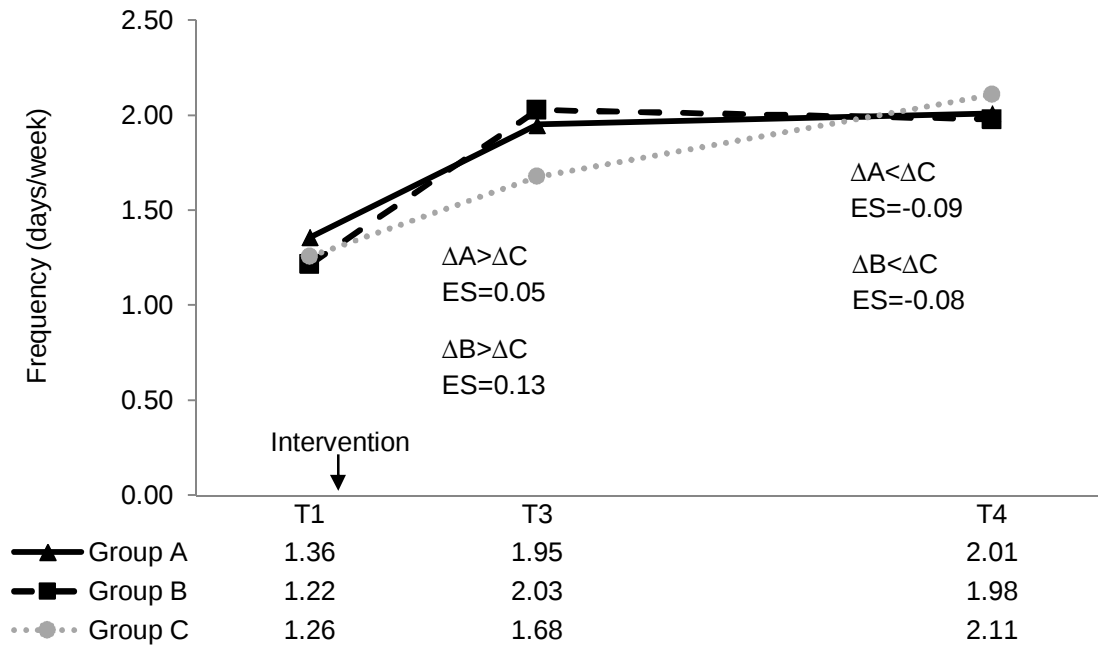


At T3: $\Delta = T3 - T1$ in Groups A, B, and C, respectively

At T4: $\Delta = T4 - T1$ in Groups A, B, and C, respectively

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

Figure 5.11 Frequency of performing ZTE_x with family members (days/week)



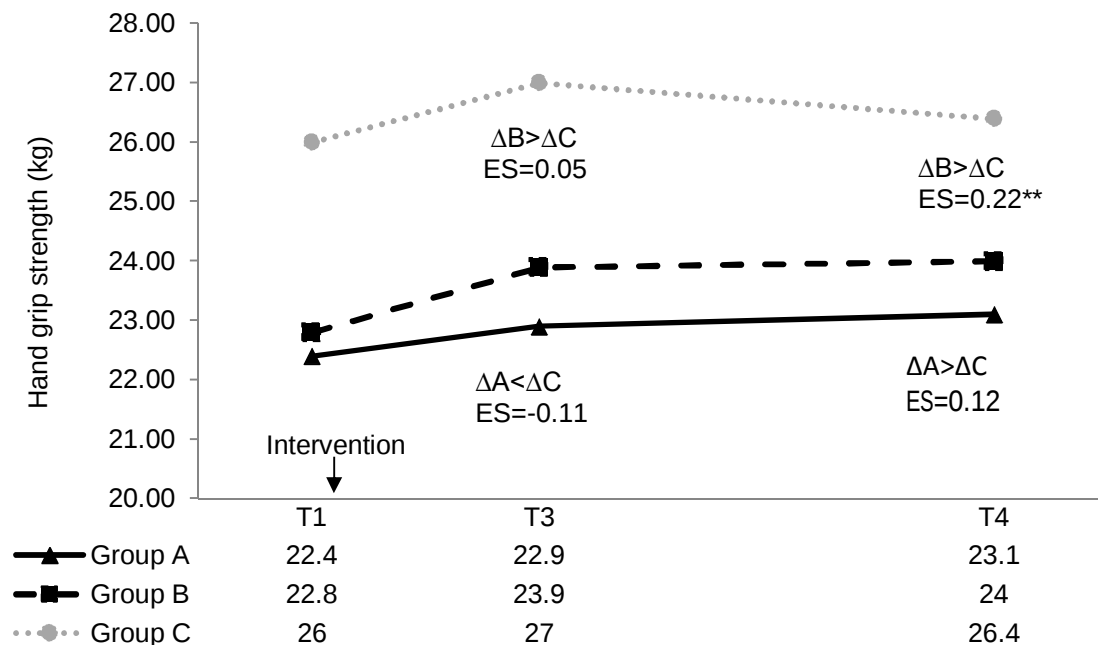
At T3: $\Delta = T3 - T1$ in Groups A, B, and C, respectively

At T4: $\Delta = T4 - T1$ in Groups A, B, and C, respectively

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

Figure 5.12 to 5.14 show that the improvements of hand grip strength in left hand and total hand grip strength in Group B were significantly greater than those in Group C at T4 ($d=0.22$ and 0.20 , respectively). The improvements of hand grip strength including left hand, right hand and total were similar in Groups A and C at both T3 and T4.

Figure 5.12 Hand grip strength - left (kg)



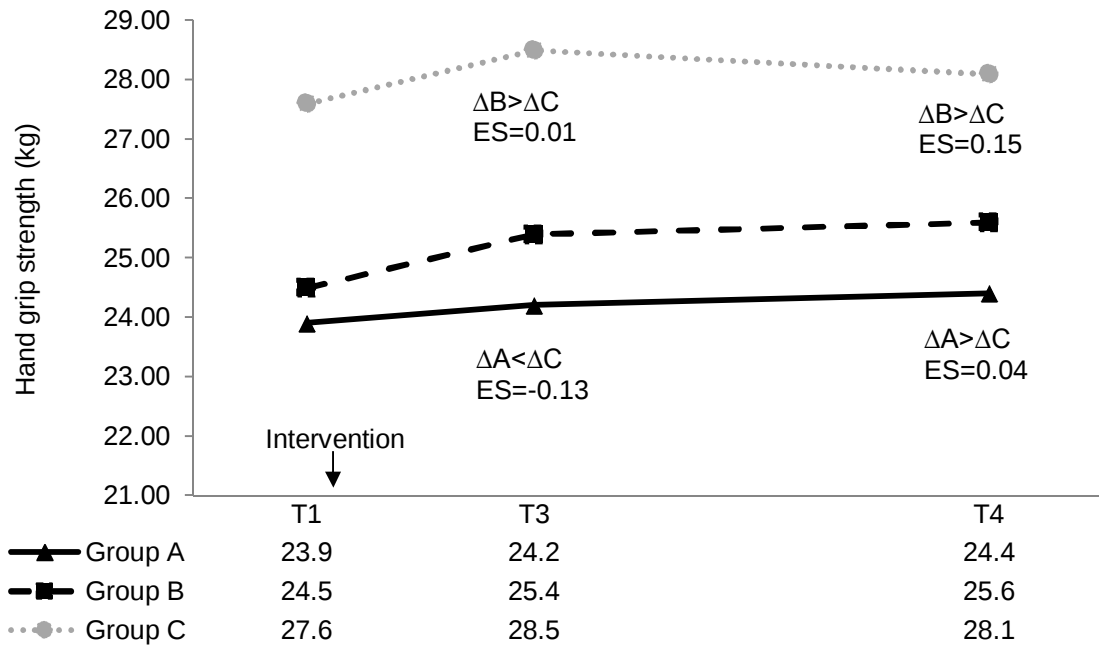
At T3: $\Delta=T3-T1$ in Groups A, B, and C, respectively

At T4: $\Delta=T4-T1$ in Groups A, B, and C, respectively

** $p<0.01$

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

Figure 5.13 Hand grip strength - right (kg)

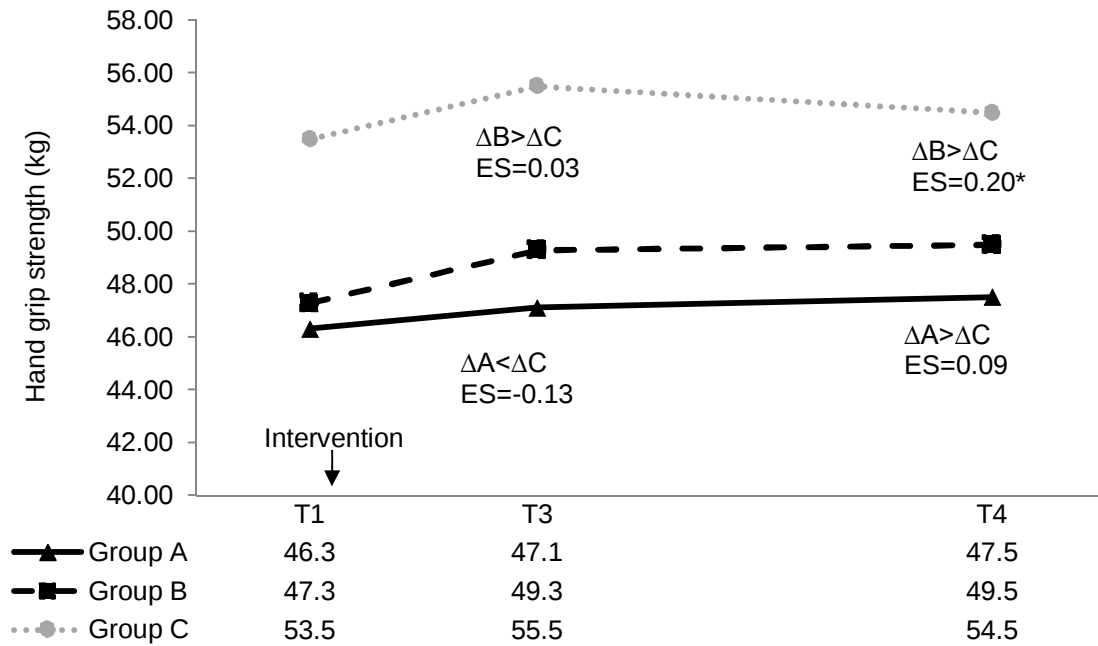


At T3: $\Delta = T3 - T1$ in Groups A, B, and C, respectively

At T4: $\Delta = T4 - T1$ in Groups A, B, and C, respectively

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

Figure 5.14 Hand grip strength - total (kg)



At T3: $\Delta = T3 - T1$ in Groups A, B, and C, respectively

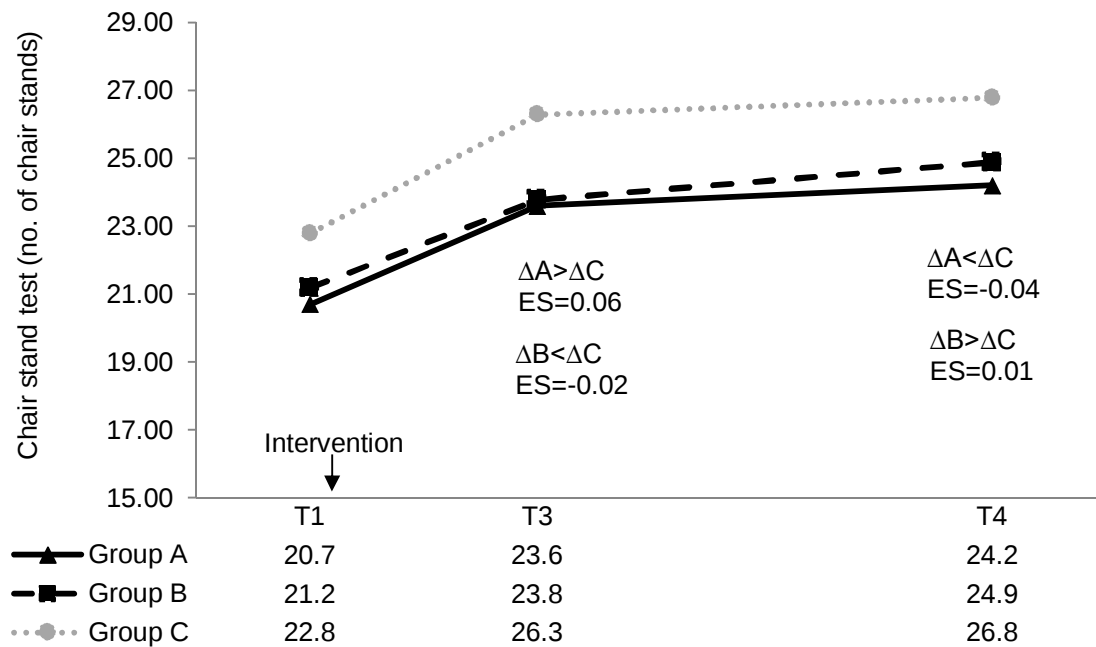
At T4: $\Delta = T4 - T1$ in Groups A, B, and C, respectively

* $p < 0.05$

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

For other physical fitness assessments including 30-second chair stand test, chair sit-and-reach test and single leg stance test, the improvements were similar in Groups A and C as well as in Groups B and C at both T3 and T4, as shown in Figure 5.15 to 5.17.

Figure 5.15 30-second chair stand test (no. of chair stands)

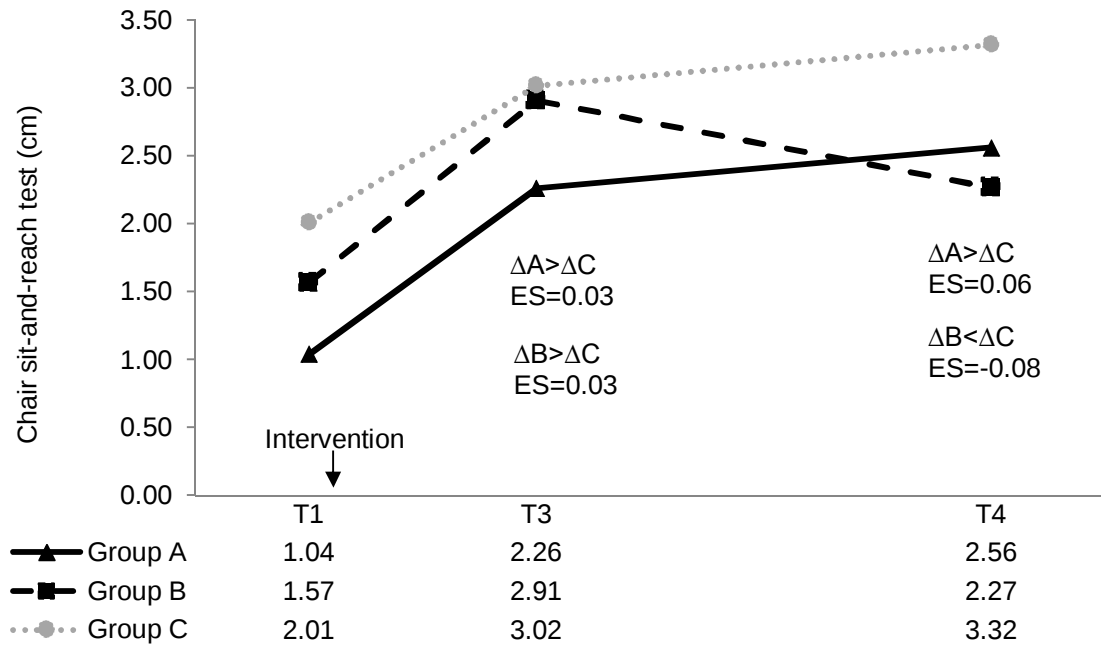


At T3: $\Delta = T3 - T1$ in Groups A, B, and C, respectively

At T4: $\Delta = T4 - T1$ in Groups A, B, and C, respectively

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

Figure 5.16 Chair sit-and-reach test (cm)



At T3: $\Delta = T3 - T1$ in Groups A, B, and C, respectively

At T4: $\Delta = T4 - T1$ in Groups A, B, and C, respectively

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

Figure 5.17 Single leg stance test (0-120 seconds)

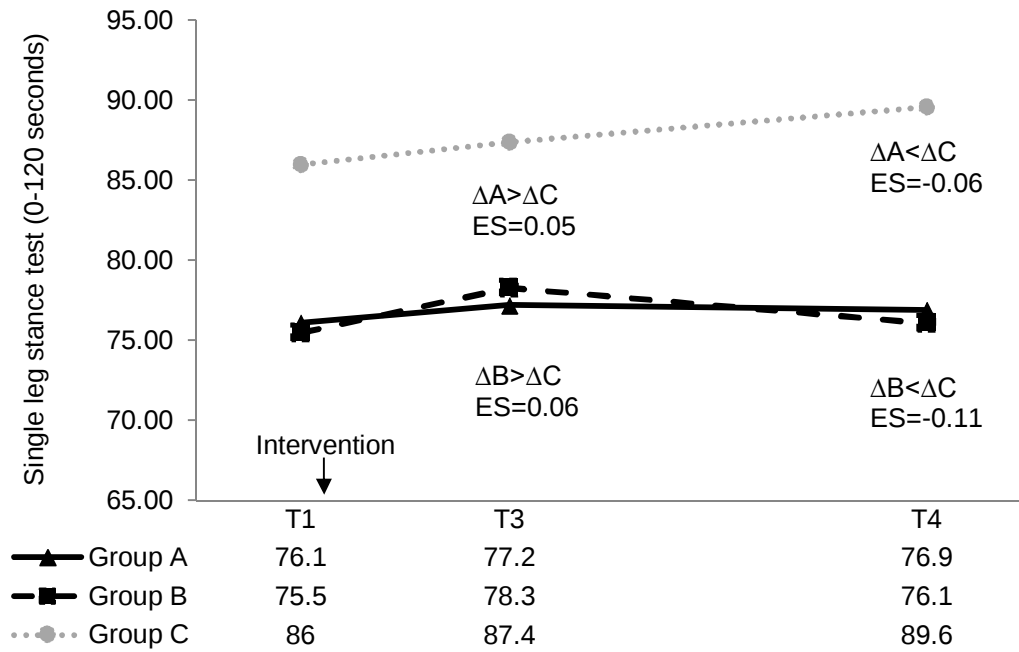
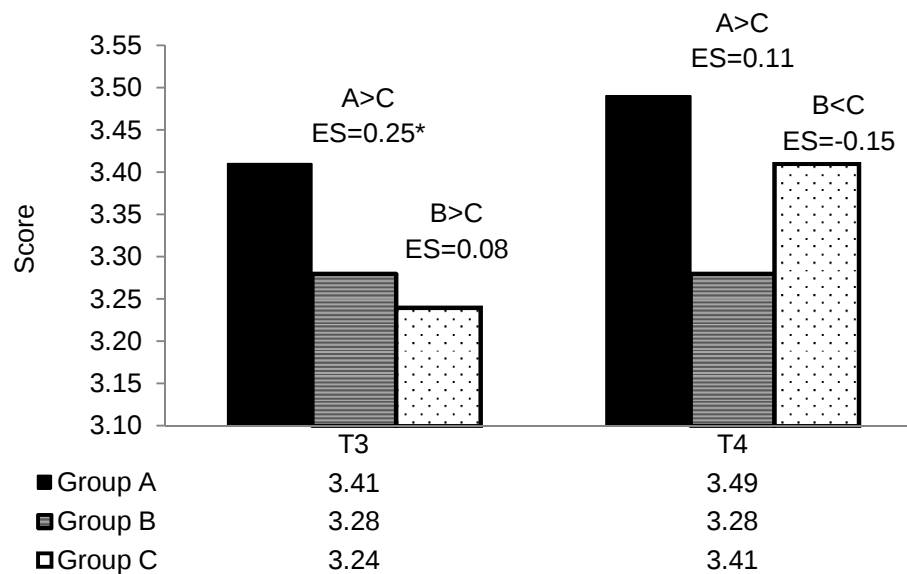


Figure 5.18 shows that subjective change in performing ZTEEx at T3 was significantly greater in Group A than that in Group C ($d=0.25$). Figure 5.19 shows that subjective change in neighbourhood cohesion at T4 was significantly greater in Group A than that in Group C ($d=0.20$).

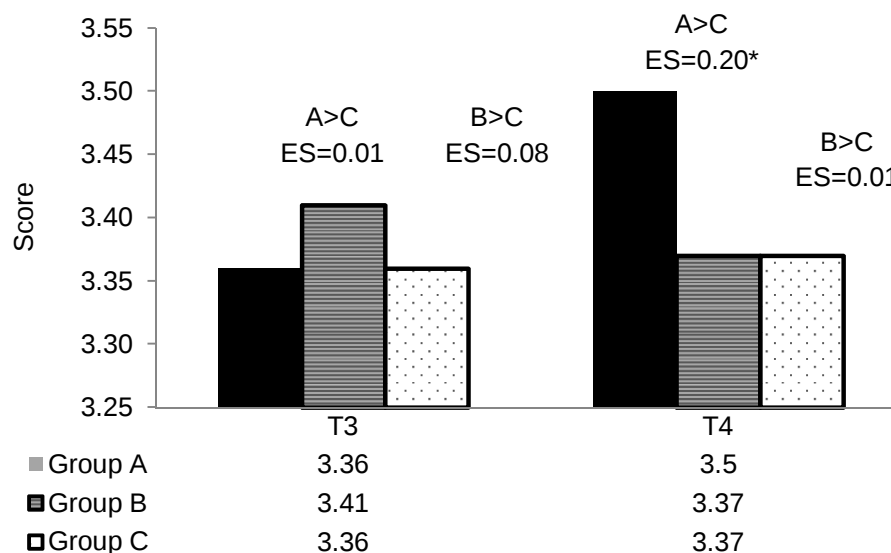
Figure 5.18 Subjective changes in performing ZTEEx (1-5)



* $p<0.05$

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

Figure 5.19 Subjective changes in neighbourhood cohesion (1-5)



* $p<0.05$

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

5.5.4.1 Summary of the quantitative results

The results showed that main outcomes including FAMILY 3Hs, neighbourhood cohesion, the frequency of ZTE_x and performance on physical fitness assessments significantly improved within all three groups at T4. Neighbourhood supported by community Health Ambassadors (Groups A and B) showed effectiveness on improving neighbourhood cohesion in Group B at T3, on subjective improvements in performing ZTE_x in Group A at T3, and neighbourhood cohesion in Group A at T4. However, the effectiveness of neighbourhood support on improving self-reported FAMILY 3Hs, frequency of ZTE_x or physical fitness assessments were not found. Providing a hand grip (Group B) showed effectiveness on improving the frequency of strength exercise at T3 and T4, and improving hand grip strength at T4.

CHAPTER 6 PUBLIC EDUCATION EVENT - MOBILE COMMUNITY HEALTH COUNTERS

6.1 Introduction

Pre- and post-programme mobile community health counters were set up to evaluate the overall impact of the FFP on Kwun Tong District. A total of 41 pre-programme mobile community health counters were set up during August to November 2015. A total of 20 post-programme mobile community health counters were set up during August to November 2016. Pre- and post-programme mobile community health counters were set up at diverse locations in Kwun Tong District to increase the coverage. The one-page questionnaires on physical activity behaviours, FAMILY 3Hs and neighbourhood cohesion were completed by randomly selected passers-by. Hand grip strength tests were also conducted for them.

6.2 Objectives

1. To increase the awareness of community stakeholders and residents about the significance of this programme and the related health information; and
2. To investigate change in physical activity, neighbourhood cohesion and FAMILY 3Hs in Kwun Tong District after the programme.

6.3 Results

A total of 783 and 606 participants completed pre- and post-programme questionnaires and hand grip strength measurements, respectively. All participants aged over 18 years (735 at pre-programme and 586 at post-programme mobile community health counter, unmatched) were included in the final analysis. Table 6.1 shows that the frequency of ZTE_x, neighbourhood cohesion, and hand grip strength (left hand, right hand, and total) improved significantly after the FFP with small effect size ($d=0.26$; $d=0.16$; $d=0.26$; $d=0.23$; and $d=0.25$, respectively).

Table 6.1 Frequency of ZTEx, neighbourhood cohesion, FAMILY 3Hs, and hand grip strength at pre- and post-programme

	Pre-programme (n=735)	Post-programme (n=586)	ES ^{a, b}
	Mean (SD)		
Frequency of ZTEx	2.78 (0.92)	3.01 (0.81)	0.26***
Neighbourhood cohesion	3.45 (0.61)	3.54 (0.53)	0.16**
Self-reported FAMILY health (0-10) ^c	7.71 (1.85)	7.81 (1.63)	0.06
Self-reported FAMILY happiness (0-10) ^c	7.90 (1.88)	7.90 (1.65)	0.00
Self-reported FAMILY harmony (0-10) ^c	8.00 (1.83)	8.00 (1.64)	0.00
Hand grip strength - left (kg)	22.6 (8.86)	24.8 (8.37)	0.26***
Hand grip strength - right (kg)	24.1 (9.20)	26.1 (8.24)	0.23***
Hand grip strength - total (kg)	46.7 (17.7)	50.9 (16.2)	0.25***

^a ** $p < 0.01$; *** $p < 0.001$

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

^c 11-point Likert scale: "0=very unhealthy/unhappy/disharmonious" to "10=very healthy/happy/harmonious"

CHAPTER 7 POST-PROGRAMME FOCUS GROUP INTERVIEWS AND IN-DEPTH INTERVIEWS

7.1 Programme participants' focus groups

7.1.1 Introduction

To substantiate the quantitative findings, semi-structured focus group discussions were conducted on programme participants to collect qualitative data in November 2016 after the community-based intervention programme. The aims of the interviews were to explore the opinions and experiences related to the project from programme participants' and implementers' perspectives. Such information would be useful in evaluating programme effectiveness and improving future project design. The specific objectives of programme participants' focus group interview are listed below:

Objectives of post-programme participants focus group interviews:

- To assess the extent to which the community-based family intervention programme had enhanced ZTE_x and other types of physical activity;
- To examine whether the intervention programme had helped to improve FAMILY 3Hs and neighbourhood cohesion; and
- To collect suggestions and recommendations for future community-based family intervention programmes.

7.1.2 Methods

Data collection

The focus group discussions were conducted after the completion of the community-based family intervention programme. Participants were recruited by CFSC based on purposive sampling. A total of six focus group interviews were conducted in November 2016. Each group had eight to twelve participants. Details of focus group composition are shown in Table 7.1. The inclusion criteria for participants were as follows:

- Participants who attended the core session, 1-month follow-up and 3-month follow-up sessions;
- Aged 12 to 80 years;
- Able to speak in Cantonese; and
- Able to understand the content and conversation during the focus group interview.

Table 7.1 Composition of focus groups

Group in community-based intervention programme	Number of focus groups	Number of participants
Group A	2	24
Group B	2	20
Group C	2	24

Procedures

Participation in the focus group interviews was voluntary after obtaining written consent (with a questionnaire on demographic characteristics) 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 moderators and questions were designed according to the objectives of the project. All focus group interviews lasted for about 90 minutes and were conducted in a quiet venue arranged by CFSC. Each focus group interview was managed by a panel of 1 moderator and 1 note-taker. The discussions were conducted in Cantonese and audio-taped.

Data analysis

To maximise 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 manuscripts were double-checked against the audio recordings for accuracy. The transcripts were analysed by thematic content analysis using NVivo 11.0 [77]. 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. Consensus was reached through discussion and iterative review of codes, categories and themes by a panel of researchers. All codes were then reviewed together by the research team to minimise the likelihood of their own biases and viewpoints embodied in the themes.

A process of "constant comparison" was used during analysis. This essentially involved reading and re-reading the data to search for and identify emerging themes. This process began in the initial coding stage when the researchers began to reflect on the data, broke down the content into discrete parts, and examined each quote for similarities and differences. Open coding was conducted at the first stage, and initial codes were developed. The researchers collected all the initial codes together and worked through to identify any duplication, overlap, or similar categories. Some of these codes were further refined and reduced in number by grouping them together. Through the use of sentence by sentence coding, these codes were further organised into broad categories, themes, and subthemes when appropriate.

7.1.3 Results

Table 7.2 shows that the majority of the participants were women (85.3%), married (92.5%), housewives (70.6%), and born in Guangdong Province (54.4%).

Table 7.2 Demographic characteristics of participants in focus group

Characteristics	n (%) ^a
Sex^b	
Male	10 (14.7)
Female	58 (85.3)
Age group (years)^c	
20-39	19 (29.7)
40-64	23 (35.9)
≥65	22 (34.4)
Education^d	
Primary or below	26 (38.8)
Secondary	32 (47.8)
Tertiary or above	9 (13.4)
Monthly household income^e	
<\$10,000	25 (41.7)
\$10,000-\$19,999	33 (55.0)
≥\$20,000	2 (3.3)
Marital status^f	
Single	2 (3.0)
Married	62 (92.5)
Divorced/Widowed	3 (4.5)
Employment status^g	
Employed	3 (4.4)
Housewife	48 (70.6)
Unemployed/Retired	17 (25.0)
Place of birth^h	
Hong Kong	13 (19.1)
Guangdong Province	37 (54.4)
Other areas	18 (26.5)

^a Missing data were excluded

Number of participants: ^b n=68; ^c n=64; ^d n=67; ^e n=60; ^f n=67; ^g n=68; ^h n=68

7.1.3.1 Focus group interviews

The main themes generated from the focus groups included “general impression on the programme”, “behavioural change after the programme”, “change in FAMILY 3Hs”, “change in neighbourhood cohesion”, “suggestions and recommendations” and “questionnaire”. The main themes, subthemes, and categories relevant to the research questions in Chinese are shown below with translated quotations in English (Table 7.3).

Table 7.3 Quote on the focus group interviews the participants

Themes	Subthemes	Quotes
General impression on the programme	Attractive programmes	<u>Health-related contents</u> “活動內容吸引囉。咁你個度（活動）又話有健康評估啊，例如你教我哋又要度我哋柔軟度啊，又度高磅體重（量）血壓。我哋老人家都幾想要個樣野。”（家庭主婦，40-49歲，A1 P4） “Programme content was attractive. (The programme) mentioned about health assessment, such as you taught us to measure our flexibility, height, weight and blood pressure. Those (measurements) were what the elderly wanted.” (Housewife, 40-49 yr, Group A1 P4) “（我）都係話見到有健康講座啊，所以來聽下需要教我哋點樣做，聽下點樣健康啲。”（家庭主婦，40-49歲，Group A1 P2） “(I) noticed that health talk was included, so I joined to learn how to improve health.” (Housewife, 40-49 yr, Group A1 P2) “（我）有啲興趣，有啲活動幾好有得食有得玩呀。即係有啲知識學下，健下身，活動下身體都幾好。就知多少少你哋介紹啲野，我哋就好歡迎你嘅。”（家庭主婦，65歲或以上，Group C2 P2） “(I am) interested in. Some activities were good with food and activities provided. That is, some knowledge to learn, having physical exercise and activities are also good. We are happy to know more about what you introduced and we welcome you.” (Housewife, 65 yr or above, Group C2 P2) <u>Gain chance to spend time with family</u> “（我）想同小朋友多啲群體嘅生活，同埋有啲好似健康相關嘅野。”（家庭主婦，Group A1 P1） “(I) hope to have more collective life with children and health related things.” (Housewife, Group A1 P1)

Themes	Subthemes	Quotes
		“其實都無諗話健唔健康，不過我覺得可以同小朋友有得玩又有得食都幾好。” (家庭主婦，30-39歲，Group A2 P1) “I didn't consider about health, but I think it is good to play and eat with children.” (Housewife, 30-39 yr, Group A2 P1) “有得玩有得食，可以親子囉，帶埋小朋友來。其實呢個機會好難得㗎。” (家庭主婦，40-49歲，Group B1 P9) “Food and games were provided, can have family activities with children. Actually, it was a rare opportunity.” (Housewife, 40-49 yr, Group B1 P9) <u>Have a chance to visit HKU</u> “就係可以參觀香港大學。即係覺得如果自己去機會係少啲嘅，但係經過你哋嘅活動我哋真係就好幸運。” (家庭主婦，40-49歲，Group B1 P2) “Can visit HKU. I won't have much opportunity to visit (HKU), but it is lucky to do so through this programme.” (Housewife, 40-49 yr, Group B1 P2) “我最深刻就係第一次參觀香港大學，唔係無咩可能可以去到嗰啲地方㗎。好少接觸又無咩可能接觸，因為我哋讀書少。” (家庭主婦，65歲或以上，Group B2 P2) “My most impressed (moment) was visiting HKU for the first time. It seems no way (for me) to visit such places. (We) were seldom or even impossible to get reached in (such environment) as we didn't have much education.” (Housewife, 65 yr or above, Group B2 P2) <u>Free</u> “好難得㗎，免費啊可。” (家庭主婦，50-59歲，Group A2 P11) “It is rare to be free of charge.” (Housewife, 50-59 yr, Group A2 P11) “三次（活動）都鍾意啦，唔使錢...好難得。” (家庭主婦，40-49歲，Group A2 P2) “I like all three activities, free of charge... is rare.” (Housewife, 40-49 yr, Group A2 P2)

Themes	Subthemes	Quotes
		“如果連埋仲有個buffet食喎，咁都會去囉...係囉甜頭囉。直接啲講「有啲甜頭，好喎，有buffet食，去啦是但啦...」”(全職工作，女，40-49歲，Group C1 P7) “If buffet is included, I would go...it is kind of benefit. Honestly saying ‘There are benefits, (that’s) great, buffet was included. Just go...’”(Full-time worker, female, 40-49 yr, Group C1 P7) <u>Diversion from boredom</u> “佢上我哋屋企嗰度洗樓嗰時呢，咁咪吹水。我話「落去八下啦，咁呀下啲時間，起碼無咁悶丫嘛」。”(家庭主婦，Group A2 P13) “When they did door-to-door visit, I gossiped with them. I said ‘Go down and gossip. It kills time, at least relieves some boredom.’”(Housewife, Group A2 P13) “去見識下啦，我哋覺得新鮮感啦，因為唔係日日去香港大學架嘛。”(家庭主婦，30-39歲，Group B1 P5) “To broaden the horizon, we feel new, as we do not visit HKU daily.”(Housewife, 30-39 yr, Group B1 P5) “人就梗係鍾意玩同食，無玩無食都無人生樂趣啦。”(家庭主婦，20-29歲，Group C1 P1) “Everyone loves play and eat. Life is dull without play and food.”(Housewife, 20-29 yr, Group C1 P1)
	Enhance self-awareness of physical activity and health	<u>Raise the awareness of ZTEEx</u> “(「零時間運動」)簡單，呢個咪最好囉。又唔使咩器材，喺屋企郁下就得。”(家庭主婦，40-49歲，Group A2 P2) (ZTEEx) is easy and that (being easy) is the best. It does not require equipment. It is simple to do at home. (Housewife, 40-49 yr, Group A2 P2) “我當時係諗住玩下㗎咋。不過後期發覺又真係了解(「零時間運動」)多咗，即係有時候原來坐係度都可以稍為郁動下。同埋有時候發覺原來有時小朋友真係好似...我成日覺得佢地係度搞搞陣，但有時發覺咁都算係一種運動。即係家了解咗就知原來咁樣都係叫運動。”(退休，女，Group B1 P1) “I just aimed for fun initially. Afterward, I realised and understood more (about ZTEEx) that (we) could even

Themes	Subthemes	Quotes
		exercise while sitting. Also, sometimes children seem ... I usually assume them as mischief around, however sometimes I found such could be regarded as a kind of exercise. After understanding, such movements could be so-called exercise.” (Retired, female, Group B1 P1) “（認識）「零時間運動」囉，因為自己平時都無乜時間做運動，咁個啲就真係啱我哋家庭主婦囉。係屋企睇電視都可以做。” (全職工作，female，40-49歲，Group C1 P7) “(Enhance knowledge of) ZTEEx. As I have no time to do exercise ordinarily, it (ZTEEx) is suitable for housewife. It is possible to do while watching TV at home.” (Full-time worker, female, 40-49 yr, Group C1 P7) <u>Raise the awareness of health</u> “柔軟度呢你做多咗呢就無咁容易跌親啊。” (家庭主婦，50-59歲，Group A2 P11) “If you do more to enhance your flexibility, you have less chance to fall off.” (Housewife, 50-59 yr, Group A2 P11) “知道自己啲血壓、膽固醇啊、BMI既脂肪...即係自己呢平時都無咩點樣理，參加咗呢個活動呢就可以知道自己check下嘛。” (家庭主婦，30-39歲，Group B2 P11) “Knowing (the readings of) my blood pressure, cholesterol, BMI and (body) fat, I wasn't aware of them. After joining the programme, I raised awareness and would check for myself.” (Housewife, 30-39 yr, Group B2 P11) “如果係做（體能）測試之後呢，注意自己體重，咁就會關心運動精神啊...” (家庭主婦，30-39歲，Group B2 P6) “After completing (physical fitness) assessments, I was aware of my body weight. So that (I) would be concerned about doing exercise and well-being.” (Housewife, 30-39 yr, Group B2 P6) <u>Confidence in sharing the ZTEEx</u> “有呢本書呢就可能會好啲，因為以前驚講錯（「零時間運動」）。有本書參考呢就會有信心啲講比人聽（「零時間運動」）。” (家庭主婦，30-39歲，Group A1 P5)

Themes	Subthemes	Quotes
		“It may be better to have the booklet. It is because I don't want to share the wrong information (about ZTEEx). With the reference of this booklet, (I) become confidence in sharing (ZTEEx).” (Housewife, 30-39 yr, Group A1 P5)
	Health Ambassadors	<u>Reminder from the Health Ambassadors</u> “我哋都係義工比電話我哋先知道呢個節目，都係靠義工提醒我哋。” (家庭主婦，30-39歲，Group A1, P5) “We learnt about this programme because of call reminder from volunteers. We depended on volunteers on reminding us.” (Housewife, 30-39 yr, Group A1 P5) “我嗰個組長好好喎，成日打電話來聯絡我哋，我哋個組長非常之負責，好盡心盡責㗎，我覺得佢好好，我覺得個組長好好。（佢）會打來問下「你今日有無做運動啊？」，跟住又「或者聽日後日又有第二次活動喇，要記得參加啊！」咁樣囉，（佢）會打來提出囉。” (家庭主婦，40-49歲，Group A1 P4) “I had a good team leader who always contacted us by phone. Our leader is definitely responsible. I think he/she is nice. I think my leader is nice. (He/She) would call and ask, 'Did you exercise today?' then said 'The second activity will be held tomorrow or on the day after tomorrow. Remember to join!' etc. (He/She) called for reminding.” (Housewife, 40-49 yr, Group A1 P4) <u>Help arrange the programme</u> “佢嗰個時間都安排得好好啊。嗰次呢因為我個細仔高班嘅畢業禮啊，就參加唔到（活動），後尾佢就安排我下一次囉，佢都幾好㗎。我就話因為佢畢業禮我一定要去，後尾我就話我呢個就去唔到喇，佢打個電話比我，佢話下一次留返比我囉。” (全職工作，男，30-39歲，Group B2 P9) “Team leader arranged with good time management. That time, I didn't attend (the programme) because of the graduation ceremony of my younger son. At last, he/she arranged the next session for me. So, kind of him/her. I said, 'I must attend my son's graduation ceremony, so I can't make it.' He/She called and reserved the next session for me.” (Full-time worker, male, 30-39 yr, Group B2 P9)

Themes	Subthemes	Quotes
		<u>Considerate Health Ambassadors</u> “其實我覺得（組長）幾好。因為我記得我參加呢個活動嗰時候組長仲問埋我幾多點鐘...即係嗰個時間你幾多點鐘係最得閒㗎？我話「通常朝頭早，因為小朋友返晒學。」咁佢就話「哦咁得啦，我朝頭早嗰段時間先打比你。」” (退休，女，Group B1 P1) “Actually, (team leader) is nice. During the programme, as I remember, the team leader asked for my availability. I said ‘(I) am usually available in the morning as children have already gone to school.’ And, he/she said ‘OK then. I will call you in the morning.’” (Retired, female, Group B1 P1) “你...上落車啊，（健康大使）喺車度扶你上去，或者即係你唔方便。” (家庭主婦，30-39歲，Group B2 P11) “(When) you get on and off the bus, (Health Ambassadors) gave you a hand, in case you had difficulties.” (Housewife, 30-39 yr, Group B2 P11)
Behaviour change after the programme	Physical activity	<u>Increase intention in doing ZTEEx</u> “（我）即係連搭地鐵都會呢掂下腳指啊，我覺得嗰個方法（「零時間運動」）幾好，可以隨時隨刻搵到機會做下運動，即係唔會浪費時間做運動。” (待業，男，50-59歲，Group A1 P9) “(I) touch my toes while traveling on the MTR. I think (ZTEEx) is a good way that you can find chance to exercise anytime, that is no extra time is wasted for exercise.” (Unemployed, male, 50-59 yr, Group A1 P9) “企喺度睇電視都單腳企啊。” (家庭主婦，40-49歲，Group A2 P2) “Single leg standing while watching TV.” (Housewife, 40-49 yr, Group A2 P2) <u>Increase performing other types of exercise</u> “（我）都有行多左。即係本來你係可搭車與唔搭車之間，就決定行囉，即係幾個字啲啲囉。” (家庭主婦，40-49歲，Group A1 P6)

Themes	Subthemes	Quotes
		“(I) walk more. When I’m struggling whether riding or not, I will walk instead for those walking distance, for some 5-minute.” (Housewife, 40-49 yr, Group A1 P6) “我哋（倆夫妻）就食完飯兩個就行一個鐘頭，一日來講約10,000步度啦。” (家庭主婦，30-39歲，Group A1 P5) “We (both husband and wife) walk for an hour after meal, about 10,000 steps a day.” (Housewife, 30-39 yr, Group A1 P5) <u>Share ZTEx with family</u> “我介紹（「零時間運動」）比我媽咪爹哋。因為佢地年紀大喇九啊幾歲，我話「你做啲輕keng啲嘅！」，我話咁樣可以屹下隻腳啊，有時做下啲手部咁樣...即係撞擊啊咁樣。我話做下啲簡單㗎囉。” (家庭主婦，40-49歲，Group A2 P7) “I recommended (ZTEx) to my parents. As they are getting older more than ninety-year-old, ‘You can do some simple exercises, such as lifting legs, shivering hands like this and hitting like this etc. Just do something easy and simple.’ I said.” (Housewife, 40-49 yr, Group A2 P7) “（手握力器分享）我老公囉。我個仔都有拎黎玩過嘅「呢啲好簡單嘅野啫！」” (家庭主婦，30-39歲，Group B1 P5) “(Sharing the handgrip) with my husband. My son grabbed once and tried as well and said, ‘So simple!’” (Housewife, 30-39 yr, Group B1 P5) “譬如說看電視的時候吃完飯就讓他們（家人）起身做一下運動，不要整天坐著。” (退休，女，50-59歲，Group C1 P2) “For example, while watching TV after meal, I would ask them (family members) to stand up and exercise and tell them not to sit all day long.” (Retired, female, 50-59 yr, Group C1 P2) <u>Share ZTEx with friends</u> “（分享）同我啲朋友囉，佢哋都有啲來參加過。跟住我就參加完呢，佢哋就參加囉。有啲（朋友）無參加就問我「點做啊？」「原來（「零時間運動」）咁簡單㗎咋！」。” (家庭主婦，40-49歲，Group B1 P9) “(Sharing) with my friends. Some of them joined before. They joined after I had joined. If some (my friends) didn’t join, they

Themes	Subthemes	Quotes
		would ask 'How to do (ZTEEx)?' 'It is so easy!'" (Housewife, 40-49 yr, Group B1 P9) “有啲媽咪話咩書包好重㗎，咁（我）就話比佢知拉下筋啊或者坐低啊即係咁樣囉，我話可能你拉到背脊個肌肉啊，佢都會做試下囉。佢話試咗真係好似無咁痛。” (家庭主婦，40-49歲，Group A1 P2) “Some mothers said it is too heavy to carry the school bag. Then (I) told them to stretch or sit like this. 'You might stretch your back muscle.' I said. They will try what I had told. They responded with less pain afterward.” (Housewife, 40-49 yr, Group A1 P2) “（同）啲朋友（分享）囉，WhatsApp比佢，叫佢睇個片（「零時間運動」），自己做運動囉。我就同佢哋講話有呢個零時運動，佢話好好㗎。” (家庭主婦，20-29歲，Group C1 P1) “(Sharing with) friends by using WhatsApp. Asking them to watch (ZTEEx) video and exercise on his/her own. I recommended ZTEEx to them. They said it is very good.” (Housewife, 20-29 yr, Group C1 P1) <u>Practise with handgrip</u> “因為我自己兩隻手都甩過白，咁所以我就唔係好夠力，有時真係拎個煲蓋都拎唔到。咁而家有咗嗰個制（手握力器）之後呢...我先生（本來）都懶做運動，「伯爺公就做啦有個制（手握力器）㗎度。」，咁我有時就會記得就會做囉。” (家庭主婦，30-39歲，Group B1 P5) “Both of my hands are weakening due to past dislocation. Even sometimes, it is difficult for me to lift the lid of a cooking pot. My husband is not used to exercise. After having the handgrip, 'Husband, practise by using the handgrip.' I said. Sometimes, I will practice when I remember.” (Housewife, 30-39 yr, Group B1 P5) “我有試過放（手握力器）㗎個袋度。有時會諗起唔使用手握力嘅，我聽組長講...有時揸住拳頭啊，去邊揸住拳頭都得，行路個陣時。因為（我）行得路多啊嘛。” (家庭主婦，40-49歲，Group B1 P9) “I had tried to bring along (the handgrip) with me in my bag. I sometimes recalled that handgrip is not needed as team

Themes	Subthemes	Quotes
		leader told. Clenching the fist anywhere when you walk. (I) walk always.” (Housewife, 40-49 yr, Group B1 P9) “握手力隨時都（用）得喇，朝頭早起身，得閒咁又做喇。最好第日你印埋少少圖案比我哋睇，因為佢（握手力器）有好多種花款㗎嘛。因為呢啲有其他㗎嘛，又喺床度嗰啲咁㗎嘛，又有毛巾嗰啲...” (家庭主婦，65歲或以上，Group B2 P2) “(Practise) hand grip anytime when waking up in the morning and free time, in future, it is better to print out figures for us, because there are many different types of (handgrip). Have others, some on the bed and have some towels.” (Housewife, 65 yr or above, Group B2 P2) <u>Handgrip as a reminder</u> “（握手力器）幫到（提醒）！擺喺容易當眼地方，容易擺到。因為擺喺枱面，（我）一見到得閒就擺黎（做），千祈唔好收埋啊！（你）收埋無得玩㗎，嗰個手揸都幾好㗎...得閒（做）。” (家庭主婦，65歲或以上，Group B2 P2) “(Handgrip) is helpful (as a reminder). Place it in an eye-catching place where it is easy to reach. (I) grasp and practice in free time it's eye-catching on the table. Do not hide it. (You) won't use it if (you) hide it. Handgrip is quite good (to use) in free time.” (Housewife, 65 yr or above, Group B2 P2) “擺（握手力）喺當眼地方，擺電視側邊囉。” (家庭主婦，40-49歲，Group B2 P7) “Placed (the handgrip) in an eye-catching place. Place beside the television.” (Housewife, 40-49 yr, Group B2 P7)
	Healthy diet	“自從佢講話個盒野（飲品）有幾多糖份，（我）真係少飲咗好多。” (家庭主婦，20-29歲，Group C1 P1) “Once he/she (the instructor) said how much sugar the (beverage) carton contains, (I) drink much less.” (Housewife, 20-29 yr, Group C1 P1) “依家叫咗我老公戒可樂啦，譬如（佢飲）十罐，減左六、七罐。” (家庭主婦，30-39歲，Group C1 P4)

Themes	Subthemes	Quotes
		“I advised my husband to quit coke. Like, he drinks ten cans, has decreased by six or seven cans.” (Housewife, 30-39 yr, Group C1 P4)
	More family interaction	<u>Perform ZTEEx with family members</u> “（小馬步）仲有（我）同個女一齊睇下邊個企得耐。”（退休，女，65歲或以上，Group A1 P8） “With my daughter, we competed who can stand (with knee slightly bending) longer.” (Retired, female, 65 yr or above, Group A1 P8) “我哋（同奶奶）係一齊住㗎。即係我有時做左（「零時間運動」）比佢（睇）啦，有時教佢踩單車㗎啲。”（全職工作，男，30-39歲，Group B2 P9） “We (with my mother-in-law) live together. I showed her (ZTEEx) and sometimes taught her seated cycling.” (Full-time worker, male, 30-39 yr, Group B2 P9) <u>Perform other types of physical activity with family members</u> “（我）之前就搭Lift嘅，而家我就嗌個仔行樓梯。我話「我地行樓梯做下運動」，我地住第二...兩層...之前兩層都係搭Lift，咁咪而家就行下囉。”（家庭主婦，40-49歲，Group A1 P2） “(I) used to take the lift. Now, I ask my son to walk up the stairs. I said, ‘Let’s walk up the stairs for exercise’. We live in the second (floor)...two levels, (we) used to take the lift for just two levels, now we walk.” (Housewife, 40-49 yr, Group A1 P2) “我會同個女一齊做運動囉，跟住佢一齊跑有時。以前我由得佢跑唔理嘅，坐喺度㗎。而家唔會坐喺度。”（待業，男，50-59歲，Group A1 P9） “I exercise with my daughter. I sometimes run after her. I used to let her run, was concerned and sitting aside. Now, I don’t just sit.” (Unemployed, male, 50–59 yr, Group A1 P9) “以前我就做我自己鍾意嘅運動，而家就跟埋佢（我太太）跳下健康舞。我初初以為睇佢跳健康舞呢啲女人跳之嘛，都唔係我地做嘅，咁而家咪跳埋囉。（我哋）朝早食早餐開隻碟

Themes	Subthemes	Quotes
		咁咪跳，跳半個鐘頭度。以前就我自己做我自己，舉下啞鈴啊，踩下單車啊，XX（遊戲機）啊啲嘢。啲咩佢又唔玩嘅，咁而家就調轉頭我玩佢啲嘢（運動）。” (退休，男，65歲或以上，Group A1 P7) “I used to do my preferred exercise. Now, I take aerobic dance with her (my wife). I initially thought that aerobic dance is just for women, not for us (men). I now dance as well. (We) play the music and dance while having breakfast in the morning, for around half an hour. I used to do exercise myself, (like) lifting dumbbell, cycling Playing X-BOX360...etc. she wasn't interested in those I do, now it is my turn to do my wife's (exercise).” (Retired, male, 65 yr or above, Group A1 P7) <u>Reminder from family members</u> “（我）都係比較無咩所謂，帶埋小朋友出黎做運動。（小朋友會諗）「原來爹哋媽咪都做運動㗎」，佢都會叫我做運動。（我）返到屋企佢就會話「媽咪你都未做運動！媽咪（你）今日要做運動啊！」咁樣督促我。小朋友都參加咗整個過程，因為佢都有同我一齊做麻。” (家庭主婦，30-39歲，Group B1 P2) “(I) don't mind bringing along my child out for exercise. (My child might think that) 'So Dad and Mum would do exercise.' He/she will invite me to do exercise. When (I) arrived home, he/she said 'Mum, you haven't exercised yet. Mum, (you) should exercise today.' Monitor me like this. My child has participated in the whole process as he/she exercises with me.” (Housewife, 30-39 yr, Group B1 P2) “依家係屋企到（我個女）就會嗌你（我）囉「媽咪跳舞啦！媽咪跳舞啦！」。” (家庭主婦，40-49歲，Group C1 P9) “Now at home, (my daughter) would ask me 'Mum, let's dance! Mum, let's dance!'” (Housewife, 40-49 yr, Group C1 P9) <u>More communication with family</u> “因為有時（同屋企人）傾傾下好似比較放鬆咁。親子...多啲（時間）喺埋一齊。有時（我）同奶奶多啲溝通。” (全職工作，男，30-39歲，Group B2 P9) “It seems more relaxing to talk with (my family). Parental-child spends more (time) with family. I communicate more

Themes	Subthemes	Quotes
		with my mother-in-law sometimes.” (Full-time worker, male, 30-39 yr, Group B2 P9) “即係因為你一路做運動係唔諗其他就做運動，個心情都會平伏啲。即係你都知道香港嗰啲（生活）緊湊性好咩（高）啲嘛，所以就會多咗傾偈嘅時間...溝通。” (退休，男，65歲或以上，Group B2 P1) “You feel calm while you are exercising without thinking other things. As you know the pace of (living) in Hong Kong is fast, so would have more time in communication (after the programme).” (Retired, male, 65 yr or above, Group B2 P1) “咁真係要睇場合。我哋係出面又做唔到（「零時間運動」），番到屋企有時我做。佢哋（屋企人）又話「嘩！你做咩坐成咁呀？」「你唔記得咩？做緊運動㗎。」，即係都會多咗話題講嘅。” (全職工作，女，40-49歲，Group C1 P7) “It depends on occasions. It is not possible for us to do (ZTE) outside. I sometimes do it at home. They (my family) said ‘Why sitting like this?’ ‘Don’t you remember? I am exercising!’ So, we have more topics to talk.” (Full-time worker, female, 40-49 yr, Group C1 P7)
Change in FAMILY 3Hs	FAMILY health	<u>Improve the fitness</u> “我而家可以每一日手機可以記低自己至少行8,000步囉，咁都覺得好似對自己有幫助。之前行路都會喘晒氣㗎，依家好輕鬆行路。” (退休，男，50-59歲，Group A1 P9) “Now, I can use my mobile phone and record at least 8,000 steps a day I walk. That seems helpful to me. I used to breathe heavily while walk, whereas now I walk easily.” (Unemployed, male, 50-59 yr, Group A1 P9) “我就只係洗面就將個面盆就愈放愈低咁，咁你咪可以彎低啲。初期對個女黎講好輕鬆㗎，因為矮丫嘛，咁但係自己都係嘗試愈彎愈低，咁就個伸展係好啲。因為你唔覺得（伸展好啲）丫嘛日日係咁洗面，日子有功呢就彎得低啲，咁（我）咪洗住做囉。以前就喺隔離，而家就愈彎愈低咁做。” (家庭主婦，40-49歲，Group A1 P10) “I place the wash basin lower and lower while cleaning my face, meanwhile I can bend lower. Initially, it was quite easy for my daughter because she is short. For me, my (flexibility improved) as I tried bending lower and lower. Although you

Themes	Subthemes	Quotes
		might not realize you are getting used to it, somehow flexibility improved. So, (I) keep doing this while cleaning my face. I bend lower and lower now but only a little previously.” (Housewife, 40-49 yr, Group A1 P10) <u>Reduce body weight</u> “早輪我係真係減咗好多，我就63K（公斤），咁我減得60幾。” (家庭主婦，40-49歲，Group C1 P5) “I lose much weight recently. I was 63K (kg) and now drop to 60-something.” (Housewife, 40-49 yr, Group C1 P5) <u>Change unhealthy behaviours of family members</u> “依家叫咗我老公戒可樂，譬如（佢）十罐減咗六、七罐。” (家庭主婦，30-39歲，Group C1 P4) “I advised my husband to quit coke. Like, he drinks ten cans, has decreased by six or seven cans.” (Housewife, 30-39 yr, Group C1 P4) “譬如說看電視的時候吃完飯就讓他們（屋企人）起身做一下運動，不要整天坐著。” (退休，女，50-59歲，Group C1 P2) “While watching TV after meal, I would ask them (family members) to stand up and exercise. Tell them not to sit all day long.” (Retired, female, 50-59 yr, Group C1 P2)
	FAMILY happiness	“我小朋友好鍾意去動植物公園嗰度。一來我又未去過啦，（我）第一次帶佢又好開心，（走嘅時候，佢話）「吓？咁快走喇我地都未睇夠啫...」。” (家庭主婦，40-49歲，Group A1 P2) “My child loves going to the Hong Kong Zoological and Botanical Gardens. Firstly, I have never been there before. It was the first time (I) brought him/her there and he/she was so happy. (When we had to go, he/she said) ‘Huh? That soon? I haven’t looked through enough yet...’” (Housewife, 40-49 yr, Group A1 P2) “去玩就好好啦，又可以帶小朋友出去玩下，咁小朋友又開心。嗰次去九龍公園嗰個，都幾開心！有攤位遊戲，小朋友都係好開心。” (家庭主婦，40-49歲，Group A2 P2) “It is good to go out, (especially) taking along with children and they are happy with that as well. That time, in Kowloon

Themes	Subthemes	Quotes
		Park was fun. There were game booths and children were joyful.” (Housewife, 40-49 yr, Group A2 P2) “因為同小朋友做（運動）嗰陣時，佢哋覺得開心我咪開心囉。佢覺得得意嘛（我）同佢玩，佢哋當玩，咁咪開心囉。” (家庭主婦，40-49歲，Group B1 P9) “While (exercising) with my child, I was happy as long as my children happy. They felt interesting and fun when (I) spent time with them. Then we all happy.” (Housewife, 40-49 yr, Group B1 P9)
	FAMILY harmony	“「喂！你做（運動）啊伯爺公！」，咁伯爺公又真係做下咁樣。唔係只係我溜你參加你唔參加，（或）「你做（運動）都係無用囉」。好似你話齋少啲拗撬。” (家庭主婦，30-39歲，Group B1 P5) ““Hey husband, go ahead and do (exercise)’ (I said). Then, my husband followed. Not like, you refuse to join when I invite you (or) say something like ‘It is useless for you to (exercise)’. Just as you say, (we) argue less.” (Housewife, 30-39 yr, Group B1 P5) “因為之前見到佢地（小朋友）有時食飯喺度踢黎踢去，（我話）「隻腳喺度踢咩？食飯就正正經經坐喺度食啦！」，咁佢又成日跳咪話唔好跳囉。咁而家覺得（踢/跳）都係運動姐就由得佢地。” (退休，女，Group B1 P1) “As observed, they (the children) kicked and kicked while having meal. (I blamed) ‘Why kicking? Should sit proper when eating!’ or he/she always jump around and asked them not to. However, now I regard (those movements) as exercise and let them.” (Retired, female, Group B1 P1)
Change in neighbour-hood cohesion	Community residents	<u>Enhancing social networking</u> “可能你哋組織嗰啲人食飯嗰陣時（同參加者講）話「你哋可以電話交換啊，或者你哋自願嘅話就...」，提一提佢哋睇下佢哋有無興趣（聯絡）囉。我哋就有幾個都加咗。” (家庭主婦，40-49歲，Group A1 P6) “Organisers might ask (participant) while having meal ‘You may exchange your telephone number, or if you are willing to...’ Remind them and see whether they would have interest to (keep in touch). We had added each other as friends.” (Housewife, 40-49 yr, Group A1 P6) “（我）識咗朋友囉，因為同一組來，（我哋）跟住去參觀學校啊咁有時間可以傾下。（佢）同我係住呢區，我識咗個個

Themes	Subthemes	Quotes
		係住鯉魚門嘅，我哋一直都有聯繫。” (家庭主婦，30-39歲，Group B1 P2) “(I) made friends. As (we were) in the same group, (we) got chance to talk while visiting the university. (We) live in the same community. The one I knew who lives in Lei Yue Mun. We keep in touch always.” (Housewife, 30-39 yr, Group B1 P2) <u>More topics to talk</u> “(我地講下) 仔子女女啊，例如參加咗邊啲活動，下一part 又係幾時啊，你提我我提你。” (家庭主婦，40-49歲，Group A1 P6) “(We talk about) our kids, such as what kind of activities we have joined? When would be the next session? We reminded each other.” (Housewife, 40-49 yr, Group A1 P6) “其實多數都會（傾偈）嘅，因為小朋友係共同語言呀嘛。就係因為兩個小朋友走埋一齊玩，咁跟住咪會多嘢講，講湊仔呀，講番學呀。” (全職工作，女，40-49歲，Group C1 P7) “We always (talk) because kids are our common language. Mainly the kids play together then we talk much together, like talking about rearing children, schooling stuffs.” (Full-time worker, female, 40-49 yr, Group C1 P7) <u>Help each other</u> “我覺得我哋個team都幾好，即係唔識我哋都會互相照顧。我同佢之前唔識㗎，咁啊我啲子女唔肯食野佢又會幫我沱下我啲子女食野，幾好囉。” (家庭主婦，40-49歲，Group A1 P2) “I think it was quite nice of our team. We looked after each other even we were strangers. I did not know him/her before. When my children refused to eat, he/she was so nice to help cure them to eat.” (Housewife, 40-49 yr, Group A1 P2) “你去買餸（街坊話）「呢個阿婆我幫你推（車仔）啊個個阿婆...」，好有人情味㗎啲街坊。啲啲（街坊話）「阿婆我幫你拉」有時我話「唔使啦...」” (家庭主婦，65歲或以上，Group C2 P1) “When I went shopping, (neighbour said) ‘Madam, I may do you a favour for pushing the (trolley)...’ The neighbours were very kind. Some (neighbours said) ‘Madam, I may help you

Themes	Subthemes	Quotes
		to pull...' Sometimes I replied, 'It's alright'" (Housewife, 65 yr or above, Group C2 P1)
Suggestions and recommendations	Programme design	<u>Number of sessions</u> “(想)再多啲(活動)囉，因為有得去街丫嘛。”(家庭主婦，40-49歲，Group A1 P6) “(Want) more (activities), because more chances to go out.” (Housewife, 40-49 yr, Group A1 P6) “我提議類似活動再舉辦多次。”(家庭主婦，30-39歲，Group P10, B2) “I suggest running more activities like this.” (Housewife, 30-39 yr, Group P10, B2) <u>Programme content</u> “我真係有個意見，無話改唔改善嘅。因為我覺得一開始比我感覺「健康家加油」，即係以健康為主，但係我唔係好明白點解有BBQ。雖然我覺得BBQ係可以令一家人親情會更好，但係問題我覺得BBQ係好熱氣，即係始終於係燒丫嘛，咁我就唔係太明點解會係健康。唔知點樣就安排咗呢個活動。”(退休，女，Group B1 P1) “I'm sure to have a comment rather than a suggestion. My first impression of the Community Health Campaign FFP was it would focus on health, but I don't get why BBQ was included. Although this activity could enhance family relationship, the problem is (the food of) BBQ is 'yeet hay' (too much 'hot' energy in your body, as it is barbecue. So that's why I'm confused about how come BBQ would be a healthy activity.” (Retired, female, Group B1 P1) “其實我覺得將BBQ呢個活動可以改返其他可以一家大細一齊做嘅野，簡單啲嘅。例如搞下遊戲、傳下波仔、或者踏下單車。”(家庭主婦，30-39歲，Group B1 P2) “I consider changing the BBQ to some other simple alternatives which suit all family members. For example, games Passing balls or cycling.” (Housewife, 30-39 yr, Group B1 P2)

Themes	Subthemes	Quotes
		<u>More family activities</u> “因為依家（家長）好注重親子㗎，真係㗎！如果你將呢個運動又可以親子將佢一齊有好多家長都會樂意參加㗎。”（家庭主婦，40-49歲，Group B1 P2） “Nowadays, (parents) definitely emphasise on parent-child relationship. If (the programme) can fit with both exercise and family activities, a lot of parents will be happy to join.” (Housewife, 40-49 yr, Group B1 P2) “因為而家小朋友讀書壓力好大。即係（我）帶佢出去都係行街啊咁樣，如果你有個活動咁樣呢，咁咪可以成家人去，又可以活動又可以放鬆囉。”（退休，男，65歲或以上，Group B2 P1） “Nowadays, children are stressed in studying. (I) normally go to have a walk with my child. If there is an activity like this, then the whole family can join, have fun and relax.” (Retired, male, 65 yr or above, Group B2 P1) <u>Focus on more elderly and children use</u> “有啲長者就好需要咁嘅活動。小朋友又需要長者又需要，因為長者面對都係啲咁家庭，啲子女都離開，結婚唔喺身邊。如果係兩老㗎喇，仲有兩老可以傾偈，如果得自己一個人㗎喇，咁就無人傾偈。所以呢個活動比啲咁平台長者，可以互相認識下，認識長者又好認識小朋友又好，佢地好開心㗎。”（家庭主婦，40-49歲，Group B2 P4） “Some elders need the activities like this. Children need it and elders need it. It is because elders are facing the family condition that their children left home, married and not by their sides. If they are an old couple, they still can talk to each other. If they are alone, then there is no one to talk to. So, this programme provided a platform for the elderly to know each other, no matter knowing elderly or children. They are very happy.” (Housewife, 40-49 yr, Group B2 P4) <u>Resources</u> “你PowerPoint打咗（資料）出來見到，但你PowerPoint轉咗第二個畫面我就唔記得咗。咁我想返到屋企去再測試自己嘅時候，我就無咗呢個記錄。所以點解我覺得你呢本書係好珍貴就係咁。你有晒記錄㗎度，我可以隨時睇下我自己依家

Themes	Subthemes	Quotes
		達唔達到標準，當時係我做唔到。你哋個（活動）缺點就喺呢度。”(家庭主婦，30-39歲，Group A1 P5) “You showed (the information) on the PowerPoint. However, I forgot after you turned to the next slide. I wanted to test myself at home, but I lost the records (from the programme). That's why I feel the booklet as a kind of valuable. If you hold all of the record, I can check whether I have improved and reached the standard or not anytime. That's the limitation (of your programme).” (Housewife, 30-39 yr, Group A1 P5) “呢個問題就係我唔知道我返到屋企做（運動）一個月之後我有無進步呢，邊個數值為之準確呢，我無記錄。我係想做（運動）啊，但我無記錄丫嘛。”(家庭主婦，40-49歲，Group A1 P5) “The problem is that I'm not sure if I have improved after 1 month (exercise) at home. I had no record of which value is accurate. I have no record, I would like to (exercise) but I have no record.” (Housewife, 40-49 yr, Group A1 P5) “其實你可以喺嗰個手握力個嘢度，（顯示）功能啦點用，其實好似說明書咁可以吸引到好多人，（說明書上寫）因為佢（手握力器）可以改變心臟（健康），好多人有呢方面嘅（問題），只係聽你地講我就有啲懷疑點解會用手握力可以改變到心臟㗎呢？問個組長佢又唔係好（識）點答得到。”(家庭主婦，40-49歲，Group A1 P6) “Actually, you can attach (a guideline) on the handgrip, (showing) the function and how to use it. It is like a manual, so (you can) attract more people. It is because it (handgrip) could help change (the health) of the heart. Many people have this (heart problems). By just listening to what you have said, I would doubt why the handgrip can change the heart (condition). (When I) asked the team leader, he/she was not (sure in) answering.” (Housewife, 40-49 yr, Group A1 P6) <u>Strengthen promotion</u> “如果可以，或者你將橫額（掛）去一啲地鐵站啊，我覺得宣傳多啲咁咪更好囉，或者（話）「（個活動）唔係好艱難參加㗎」咁囉，或者加強呢樣野囉。加長你個function裡面，即係一家大細可以活動啊又可以親子啊，親下子做下運動，老人家又㗎。喺地鐵站裡面拉下呢啲咁嘅橫額。”(家庭主婦，30-39歲，Group B1 P5)

Themes	Subthemes	Quotes
		“If possible, you may (hang up) the banner in several MTR stations, I believe that more promotion the better, or (to tell them) ‘(The programme) is not difficult to join.’ Or else, strengthen in this way. Extend the function, such as mentioning ‘Family activities with exercise.’, ‘Suitable for the elderly.’ Etc. Hanging up those banners in MTR stations.” (Housewife, 30-39 yr, Group B1 P5)
	Programme arrangement	<u>Time</u> “最好就了解吓小學中學嗰啲唔係考試前嘅時間，如果唔係（我）直情係唔想行。佢就來要考試啊嗰啲好難（參加），想去但係又唔敢去。” (家庭主婦，40-49歲，Group A1 P6) “It is better to know if it is the time period before examination of primary and secondary schools; otherwise (I) do not want to join. It is difficult for him/her to (join) while approaching the exam... wishing to go but unable.” (Housewife, 40-49 yr, Group A1 P6) “（活動時間）啱啱搭住暑假。其實好多時好多人暑假都會返大陸，有啲媽咪都返嘅，有時就黎唔到囉。” (全職工作，女，40-49歲，Group C1 P7) “(The time of the programme) overlapped with summer holiday. Actually, many people go back to the mainland during summer holiday. Some mothers go back as well, so sometimes they cannot make it.” (Full-time worker, female, 40-49 yr, Group C1 P7) “你可以搞兩part，一啲就係for佢地鍾意星期日，一啲係星期六，咁咪自己各自報囉。總之你就一定係呢三日就星期六... 呢三日就星期日，兩組人，咁等佢地自己就番自己啲時間囉。” (全職工作，女，40-49歲，Group C1 P7) “You may conduct two parts. One for those who prefer (to join the programme) on Sunday; another for Saturday. Let them apply individually. In other words, you must take either three sessions on Saturday or three sessions on Sunday. Let them make their own arrangement.” (Full-time worker, female, 40-49 yr, Group C1 P7) <u>Period between each session</u> “你一個月之內會好啲，定還是分個半月都好呀，個半月就近少少，縮短啲。” (全職工作，女，40-49歲，Group C1 P7)

Themes	Subthemes	Quotes
		“You better (conduct the programme) within a month, or maybe a month and a half is good too. One and a half months is closer (than 3-month), shorten (the programme duration) a bit.” (Full-time worker, female, 40-49 yr, Group C1 P7) <u>Manpower</u> “組個度分得唔好啊。我地早早就喺度就已經完結喇，個個係話做測試。仲有喺出面又唔可以走開啫...就個棟樓個度。但係有其他組仲做喺度測試...可能因為人手（缺乏）定因為啲編排啲...” (家庭主婦，40-49歲，Group A2 P7) “Group arrangement is not good. As we had done the tests earlier, we still couldn't leave the building. Some other groups were still in progress... maybe there should have consideration in (shortage of) manpower or arrangement.” (Housewife, 40-49 yr, Group A2 P7) “咁你例如有一嘅車成三、四十人，咁咪晒好多時間。如果唔係set up得好啲，咁我哋可以多時間就喺出面參觀多啲，可以自由活動啦。咁你又晒咗咁多時間（set up）。如果Set up得好，好快咋嘛通常。” (家庭主婦，30-39歲，Group B1 P5) “For example, there were 30 to 40 passengers in one coach, time was wasted. If better effort in setup, we may have more time on visiting outside or free-time activity. You spent too much time on (setting up). If better in setup, it normally will be more efficient.” (Housewife, 30-39 yr, Group B1 P5)
	Health Ambassadors	<u>More instructions from Health Ambassadors</u> “組長同我地傾計嘅時候應該有個指引，問下呢啲嘢啊，咁就好過話單純問「你有無做運動啊」，就原來我做咩都唔知，做咩運動我都唔知。即係呢啲應該係個組長嘅指引比佢。” (家庭主婦，40-49歲，Group A1 P10) “There should be a guideline for Health Ambassadors while we were talking. Instead of simply asking ‘Have you exercised?’ as I didn't even know what to do or what exercise to do. So, there should have a guideline for Health Ambassadors.” (Housewife, 40-49 yr, Group A1 P10)

Themes	Subthemes	Quotes
		<u>More reminders from Health Ambassadors</u> “組長多啲提醒囉！拉長啲時間比人哋形成一個習慣。” (家庭主婦，40-49歲，Group A2 P7) “Team leader should have reminded (us) more. Have a longer time in order to form a habit.” (Housewife, 40-49 yr, Group A2 P7) <u>Should motivate team interactions</u> “都ok嘅，不過係即係因為組長無帶動到啲組員互相傾偈啊，根本就好似咁樣（聚焦小組討論）傾下偈都無嘅，根本啲活動就。” (家庭主婦，40-49歲，Group A1 P10) “It is fine. However, team leader didn't lead members into mutual conversations. There was no chit-chat like this (focus group discussion) in the programme.” (Housewife, 40-49 yr, Group A1 P10)
Questionnaire	Advantages	<u>Questionnaire as a reminder</u> “真係你第一次係未接觸過（「零時間運動」），自從你第一次接觸過之後，第二次你會覺得已經識咗，即係你起碼學多咗。你（問卷）問啲啲嘢初初你係唔知，你唔知道...「啊乜我 要做呢樣嘢（運動）㗎？」，其實係一個提醒作用。” (家庭主婦，40-49歲，Group A1 P6) “You never get to know (ZTEEx) before. As you first tried, you became familiar with it the second time. That means you have learnt more. At first, you didn't know what the (questionnaire) was asking. You didn't know 'So I need to do (exercise)?' Actually, it serves as a reminder.” (Housewife, 40-49 yr, Group A1 P6)
	Barriers in filling the questionnaires	<u>Difficult to understand</u> “第一次嘅問卷好多都唔知道點樣答，因為始終（我）係第一次接觸呢個「零時間運動」，咁之後第二第三次（問卷）可以自己搞掂。” (家庭主婦，40-49歲，Group A1 P6) “I had no idea how to answer the first questionnaire as (I) was the first time came to know ZTEEx. I could handle (the questionnaire) by myself on the second and third time.” (Housewife, 40-49 yr, Group A1 P6)

Themes	Subthemes	Quotes
		<u>Long and repetitive</u> “我就覺得3次填1次咪得囉，唔使每次都填。或者你做完啲運動第3次你先填問卷，即係你手握啲啲可以每次都測，但問卷就真係太長，即係可以做一次。” (家庭主婦，40-49歲，Group A1 P2) “I think (fill in questionnaire for) 3 times (was unnecessary), once is fine. It was not necessary to fill every time. Or, complete it after the third time exercise. Hand grip strength could be tested every single time. Questionnaire was really too long, just complete once is fine.” (Housewife, 40-49 yr, Group A1 P2) “（問題）好接近嘅，咁可唔可以簡化啲？同埋有次都係幫啲公公婆婆（都係參加呢個活動），我做義工就係教佢地點樣填，有時解釋比佢，佢話「好似頭先咪答咗」。（問題）比較接近囉...如果可以簡化啲。” (家庭主婦，30-39歲，Group B2 P6) “(Questions) are similar. Is it possible to simplify it? Also, I was a volunteer. Once, I helped the elderly (of this programme) by explaining the questions and assisting them to fill the questionnaire, one said ‘seems I have answered before.’ (Questions) are relatively similar. If it can be brief.” (Housewife, 30-39 yr, Group B2 P6)

7.2 Focus groups of social service workers and Health Ambassadors

7.2.1 Qualitative evaluation of TTT

As shown in Table 7.4, eleven trainees participated in the focus group interviews in November 2016.

Table 7.4 Socio-demographic characteristics of social service workers joined the focus group interview (n=11)

Characteristics	n (%)
Sex	
Male	5 (45)
Female	6 (55)
Age group (years)	
20-29	6 (55)
30-39	5 (45)
Education	
Secondary	4 (36)
Tertiary	7 (64)
Job title	
Registered social worker	6 (55)
Programme, clerical, and other staff	5 (45)

7.2.1.1 Results

The main themes generated from the focus groups included “impression on the training”, “behaviour change”, “impression on the community-based programme” and “implication on future works”. The trainees commented that the workshops were well-organised with useful intervention content and detailed explanations. They were particularly engaged by the physical fitness assessments. A good academic and community partnership was established. The training and community-based programmes helped themselves to increase health awareness and improve their services in the community (Table 7.5).

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

Table 7.5 Quotes on the focus group interviews of social service worker and Health Ambassadors

Themes	Subthemes	Quotes
Impression on the training	Good impression of the workshop	<u>Well prepared and delivered speech</u> “咁姑娘都...都講得比較...對於健康呀嗰方面都覺得都比較...仔細嘅，都準備得幾好嘅，係囉。” (社工，男，10年經驗，G0105) “She explained the health knowledge ... in a rather detailed way, well-prepared.” (Social Worker, male, 10 yr experience, G0105) <u>Rich and useful information</u> “啲糖份個啲囉，唔同嘅飲品啦，有啲咩唔同嘅糖份啦。係啊，我覺得對平時個生活都有幫助囉。” (社工，女，6年經驗，G0103) “About the sugar content, how sugar content differs in various beverages. I think it helps me in daily life.” (Social Worker, female, 6 yr experience, G0103) “同埋佢...佢PowerPoint裏面提啲資訊我覺得都幾...幾有印象。因為即係過往都好少留意，即係譬如講話手握力同心臟啊，或者即嗰個平衡力，即點樣去防止。即係啲長者無咁易跌倒啊咁樣，佢啲啲資訊都有幫助佢哋，即譬如係...自己喺個工作間裡面，自己都同啲...使用者都有分享呢啲資訊，咁就多啲資料俾我哋囉。” (社工，男，20年經驗，G0106) “The PowerPoint delivered some messages that impressed me a lot. Because I only paid little or even none attention to things like the linkage between hand grip strength and the heart, or how balance can prevent the seniors from easily falling. Such information is helpful to them. For example, I shared this information with service users in my work place.

Themes	Subthemes	Quotes
		So (it's good to) give more related information to us." (Social Worker, male, 20 yr experience, G0106)
	Physical fitness assessment was the favourite part	<u>Increased health awareness</u> “都係健康測試嗰部分囉，我嗰次參加個workshop我都無諗過會有啲健康測試做，都覺得好實用囉，係啊，即係俾到自己一個...一個signal即係需要注意健康。” (社工，男，18年經驗，G0108) “(The most interesting and attractive part is) the physical fitness assessment. When I joined the workshop, I didn't know there would be physical fitness assessments. Yes, it's quite practical and can serve as a signal to remind us of the need to pay attention to health.” (Social Worker, male, 18 yr experience, G0108) “我就以為坐低聽完「零時間運動」就走得啦，但係都原本有啲測試嗰啲，咁我諗嗰個會實際啲知道自己個condition，即係譬如你嘅（手握力）力度啊，或者...有時你都磅重啊...各樣你都唔會特別去留意...” (社工，女，17年經驗，G0104) “I thought I could leave right after (the lecture on) ZTEEx. But it turned out that there were some physical fitness assessments. I think it let me know exactly about my health condition such as (hand grip) strength. Or, sometimes even though you weigh yourself, you wouldn't pay special attention to this stuff...” (Social Worker, female, 10 yr experience, G0104) <u>Practical</u> “平時都唔會自己特登去到測試自己。” (社工，女，4年經驗，G0107) “Usually I won't purposefully take the physical fitness assessment by myself.” (Social Worker, female, 4 yr experience, G0103)
	Suggestion	<u>Concise message and questionnaire</u> “份問卷太長氣...” (社工，男，10年經驗，G0105) “The questionnaire is too long...” (Social Worker, male, 10 yr experience, G0105)

Themes	Subthemes	Quotes
		“開頭有提醒作用其實，不過後尾字太多就搞到覺得煩啦。” (社工，女，1年經驗，G0102) “It worked as a reminder in the beginning, but later it was too verbose and made me annoyed.” (Social Worker, female, 1 yr experience, G0102) <u>Pictorial message</u> “成個message簡化，最好就係動畫同圖片。” (社工，女，1年經驗，G0102) “The messages should be simplified. It is best to present them with animation and pictures.” (Social Worker, female, 1 yr experience, G0102)
Trainee's behaviour change	Personal health-related behaviour	<u>Increased risk perception</u> “有時你都磅重啊，各樣你都唔會特別去留意...BMI呢啲咁樣嘅，知道完之後自己有時都會磅下重，有時會順便計埋自己BMI。” (社工，女，3.6年經驗，G0107) “Sometimes even though you weigh yourself, you wouldn't pay special attention to stuff like...BMI. After I have learnt such knowledge, I would weigh myself sometimes and calculate my BMI as well.” (Social Worker, female, 3.6 yr experience, G0103) “我頭一個月係好努力咁實踐呢一個，因為度啲個脂肪呢，咁我無理由覺得我個percentage係咁高嘅。所以我就有好努力咁樣呢，我唔知做「零時間運動」，我真係有抽時間每一日慢行，唔係...快行。” (社工，女，17年經驗，G0104) “In the first month, I made great efforts to practice (ZTEEx). Because of the measurement of (body) fat, I don't think my fat percentage was so high. So, I did putting great efforts to do physical activity. I don't just do ZTEEx but I really squeeze time to walk slowly every day..., no, I mean walk fast.” (Social Worker, female, 17 yr experience, G0104) <u>Souvenir facilitated more exercise</u> “手握力器我都有擺係檯面囉，咁就時不時會擺出嚟練下。” (社工，男，10年經驗，G0105) “I put the handgrip on my desk so that I can use it to practise from time to time.” (Social Worker, male, 10 yr experience, G0105)

Themes	Subthemes	Quotes
		<u>Peer influence</u> “有時個手握力器呢擺喺嗰度嘅話，你唔望佢就醒唔起呢單野，啊（同事名）撻下撻下嘅時候呢我就...我就聽到啦，我聽到啦...我先會擺起都練下嘅...”（社工，女，6年經驗，G0103） “Sometimes (when you) put the handgrip there, if it is out of sight, you would hardly think of practising with it. When xxx (a colleague) practised with it, I... I heard it (the sound it made) I heard it... then I picked it up and practised.” (Social Worker, female, 6 yr experience, G0103)
Trainee's impression on community-based programme	Feedbacks on the community-based programme	<u>High quality</u> “同埋有系統啲嘛，你一定要講個set嘢又唔準講錯咁樣㗎嘛係嗰個健康信息嗰一到，同埋係豪好多囉，唔駛錢，仲係豪㗎。同埋成日有禮物收囉，係啦。除咗三次活動之外，有時候搞下探訪...咁係好豐富個啲呢啲。”（社工，女，1年經驗，G0102） “It is systematic. There is a set of health information which should we accurately present to the participants. And it's a very good project. It's free and rich in content. Participants always get gifts (from this project). Apart from three sessions, sometimes we did home visit... It is fruitful.” (Social Worker, female, 1 yr experience, G0102) <u>Research element</u> “個個活動之後做下問卷都好勁㗎喇，如果做pre-同post-已經係非常之難得㗎喇，呢個即係做咗三次。同埋，真係有人去study啊，即你地啦其實，咁我諗平時一般啲活動唔會afford到呢一個。”（社工，女，17年經驗，G0104） “It would be terrific if every participant can complete the questionnaires after each activity. It's quite rare to have both pre- and post- questionnaires. This programme completed that (pre- and post- questionnaires) three times. Besides, there are some people who really (conduct) study. Those are you guys. I think other ordinary programmes cannot afford it.” (Social Worker, female, 17 yr experienced, G0104)

Themes	Subthemes	Quotes
		<u>Intensive</u> “其實係應該要長啲，嗰個...嗰個計劃期，可能長啲呢...我意思係（長於）18個月，應該要長啲去滿足900個參加者，呢個...咁樣個比例會比較好啲。即依家係成個project得18個月，如果可以再長啲就會容易啲。可以...咁唔洗咁tight，差唔多每一禮拜都出活動...同事辛苦...係嘞”（社工，男，20年經驗，G0106） “Actually it (the project period) should be longer. If the project period could be longer, I mean (more than) 18 months, (the period) should be further extended to meet the demand of 900 participants. In this way, the proportion (of time interval between each activity) would be much better. Now the whole project only lasted for 18 months, if the project period could be even longer it would be easier (to conduct the project). If so, the schedule won't be so tight. The activity is held almost every week... we... colleagues had very hard work... yes.” (Social Worker, male, 20 yr experience, G0106)
	Perceived participants' reaction	“比想像中投入...我諗佢哋呢剩係嚟吃喝玩樂即，即例如我講解下啲er「零時間運動」啊，我估好多諗住hea啊，點知唔係喎，倒番轉，會問返你好多問題，真係好認真咁樣去諗，佢問啲問題係感覺上認真諗過嚟問，啊即係做唔做到啊，係唔係真係咁啊，或者有啲話啊提醒啊，話我達唔達標啊，咁問好多呢啲咁嘅野。”（社工，女，17年經驗，G0104） “They were more engaged than I would ever imagine, I thought they were just joining for food and fun or to kill time. However, when I introduced ZTEEx, they asked a lot of questions which they had seriously thought about. Such as, 'Is it possible?', 'Is that true?', 'Any reminder?', 'Am I up to standard?'" (Social Worker, female, 17 yr experience, G0104) “我觀察到就係啲街坊其實度咗之後呢，呢個係對於佢個身體嚟講係真係好重要嘅個啲indicator啦，咁佢其實第二次定第三次個活動呢，佢都想知道佢到底有無進步，同埋其...佢哋呢...其實完咗3次活動好希望有一個好似自己嘅健康report咁樣啦，睇番佢到底有無進步囉。”（活動助理，女，8年經驗，G0205） “As from my observation, the (physical fitness) measurement became important indicators to their health. They wanted to know if they have improved on the second and third sessions. Also, they very much wished to have a report regarding their health condition from the last session,

Themes	Subthemes	Quotes
		so that they can monitor on their progress.” (Programme Worker, female, 8 yr experience, G0205) “其實係有挑戰性嘅因為你要佢三次都出現，仲要間隔這麼久三個月，係幾有挑戰性嘅。因為有時，programme有五成人出席都唔出奇嘅，但我見我得都七成人，或者retention都好高，係意外收穫來嘅。” (活動助理，女，5年經驗，G0101) “It is challenging as it required them to show up in all three sessions, especially with a 3-month interval. Sometimes, 50% of attendance (in the follow-up session) is expected, I was so surprised that we had 70% or a high retention rate, it is exceptionally rewarding.” (Programme Worker, female, 5 yr experience, G0101)
	Pleasant cooperation with FAMILY Project	<u>Reliable information backup</u> “起碼有你地back up...好好多...即譬如啲資訊上既野咁樣啦。變咗我哋唔需要...即係我哋自己再審核，因為其實我哋唔係好熟果啲...譬如帶programme啊咁樣搵人果啲我哋就叻啫，譬如資訊方方面又可能靠你地back up 返我哋。咁同埋好多物資上面既野backup到，咁樣我哋都多咗好多資源可以去吸引參加者去參與一個。” (社工，男，20年經驗，G0106) “At least we have your support...on many things...such as providing (health) information. In this way, we don't need to double check the materials. Because we are not quite familiar with it. We are good at leading a programme and recruiting participants, but information-wise, we rely on you. Also, you have provided us with a lot of materials, so we have more resources to attract participants.” (Social Worker, male, 20 yr experience, G0106) <u>Top university effects</u> “同埋我覺得...同Hong Kong U...呢個係香港咁top嘅學校啦...合作嘅話，對啲基層嘅街坊來講，其實佢哋可以去到Hong Kong U參觀，同埋呢...同個小朋友講呢，「你要好好讀書啊，咁樣之後考大學啊」點樣，佢哋就真係好開心。見到好多街坊係個圖書館果度都影相影得好開心。係嘞，多咗咁樣嘅機會。因為其實平時都好少去大學咁樣參觀嘅，尤其係咁多人嘅情況下。” (社工，女，6年經驗，G0103) “I think...working in cooperation with HKU, a top university in Hong Kong. For the low-income families, they were quite happy when they paid a visit to the HKU campus and told their children ‘you should study hard to get into the

Themes	Subthemes	Quotes
		university.' I saw many of them took photos in front of the university library happily. This project gave them such opportunity, because they seldom visit university campus at ordinary times, especially with so many others." (Social Worker, female, 6 yr experience, G0103)
	Perceived difficulties	<u>Difficult to balance the recruitment</u> “咁同埋招募呢，因為要受到即ABC三個區，我哋要fulfill盡量要balance啊嘛三區，咁呢到係有個困難嘅。係啦，因為通常近我哋個機構嘅地理位置當然就...最快最容易啦。” (社工，女，1年經驗，G0102) “For the recruitment, we were constrained with three (study) areas; we tried to make it balanced among them. Here comes the problem...the area that geographically close to our centre is certainly the fastest and easiest.” (Social Worker, female, 1 yr experience, G0102) “咁但係要balance嘅話就，係啦，呢到有少少困難嘅。” (社工，女，1年經驗，G0102) “But if you want to balance (the recruitment rate among the three areas), it's a bit difficult.” (Social Worker, female, 1 yr experience, G0102) <u>Difficult to do questionnaires among the elderly and solitary</u> “啲問卷其實對於...對於我哋嘅參加者嚟講其實呢係難嘅。係啦，就算我哋有職員啦，有組長幫手嘅話其實都係好...難。” (社工，女，6年經驗，G0103) “In fact, the questionnaires... are quite difficult for our participants, even though we have staff and team leader who offer help, it's still hard.” (Social Worker, female, 6 yr experience, G0103)
	Suggestion	<u>Use objective figures to measure the improvement</u> “即如果有，有嘅可以compare番，甚至乎即如果技術可行嘅，即類似啲資訊咁樣，佢學完晒之後嘞，入番資料個WhatsApp話番俾佢知，等佢for番個記錄咁樣...” (社工，男，20年經驗，G0106) “If possible, they can make comparison. If technically possible, after the last session and data entry, you text them

Themes	Subthemes	Quotes
		their (physical fitness assessment) results of all time points for their record.” (Social Worker, male, 20 yr experience, G0106) “我覺得如果要...因為我哋之前...即係family果邊有做過...都係有做過...愛+人呀嘛，咁我比對，我就覺得我哋呢一次...即係我唔知最後既result啦，但我覺得我哋呢一次會比較入到腦啲...即係因為我覺得健康，或者即係「零時間運動」呢樣野係比較淺易呀，同埋我覺得一啲measures嗰個改變呢，就會好啲。因為佢哋比較基層...例如話同屋企嘅關係...識得express呢一方面呢個area佢哋都係弱啲呀。” (社工，女，17年經驗，G0104) “We have done this kind of intervention before (in phase I), I think the current one is relatively easy for the participants, because health or ZTEEx is concrete, with the objective measurement of change in fitness, it suits them better. They are low-income families, they may not know how to be expressive in term of family relationship, and they are weak in it.” (Social Worker, female, 17 yr experience, G0104)
Implications on future works	For trainees	<u>Inspire future events</u> “咁呀，有啲既，可能簡單嘅講座啊，又或者小組聚會，可能有一節...一兩節嘅時間啊講下...啊關於健康啊，可能可以再炒番個「零時間運動」咁教番啲組員啊，街坊啊做下，咁樣，即係可能有好多未參加過㗎嘛，都可以照教佢哋㗎嘛。” (社工，男，30-39歲，10年經驗，G0105) “Maybe hold same simple talks or group gatherings, spend one or two sessions on health-related topics, and maybe teaching them about ZTEEx. Since many of them may not have participated in this programme.” (Social Worker, male, 30-39 yr, 10 yr experience, G0105) <u>More contact with residents</u> “對我哋嚟講我哋又接觸到多啲基層市民啦。” (社工，女，17年經驗，G0104) “For us, we had more contacts with the low-income families.” (Social Worker, female, 17 yr experience, G0104)
	For community participants	<u>Create opportunities to experience more</u> “我都覺得係有價值嘅。因為事實上係真係有好多基層家庭可以參加呢啲活動啊...我好幾次都講就係嗰個食燒賣嘅事啦，

Themes	Subthemes	Quotes
		就係佢哋連燒賣都未食過，咕嚕肉未食過，咁原來去飲餐茶係可以食到呢啲，咁係好...勁開心架咯。仲有時食唔晒仲可以拎返屋企係好豐富嘅。動植物公園咁鬼死熱都覺得開心嘅咁樣。咁呢啲都係。我意想唔到佢哋咁需要，即係需要得咁緊要。” (社工，女，1年經驗，G0102) “I think it (this project) is valuable. In fact, many low-income families can join such activities. I have been telling the story of pork dumplings several times... they even haven't eaten pork dumplings and sweet & sour pork before, they could eat these food when they went to yum cha...so they felt very excited. There were so many variety of food that they can bring the leftover home if they couldn't finish all. Even when they were going to the Hong Kong Zoological and Botanical Gardens under the hot weather, they still felt happy. I couldn't imagine that they need it so much, and it could be an urgent need.” (Social Worker, female, 1 yr experience, G0102) <u>Promote public health among lay public</u> “即係我覺得理念上或者實行上呢...呢一套嘢係work嘅，可能第日唔係「零時間運動」係第二樣嘢都係關乎 public health啊，點樣去改變佢哋個mind-set啊，又或者習慣啊。咁我覺得呢個組合或者呢個合作係即，即幾好架，即係又推動到街坊啦，佢哋又有得玩啦，跟住對我哋嚟講，我哋又接觸到多啲嘅基層市民啦。咁對即...即對你地嚟講又真係可能，即public health呢個大家可能，即佢哋平時唔會好有興趣嘅嘢就可以俾佢哋學到。” (社工，女，17年經驗，G0104) “I think on the conceptual or implementation level, it (promoting ZTEEx with a public health approach) works. Maybe later, the same way could be used in promoting other concepts related to public health instead of ZTEEx, to change the mind-set or habits of participants. I think the cooperation (with FAMILY Project) is great, the health promotion not only motivated the neighbourhood, and they had fun from it. For us, we made more contact with the low-income families while for you guys, maybe, (the importance lies on the fact that) they gained the public health related knowledge which they wouldn't be interested in at ordinary times.” (Social Worker, female, 17 yr experience, G0104)
	For community	<u>Better neighbourhood</u> “其實佢哋真係friend咗㗎。就依家我哋開班組開啲小組咁樣，佢哋依家，我可能12個人嘅班組，可能三分二嘅街坊已

Themes	Subthemes	Quotes
		經識咗，咁佢哋真係就係家...家加油個活動個陣時識嘅。” (社工，女，6年經驗，G0103) “Their friendship was strengthened. Taking the group established (in other programme) by us as an example, now in a 12-member group, maybe two-thirds of the members have known each other. They really came to know others when participating in Community Health Campaign: FFP.” (Social Worker, female, 6 yr experience, G0103) <u>Better using of community service</u> “多咗好多未參加過嘅。即雖然活動完咗，但仍然好多，呢即係呢有啲參加過嘅街坊呢就同未參加過嘅街坊講，跟住佢上到嚟雖然話無，雖然話個活動完咗，但係呢佢都會停留一大樓參加可能呢棟大樓其他service啊，會令佢哋多咗接觸呢個社區資源，多咗少少。”(社工，男，10年經驗，G0105) “More people who haven't joined the project (came to show interest). Though the project has been completed, there are still many residents who learnt about this project from those who had participated came to us. When they found the project was over, they stayed for a while in this building and may take part in other services that provided by us, which makes them access more to the community resources, a bit more.” (Social Worker, male, 10 yr experience, G0105)

7.2.3 Qualitative evaluation of TTA

As shown in Table 7.6, eleven trainees participated in the focus group interviews in November 2016. The majority were female (82%) and aged 60 or above (64%).

Table 7.6 Socio-demographic characteristics of the volunteers who joined the focus group interview (n=11)

Characteristics	Joined the focus group interview
	n (%)
Sex	
Male	2 (18)
Female	9 (82)
Age group (years)	
40-49	2 (18)
50-59	2 (18)
≥60	7 (64)
Employment status	
Employed	3 (27)
Retired/Unemployed	6 (55)
Housewife	2 (18)
Marital status	
Single	2 (18)
Married	6 (55)
Divorced/Widowed	3 (27)
Education	
Primary or below	1 (9)
Secondary	6 (55)
Tertiary or above	4 (36)

7.2.3.1 Results

The main themes generated from the focus groups included “impression of the training workshop”, “behaviour change” and “implications among family” (Table 7.7).

The trainees indicated that the training was comprehensive and practical. The physical fitness assessments were the most highly rated component of the training intervention. The trainees also reported improved health and increased happiness after engaging in regular exercise and they had benefited others. The trainees provided information about the difficulties they encountered during the programmes, they subsequently assisted in delivering. These were primarily the low literacy of the elderly, and the consequent demands on time and manpower resources necessary to help them answer the questionnaires.

The main themes, subthemes, and categories relevant to the research questions are shown below with translated quotations that attempt to preserve the intent of the speaker.

Table 7.7 Quotes on the focus group interviews of trainees in TTA

Themes	Subthemes	Quotes
Impression of the training programme	Useful electronic messages	<u>Provided useful and trustworthy information</u> “其實我哋依家咁...大家都咁嘅年紀嘅時候呢，朋友之中一聚會呢，多數都會講健康，一定講。咁好多時人哋一問我呢，我就好叻咁，即係有一啲點去同人講，如果唔係...你唔上呢一個工作坊呢，你係唔認知，哎...即係雖然話，因為嗰陣時...（HKU）有好多send過來，咁又會send俾啲朋友一齊分享。” (健康大使，女，60-64歲，G0105) “In fact... people in my age, when gathering with friends, often discuss health issues. Many times when others asked me, I felt I was so cool because I had something to share with them. If not... you didn't join this workshop, you wouldn't know...even though... Because (HKU) sent many messages to me, and then I would share them with some friends.” (Health Ambassador, female, 60-64 yr, G0105) “因為佢哋喺坊眾上聽啲嘢都好混亂，咁如果呢個係經某個機構，好似港大出嚟嘅，咁佢哋信心相對性就大啲，因為你知啦，網上依家有好多啲唔知真定假嘅嘢，咁呢個係幾...幾...好肯定嘅資訊俾到佢哋，對於佢哋嚟講有一定嘅幫助。” (健康大使，男，60-64歲，G0106) “Health information we receive from others can be quite confusing. We have more confidence in the validity of the information from an institution like HKU.” (Health Ambassador, male, 60-64 yr, G0106)
		“係我自己聽到就話...係運動，要度，即係大致要做啲咩，咁我即刻來參加，因為自己有切身嘅需要呀嘛。因為我比較抗

Themes	Subthemes	Quotes
	Practical physical fitness assessment	拒睇醫生嘅嘛，咁我首先嚟睇下我嘅進度係點嗎，所以為咗自己多啲。” (健康大使，女，60-64歲，G0105) “(When) I knew this intervention was related to physical activity and included (physical fitness) assessments... I chose to take part in it immediately, because that's indeed what I need. I want to have a better picture of my current health first, therefore it's for my own good.” (Health Ambassador, female, 60-64 yr, G0105)
Trainee's behaviour change	Facilitators of behaviour change	<u>Increased risk perception</u> “嗰個獲益良多啦，聽咁多，即係係好似講話，哇原來一罐汽水七粒糖呀，嚇死，以後我都唔飲呀。” (健康大使，女，60-64歲，G0104) “I benefited a lot from this project. I have heard a lot from you. I found that a can of soft drink contains 7 cubes of sugar. It scared me a lot. I wouldn't dare to drink it in future.” (Health Ambassador, female, 60-64 yr, G0104) “好震撼，我飲少咗好多。” (健康大使，男，65歲或以上，G0107) “I was shocked. I drank much less than before.” (Health Ambassador, male, 65 yr or above, G0107) “我就最深刻㗎呢就係個手握力，原來你講完我先知，我依家先知道，我一向都唔知道，就係話手握力嗰個力度，係影響個心臟。呢個我覺得係比較新嘅，所以呢我有陣時，未有手握力（器）之前呢，你地俾粒星星（壓力球）我之前呢，其實我自己喺屋企都有做，就係揸住個拳頭，一條撐到最大，好似教過我咁樣，咁希望喺嗰個...心臟嗰方面，呢方面係平時都可以做到少少功夫。我係呢個係比較深刻啲。” (健康大使，男，60-64歲，G0106) “I was deeply impressed by hand grip strength. I didn't know hand grip strength would affect the heart until you told me. I know that until now. It's new knowledge for me. So, before I have the hand(grip) and the star (stress ball), I trained my hand grip strength at home sometimes by making a fist, or opening my hand to the utmost, just like what you have taught us. I hope it can improve the health of my heart at ordinary times. For me, this is an impressive part.” (Health Ambassador, male, 60-64 yr, G0106)

Themes	Subthemes	Quotes
		<u>Support from tutor</u> “對我來講就係...好好...因為我啱啱就...從來都無話去驗身呀，去做咩，嚟咗呢度咁啱度血壓呢就超你標，嚇死人咁高。咁我又嗰時，因為香港大學又派一位姑娘嚟呀嘛，咁佢又好有愛心嘅同我分析同我傾偈呀嘛，咁佢叫我嘗試吓自己做運動啊，調節吓啲飲食啊，咁我又無睇醫生，又無食藥，咁就係好聽佢話，咁堅持，變咗...好懶做運動呀，咁聽佢講就堅持朝朝去跑步啊，拉筋啊，做柔軟運動，最少做半個鐘，咁三個月後呢就全部正常囉。” (健康大使，女，60-64歲，G0105) “This workshop was excellent. When I performed the physical fitness assessment, my blood pressure was far above the standard and scared me. A nurse from HKU, showed her care and talked and explained to me...I did not see a doctor, did not take any medicine, so I listened to her persisted, I changed from being lazy but do exercise, I jogged every morning, did stretching and calisthenics at least half an hour. And now 3 months later it's all normal now.” (Health Ambassador, female, 60-64 yr, G0105)
Implication among family	Enhanced family well-being	“我想補充一句，因為我自己勤力咗做運動，即佢咪話要多啲同家人溝通啊，初初我成日同我個女講佢唔睬我，漸漸依家佢比我仲勤力。佢以前唔肯早起身嘅，佢依家六點鐘就起身喇，做個半鐘頭。即係我覺得呢個影響好緊要。” (健康大使，男，60-64歲，G0106) “I want to add something. Because I became more diligent in doing exercise. They said we should communicate more with family. At first, I kept talking to my daughter but she ignored me, but now she becomes more diligent than me (in doing exercise). In the past, she was reluctant to get up early. But now she gets up at 6 in the morning and uses one and a half hours to do exercise. I think this influence is very important.” (Health Ambassador, male, 60-64 yr, G0106) “我先生以前就唔運動嘅。咁我喺屋企刷牙又踏下，踏住咁樣刷呀，呢樣個樣之後喇，我都勸佢：不如一齊喇，試下啦。我哋兩公婆感情好好喔，唔...唔需話咩㗎。但係佢呢就唔想做「零時間運動」，佢就寧願係落街去行，咁樣囉。咁呢啲唔知算唔算影響到佢少少嘞” (健康大使，女，60-64歲，G0104)

Themes	Subthemes	Quotes
		“My husband didn’t exercise in the past. I was squatting when I brush my teeth at home. After that, I persuaded him, ‘What about trying it with me?’ Our relationship is very good and I don’t need... to explain more. But he doesn’t want to do ZTEx. He prefers to walk outside. Not sure if it is a small influence on him.” (Health Ambassador, female, 60-64 yrs, G0104)
	Enhanced FAMILY harmony	“回應返頭先個point，我覺得有些少改變，因為我太太比較做多啲運動，我就真係「零」時間運動，咁就根據呢個工作坊呢，我自己返去都有做，咁就變咗相對性，佢又喺側邊望下我做乜呀，咁相對性變咗溝通嗰方面係更加多咗。因為佢分享返佢自己做運動嗰啲經驗出嚟，你咁樣做，跟住又教我做咁...八段錦...如此類推，咁其實溝通嗰方面係...時間係相對喺呢方面係多咗，其實對於嗰個，又唔可以講話了解喔，唔了解就唔結婚喔，更加多咗了解對方。” (健康大使，男，60-64歲，G0106) “To respond to the previous point, I think there were a few changes. Because my wife did more exercise while I didn’t have any time for exercise. After the workshop, I did exercise when I was at home. Thus, in comparison, she (my wife) would stand beside me and see what I was doing. So, in turn made us communicate more. She would share her experience on physical activity with me, and would tell me ‘you should do it like this’ and teach me how to do...Baduanjin (Eight-Section Brocade, Chinese qigong exercise)... and so on. In fact, we communicate for comparatively more time...The function is not helping us get to understand each other, because we wouldn’t have got marry if we didn’t understand each other, but helping us understand each other better.” (Health Ambassador, male, 60-64 yr, G0106) “如...以前佢(我個女)返工...即我又瞓覺...佢...即係唔蒲...唔會有接觸咁嘛。咁依家我要落街跑步，佢...六點鐘起身，佢做到七點半先刷牙洗面，咁我會係差唔多呢個時間...七點鐘到我落街跑步，跑半個鐘上來我就會整早餐俾佢哋食，咁我哋大家會溝通啊，close咗，多啲，坦誠啲，感情都好咗，都好似尋日我從機場返來佢都會去接我，我好意外好意外！係啊係啊！都close咗。因為佢都有咁大，佢有佢嘅主見，同埋咁多年我哋都係比較你有你嘅工作，我有我嘅工作，好少咁...溝通。自從運動咗之後，咁變...一個時間有吻合呀嘛，大家配合到，咁有傾有講，好好多。” (健康大使，女，60-64歲，G0105)

Themes	Subthemes	Quotes
		“Just like... in the past, she (my daughter) went to work... while I was sleeping... she... we wouldn't have chance to meet. Now I need to jog outside while she...gets up at 6 in the morning. She doesn't finish working out until 7:30 and then brush teeth and wash face. My schedule is similar... I go out to jog at 7 and half an hour later, I come back home to make breakfast for her. In this way, we can communicate more in a more often way. We become closer. She even went to the airport to pick me up yesterday and I was very surprised! Yes, we become closer. Because she is grown up and has her own opinion. And in the past years, both of us have our own work and seldom communicate... in this way. Since we started to do exercise, when we have matched time then we chat and talk with each other. (Our relationship gets) much better.” (Health Ambassador, female, 60-64 yr, G0105)

7.3 In-depth interviews with community stakeholders

7.3.1 Introduction

Individual in-depth interviews were conducted with community stakeholders of Kwun Tong District to seek comments and suggestions on the FFP. The specific objectives for the interviews are listed below:

- To collect opinions and comments on the overall project; and
- To explore potential community resources and support.

7.3.2 Methods

Different community stakeholders (n=5) were selected and invited for in-depth interviews during November 2016 to February 2017. The work organisations they represented included CFSC, Kwun Tong District Council, The Neighbourhood Advice-Action Council, Jubilee Ministries and Owners' Corporations. The methods of data collection, data analyses and quality assurance procedures are described in Section 7.1.2.

7.3.3 Results

Table 7.8 shows that 3 of the community stakeholders were women and 4 of them aged 35-54 years. 4 of them had tertiary or above education and had more than 10 years of working experiences in their organisations.

Table 7.8 Demographic characteristics of community stakeholders (n=5)

Characteristics	n
Sex	
Male	2
Female	3
Age group (years)	
35-44	2
45-54	2
≥65	1
Education	
Primary	1
Tertiary or above	4
Year of service	
<10	1
≥10	4
Participation in FFP	
Yes	5

7.3.3.1 Results

The main themes generated from in-depth interviews included “general impression on the programme”, “evaluation on programme design”, “impact of the programme”, “challenge and barrier”, and “comment and suggestion” (Table 7.9). The main themes, subthemes, and categories relevant to the research questions in Chinese are shown below with translated quotations in English.

Table 7.9 Quotes on the in-depth interviews with community stakeholders

Themes	Subthemes	Quotes
General impression on the programme	Programme preparation	<u>Well-disciplined research process</u> “我都覺得（活動）正面，因為我感覺到你哋（HKU）真係好嚴謹，even你哋個consent form都係好嚴謹，即係我會感覺到我會好信你哋個點做呢個research個個過程，個個設

Themes	Subthemes	Quotes
		計，data個啲運作下，咁...所以我又唔覺得特別有困難嘅。我哋嘅困難都係頭先個樣啫，我哋點樣將個服務，落到地服務到我嘅街坊，而你哋又攞到資料。咁如果你話research個嚴謹度啦，我招募啲服務對象，可能我哋一般係呢啲位我哋會鬆啲。” (服務總監，男，45-54歲，P01) “I think (the programme) is positive as I feel you (HKU) are really rigorous, even in terms of the consent form. I deeply trust in the process, the design and data running of your research; therefore, I don't think it is quite difficult. The difficulty, as we mentioned before, is how we could fulfil the service for our neighbourhood and you could collect data simultaneously. The rigorousness of the research depends on my service targets. We are not always so strict in other kinds of activities.” (Programme Director, male, 45-54 yr, P01) <u>A close partnership with HKU</u> “我諗籌劃嘅過程HKU同我地會幾緊密去到傾，啲野差唔多傾到比較有把握做晒同整得好清楚先做推薦人，我估呢個唔只係個主題嚴謹，我諗個籌備過程同埋一路監察個programme開始到完呢都有不同嘅會議啊，我地既溝通啊，咁依個係...如果係其他自己做嘅社區活動就唔會咁，甚至同其他NGO協作都唔會，嗰個嚴謹程度去到咁樣。” (服務總監，男，45-54歲，P01) “We discussed closely with HKU during the preparation process. And we didn't play the role of proposer until we had the confidence to complete the programme and figured out the whole process through discussion. I think the rigour was represented not only in the programme theme, but also in process of preparation, supervising the programme from the beginning to the end, various meetings and our communication. Other community events conducted by ourselves would not be so rigorous. And even cooperating with other NGOs to hold such events, we wouldn't be so rigorous like that.” (Programme Director, male, 45-54 yr, P01) “咁HKU啊...你對我哋嘅支援，已經好足夠㗎啦，即係如果頭先講個種嚴謹就係可以減啲添，如果對於前線，我呢個唔係貶義，其實你哋真係好認真，成個programme一路運作過程其實啲會好穩定，我見你哋嚟親都成team人一隊同我哋傾，我都唔係全程參與個啲會添啦，我開頭會多啲，evaluation會有。咁我覺得呢種支援，或者似種咁嘅密度，

Themes	Subthemes	Quotes
		或者呢種參與程度，其實HKU好夠嚟啦。有好處嘅，令到我哋唔會偏離，同埋如果係有困難呢，可以早啲大家dialogue去解決咗佢，因為我相信，特別係早期執行階段呢，我相信你哋可能都會有啲，就住一啲細節上大家都會有交流咁樣，modify去再做，咁我覺得如果你無咁樣嘅，咁穩定嘅溝通啊，呢啲平台其實做唔到，咁啊好夠嚟啦我覺得支援上。” (服務總監，男，45-54歲，P01) “We received sufficient support from HKU. The rigour I mentioned before could be reduced a little for front-line staff. I don't mean it's not good. In fact, you worked really hard, and operate the programme in a stable way. Your team almost joined every meeting with us. I didn't attend every meeting from the beginning to the end. I was more frequent in attending such meeting and conduct the evaluation in the beginning of the programme. In my opinion, the support, activity arrangement and engagement of HKU was quite adequate. It gave us the advantage that we would not be off track. Furthermore, if we have any difficulties, we could solve (the difficulties) by communicating with each other. I think especially in the early stage of implementation, you would often communicate on specific details and then continued to do it after modification. Without such stable communication, the platform would not be successful. That's why I think the support is good and enough.” (Programme Director, male, 45-54 yr, P01) <u>Recruitment</u> “地域上要再做類似既嘢呢，其實今次呢種既安排，我覺得都幾到位嚟喇。因為你話寮屋區，因為我哋喺嗰度服務左幾十年喇，同事同嗰啲街坊係比較熟，於是我哋好容易一行出去...招募到一班人都係同一社區生活都係事實嗰種。咁至於你話舊區都係講緊嗰幾條街啫，咁所以今次我哋既選擇呢係有難度㗎，屋邨其實就最好做㗎，所以今次係選擇一個難啲嘅對象做到，我覺得都幾成功㗎基本上。” (服務總監，男，45-54歲，P01) “If similar programmes would be conducted in the future, I think the arrangement of this time is quite appropriate geographically. As we have been serving the squatter area for several decades, and we are quite familiar with the residents here. Therefore, it was quite easy for us to recruit a group of people within a community. As there are only a few streets in the old district, it is difficult to complete the recruiting task in (the place) we had chosen. Housing estates are the easiest places to recruit participants. We had made it though it was hard to recruit our target group, so it was quite

Themes	Subthemes	Quotes
		successful in general.” (Programme Director, male, 45-54 yr, P01) “反應好熱烈，同埋第一就係本身（機構名稱）都係佢哋响呢個社區裏面熟識嘅單位呀嘛，咁所以一講佢哋就知道啦。” (傳道人，女，35-44歲，P03) “There was an enthusiastic response in the recruitment. As (name of agency) is a unit that is quite familiar to citizens in this community, the participants would recognize it as soon as they heard the name.” (Missionary, female, 35-44 yr, P03) <u>Promotion</u> “即係如果因為你唔係純粹派單張，攞完就走呀嘛，即係係攞得來試，跟住你可能有啲記念品俾佢，但試嘅過程會令佢睇，即係，對於個活動係有興趣。” (服務總監，男，45-54歲，P01) “If you didn’t just distribute leaflets to passers-by who would not stay for a second, but asked them to have a try and then sent souvenirs to them afterward, they might be interested in the programme after they had tried.” (Programme Director, male, 45-54 yr, P01) “即係我覺得無論個量或者design其實都係好好，因為嗰個記念品嘅質素相對一般社區活動係非常之好，唔係你唔會咁成功engage到咁多街坊。” (服務總監，男，45-54歲，P01) “I think both intensity and the design of the programme are really good. Because the souvenirs, compared with those in general community events, are much better in quality. Otherwise, you could not successfully engage so many participants.” (Programme Director, male, 45-54 yr, P01) “（宣傳）同我地揀邊個社區有關喇。因為如果你（揀）舊區，舊區唔同屋邨，屋邨比較規劃得好井井有條啊，即係每一座，喺個座頭宣傳都得啦，但舊區唔係㗎嘛，即係變左我哋要搵嘅地方，真係街站咪有用囉，同埋嗰啲人流多嘅地方先俾到message佢哋。” (服務總監，男，45-54歲，P01) “Promotion (effect) is related to which community we have chosen. Because if you choose an old district, the situation is different from that of housing estates. The latter are well-designed and in good order. Therefore, promotion could be conducted in every single block. But in old districts, we need to search for places. Mobile counters were very useful there. Besides, it was more effective in delivering the messages in

Themes	Subthemes	Quotes
		places where many people keep coming and going in streams.” (Programme Director, male, 45-54 yr, P01)
	Programme content	<u>Health-related contents</u> “（參加者）即係唔抗拒（「零時間運動」）都覺得...呀可以試吓，咁譬如事後聽番就係都覺得好好喝，因為可以係一個好細嘅空間，或者無乜時間嘅限制裏面佢地都可以隨時可以做運動，咁可能（參加者）當初focus唔係呢一點嘅，但到之後佢哋都會覺得有幫助嘅。” (傳道人，女，35-44歲，P03) “(Participants) did not reject ZTE_x and would like to try it. For example, I heard some feedback that thought it was good as it could be conducted in small spaces anytime. Perhaps, participants did not focus on ZTE_x initially, but they found it helpful afterward.” (Missionary, female, 35-44 yr, P03) <u>Free food and interesting activities</u> “咁你話健康啲度其實佢地老實講佢果刻未必係睇得咁吸引住，係其他啲配套吸引佢哋先會參與呢個活動，只不過佢哋去咗之後又發覺幾得意喝，又教你做運動喝，又有啲儀器測試喝，佢哋整體係開心嘅。我地So far都無問題嘅，因為其實第一佢哋個重點因為我哋啲時候嘅活動即係成一個series嘅活動來㗎嘛，唔係淨係幾次㗎嘛。咁佢哋都好踴躍，好快就滿㗎啦。一個星期都唔夠就已經full咗啦，咁因為其實都有啲軟性啲嘅活動㗎嘛，吸引住佢，食自助餐呀，又唔洗錢喝，即係好老實講句，同埋去旅行唔洗錢喝，咁呢啲好吸引㗎囉。” (社工，女，35-44歲，P04) “Honestly speaking, they might not be attracted by the health-related activities but other additional elements to join the programme. But they later found it was interesting since there was someone who would teach you exercise and equipment for physical fitness assessments. In general, they were quite happy. We haven't met any problems so far. Firstly, there was a main point that our programme had a series of events instead of a few of sessions. The participants were enthusiastic and the enrolment quota was full within a week. In fact, there were some activities that attracted them a lot, such as enjoying a buffet without any charge. Honestly speaking, the free travel is also very attractive.” (Social Worker, female, 35-44 yr, P04) “反應好熱烈（肯定），反應好熱烈，同埋（機構名稱）都係佢地响呢個社區裏面熟識嘅單位呀嘛，咁所以一講佢哋就知

Themes	Subthemes	Quotes
		道啦，咁同埋（參加者）其實最開頭當然都係focus係呢兩個多啲嘅...出去玩呀食下嘢，有啲親子樂多啲。咁反應係熱烈嘅，即係好多人都好想參加嘅。”（傳道人，女，35-44歲，P03） “There was an enthusiastic response in the recruitment. Really enthusiastic. As (name of agency) is a unit that is quite familiar to residents in this community, they can recognize our unit as soon as they hear the name. In the beginning, (participants) definitely focused on two areas, i.e., going out to have fun or meals, and parent-children games. There were enthusiastic responses and lots of people would like to join.” (Missionary, female, 35-44 yr, P03) <u>A good concept of enhancing neighbourhood relationships</u> “當然好值得欣賞啦，即係呢一個諗法，即係我心目中觀塘呢個地方係一個好需要關心亦都好多人都需要被關心嘅地方，呢個概念係好好嘅，即係起碼佢哋可以建立到有一個互相關心呀，守望相助呀。”（傳道人，女，35-44歲，P03） “The concept of the programme is certainly worthy of appreciation. In my perspective, Kwun Tong is a place that needs cares and people there need to be cared. The programme is good in concept. At least, it builds mutual care and assistance among neighbourhood.” (Missionary, female, 35-44 yr, P03) <u>Social effect on forming exercise habit</u> “我覺得個效應如果對於普及，今次數以千計嘅人喺生活裡面都有接觸過做運動，其實都已經好好㗎喇。因為唔係人人可以咁做。當然你話唔好咁貪心，你話係咪以後都揀一種運動自己定期去做呢，一個人肯唔肯去做運動其實有好多因素㗎。”（服務總監，男，45-54歲，P01） “I think the effect with regard to the popularisation, exercise has been put into thousands of people's daily life this time. Actually, the result is satisfying since not every person would do that. Of course, we shouldn't be too greedy. We are not sure whether the participants would choose a kind of exercise and do it frequently in the future. In fact, there are many factors that would influence a person's will of doing exercise.” (Programme Director, male, 45-54 yr, P01)

Themes	Subthemes	Quotes
		“理應上你地咁既概念係好既，即係我地好似管理一個國家都係咁樣，首先你自己好，先令到屋企好，屋企好就先令到社區好，社區就成個大氣好，修身治國平天下都係咁樣啦，係啱嘅概念上。咁但係就係話睇下做唔做到囉，即係呢一樣野如果做到其實係好嘅，即係其實大家都充滿個嘅氣氛出黎，不過我諗呢個唔係而家一朝一夕囉，要漫長時間。好似你話戒煙，即係（政府）講咗好多年依家先話入面果啲鋪頭依家唔可以食煙啦，某啲地方先可以食煙啦，你用咗好耐嘅時間，所以你呢一樣野呢要慢慢滲囉，我覺得滲落去社區度囉先得。” (社工，女，35-44歲，P04) “The concept of the programme is supposed to be good in theory. Just like the theory of managing a country, an individual should cultivate himself/herself first, and then make the family harmonious and extend the harmony in the community, and thus create harmonious atmosphere of the community. It is similar to the concept of ‘to bring peace to all, govern the country; to govern the country, cultivate oneself’. This is a right concept, but we need to consider whether people can make it. If yes, it would be great. Actually, people all long for that. But it cannot be achieved in a day. It would take a long time. For example, in terms of quitting smoking, (the government) spends years in implementing the policy that indoor smoking is banned and people can only smoke in specific places. It takes a lot of time to implement. Therefore, this concept should be penetrated into the community gradually.” (Social Worker, female, 35-44 yr, P04) <u>Building social support</u> “當然好值得欣賞啦，即係呢一個諗法，即係我心目中觀塘呢個地方係一個好需要關心亦都好多人都需要被關心嘅地方，呢個概念係好好嘅，即係起碼佢哋可以建立到有一個互相關心呀，守望相助呀，同埋我接觸果班街坊好多都係新移民，即係其實佢地有好相似嘅背景...佢哋可以互相支持到嘅話其實係好好囉，咁但係難處就係佢哋既自尊心可能會比較低啲，即係佢地好難好有信心同人地建立關係呀，又或者可能屋企嘅背景令佢地會好被避忌，即係好唔想俾人知我屋企好多唔好既嘢呀，或者我屋企外面好光鮮，但入面其實好破爛，即係其實未必好願意開放去咁多接觸囉，即係我之前有探過啲街坊，其實佢地都講好多好多嘢，其實都好想拒絕你去上去睇到佢真實個情況囉。咁好嘅就係佢地背景相似，咁可能佢哋會容易啲去溝通到，但可能難嘅就係佢地其實好怕比人知道咁多自己嘅嘢囉。” (傳道人，女，35-44歲，P03)

Themes	Subthemes	Quotes
		“The concept of the programme is certainly worthy of appreciation. In my perspective, Kwun Tong is a place that needs much care and people there need to be cared. The programme is good in concept. At least, it builds mutual care and assist among neighbourhood. Moreover, many of the neighbourhoods that I contacted with are new immigrants. As they have similar background, it is quite good if they could support each another. Nonetheless, the problem is their self-esteem is probably low. They might not have enough confidence to build relationships with others or maybe their family background makes them want to evade (talking about it) or feel reluctant to reveal the dark side of their family, or the fact that the home appears to be nice on the surface, but actually it's quite shabby inside. Therefore, they might not want to make so much contact with the outside world. I had met some neighbours who gave me lots of reasons in order to refuse me to visit their home and see the actual situation. Their similar background could be an advantage in facilitating their communication. But the difficulty was they were afraid of being known about their private things by others.” (Missionary, female, 35-44 yr, P03)
Evaluation on programme design	Programme content	<u>Health message</u> “因為我哋傾左一輪先至開始嘅，當時我哋剩係諗緊例如你話推廣運動，我哋就會諗對基層推廣運動有咩作用呢？佢哋可能番工時間又好長，同埋又工作壓力又大，咁你純粹同佢講運動係咪好呢？咁於是我們開頭諗呢就話我哋希望有啲message或者做依個programme嘅時間呢，我哋要諗，我哋要解釋到，點解要係基層推廣做運動。於是嗰刻我哋同事，我諗你哋都有聽佢哋提就話...財富或者錢可以儲，咁但係儲極有限啦，但其實原來健康都可以儲。如果佢個體魄好啲，愈早儲到健康，識到啲健康嘅人，慳咗去睇醫生嘅錢，咁我哋覺得對於一眾基層市民呢，依個message其實好重要。於是我們基於咁呢，所以我哋覺得你唔係剩係同佢講話...家庭關係個樣嘢，咁同埋我哋番轉頭，頭先就話...咦個個招募都幾成功，一個咁大型嘅活動，我哋要target數以千計嘅基層市民係好大量，咁我原來係用緊一啲最具體，最簡單嘅message呢，原來係最易引發佢哋參加㗎，所以你話健康，或者做某啲exercise，譬如你話手握力，大家比試下，其實都係一個遊戲來。我有時咁樣同同事講笑就話，有時呢橋就唔怕舊嘅，其實你...如果我哋話用啲低，愈低啲嘅嘢，愈能夠engage觀眾，咁我唔係話你哋個啲運動低b，其實我想講咁樣，簡單，玩，競技，健康係好簡單嘅message，唔駛講

Themes	Subthemes	Quotes
		太多，於是其實就好成功engage到佢哋囉。”(服務總監，男，45-54歲，P01) “We didn’t start the programme until we have finished the first round of discussion. At that time, when it came to the promotion of exercise, we were just concerned about the effect of promoting exercise among grassroots. They need to deal with long working hours and massive working stress. Then, we wondered whether it was appropriate to introduce exercise to them directly. Initially, we hoped to bring out the message by explaining the reasons of why we promote exercise and why they need exercise. I think you also heard that, my colleague mentioned at that time that wealth and money could be saved, but that was quite limited. Actually, even health can be saved. If people could be healthier and know more healthy people earlier, they can save on medical expense. This message is quite important to grassroots. Based on it, I don’t think you should just discuss family relationship with them. Referring to what we have said before, the recruitment was quite successful. In such a large-scale programme, we had targeted thousands of grassroots. It turned out that it was easiest to attract them to join the programme with the most concrete and simplest message. As for health or doing some kinds of exercise...like conducting hand grip strength competition, (the goal of exercise could be achieved) in the form of games. Sometimes I joked with my colleagues, ‘Don’t be afraid of using old ideas. Simper idea, more engagement of audiences.’ I didn’t mean that the exercise you promoted was stupid. I would like to say that health is a simple message that could be simply delivered by playing games and competition. You can successfully engage participants in the programme without saying too many words.” (Programme Director, male, 45-54 yr, P01) “(第一)因為香港人呢比較忙啦。第二個好多。香港好多人呢都比較唔係咁鍾意運動啦。如果(健康家加油)能夠係呢方面提升下意識，咁啊可以起到一個運動對身體健康既效果嘅話，我覺得值得咁做，其實都好需要嘅。”(區議員，男，45-54歲，P02) “(Firstly,) Hong Kong people are busy. Secondly, most of the people in Hong Kong do not like doing exercise. If (the programme) can enhance the awareness (of doing exercise) and (people can see) that doing exercise has a positive effect on health, I think it is worth doing. Actually, there is a great need.” (A member of District Council, male, 45-54 yr, P02)

Themes	Subthemes	Quotes
		<u>Mobile counters</u> “我諗配合今次依個形式，如果你講推廣去做exercise，咁啲人要試㗎嘛，你要去試呢其實係街擺街站我覺得就係，我諗唔到啲更好嘅方法囉。” (服務總監，男，45-54歲，P01) “I think with the current implementation model, if you want to promote exercise, people need to experience it themselves. If so, establishing mobile counters on the street (is the best solution). I can't think of any method better than that.” (Programme Director, male, 45-54 yr, P01) “我覺得呢一啲（街站）就反而重好啲，街站因為其實都係啲drop in人啊，啲walk in來咋嘛，咁睇完都係咁㗎啫。但係即我就覺得一百個之中呢都有啲有心留到幾個，咁但係（我哋）都要咁做㗎喇。如果你哋覺得呢一樣野係要咁做呢係要時間囉，即係要慢慢滲落去（社區）囉，個理念係好嘅我會覺得。” (社工，女，35-44歲，P04) “I think these (mobile counters) were better (than other methods). As visitors of mobile counters were people who dropped in or walked in. They just came to look. However, it was worth doing as long as we could recruit a few participants from among a hundred people. If you think it should be done in this way, we need time so that (the concept) can be penetrated (into community) gradually. The concept is good.” (Social Worker, female, 35-44 yr, P04) <u>Physical fitness assessments: Arouse health awareness</u> “做完之後啲活動呢個無乜，不過佢哋都有覺得佢哋都係好嘅，即係俾佢哋係屋企咁樣郁下同埋有啲好肥咁樣呢，咁佢哋又知道佢地原來自己體能真係唔係咁好呀，可能要減下肥呀，要注意下自己咁樣。” (傳道人，女，35-44歲，P03) “There was nothing special after those events, but they (the participants) felt good about their exercise at home. Some of them were fat, and they thus realised that they were not so physically fit and need to lose weight and pay more attention (to their health).” (Missionary, female, 35-44 yr, P03) “我覺得幾好㗎，次次都做下測驗，等佢想去推動下自己丫嘛，如果下次再返去做運動，唔好既咁又比姑娘笑下，咁我覺得係幾好。即係每一次咁樣測驗下都幾ok嘅。” (業主立案法團主席，女，65歲或以上，P05)

Themes	Subthemes	Quotes
		“I think it is good to take (physical fitness) assessments in every session. It could be a motivation. If they could not do well in exercising when attending the next session, the female Social Workers would smile to them. I think it’s good to conduct (physical fitness) assessments in every session.” (Chairwoman of Owners’ Corporation, 65 yr or above, P05) <u>Questionnaire: Self-reflection</u> “（佢哋）做問卷呢啲好吃力嘅，不過我覺得有呢一樣野可能某個程度上對佢哋黎講都係好嘅，即係佢哋少做呢件事（運動），但係其實唔等於唔需要做呢件事嘛，即係佢要檢視下自己或者諗下自己有無啲咩改或者有無啲咩嘢好咗唔好咗，其實應該正常人都有少少，叫一叫咁樣檢視自己嘅時間。咁所以...可能佢哋會覺得吃力嘅，不過都係一件好事囉。同埋佢哋暫時我聽就無聽過話，覺得呢件事好嫌煩。” (傳道人，女，35-44歲，P03) “Completing questionnaires might be demanding for them. But it was good to them to some extent. That is to say, even though they seldom do (exercise), it didn’t mean that they didn’t need to do that. They should reflect upon themselves and review whether they have any change and improvement or not. In fact, people should have some time for self-reflection. So...they would feel demanding, but it actually turned out to be good. For the moment, I did not hear any complaint about this.” (Missionary, female, 35-44 yr, P03)
	Health Ambassadors	<u>Reminder from Health Ambassadors</u> “如果要鼓勵佢哋參加者一定要持續做運動呢，無組長根本做唔到。我相信佢哋唔會咁自發嘅，咁所以我覺得呢個目標就用組長係有需要，就因為個目標，你要持續做（運動），因為你唔提呢，佢地差唔多係唔會做。” (服務總監，男，45-54歲，P01) “If you want to encourage participants to do exercise persistently, the group leader has an indispensable role. I believed that the participants would not take initiative to exercise. That’s why I think group leaders are necessary. If you want to achieve the goals (of the programme), you need to exercise persistently. But the participants would not do without reminders.” (Programme Director, male, 45-54 yr, P01)

Themes	Subthemes	Quotes
		“如果搵到一啲好嘅組長嘅話，同埋因為其實咁樣都係俾佢哋有一個更加好嘅結連啦，即係你都知可能好多（參加者）都自己顧自己係屋企，其實無乜同外界嘅溝通㗎嘛，咁如果有一組一組，起碼佢哋可以有一啲人關心下自己㗎，又或者可以建立到啲好啲嘅關係啦。” (傳道人，女，35-44歲，P03) “If (we can) find a good group leader, which would build a better connection (between the leader and participants). As you know, many participants might only care about their own at home and seldom communicate with the outside world. But if they could form groups, at least they could be cared by someone or establish better relationships (than before).” (Missionary, female, 35-44 yr, P03) <u>Experiencing ZTEx before teaching others</u> “我自己都無參與嘅，工作坊階段因為我唔係香港個段時間，但我睇返同事啲相，我又覺得如果對啲組員，或者啲喇叫大使佢會自己經驗過會好啲，如果佢自己無經驗，佢講唔到俾人知...譬如佢真係做過手握力，單腳企啊，又平衡啊，伸展個啲嘢啦，個啲咩咩踩單車啲啊？即係如果佢唔做過佢唔知個回咩事，有時我呢個位（工作間）就幾好喇，我可以做到踩單車，好鬆動。所以我覺得對於佢哋做過佢有自己身同感受，咁同埋應該都係早期，即係啲喇訓練。” (服務總監，男，45-54歲，P01) “I did not take part in the workshop as I wasn't in Hong Kong during that period of time. I've looked at colleagues' photos. I think it is better to ask group members and Health Ambassadors to experience (ZTEx) (before they teach others). If they didn't experience it, they couldn't tell it to others. For example, they had practised with the handgrip, and tried single leg stance, balancing training, stretching, and seated leg pedalling etc. They would have no idea what's going on if they don't experience. My cubicle is a good place since I have enough room to do seated leg pedalling. So, I think they would get hands-on experience and personal feeling (on ZTEx). And the training should be conducted in the early stage (of this programme).” (Programme Director, male, 45-54 yr, P01) <u>Training for Health Ambassadors</u> “（我）相信呢佢（香港大學）真係對佢（健康家加油）有啲支援先得。例如人手啊即係啲喇導師啊嘅支援啦，甚至係有啲資源方面嘅支援啦，即係講比較科學嘅知識方面嘅支援

Themes	Subthemes	Quotes
		啦。咁呢普遍既社會裡面就對呢方面（「零時間運動」）點去認識就唔係太深，自己都未叫太曉個樣嘢，所以都要需要冇啲比較專門嘅人員啊去教佢哋去做。”（區議員，男，45-54歲，P02） “(I) believed that only by getting back-up from HKU can it (the programme) achieve its expected goal. For example, (HKU) can provide manpower like tutors, and resources such as scientific knowledge. Generally, the whole society didn't have much realisation about it (ZTE). Since the Health Ambassadors themselves didn't know much about it, it was necessary to arrange some specialised professionals to teach them.” (A member of District Council, male, 45-54 yr, P02) “可能再有一啲...係咪training定係點樣俾一個組長其實如果講闊啲來講，如果可以build up到呢一班組長嘅話...即係其實可能對整個活動成效可能會更加大添，即係佢哋可以keep住有一個延續性，可能佢哋同組員之間有啲關係呀，又多啲關係多啲提醒呀咁樣，咁...因為其實最主要都係果啲組長肯多啲啲付出既話，咁就先可以keep得到呢一樣嘢囉。”（傳道人，女，35-44歲，P03） “Perhaps more things like training should be provided to group leaders. Broadly speaking, if a team of group leaders could be built up, the programme might be more effective. In this way, the group leaders could exert their influence throughout the whole programme, and they are likely to have more contact with their group members, and offer more care and reminders. If leaders can spend more effort on it, (the relationship) could be maintained.” (Missionary, female, 35-44 yr, P03)
	Roles of district leaders	<u>Current role</u> “其實呢議員亦都係社區領袖其中之一啦，咁啊議員呢就佢有佢個優勢，佢有佢嘅網絡啦有佢嘅平台有佢嘅範圍。咁啊議員如果配合要做呢樣嘢呢，我相信即係（活動）效果可能比較好嘅。因為每一個議員都有佢嘅擁護有佢嘅支持者啦，市民可能都信任佢呀，即係佢哋相對嘅效果都唔會差嘅。”（區議員，男，45-54歲，P02） “A District Council member is one of the community leaders. A District Council member enjoys the advantage that he or she has his/her own network, platform and area. I believed (the programme) would be more effective with the coordination of District Council members. As every District

Themes	Subthemes	Quotes
		Council member has his/her fans or supporters, he or she may win the trust of citizens. So relatively, the result won't be bad." (A member of District Council, male, 45-54 yr, P02) “咁或者可能（機構名稱）又唔同啦喎，因為佢哋主辦機構，佢可能營造到呢啲咁嘅氣氛啦。我係一個參與嘅身份咋嘛，咁我哋自己又營造唔到呢一樣嘢囉，我覺得係...所以個分別又未至於真係好大嘅。”(社工，女，35-44歲，P04) “The (name of agency) might be different (from us) as they were the organiser and might be able to create such an atmosphere. I was a participant and can't create that kind of thing. Hence, there weren't many differences (between participants and other people).” (Social Worker, female, 35-44 yr, P04) <u>Expected role</u> “今次我估角色上都應該係無乜大分別啦。因為如果你都係 HKU 又有research base，又有馬會，又有我哋（基督教家庭服務中心），咁我哋一定係負責嘅NGO，我哋要攞掂內部嘅分工呀，資源呀，策劃同埋執行囉，我諗我哋呢個role都會係咁樣。”(服務總監，男，45-54歲，P01) “This time I think there is not much difference in our roles (compared with previous programme). Since if HKU, the research base, Jockey Club and us (CFSC) are included in this programme, then we must be the unit in charge of this programme in NGO's side. We would be responsible for internal division of work, resources, plans and implementation. I think that's our role.” (Programme Director, male, 45-54 yr, P01) “即係我諗我哋都係...如果可以做嘅都係招募果一班...因為其實有少少唔同啦，係身體上面嘅健康我哋可以跟進或者傾下或者，譬如可能我哋真係我哋有機會再合作，我哋可唔可以派多啲人一齊去參與，做果啲組長嘅話，咁（我哋）可能就會知得多囉，又或者同佢哋接觸得近啲，即係譬如我哋可能有個組長，我哋負責帶啲街坊，我哋可以聯絡佢哋傾偈或者再之後好似有一個藉口去跟進多少少佢哋，咁可能呢個係（角色）我哋可以再有機會做嘅，再進一步做就係...會唔會我哋有啲人，雖然唔係街坊，但都咁樣做到組長，咁我哋係帶住佢哋，可能就會好啲啦，或者我哋有機會多啲同佢哋傾偈接觸佢哋。”(傳道人，女，35-44歲，P03)

Themes	Subthemes	Quotes
		"I think what we could do is recruiting participants. Actually, our responsibility was a little bit different from recruitment since we could follow-up their condition of physical health or discuss with them on related issues. If we have the chance to collaborate again, could we arrange some staff to work as the group leaders? In this way, we might be able to know more about the participants and become closer to them. For example, a member of our staff is a group leader and we can contact and chat with the participants in our group then we would have the chance to do some follow-up activities. That's what we could do if there is another chance. A further thing is, could some of our staff be group leaders even though they are not residents in that community? It might be better if we could guide the participants or have more chance to contact and talk with them." (Missionary, female, 35-44 yr, P03)
Impact of the programme	Behaviour change	<u>Enhancing the awareness of doing exercise</u> “我諗如果簡單講呢，就係啲大眾會願意郁動下做運動。我估由唔做，或者無做呢個習慣到肯做運動都係進步來嘅，當然你話自己慢慢建立自己生活裡面做運動嘅習慣就更好添啦。咁但係呢個我哋就睇唔到。咁我覺得個效應...如果對於普及，今次數以千計嘅人喺生活裡面都有接觸過做運動，其實都已經好好㗎喇。因為唔係人人可以咁做。當然你話唔好咁貪心，你話係咪以後都揀一種運動自己定期去做呢，呢個...一個人肯唔肯去做運動其實有好多因素㗎。” (服務總監，男，45-54歲，P01) “Simply speaking, (the effect of this programme turns out to be that) general people became willing to do exercise. I guess progress had been made since people who didn't exercise at all or had no habit of excising became willing to do exercise. Of course, it is even better to build the habit of exercising by oneself in daily life, but we were not able to observe that. My view of the effect is...in terms of popularisation, it's already quite good that thousands of people had exercising experience in their life (during this programme). Not everyone could do that (keep doing exercise). Of course, we shouldn't be too greedy. We are not sure whether the participants would choose a kind of exercise and do it frequently in the future. In fact, there are many factors that would influence a person's will to exercise.” (Programme Director, male, 45-54 yr, P01) “咁零時間（運動）唔使晒時間呀嘛。我依家刻意要去做，朝頭早7點鐘落樓，10點半先返屋企。咁去到泳池就7點9，咁

Themes	Subthemes	Quotes
		做少少柔軟體操（熱身）游1個鐘頭水，咁啊沖下涼啊之之左左咁10點鐘先返到屋企，咁你呢啲要時間呀嘛。如果話零時間我可以隨時坐喺度又得乜都得。”（業主立案法團主席，歲或以上，P05） “Zero-time (Exercise) is not time-wasting. Now, if I deliberately do exercise, I need to go out at 7 in the morning and can't arrive home until 10:30. Let's say I arrive at the swimming pool at 7:45 a.m., do some calisthenics (warm up) and then swim for 1 hour. After taking a shower, I leave and arrive home at 10. You have to spend time on doing this. If doing ZTEEx, I can practise at any time by simply sitting here or while doing any other things.” (Chairwoman of Owners' Corporation, 65 yr or above, P05) <u>Intention of doing ZTEEx</u> “我聽返有一啲都有講佢哋都仍然有做（「零時間運動」）嘅。因為我諗對佢地來講，呢一樣...呢一個運動唔難，即係係屋企自己得閒做下郁下咁樣。”（傳道人，女，35-44歲，P03） “I heard that some of them (participants) still keep doing (ZTEEx). I think this exercise is not difficult for them, and they could easily do it at home in their free time.” (A missionary, female, 35-44 yr, P03) “我嘅得着係開心左啦同埋我都有做呢個「零時間運動」囉。我以前呢就好少（做運動）嘅好老實講，咁返到屋企做完嘅嘢我就坐喺度，但係依家坐喺度都（郁）唔停咁囉。”（業主立案法團主席，65歲或以上，P05） “I not only have obtained happiness but also did ZTEEx. Honestly speaking, I seldom exercised in the past and used to sit still at home after work. But now, I keep doing exercise while sitting.” (Chairwoman of Owners' Corporation, 65 yr or above, P05)
	Outcome change	<u>Improving personal health</u> “我嗰日聽你哋講啲research啲數據，話有個參加者本身有個高血壓呀，又呢樣啲樣，佢都選擇唔食藥，去做呢啲（「零時間運動」），即係利用呢個例子講梗係有效應啦，但係咪全部，未必係全部都會咁。”（服務總監，男，45-54歲，P01） “The day I heard you discussing the research data and mentioned that one of the participants had high blood

Themes	Subthemes	Quotes
		pressure and other diseases, but he or she chose to do it (ZTEEx) instead of taking medicine. They took it as an example to show this programme is certainly effective. But, it cannot apply to every case." (Programme Director, male, 45-54 yr, P01) “我得閒我咪就做（「零時間運動」）囉，例如我坐喺sofa啊咁啲郁下手郁下腳啊身啊出啊伸啊入啊，咁咪教佢...即係盡量令到佢做囉。咁係好似有陣時啲長者話「唉，好痛啊」，咁你又做下伸展嘅運動令到佢肩膀啊會好啲㗎嘛都。咁我又話你又唔使落街又唔使剩，咁依家都屋企人都有啲改善咗少少啦。” (業主立案法團主席，65歲或以上，P05) “I do (ZTEEx) when I'm free. Like, when I'm sitting on the sofa, I stretched my body. I was trying my best to teach them and make them work out. Like sometimes some elderly said, 'Ow! So painful!', they would feel much better in their shoulders after some stretching exercise. I said, 'You don't even need to go out.' Now, there is some improvement in the health of my family members." (Chairwoman of Owners' Corporation, 65 yr or above, P05) “例如話你有無啲運動真係對啲腰骨呀，或者係拉下筋呢令到你冇啲嘅位呢，即係叫做舊患呢，我嗰時候聽佢哋果啲auntie講呢，真係呢因為做呀姑娘教佢哋啲拉筋呢，真係好啱啱。” (社工，女，35-44歲，P04) “For instance, is there any exercise or stretching that would be helpful for your waist or treating old problems of backbone? I heard those aunties said that they felt better after stretching which was taught by our staff." (Social Worker, female, 35-44 yr, P04) <u>Enhancing health awareness</u> “譬如啲啲...手握力啲啲，其實佢哋可能以前唔知原來手握力同個心臟啲啲嘢又有關係呀有關聯啲啲，咁起碼呢一個活動咁起碼佢哋...我諗會對自己都關注多啲，即係無嘢做嘅時候原來都可以為自己健康著想一下，同埋事實上佢哋居住嘅環境或者呢一區嘅環境都未必可以俾到佢哋咁多機會可以出到出面到做運動㗎嘛，咁而你哋教嘅運動可以喺屋企裏面佢哋去可以用好少嘅空間就可以做到，我諗都對佢哋來講都係一個...好大幫助嘅，即係起碼自己係屋企子女返晒學都知道自己係屋企都有啲嘢做下。” (傳道人，女，35-44歲，P03)

Themes	Subthemes	Quotes
		“Like hand grip strength, they might not realize that the correlation between hand grip strength and heart condition. At least this programme could increase their self-awareness and made them care more about themselves. That is, they could care more about their health in free time. In fact, they might not have the chance to go out for exercise considering the environment of their community or district. Whereas, you can teach them to exercise in small spaces at home. I think it is greatly helpful for them. At least they could find something to do after their children went to school.” (Missionary, female, 35-44 yr, P03) “其實就係好嘅，即係我覺得因為（健康家加油）令大家都注意嗰個健康同埋呢啲（「零時間運動」）都唔係話好花你嗰個時間既，但無奈呢會覺得一樣嘢就係話因為我哋果啲都係啲婦女呀，其實佢真係好忙㗎，你抽少少時間佢都無啊，因為佢哋嗰啲叫做，即係參與嗰班啦我講即係話呢都係全職嘅媽咪黎嘅。其實日日都已經係好似打仗咁樣，一啲子女返黎呢其實已經係忙到呢，真係要到子女瞓咗覺先可以有自己啲私人時間，但嗰陣時已經好劬㗎啦嘛。咁我覺得其實個概念上係好嘅，但實行嗰度呢其實我覺得要嗰一班參加者嗰個意識好強，好知道呢一樣嘢（運動）係對佢個將來呀，或者依家呀個好處，佢先有嗰個恆心去做囉。” (社工，女，35-44歲，P04) “It is good indeed as it (the programme) has attracted people's health awareness and people don't need to spend much time in that (ZTEEx). Unfortunately, most of the participants in my group were women, and they were so busy that they could squeeze little time for exercise. Those participants are housewives. Every day they seem to fight in the war of life. They were busy after their children were back and didn't have private time until their children went to bed. But at that time, they were exhausted. Actually, I think it (the programme) was good in concept, but it required the participants to have very strong determination to take action. Once they understand exercise's benefits to their current and future life, they would have the perseverance to do it.” (Social Worker, female, 35-44 yr, P04) <u>Personal happiness</u> “咁你話健康嗰到其實佢哋老實講佢個刻未必係睇得咁吸引住，係其他嗰啲配套吸引佢哋先會參與呢個活動，之不過佢哋去左之後又發覺幾得意㗎，又教你做運動㗎，又有啲儀器測試㗎，佢哋整體係開心嘅。” (社工，女，35-44歲，P04)

Themes	Subthemes	Quotes
		“To be honest, they might not be attracted by the health-related activities but other additional elements to join the programme. But they later found it was interesting since there was someone who would teach you exercise and equipment for physical fitness assessments. In general, they were quite happy.” (Social Worker, female, 35-44 yr, P04) “我覺得係啲長者係好開心。同埋係真係啲長者我覺得佢哋係好開心去完返來。” (業主立案法團主席，65歲或以上，P05) “Those elderly were very happy. Some of them were quite happy after joining the programme.” (Chairwoman of Owners' Corporation, 65 yr or above, P05) <u>FAMILY happiness</u> “咁佢哋有講既，嗰時自助餐呢小朋友就開心啲啦，因為海鮮...即係啲咁正經坐係度食飯啲咁呢小朋友可能就無咁鍾意，如果係老人家或者係大人呢就會鍾意啦，咁但係...即係老人家反而唔鍾意食自助餐呀，可能鍾意就係食呢啲海鮮餐，佢話「不過小朋友呢可能會覺得悶啲啦，又要逼住佢坐喺度啦，又要食啲咁，佢哋唔係最鍾意...」不過，反應都係好好嘅，好開心可以咁樣出到去玩。” (傳道人，女，35-44歲，P03) “They mentioned that children were happier in the buffet because the seafood meal...Children might not like sitting properly for meal whereas the elderly or adults like that. However, the elderly doesn't like buffet but enjoy the seafood meal. They said, 'But children might feel boring as they were forced to properly sit there and eat the food. They don't like that...' Anyway, the general response was good and participants felt happy to have fun outside.” (Missionary, female, 35-44 yr, P03) <u>Neighbourhood cohesion</u> “我覺得如果一齊參加活動啲咁小組啲咁組員啲咁關係應該會好啱嘅，呢個我就有信心啲講。” (服務總監，男，45-54歲，P01) “I think the relationships among the participants in the same group of this programme have been strengthened. I am confident to say that.” (Programme Director, male, 45-54 yr, P01)

Themes	Subthemes	Quotes
		“多啲課外活動呢...識到多啲街坊嘅。” (業主立案法團主席，65歲或以上，P05) “More extra-curricular activities made me know more neighbours.” (Chairwoman of Owners' Corporation, 65 yr or above, P05)
Challenge and barrier	Programme preparation	<u>Programme design</u> “我覺得困難就係...我相信嚟設計，我記得困難係個構思階段，因為頭先我講話呢個programme要連繫埋研究，咁我要確保呢啲人係真係來兩至三次活動，而肯返來，而又要數以百計，咁我哋開頭真係搞盡腦汁，點樣去到做到呢樣嘢，所以變咗我哋要傾咗好耐先開始，最終同事好似有啲叫三部曲咁樣，其實就可能將我哋平時一啲社區活動，或者有啲我哋叫recreational嘅活動堆砌埋一齊囉。咁而最終又都真係招募到佢哋返來，咁當然依個就係話服務設計上點樣令到個招募成功。” (服務總監，男，45-54歲，P01) “I think the difficulty lay in the design part, lay in the conceptual stage, in my memory. As I mentioned before, this programme should be combined with research purposes. I must ensure that these participants would attend two or three sessions of this programme. And if so, there would be hundreds of attendees. At the beginning, we racked our brain to figure out how to make it. That's why we spent a long time in discussion before starting the programme. In the end, my colleagues came up with a trilogy-like design which combined our daily community events and recreational activities. Finally, we had really met the target of recruitment. This is an example that how service and design make a successful recruitment.” (Programme Director, male, 45-54 yr, P01) <u>Recruitment</u> “我估同時係中段，特別相信應該有部分小組嘅街坊呢，未必全個階段都咁高漲，我哋點樣維繫佢哋呢，點樣去到連繫番佢哋來呢，我諗呢到就運作上會有啲困難嘅，但應該都克服到，因為最終都招募到咁多。” (服務總監，男，45-54歲，P01) “I think the participating residents in some groups were not always enthusiastic throughout the whole programme, especially in the mid-term stage. How we can maintain their enthusiasm and get in touch with them again was the difficulty in the operation. But it appeared that we had solved

Themes	Subthemes	Quotes
		the problem as we had recruited so many participants.” (Programme Director, male, 45-54 yr, P01) “佢哋連參加一次都無。因為我屋企已經有幾個後生係工作太忙，根本上你搞埋比佢都唔得閒去搞。即係以我自己來講我覺得依家啲後生真係好忙。” (業主立案法團主席，65歲或以上，P05) “They did not take part in (the programme) at all. Because some of the younger people in my family were busy with work, and they did not have time to attend even you had already well organised for them. In my view, the youngers are really busy nowadays.” (Chairwoman of Owners' Corporation, 65 yr or above, P05) “困難就係可能做到好多...普遍會浮面嘅基層人囉，咁但係有好多唔浮面嘅...即係我哋都有討論...我自己間教會都係係觀塘區啦，（我哋）都係想做觀塘區，咁我哋都有討論實質上...我哋去幫啲嘅係啲會走出來搵資源搵幫助啲基層一群人，咁但係實質啲真係最核心好窮咁人其實可能佢哋係一路都無被關注或者其實係搵唔到囉。即係佢哋會收埋自己呀，或者你呢啲活動要見人呀，要見咁多人，對於佢哋來講咪好困難，佢哋唔會想參與囉。咁所以可能係數據上面就係做到一層...其實啲層唔係最窮，亦都唔係真係實質最...最最有需要啲人。” (傳道人，女，35-44歲，P03) “The difficulty was... maybe most of the participants we recruited were the grassroots who were easy to access. However, there were still lots of people who were reluctant to show up. We have discussed that... my church is located at Kwun Tong District and we would like to conduct this programme in Kwun Tong District as well. We have discussed that in fact...the people we helped were grassroots that would go out to ask for resources and help. Unfortunately, the poorest people may not be pay attention to or even be found. Because they would hide themselves and they might feel difficulty or refuse to join the programme as they had to show up in front of lots of people in your programme. Hence, the collected data can only represent a certain group of people...but those were not the poorest or the people who need help most.” (Missionary, female, 35-44 yr, P03)
	Programme Content	<u>Difficulty in developing exercise habit after the programme</u>

Themes	Subthemes	Quotes
		“我諗一般人都係咁啦，即係你開頭嗰陣時由覺得好有用呀，好好呀，咁你就繼續做（運動）啦，咁到過咗一段時間，咁可能你又會懶呀，又會忙呀，跟住就會唔記得咗再做呢一樣嘢囉。”（傳道人，女，35-44歲，P03） “I think it is quite common for people that they could keep doing (exercise) in the beginning since they think it is quite useful, but after a period of time, they may become lazy in busy life...and in the end, they forget (to do exercise).” (Missionary, female, 35-44 yr, P03) “即係玩咗之後，好老實講，又唔好多覺（有分別），即係就算我自己都覺得自己都無個時間（做運動）同埋真係唔記得咗呢想做都做唔到。其實有陣時我真係想做㗎，但係真係唔記得咗，因為呢真係（動作）都多嘅，你要真係做咗，習慣咗做，你先記得，如果唔係你唔記得。但係你睇返隻碟呢，咁其實你就會remind到自己嘅記憶，就會做到嘅。因為其實我哋啲參加者都體力勞動慣咗。”（社工，女，35-44歲，P04） “After the programme, honestly speaking, I don't see many (differences). Even myself don't think I have time (to do exercise) and I had forgot that even if I was willing to do that. I really want to do exercise sometimes, but I can't remember that. Because there are lots of (movements) (in ZTEx), and you will forget them unless you get used to do ZTEx. But your memory would be activated if you watch the CD, and you could keep doing (ZTEx). To be honest, some of our participants were used to manual labour.” (Social Worker, female, 35-44 yr, P04) <u>Difficulty in implementing exercise</u> “咁我又覺得呢樣嘢暫時又做唔到嘅，即係我哋就做唔到啫，唔等於其他人啦。咁或者有啲其他啲媽咪教育水平高啲嘅，又有時間啲嘅，咁家務又可以俾啲姐姐做，咁就梗係得啦。即係咁返到去都忙到死咁滯啦，邊度重有時間話呀仔來做運動啦，功課都未做完，咁就梗係擺功課第一㗎啦，其次先係運動。運動星期六日又學興趣班，根本都無時間。即係其實有陣時我諗佢哋想做（運動）既，但係有心無力。因為有時間都去咗學興趣班，或者同佢溫習。係個時間唔夠啫。”（社工，女，35-44歲，P04） “I think we are not able to work out frequently for the moment. That's my case, and it doesn't apply to others' cases. Maybe some mothers received higher education, had more time, or could give the burden of housework to their

Themes	Subthemes	Quotes
		domestic helpers, and they can exercise frequently. Otherwise, they would be super busy even after work. In this case, how could they still have time to ask their children to exercise together? And how could the children exercise if their homework has not been completed? Of course, homework has the priority over exercise. Also, weekends would be occupied by extra-curricular activities. There is no time for exercise at all. Sometimes I think they would like to do (exercise), but the fact doesn't allow that. Their after-school time has been occupied by extra-curricular activities or study revision. There is not enough time (for exercise).” (Social Worker, female, 35-44 yr, P04) “例如我屋企有兩個孫有長者又剩，我父母都唔係幾願意（做運動）嘅。咁我又話「你又坐喺度，不如你郁下手郁下腳都好過坐喺度呀嘛，你無嘢（做）㗎嘛係咪先？又唔駛落街」。如果係自己身邊嘅人呢比較「論盡」（去氹）啲嘅，反而外來嘅人呢就容易氹到。”（業主立案法團主席，65歲或以上，P05） “For example, I have two grandchildren as well as parents. My parents were not that willing to (exercise). Then I said, ‘Since you are sitting here, why don’t you move your hands and legs? It would be better than sitting still here. Anyway, you are not occupied, right? (You can just simply exercise here) and don’t even need to go out’. It was relatively difficult to (lure) people close to you, but people outside can lure more easily.” (Chairwoman of Owners’ Corporation, 65 yr or above, P05)
Comment and suggestion	Programme content	<u>Targeting children</u> “我諗如果將呢一個計劃再做得小朋友啲，咁就會再容易啲，因為我接觸嗰班街坊，其實有得玩佢哋好開心，或者食一餐好開心，不過佢哋其實個重點都係睇嗰班小朋友。即係嗰班小朋友...健康就好啦，我嗰班小朋友有人幫佢補習英文就好啦，即係我諗大部份媽媽都係咁樣啦。同埋嗰班新移民要咁落來捱，都要班小朋友（留）係香港，其實都係想佢哋有好嘅教育之嘛。即係佢哋都係將個重點擺係呢一度，即係如果呢一個活動可以...再年齡化再低啲，咁可能對於佢哋來講就會更加容易囉。即係果個活動...重點除咗家庭健康，即係除咗身...大人嘅身體健康之外，佢哋...係小朋友，有多啲連繫呀，或者係for小朋友嘅話，可能佢哋就會更加容易接受囉。”（傳道人，女，35-44歲，P03）

Themes	Subthemes	Quotes
		“I think if the programme is designed to be more child-friendly, it would be easier. For those neighbours I had contacted with, they enjoyed the activities or meals. But the children were the important factor. Mothers want their children to be healthy or someone could help the children to improve their English. I think that’s the common thinking of the most mothers. And those new immigrants spare no efforts to ensure their children could (stay) in Hong Kong no matter how hard their life is. They just hope that their children can receive good education. So, this is quite important for them. So, the programme would be easier for them if it targets people at younger age. The programme could not only focus on family and adults’ health, but also have more connection with children or it is designed for children. If so, they might accept it more easily.” (Missionary, female, 35-44 yr, P03) <u>More family activities</u> “嘉年華啲場合好多家長小朋友參與嘅。都可以安排一個環節，即係俾人喺舞台上帶動...宣傳，咁啊下面配合，一齊去玩都可以嘅。或者你透過攤位遊戲去認識（「零時間運動」）亦都可以。” (區議員，男，45-54歲，P02) “Many parents and children had participated in activities like carnivals. You can arrange a section that someone serves as a guide on the stage to appeal to the audiences and play games together. Or the participants are expected to know (ZTEx) via game booths.” (A member of District Council, male, 45-54 yr, P02) “即係可能啲運動唔單只係...媽媽係屋企做呢啲運動，可能係有啲簡單啲嘅親子運動。” (傳道人，女，35-44歲，P03) “These exercises might not only include home exercise for mothers, but also contain some simple parent-child exercise.” (Missionary, female, 35-44 yr, P03) <u>More in-depth health information in content</u> “因為第一我無咁嘅專業人士，教呢啲咁嘅（「零時間運動」）動作啊，咁嘅資訊啦，我要去搵啦，即係搵啲可能啲社康護士或者咩人過來，第二我都無嘅儀器去做到呢一樣（體能測試）嘢，所以其實對佢哋來講係新鮮，對我哋來講都幾好㗎，因為我哋講真即係recruit人咋嘛，咁其實即係唔好話我有得著啦，我啲街坊都有得著㗎嘛，其實係好嘅，我覺得其實社區做多呢啲都好啲，不過就 (內容) 可以in-depth

Themes	Subthemes	Quotes
		少少，做多少少係喇，咁就更加吸引多啲人來，即係真係好 relate 去返健康咁咪好好多。” (傳道人，女，35-44歲，P03) “First of all, I didn't have professionals to teach these movements (of ZTEx) and such information. I need to find suitable individuals like community nurse or someone else. Secondly, I didn't have equipment to do (physical fitness assessments). Therefore, it was not only a new experience for them but also beneficial for us. Because we are responsible for the recruitment. Both the residents and we gained benefits from this programme. It would be better if there are more such programmes in the community. But the (content) can be more in-depth, more intensive. If so, more people will be attracted to join this programme. It would be better if there is more health-related content.” (Missionary, female, 35-44 yr, P03) “咁又可能其他（活動）會加埋其他嘅元素落去，咁你哋就係運動啦，同埋個健康嘅資訊呀，同埋有啲嘅測試，不過測試可以我就會就會覺得可以多元化少少嘅。” (社工，女，35-44歲，P04) “Maybe other elements would be added in other programmes. Your programme focused on exercise and health information, together with physical fitness assessments. But I think there could be more diverse tests.” (Social Worker, female, 35-44 yr, P04) <u>More emphasis on programme quality</u> “可能有啲嘅方法可以監察到佢哋真係有做運動囉。即係其實我會覺得老實講呀有幾多街坊呢係真係會做完之後呢會持之以恆去做呢樣嘢，我唔夠膽講比你聽，就算我學咗我其實想做都無做啦。如果你想個成效大啲呢就應該要有少少呢啲嘅要求，令到佢地真係可以去做到，即係就...你當佢哋我都無緊要啦，總之你今日做咗就剔一剔啦，聽日做咗又剔一剔啦咁樣。” (社工，女，35-44歲，P04) “There might be some methods that could supervise whether they did exercise. To be honest, how many residents would persistently work out? I dare not tell you my answer. I didn't continue to do that even I have learnt and wanted to exercise. A few requirements should be set to motivate the participants if you want to achieve greater effectiveness. It doesn't matter if they lied to me. In a word, just tick (on the check list) if you have exercised today. And tomorrow tick

Themes	Subthemes	Quotes
		after you have done it.” (Social Worker, female, 35-44 yr, P04) “你要想個成效好定還是重質還是重量囉。咁你依家咁樣比係好吸引啲人來，但係個數量係表面上真係好大。但個量係點呢，係咪即係啲人真係可以做到你哋果個目標即係改善到我嘅身體狀況，個健康提升咗呢...呢個就有保留囉...所以如果你係將果啲錢係咁多嚟喇，你就可以將呢啲擺多少少去呢一度（體能測試）囉，即係我自己咁諗啫。” (社工，女，35-44歲，P04) “The (evaluation of) effect depends on whether you emphasise quality or quantity. Superficially, your programme had attracted lots of people to join, but what about the quality? Do the participants really achieve your expected goal, namely, improving their health? I am not so sure about that. In my opinion, you may allocate more funds for that item (physical fitness assessments) in your budget.” (Social Worker, female, 35-44 yr, P04)
	Promotion	<u>Enhancing awareness of sport facilities</u> “同埋認識社區啦，即係我諗可以帶佢哋出去玩又係另一個開心，認識佢哋自己本身嘅社區入面裏面可以有既資源都可係另外一個好切實對佢哋嘅幫助囉。” (傳道人，女，35-44歲，P03) “Know more about the community. Going out for fun is a kind of happiness for them. Knowing more about the resources in their community could be another. It could help them in a practical way.” (Missionary, female, 35-44 yr, P03) <u>More diverse promotion methods</u> “其實講真我覺得你哋可以拍住啲YouTube或者啲短片啦，每人俾隻碟我哋咁樣過返來咁就比佢哋睇。咁就可能話佢哋一班參加者有啲都係熟嚟嘛，識嚟嘛，呀約埋一齊去睇，咁做返可能會好少少囉。即係大家係互相再切磋返，或者係大家再去提點返「喂唔係咁做啫，上次唔係咁，你係要咁樣做啫...」因為依家都好方便咋嘛，擺落即係如果大家唔介意，因為你哋本身已經有人係到demo比我哋睇嚟啦嘛。” (社工，女，35-44歲，P04) “Honestly speaking, I think you could make video clips, and upload them on YouTube or make a disc. You could distribute discs to us so that the participants could watch the

Themes	Subthemes	Quotes
		videos. As some of the participants were familiar with or knew each other, they might meet and watch together. It is likely to be a little bit better. They could learn from interaction or remind each other, 'Hey! It's wrong to do it this way. We did it differently last time. You should be like this...' Nowadays, it is convenient to upload those on the Internet if everyone doesn't mind, as you had someone doing the demo for us here." (Social Worker, female, 35-44 yr, P04) “其實我又覺得宣傳啊貼海報係貼啫，我哋依家係無派呢個宣傳單張呀。咁或者你係唔係可以喺電視台某一段時間賣下告白會好啲呢？或者係咁我就唔知喇呢樣嘢就。因為你依家好多嘢都係話電台啊嗰個效應都（有用）...啲長者未必個個識字，咁佢聽到電台有講（做運動）啊，佢哋都會識得去做囉。”（業主立案法團主席，65歲或以上，P05） “As for the publicity, you just put up posters but don't send out leaflets at the moment. Have you ever considered advertising on TV in a certain period of time? Maybe it was the case and I had no idea about this. Nowadays, it is said that the radio can play an important role in exerting positive influences. Not every elderly is literate, but they might take action when they hear 'doing exercise' from the radio.” (Chairwoman of Owners' Corporation, 65 yr or above, P05)
	Resources/ manpower support	<u>More support from local organisations</u> “咁當然例如係有呢啲健康嘢呢，婦女會嗰啲係吸引吓...即係你可以朝住呢個方向婦女會囉，如果係你健康嗰啲既你一定係搵呢啲嘅團體（支持）㗎啦。或者其實你話如果唔係NGO咁咪嗰啲囉。嗰啲叫做功能組織。例如係嗰啲咩藍田婦女會呀咁樣。呢啲我諗關心啲嘅，或者肯參與嘅都係啲長者或者啲婦女，多啲咁你朝住呢個方向囉。”（社工，女，35-44歲，P04） “Women are certainly attracted by health-related information. You could (seek support) in this direction – cooperate with organisations such as women's associations instead of NGOs when conducting health-related activities. The ideal cooperating organizations are functional organizations, such as Lam Tin Women Club. I think (members of such organisations) would be more concerned about health and most of the participants willing to join such programmes are the elderly or women, so you can extend your programme this direction.” (Social Worker, female, 35-44 yr, P04)

Themes	Subthemes	Quotes
		“政策層面嘅可能係譬如大學同區議會合作，咁有啲錢啦、有啲resources啊、有啲training啊咁樣，train咗一team人出來然後再散返落NGO度。” (社工，女，35-44歲，P04) “In terms of policy, the cooperation may be conducted between university and District Council, which can together offer funding, resources and training. In this way, a professional team could be trained and then serve the NGOs in turn.” (Social Worker, female, 35-44 yr, P04) <u>Manpower support</u> “人就真係唔係幾夠嘅。你例如好似社區中心嗰啲佢會好啲，佢放兩個義工落來，咁我哋要搵多兩個（義工）。咁你一架車五十幾人，如果係兩個義工你係唔夠㗎嘛。你上唔晒車你又又要數，未上車你又又要數，漏左一個咪弊。” (業主立案法團主席，65歲或以上，P05) “The manpower was really not enough. It was not a big problem for those community centres since they only need to arrange two volunteers, but we need to find two more (volunteers). Two volunteers were not enough to deal with a coach of people which were more than 50. You need to count people if all the participants were aboard. Trouble would be caused if anyone is missed out.” (Chairwoman of Owners' Corporation, 65 yr or above, P05) <u>Using booklets/discs as reminders</u> “佢哋手握力（器）都有，佢哋都攞返來，ok㗎我又覺得，好好㗎啲，即係啱佢哋用呀嘛，毛巾呀咁樣㗎嘛，咁我又覺得ok嘅，不過就都係喇...如果多一樣嘢，就係教做運動嗰張嘅小冊子，提下佢哋，你無碟呢，有碟就更加好喇。” (社工，女，35-44歲，P04) “All of them had their own handgrip which they brought back. I think it was good. The handgrips are quite suitable for them. And so are the towels. But (the programme would be further improved) if one more thing – the exercise guide booklet – could be provided. It could serve as a reminder. You did not have (exercise guide) discs. It would be even better if participants can have access to those discs.” (Social Worker, female, 35-44 yr, P04)

Themes	Subthemes	Quotes
		“如果係好啲嘅例如話啲notes俾返我哋呀，或者係啲碟呀啲整到嘅就整俾我哋或者係啲小冊子咁俾我哋，咁我就覺得啲到會豐富啲囉。” (社工，女，35-44歲，P04) “It would be much better if you can provide notes, discs or booklets for us. If so, (the programme) would be richer.” (Social Worker, female, 35-44 yr, P04) <u>More professional equipment</u> “即係例如係啲血糖佢哋都好關心呀嘛，膽固醇高唔高呀，佢哋呢中年其實佢哋會擔心㗎嘛，咁我覺得你可以做多啲啲真係relate返去啲個健康呢，其實佢哋會開心啲囉。即係真係多少少即係啲儀器去做返關於健康嘅嘢，係真係佢哋嘅年紀配合到嘅嘢，咁我會覺得，又咁㗎。因為做咗運動，運動前同埋運動後，其實有無分別呢咁樣。即係我覺得你增加多啲啲個儀器重好啦，例如你話啲家長都三十零四十歲啲人來㗎嘛，咁可能佢哋就會好關心佢哋嘅健康㗎嘛，咁你就增添下啲啲儀器，幫佢哋做下測試。” (社工，女，35-44歲，P04) “For example, they were very concerned about their blood sugar, and cholesterol level. They had such concerns as they had reached middle age. They would be happy if you could conduct more health-related activities. Providing more equipment for people in such age to inspire them to do exercise was appropriate. As they had done exercise, is there any difference on them before and after exercise? (Maybe the physical fitness assessment equipment can tell them). So, it is much better to provide more equipment as the parents were in their 30s or 40s and were concerned a lot about their health. You might provide more equipment for them to do physical fitness assessments.” (Social Worker, female, 35-44 yr, P04) <u>Make the questionnaire brief</u> “因為我咁㗎呢班嘅參加者都係啲家長為主，佢哋就識字呀嘛。又識字咁你老人家就真係唔得啦老實講句，老人家就我哋辛苦囉。對住佢做（問卷），又要解釋囉...佢哋呢一班呢識字呢咁咪爭好遠既，呢個都好重要，即係睇你啲個對像係啲咩人，咁就簡單啲囉如果你哋想話即係簡易版啲囉。” (社工，女，35-44歲，P04) “The majority of this group were parents who were literate, but honestly speaking, things could not go so smoothly if the group consisted of the elderly. We have to spare lots of effort

Themes	Subthemes	Quotes
		to explain to them and help them complete (questionnaires). It is quite different from dealing with people who are literate. It depends on your target population. This is quite important. So, it could be simpler if you can make a brief version (of questionnaires)." (Social Worker, female, 35-44 yr, P04)
	Programme arrangement	<u>Location</u> “咁呢啲message健康就一定幾時（宣傳）都得嘅，困難就係乜呢，你要揀過另一個區囉，你唔能夠再喺同一個（區）做過同類嘅嘢嘅一個地方再做一次好類似嘅嘢囉。除非你做啲進階啲啫...但係好難進階，要揀區都好緊要。我覺得主要都係有無一個未接觸過呢類message嘅社區啫。如果有（進階版），又存在（區），又有資源，我覺得重易做呀。” (服務總監，男，45-54歲，P01) “These health messages can be promoted anytime. The difficulty is you need to choose another district. You can't conduct a similar programme in the same district, unless you do something in an advanced level. But it is really difficult to upgrade the programme. The choice of district is very important. I think it mainly depends on whether there is a district that has never received promotion of this kind of message. If there is (an upgraded programme), a suitable (district), and resources, I think it would be easier to conduct.” (Programme Director, male, 45-54 yr, P01) <u>Programme schedule</u> “搞活動都要搞到有陣時星期六日呀，星期六一日又要學興趣班啲咁樣，咁而家得嘅，最得閒嘅就係星期日囉。星期日所以我哋有陣時搞活動都要搞星期日。” (社工，女，35-44歲，P04) “Events were conducted on Saturdays and Sundays sometimes. (Children need to) attend extra-curricular activities on Saturday. But now we can hold events since people are more likely to be free on Sunday. So, we sometimes chose Sundays to hold events.” (Social Worker, female, 35-44 yr, P04) “你（想）後生參加呢...你唯一嘅方法呢你就係諗住星期六或者星期日（搞活動），你就唔好俾佢平日，咁都可能會冇少效應。你話如果係一至五（搞活動）呢就難啲，直情係好

Themes	Subthemes	Quotes
		難添，六日呢應該都可能會好啲。”(業主立案法團主席，65歲或以上，P05) “If you want to involve younger people in activities, the only way is to (conduct events) on Saturdays or Sundays rather than weekdays. In this way, it might make a little positive effect. It would be really hard to conduct activities from Monday to Friday, but better if on Saturdays or Sundays.” (Chairwoman of Owners’ Corporation, 65 yr or above, P05)
	Influence of ZTEEx in regional policy and implementation	“咁但係如果你話政府究竟邊個部門...會提大家做下運動呢？呢度我自己印象好似又少啲...淨係係到啲廣告話咩醫生叫你每個禮拜有幾多日做多過30分鐘咩高強度運動咁身體就健康喇。咁但係運動係要持續㗎嘛，咁呢個位我覺得你哋用返「零時間運動」嗰個finding然後鼓勵政府合適嘅部門點樣去有趣啲推動、鼓勵市民做多啲運動，呢個就可能會具體過叫佢起多啲場地。因為究竟啲人做唔做運動係咪因為有無場地嗰個問題呢...我有時都覺得...如果你話跑步，咁啲人唔使一定去球場跑呀，如果佢肯跑呀，佢自己喺屋企附近都搵到條路線自己跑啦。”(服務總監，男，45-54歲，P01) “But if you ask me which department of the government would remind us to do exercise, I would have little impression on that. I can only recall advertisements that if you do high-intensity physical activity for over 30 minutes certain days per week, you would be healthy physically. Nevertheless, exercise should be sustainable (to achieve the expected effect). In this case, you may take advantage of the findings of ZTEEx and encourage relevant government departments to think about how they could promote ZTEEx in an interesting way and motivate citizens to do more exercise. Those measures would be more pragmatic than asking the government to build more venues for the public. I am wondering whether the inactivity of some people resulted from the limitation of the venue. Sometimes I think, people don’t have to go to the sportsground when they want to run. If the individual is willing to do that, he/she would find a running route near home.” (Programme Director, male, 45-54 yr, P01) “因為依家你哋都係賽馬會啊或者係啲民間嚟度推動啦或者做（「零時間運動」），當然如果政府...特別係民政事務局啊或者康文署啊...類似嘅政府部門呢，如果佢能夠有啲資源撥出來，一個係資金啦第二個場地啦，鼓勵多啲團體去申請呢一類嘅項目啊，申請資金去推行呢樣嘢（「零時間運動」）

Themes	Subthemes	Quotes
		呢，咁啊從政府既層面咁去支持呢樣嘢囉，咁我都覺得呢樣係好嘅。” (區議員，男，45-54歲，P02) “Now, it is Jockey Club or some non-governmental organisations who are promoting or implementing (ZTEx). Of course, if the government...especially government sectors like Home Affairs Bureau or Leisure and Cultural Services Department could allocate resources, I mean funding and venues, to encourage more organisations to apply such kind of projects or apply funding for (ZTEx) promotion, i.e., provide support at the government level, I would take those as beneficial measures.” (A member of District Council, male, 45-54 yr, P02)

CHAPTER 8 PROCESS EVALUATION

8.1 Objectives and methods

Process evaluation is a systematic and continuous evaluation that describes how the programme has been implemented and is useful for programme implementation monitoring and continuous improvement. It is an important component for project evaluation and can inform future project planning.

Prior to project initiation, the team reviewed related data from the Census and Statistics Department, District Council and Social Welfare Department's in the year 2015 to inform the project design. CFSC was required to submit programme rundowns to ensure that the programme objectives and content were appropriate. Health Ambassadors were required to submit a checklist form for recording the core message delivery. A standardised observation form was used for process evaluation. Several indicators included programme fidelity, content delivery and format, and participants' involvement and feedback were recorded by observers from CFSC and the FAMILY Project Team. Publicity records were also completed by CFSC for each session to record the strategies used in participant recruitment and to indicate the type of participating residents.

8.2 Context

Kwun Tong District is a relatively traditional community in Hong Kong. According to the Census and Statistics Department and the District Council's data in 2015, approximately 32.2% of residents were aged 55 or above. A total of 23.9% of residents only achieved a primary or below educational level and 24.0% had a typical household income of less than HK\$10,000 [78]. Kwun Tong District had the largest number of poor people (161,300) and highest poverty rate (26.0%) among the 18 districts in Hong Kong. Given that people with low socioeconomic position are more likely to be sedentary, Kwun Tong District had a need for the community-based intervention programme that aimed to enhance physical activity and FAMILY 3Hs.

8.3 Project reach and participant recruitment

To recruit residents in Kwun Tong District to participate in the community-based intervention programme, the community partners tried different methods to approach the residents. In addition to 9,114 leaflets distributed and 236 posters displayed, they also ran 78 mobile community health counters to attract residents. A special method of door-to-door visit was adopted to further extend their targets to reach those "passive residents" who had no experience in seeking NGO services. A total of 23 door-to-door visits reached 913 families. A total of 953 residents participated in our community-based intervention programme. A total of 787 participants with retention rate 82.6% joined the 1-month follow-up sessions (T3) and 834 participants with retention rate 87.5% joined the 3-month follow-up sessions (T4).

8.4 Dose delivered

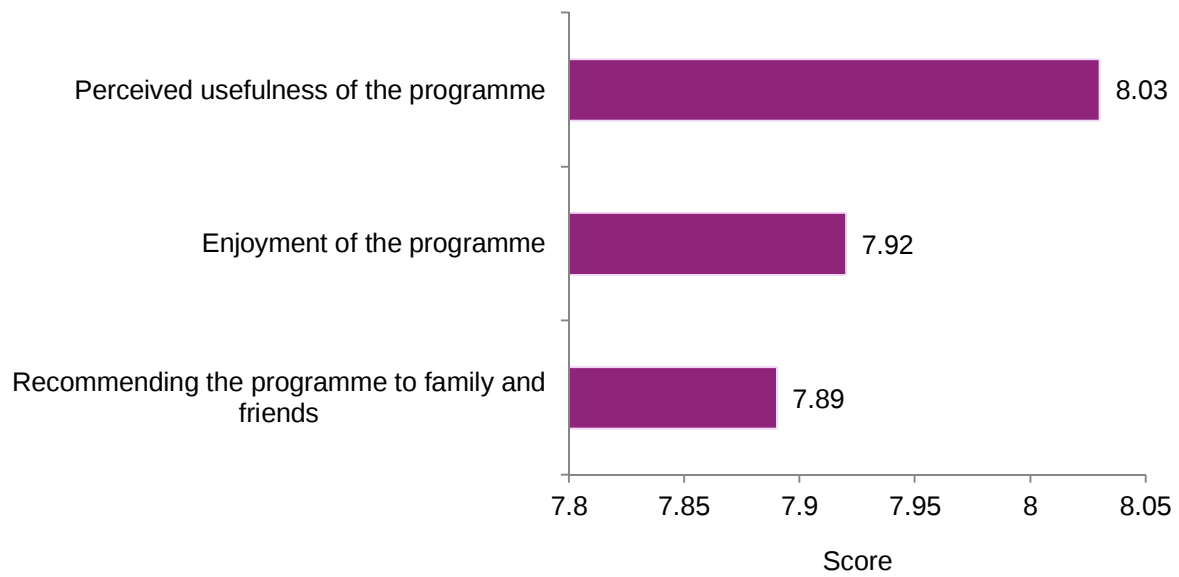
The community-based intervention programme was intended to increase participants' knowledge of ZTE_x and to perform ZTE_x with family members. Core sessions were organised to achieve these purposes. Neighbourhood support was provided by regular telephone contacts by Health Ambassadors to remind the participants to perform ZTE_x with family members. A handgrip was provided for the participants to provide them the home-based exercise equipment. Core messages were delivered in the core sessions. The average duration of core session was 88.8 minutes (1.48 hours). Since the duration of core session was set at 90 minutes (1.5 hours), the actual duration was generally adherent to the proposal. A total of 80.0% of the participants in Group A and 78.5% of participants in Group B were successfully contacted by Health Ambassadors.

8.5 Does received

The dose received refers to the extent to which participants actively participated in the intervention programmes, interacted with other participants, were receptive to and/or had used materials or recommended resources provided in the programmes. The success of intervention programmes can be assessed by how much the participants received the programme content and made use of the relevant programme materials.

Figure 8.1 shows that at T2, on a scale of "0=not useful at all/not enjoyable at all/not willing to recommend at all" to "10=very useful/very enjoyable/very willing to recommend", participants in all the three groups (n=952) gave a mean score of 8.03 (SD=1.85) for perceived usefulness of programme, 7.92 (SD=1.97) for the enjoyment of the programme, and 7.89 (SD=2.14) for willing to recommend this programme to their family and friends. Participants in Groups A and B (n=554) thought their relationship with Health Ambassadors was quite good at T4 (M=8.41, SD=1.51).

Figure 8.1 Mean scores for questions that measured the dose received by participants (n=952)



11-point Likert scale: "0=not useful at all/not enjoyable at all/not willing to recommend at all" to "10=very useful/very enjoyable/very willing to recommend"

8.6 Fidelity

Fidelity is an important component of a successful programme. If the adherence to programme content is low, the effectiveness of the programme is also expected to be low. From the reports of two FAMILY Project Team observers, the community-based intervention programme was adhered well in all three groups. All core messages were delivered to the participants on the core sessions by social service workers. Table 8.1 shows that based on Health Ambassadors' report, more than 80% core messages were delivered to the participants during the telephone contact. These findings revealed that the programmes were well planned, adherent to the proposal, and the messages were delivered to the participants successfully.

Table 8.1 Rate of core message delivery for successful contacted participants by Health Ambassadors

Core messages	Rate of delivery (%)	
	Group A	Group B
Perform ZTE _x everyday	88.8	88.9
Perform ZTE _x with family members	81.9	83.0
Practise hand grip strength	/	85.8

During the sessions, the participants actively practiced ZTE_x following the demonstration and interacted with social service workers, Health Ambassadors and each other. They were enthusiastic and enjoyed the programmes.

8.7 Cost and resources

This project was funded by The Hong Kong Jockey Club Charities Trust. CFSC collaborated with the FAMILY Project Team with the assistance of other community partners such as The Neighbourhood Advice-Action Council, Jubilee Ministries and Owners' Corporations. Hence, the project had adequate programme funding, manpower and other supportive resources. A total of eight full-time social workers and two programme workers were employed to implement this project. Pre-programme training and supporting assistance were provided within the whole project to better facilitate project implementation.

CHAPTER 9 PROJECT DISSEMINATION - HEALTHY LIFE TIPS BOOKLET

9.1 Introduction

The Healthy Life Tips Booklet was produced and officially released on 20 November 2016, aiming to share tips of ZTE_x to families in Kwun Tong. The Healthy Life Tips Booklet is a 32-page colour-printed publication. By January 2017, a total of 3,000 copies were distributed to Kwun Tong District residents through CFSC.

This booklet emphasises ZTE_x with family members to enhance FAMILY 3Hs. It enables the readers to learn more about how to practise different types of ZTE_x and the implications of physical fitness such as hand grip strength, flexibility, balance and muscle strength. It also includes experience sharing by Health Ambassadors and programme participants on implementation of and participation in the FFP, and practising ZTE_x with their family members in their daily life.

9.2 Evaluation of booklet's effect

A brief, one-page questionnaire was developed to evaluate the effect of Healthy Life Tips Booklet on promoting ZTE_x and FAMILY 3Hs, readers' intention to apply the suggested behaviours to daily life and to collect comments and feedback related to the booklet's dissemination. A total of 103 valid questionnaires were collected by social service workers.

9.3 Results of the evaluation

Table 9.1 shows that from the 103 valid questionnaire collected, 96.0% were female, 23.0% were aged 40 to 49, 66.3% had a secondary education level, 84.2% were married, and 74.0% were housewives.

Table 9.1 Demographic characteristics of the booklet questionnaire respondents

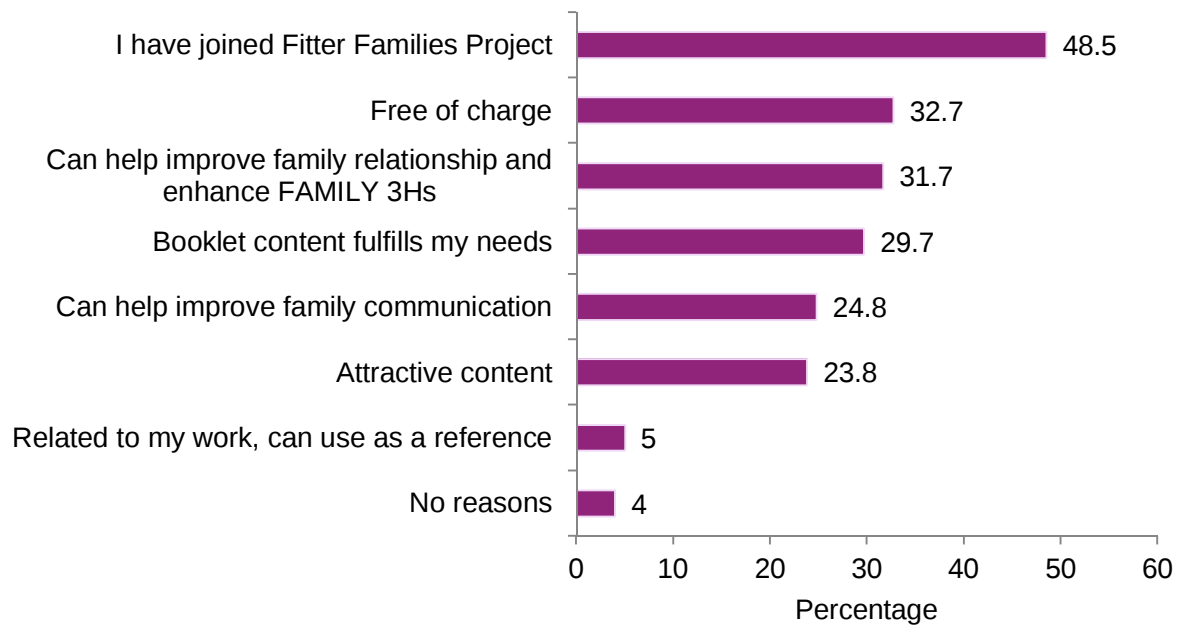
Characteristics	n (%) ^a
Sex^b	
Male	4 (4.0)
Female	95 (96.0)
Age group (years)^c	
<39	62 (62.0)
40-49	23 (23.0)
≥50	15 (15.0)
Education^d	
Primary or below	12 (11.9)
Secondary	67 (66.3)
Tertiary or above	22 (21.8)
Marital Status^e	
Single	5 (5.0)
Married	85 (84.2)
Divorced/Widowed	11 (10.9)
Employment status^f	
Student/Employed	17 (17.0)
Unemployed	3 (3.0)
Housewife	74 (74.0)
Retired	6 (6.0)
Place of birth^g	
Hong Kong	16 (15.8)
Guangdong Province	58 (57.4)
Other places in Mainland China	26 (25.7)

^a Missing data were excluded

Number of participants: ^b n=99; ^c n=92; ^d n=101; ^e n=101; ^f n=100; ^g n=101

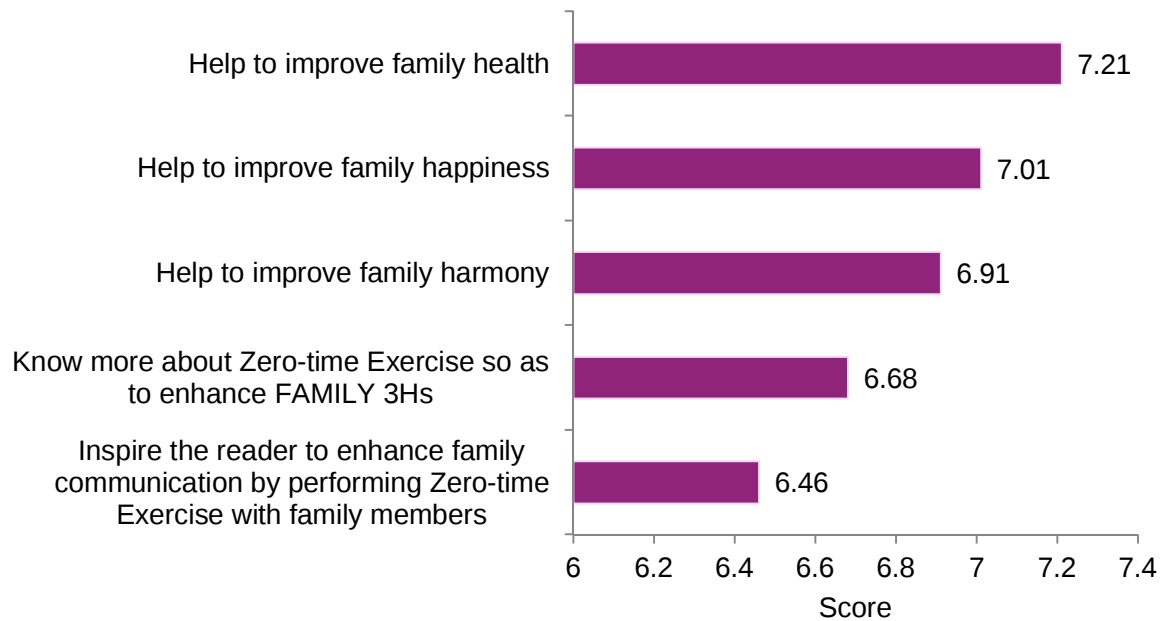
Figure 9.1 shows that main reasons for getting the booklet were “have participated in the FFP” (48.5%), “free of charge (32.7%)”, and “want to improve family relationships and enhance FAMILY 3Hs” (31.7%).

Figure 9.1 Why did you get this Healthy Life Tips Booklet? (Can select more than one option) (n=103)



Respondents were asked to rate whether the Healthy Life Tips Booklet was capable of achieving the five key points: 1. Inspire the reader to enhance family communication by performing ZTE_x with family members; 2. Know more about ZTE_x so as to enhance FAMILY 3Hs; 3. Help to improve FAMILY health; 4. Help to improve FAMILY happiness; and 5. Help to improve FAMILY harmony on a scale of 0 (very incapable) to 10 (very capable). Figure 9.2 shows high scores of above 6 for all five items.

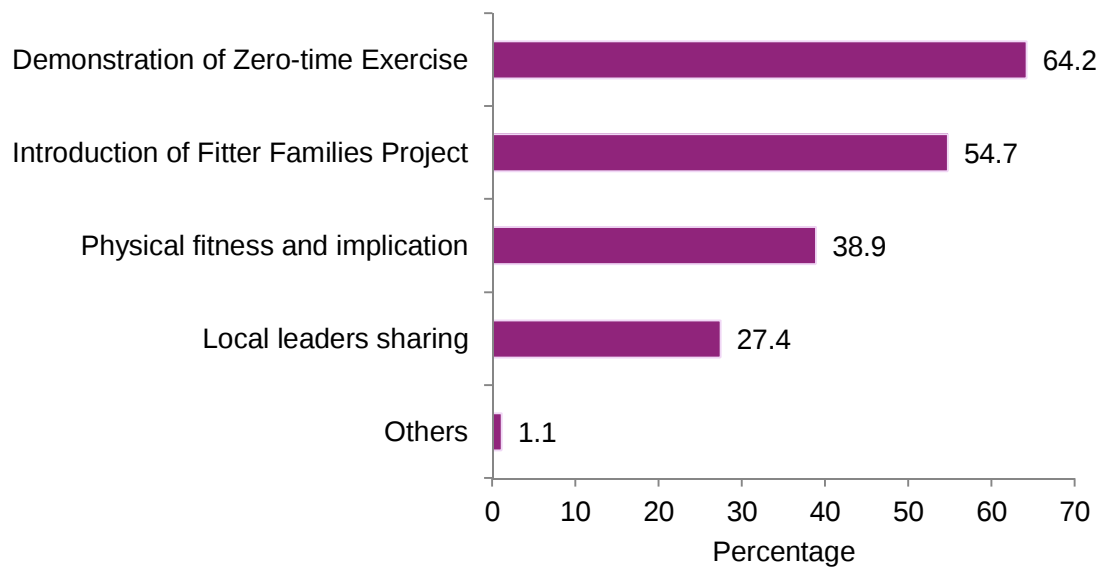
Figure 9.2 Capability of Healthy Life Tips Booklet in achieving key objectives (n=100)



11-point Likert scale: "0=very incapable" to "10=very capable"

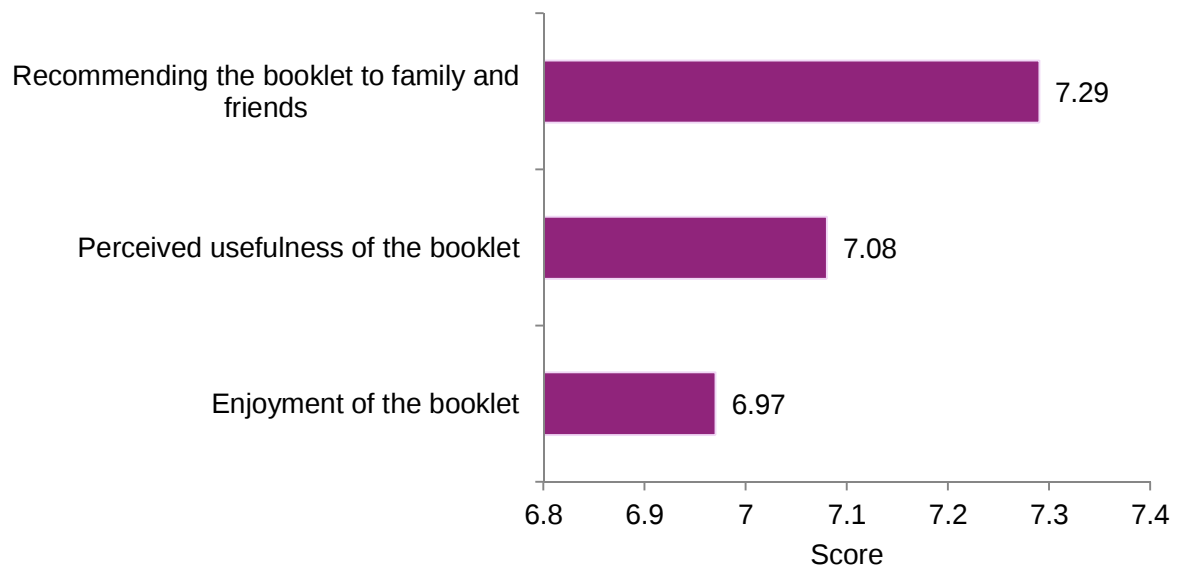
The favourite part of the booklet reported by the respondents was the demonstration of ZTE_x (64.2%) (Figure 9.3). Respondents' intention to perform ZTE_x was also investigated, on a scale of 0 (no intention at all) to 10 (already practising). The mean score was 6.93 (SD=1.96), showing a high intention level.

Figure 9.3 Which part(s) of Healthy Life Tips Booklet do you like most? (Can select more than one option) (n=103)



For overall evaluation of the booklet, on a scale of “0=not willing to recommend at all/not useful at all/not enjoyable at all” to “10=very willing to recommend/very useful/very enjoyable”, respondents gave a mean score of 7.29 (SD=1.84) for willingness to recommend the booklet to family and friends, 7.08 (SD=1.67) for the perceived usefulness of the booklet, and 6.97 (SD=1.90) for the enjoyment of the booklet (Figure 9.4).

Figure 9.4 Overall evaluation of Healthy Life Tips Booklet (n=99)



CHAPTER 10 PROJECT DISCUSSION AND CONCLUSION

10.1 Overall project summary and discussion

The FFP, after the LFP, was a large-scale community-based cluster randomised controlled trial to promote ZTE_x, FAMILY 3Hs and neighbourhood cohesion in Kwun Tong District. The FFP was led by CFSC and conducted in close collaboration among academic researchers, Health Ambassadors (volunteers), and social service workers. The FFP extended to the whole Kwun Tong District, and was successful in engaging community partners in an active and fruitful partnership with effective capacity building for programme development, which ultimately promoted ZTE_x and FAMILY 3Hs of participants and service providers. The interventions were simple but innovative, firmly based in the community and benefited the participants and service providers in the community. It also generated new evidence for an effective practice model of project design, planning, implementation, evaluation and dissemination.

TTTA was conducted for social service workers and Health Ambassadors. Social service workers and Health Ambassadors were benefited from the programme. In general, they showed high acceptability of the training programme; improved competence, motivation and performance in relation to ZTE_x; increased physical activity, physical fitness performance, perceived health; and enhanced trainees' health knowledge and skills of conducting or assisting to implement community-based health promotion and preventive intervention activities. They indicated that the training was comprehensive and practical. The physical fitness assessments were the most highly rated component of the training intervention. The mobile health messages could further enhance their intention of performing ZTE_x, which could remind them to perform exercise regularly, and further increase their moderate physical activity and involvement of their family members in ZTE_x. The effect of social desirability bias was unlikely to be substantial.

After the TTTA, the community-based intervention programme was developed and various methods including door-to-door visits, mobile community health counters and opening ceremony were used to publicise the programme and recruit residents to participate. The participants were randomly allocated into Groups A, B, and C with different intervention components. The group with minimum intervention intensity was regarded as the control group (Group C). Core sessions were organised in all participants to motivate and empower them to perform ZTE_x. Neighbourhood support was provided by regular telephone contacts by Health Ambassadors as to remind the participants in Groups A and B to perform ZTE_x. Participants in Group B were additionally given a handgrip as the exercise equipment. The results showed that the community-based intervention programme significantly improved FAMILY 3Hs, the frequency of performing ZTE_x, neighbourhood cohesion and physical fitness assessments within all the three groups at 3-month follow-up. Neighbourhood support by community Health Ambassadors showed effectiveness on improving neighbourhood cohesion in Group B, and on subjective improvements in performing ZTE_x and neighbourhood cohesion in Group A. However, the effectiveness of neighbourhood support on improving FAMILY 3Hs, frequency of ZTE_x and physical fitness assessments were not found. The active interaction with Health

Ambassadors enabled the participants to build up community networks and improve neighbourhood cohesion. Notably, while the effect size of the above was small, self-reported improvements in performing ZTE_x and neighbourhood cohesion showed stronger effect size. Providing a handgrip to the participants showed effectiveness on improving the frequency of strength exercise and objectively measured hand grip strength, suggesting providing the handgrip could lead to regular hand grip practice and improve hand grip strength at 3 months.

Pre- and post-programme mobile community health counters showed that neighbourhood cohesion, frequency of performing ZTE_x, and hand grip strength improved. Given that the mobile community health counters were set up at diverse locations in Kwun Tong District, these findings suggest that the project produced the desired effects on promoting ZTE_x and neighbourhood cohesion widely in Kwun Tong District.

The results from the qualitative study further corroborated the findings from the quantitative assessments. Some participants indicated that the programmes helped them to improve themselves at personal, family and community levels. The results also showed positive effects on behavioural changes, such as increased family communication and ZTE_x, which were associated with improved FAMILY 3Hs and positive effects on neighbourhood cohesion and relationship. However, some participants also raised some comments on the programme, such as the schedule, content and manpower arrangements. Suggestions and recommendations included rearrangement of the programme content in order to accommodate participants' diverse needs, more involvement of children, parents and elders, acquirement of more professional health information and tips from Health Ambassadors, and reduction of the length and difficulty of the questionnaire.

Process evaluation suggested that the community-based intervention programme was welcomed by participants in Kwun Tong District, as participants showed much interest, thought useful and were satisfied with the programmes along with a retention rate of higher than 85%. High fidelity check results showed that both social service workers and Health Ambassadors had the ability to deliver high quality programmes with sufficient programmes messages delivered.

The Healthy Life Tips Booklet generally served the booklet's purpose on the five key points. Around two-thirds of respondents most liked the demonstration of ZTE_x. Respondents had a high level of intention to perform ZTE_x. Respondents generally liked the booklet, thought it useful and would recommend the booklet to their family and friends. Further distribution and promotion are needed to extend the coverage and benefit more people in the community.

In summary, the FFP with rigorous evaluation provided new and strong evidence on the feasibility and success of this large-scale community-based project in Kwun Tong District. Positive feedback from the qualitative interviews and quantitative outcomes confirmed the successful collaboration between academics and social service sectors implementation of the project. Future improvements of such simple and large-scale community-based family projects, investigation of sustainability of the intervention effects, and wider dissemination are warranted.

10.2 Strengths and limitations

The FFP, an improved version of the LFP, was a cluster randomised controlled trial with three groups conducted in the community. The randomisation of the participants based on the District Council election constituency boundaries could minimise but not eliminate the potential neighbourhood contamination, as there was also much publicity in different venues. The rigorous design with a control group allowed between-group comparisons to determine the effectiveness of the intervention. The successful collaboration among academic researchers, social service workers and community partners (voluntary Health Ambassadors) established a new mode for promoting ZTE_x, FAMILY 3Hs and neighbourhood cohesion. This strategy is promising and worth further exploration and development. Compared with other projects, this project recruited a significant proportion of “hard to reach” population including male participants, people with low income and/or educational attainment and new immigrants. Indeed, these groups of participants are those who rarely utilise social services and should be major service targets of NGOs. The FFP designed simple and brief interventions with core, booster and gathering sessions as well as neighbourhood support and provision of handgrips for the participants. The contents of intervention were informed by theories, models and evidence derived from positive psychology and other disciplines, local experiences, and the results from the LFP. As such, the FFP not only emphasised on psychosocial health, but also physical health, and served as a good example of holistic health intervention. This project evaluated effects with greater rigour than designs without randomisation or designs with simple pre-/post-tests, which are typical in many community interventions. The retention rate of this project was high (>85%) in all three groups, indicating that this project was attractive to the participants.

This project had some limitations. First, the intervention was of very low intensity. The effect size determined by comparing improvements from baseline to follow-up between the intervention and control groups was mainly small. Some differences were not statistically significant probably due to small sample size. Other possible explanations were: (a) The improvements in the control group were greater than expected. The “placebo” effect could be due to the gathering, which could have some positive influences; (b) People who joined the community programmes might be more motivated to increase family activities and had better family well-being than those who refrained from joining these programmes, which might lead to self-selection bias and a ceiling effect; (c) The assessment tools were “too stable” and were not sensitive to change; (d) The questionnaire was so long and difficult that some participants might not have answered some questions reliably, leading to random errors; (e) As the participants in the control group had completed the similar questionnaires several times, the repeated questions could lead to some reminders and/or social desirability effect. We asked additional questions on subjective changes at follow-up, which showed greater effect size. Such questions should be more sensitive to measure changes but could also be subject to social desirability bias. However, from the public health viewpoint, brief interventions can attract more participants, reduce the cost of training the interventionists and delivering the programmes, and are more likely to be further and widely disseminated. More intensive interventions can be developed for those participants who have specific needs or those who have not shown improvements. Second, this project used various methods to recruit the participants including door-to-door visits, mobile community health counters and opening ceremony, so the representativeness of the study sample was uncertain. Third, our cluster

randomisation did not result in high similarity of the three groups. This is a common limitation of cluster randomised controlled trials. Fourth, this project had two follow-ups at 1 month and 3 months after the core session. Future programmes could have more boosters and longer follow-up to evaluate the booster and long-term effects.

10.3 Implications and suggestions for future planning

The FFP utilised the process of cluster randomisation. The present study showed that despite the limitation, this is a feasible and next-best approach and should be applicable in such community-based intervention programme if intervention contamination is a major concern. Since randomised designs provide stronger evidence than longitudinal designs without a control group, we recommend future programmes to adopt this approach whenever feasible. Nevertheless, individual randomisation is the best method.

Due to the programme name of “Fitter Families Project”, nature of activities, and schedule of programme sessions, this project attracts more women than men. This is a common issue in other community-based programmes in Hong Kong and elsewhere. Since most men are breadwinners in Hong Kong and more women take care of the family, it is difficult to involve men in these family activities. Future community-based programmes should be developed with more attractive and accessible activities for men, and new strategies are needed to recruit more men.

At the community level, the aims and contents of the FFP can meet the community needs. Given that Hong Kong people are quite busy at working, their physical and psychosocial needs are often ignored. Our public education events such as opening ceremony and mobile community health counters addressed this issue by increasing the awareness of physical activity and family well-being across the community. Active involvement of community social service workers and volunteers enabled the successful implementation of this project. Our findings suggest that academic-community collaborations with proactive involvement of volunteers should be useful in other social contexts. The training of lay volunteers to be Health Ambassadors and reliance on community resources can also reduce the demand on time, resources and manpower from the financially strapped and understaffed social service and other health related sectors simultaneously.

As Hong Kong people always have a busy working life, we designed an innovative, simple and low cost approach, which needs no extra time, money or equipment (3 Zeros) to empower people to increase physical activity. ZTE_x is easy, enjoyable and effective (3Es) and can be done anytime, anywhere and by anybody (3As) while sitting, standing or walking. Future projects should have detailed measurements of ZTE_x based on laboratory research such as the energy expenditure, which could standardize the methods for future studies about this innovative physical activity.

The FAMILY Project Team advocates and implements the concept of “best science, best practice”. The FFP was designed based on theoretical and scientific framework, substantial literature reviews and past experience from LFP. The FFP has shown the feasibility and effectiveness of conducting a community-based intervention programme with the innovative ZTE_x and handgrip to promote physical activity and FAMILY 3Hs in Kwun Tong District. Close and effective collaboration among all community partners is an important determinant of the

success of this project. It has provided new evidence that the community-based collaborative practice can guide social service organisations towards programme design, planning, implementation and evaluation together with academic partners for new service models. This kind of community-based collaborative practice should be extended to more communities and benefit more people in the future.

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Appendices

Appendix 1

Publications

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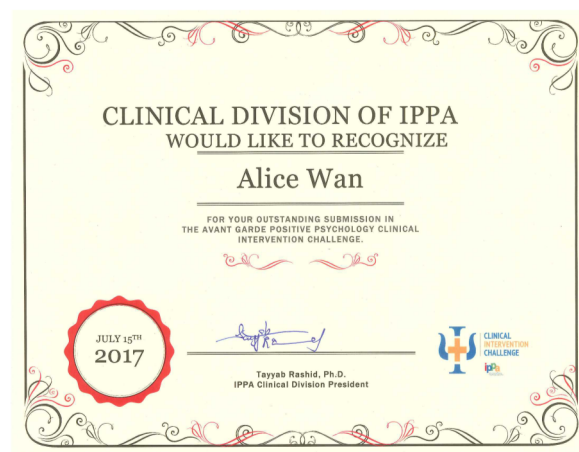
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Appendix 2

Recognition in the Avant Garde Positive Psychology Clinical Intervention Challenge



Appendix 3

Dr. Lai Yuen Kwan Agnes' Doctor of Philosophy thesis

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

By

LAI, Yuen Kwan Agnes

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

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

Appendix 4

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