Developing Community-based Preventive Interventions in Hong Kong: A Description of the First Phase of the Family Project

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Abstract

Background
In November 2007, investigators in the School of Public Health were awarded a grant to develop brief, primary prevention interventions in the community to promote family health, happiness and harmony (3Hs) in Hong Kong. This article describes the initial phase of a 6-year project.

Methods
Five randomized controlled trial (RCT) pilots of four sessions each were developed to enhance the quality of family (specifically parent-child) relationships. Project development involved a partnership between community agencies and academic staff, and emphasized low cost and sustainability so that the programs might be implemented at a population-wide level following a successful trial. Information from expert advisors and stakeholder discussion groups was collected and utilized to develop the objectives, theoretical background, and methodology of the interventions. Challenges included ensuring local direction, relevance, and acceptability for the intervention content, recruitment in a culture where psychosocial interventions can be stigmatizing, engaging participants and enhancing motivation to make behavior changes in a brief program, measurement of behavior changes, and developing an equal partner relationship between academic and community staff.
The Family Project

Results
The challenges and strategies to manage them are described. The interventions were feasible and acceptable with high customer satisfaction. The results were promising from several trials. The project is now in the second phase, refining the interventions that showed promise, and implementing larger scale studies.

Conclusions
This experience may be of interest to the scientific community as there is little information currently available about the community-based development and implementation of brief interventions with local validity using RCTs in cultures outside the West.
The Context

In November 2007, a Hong Kong-based charitable foundation funded the University of Hong Kong’s School of Public Health to develop and implement a program entitled: “FAMILY: a Jockey Club Initiative for a Harmonious Society” (referred to in the remainder of the paper as “The Family Project”). The context for this initiative was a perception of the “breakdown of the family,” reflected in increasing mass media reporting of domestic violence, suicide and divorce, and child and elder neglect and abuse. The project consisted of three parts: a family cohort study, a social marketing/public education program, and an intervention component. The Family Project’s goal was to enhance three key outcomes salient to Hong Kong families, Health, Happiness and Harmony (3Hs), via a cohort study to find out risk factors and causes of these problems; the deployment of social marketing strategies to help effect the identified changes; and the development and testing of preventive interventions to promote beneficial social changes on family relationships. Funding was allocated to the School of Public Health for five years, with an initial budget of three years, with separate funding for the community agencies. This paper focuses only on the intervention component’s development, and reports on the first phase that lasted approximately two years following initiation.

The parameters for intervention development were relatively broad in scope: that the studies should a) focus on “wellness” and not on dysfunction, i.e., the interventions be at the primary rather than secondary or tertiary prevention levels; b) target inter-family relationships, rather than target intrapsychic health, such as depression prevention; c) be developed locally and be grounded in local priorities rather than imported from western
culture; d) be conducted in partnership with community agencies; e) be efficient and sustainable for potential scale-up across the territory; f) be evidence based and/or evidence generating.

We believe that information about the development of this unique project may be of interest to the international scientific community for the following reasons. First, community-based intervention studies from non-western cultures are relatively rare. The importance of developing interventions from “within” a culture has been recognized as important but there are few examples available that delineate the associated process and challenges. Second, community/academic partnerships are increasingly relevant. The difficulties of disseminating evidence-based interventions have been recognized, and the community-based participatory approach has been lauded but still underutilized. Finally, the development of preventive interventions that can be practically applied to large samples of the population is at the interface of public health and psychology. This partnership has promise for the future inasmuch as there has been a recent prioritization of prevention as a direction in research in mental illness [1].

**The Research Team**

Among the parameters specified by the granting agency was development of the project as a collaboration between the academic sector and community non-governmental organizations (NGOs) in the social service sector. This stood in contrast to the usual pattern of efficacy trials in highly controlled conditions before interventions are rolled out into the community. The development team consisted of psychologists, public health specialists, nursing faculty, community-based NGO social workers and other health
professionals. The academic members were primary contributors to the theoretical aspects and to the science of the project. The NGO staff brought their considerable clinical experience with the needs of the local population. Most of the development was done in close collaboration. The whole team drew on the available literature on priorities in the local community, social service agency partners, expert advisors and stakeholder discussion groups to develop the objectives, theoretical background and methodology.

The Hong Kong context

In traditional Chinese society, the family is seen as “the pivotal and fundamental unit of social organization, as a basic resource of support and as the roots and determinants of an individual’s orientations and life goals” [2]. Close and conflict-free relationships within the family are an important ideal, reflected in the saying “Family in harmony, everything prospers; family in disharmony, everything fails”. Filial piety is a central value in traditional Chinese culture [3] and involves an attitude of respect and willingness to care for elders in the family. Individuals’ behaviors reflect on their family, and they have the obligation to act in a manner that brings honor to their family. Similarly, an individual’s acts can bring shame to the family. Parents bear the duty of raising their children to bring honor to the family; indigenous Chinese concepts of parenting are reflected in the terms “jiao xun” (to train) and “guan” (to govern) [4]. “Family orientation” is described as the way people view and manage their relationships within their family, and is seen as an important attribute of individuals. This dimension is given a central role in Chinese culture and specified in indigenously developed personality measures, unlike in western instruments. For example, “Family Orientation” is one of the personality scales in the
Cross-Cultural (Chinese) Personality Assessment Inventory (CPAI) [5].

Rapid social, political and economic changes in Hong Kong have placed stress on the family that threatens its traditional primacy in Chinese life. Hong Kong’s economic gains have catapulted the Chinese territory to the level of developed western nations, although repeated economic downturns have reduced traditional job security and reduced wages. As a result, the proportion of low income domestic households grew substantially from 14.4% in 1993 to 22.6% in 2003 [6]. At both ends of the economic spectrum, working hours have increased so that the average hours worked is the third longest in the world [7]. From 1996 to 2005, there was a sharp increase in families with children where one or both parents worked more than 60 hours per week [8]. Despite these long hours, the cost of living has soared to make Hong Kong one of the five most expensive cities to live in worldwide in 2009 [9], cutting deeply into wages for basic living expenses.

Divorce has become more common, with the number of divorces rising more than eight times in the last 25 years, from 2,060 in 1981 to 17,424 in 2006 [10]. Elderly adults living alone and in poverty are increasingly common. In addition, cross-border marriages have increased [11] so the family may be split between Hong Kong and Mainland China. Immigration from China has increased but recent Mainland immigrants frequently have difficulty integrating into Hong Kong society. As an indicator of these macro forces, the number of families living in three-generation households has fallen 27% in 10 years, from 11.1% to 8.1% [6]. As a result, many are experiencing a break-down in family interrelationships, which may be reflected in the increased mass media reporting of divorce problems, domestic violence, suicide and child and elder neglect.
The Development of the Framework

The two guiding premises for the Family Project are the belief that traditional Chinese values of cherishing family relationships can be adapted to life today, and that strong family relationships will promote 3Hs for each generation of the family (Figure 1). The life cycle (Figure 2) gives a heuristic to consider role and responsibility changes that frequently affect intergenerational relationships. Transitions over the cycle are not necessarily problematic for most families. However, they usually involve significant reorganization of each family member’s “lifespace” that often includes some degree of emotional turmoil [12]. We conceptualize transition points as times of vulnerability but also of opportunity to strengthen intergenerational bonds.

Understanding Sources of Stress in Hong Kong Parent-Child Relationships

Some practical issues guided our first choice of interventions. Early input from the NGO community partners emphasized the difficulties of engaging family members other than the mother. Adult males, i.e., fathers and husbands, were usually unavailable (and possibly uninterested in interventions to enhance relationships). Children had heavy school-loads and could not be taken away from homework and extra tutoring tasks. There also was concern about the practical issues involved in a grandparent-grandchild program as multi-generation households were less common. Even many mothers were overloaded either with work outside the home, or with household tasks and the need to be home to monitor their children and be sure they completed their school work. Mothers were most likely to attend if the program could be positioned as contributing to children’s well-being, rather than a program that enhanced marital dyadic, or adult-parent
relationships. For this reason we decided to conduct our first interventions with mothers of school-age children.

In order to investigate sources of parent-child stress, we utilized several methodologies:

a) Review of the literature. Recent large scale surveys of the Hong Kong population elucidated some dynamics that might be a major source for concern in family relationships. First, not surprisingly, there are stark contrasts between traditional beliefs and more individualistic goals espoused by adolescents in modern day Hong Kong [13]. Adolescents view parental expectations as consistent with traditional ideals such as obedience, and bringing honor to the family [14]. In families with a single-parent and those who are economically disadvantaged, parents are less monitoring of their children, and the relationship is less close and trusting [15, 16].

A major point of interaction between parents and children in Hong Kong is school performance. The cultural emphasis on children’s academic achievement dates back hundreds of years when national examinations were administered to select the Mandarins for the Emperor’s court, and the selection of a family member was assurance of advancement for the family. Academic achievement is considered by Hong Kong parents to be an essential attribute of the “ideal child” [17]. Parents expect a significant portion of the waking day to be devoted to school-related activities because they see studying as crucial to future career and economic success. Surveys indicated that there were significant discrepancies in parents’ and adolescents’ perceptions of attributes of happy families [18]. Parents emphasized economic and material conditions more than their children, and adolescents emphasized love, concern and support, understanding and
acceptance, and togetherness more than parents. These discrepancies may cause some of
the intergenerational tensions in Hong Kong homes.

b) Qualitative research conducted by members of the academic team with
convenience samples of university and nursing school students and young adult research
staff, with whom we informally explored stresses on Hong Kong families today. These
participants highlighted the inordinate emphasis in their homes on academic achievement,
with high, almost unachievable standards for success. Motivation was provided not with
encouragement but with criticism. These young people yearned for “understanding” from
their parents. But they did not expect that this wish would be acceptable to their parents.
One participant said: “If I asked my mother to be more understanding, she would say
“Understand you? I gave birth to you. I know every hair on your head, there is no need
for understanding other than that!” These young people described personal goals of
“confidence” and a balance between personal qualities and tangible success. However,
they also highly valued career and economic success, and indicated that achieving a
“happy family” (marriage and children) in their future was dependent upon a well-paid
position.

c) Community needs discussion groups. To supplement and corroborate this data,
each academic team and community agency development team conducted four discussion
groups with a total of about 40 participants from lower and middle class backgrounds to
understand the needs of the population, and to develop a culturally relevant grounding for
the interventions. Participants were parents organized roughly by age of their child. The
following themes emerged from the groups (quotations translated from Cantonese):
(i) Academic success was an essential goal and linked to the reality of success in this examination-oriented society. Education is closely tied to upward mobility opportunities. Examinations and grades are virtually the only criteria that are used to determine whether children are accepted into an academically strong primary and (again a few years later) secondary school and higher education.

“Every parent wants their kids to have smooth career path later........ if the kids can get in a school with a better learning atmosphere, it will benefit them...Every parent shares the same worries and concern because they all have high expectation for the kids....”

(ii) Parents found that much of their interaction was directed by their children’s academic needs.

“My kid always complains that I only remember dictations and exams and nothing more.”

(iii) Parents reported wanting to be more supportive and emotionally closer to their children.

“Parents love their children. .... But do my children feel that I care about them?.... Children need to feel that parents love them and care for them. I cooked and washed clothes for them. I do all the things. This may not be enough for them to know I love them.”

(iv) Conflicts emerge in the relationship as the parent attempts to increase adherence to academic demands and children resist. The dilemma for most parents was how to provide a positive atmosphere while simultaneously performing their parental duty to guide children towards achievement in school.
Parents desired help with how to “make children do what they need to do” for school without scolding or battling.

“You want him to finish homework first. But he …wants to play computer first. …I would let him play first sometimes. But it seems that he does not know the limits. He keeps playing. Of course, I start to feel impatient, and scold him a bit. But he continues. Then I turn off the computer. ….You want to step back a bit but you cannot.”

"If I can forget the academic part and homework, there will not be any conflict…”

“So how can we make them feel that we are good friends, and they will forget right afterwards we have scolded– we want to learn about this.”

(v) Parents struggle with their own emotional management.

“Sometimes it is difficult to teach the child and it would be nice if somebody could tell me what to do. Like when they don’t have good results (on tests) and I feel very angry, what should I do? How should I react to this? I hope there is someone who can teach me.”

“… the pressure was great because they had public examinations at that time… you don’t have a second chance…. I understand that you may not be able to help me with the academic aspect, but maybe you can provide some training for parents on how to deal with their emotions, how they can see the problem from another perspective.”
“Of course I want to solve the problem in a calm and quiet way, but sometimes it’s just too difficult. I give up and give them physical punishment because it works immediately.”

“Once…after conflict with them…I cried…I thought what I did was wrong…They also cried…It hurt our relationship…I tried not to let my children see me cry…I remind myself not to cry…this is a burden for the children…”

(vi) Many parents were seeking ways to control their children in a positive way. Many had read books on parenting and even attended talks but found it difficult to apply these ideas in their own lives.

“In the past, after frequent conflicts with my children, I went to the library and read some books about how to avoid fighting at home. After reading those books, I would improve. But after that, I would forget.”

“Sometimes what experts teach is very abstract. It is hard to do what they have suggested. I know that many parents are willing to go for a talk…but some talks cover very obvious things”

This combination of information-gathering strategies helped identify non-age specific objectives in the areas of positive parenting control techniques, strategies to enhance positive parent-child interaction, and parental emotional management. The targeted changes would be the equivalent of increasing “warm” parenting, and decreasing “psychological control” and “harsh parenting,” known in the developmental literature to be linked to positive outcomes in many cultures, including Hong Kong [e.g., 19, 20]. We hypothesized that change in these behaviors would enhance relationship satisfaction, and over time, increase family harmony.
Structure of the program

Input was solicited from overseas experts on brief, preventive, interventions suitable for broad implementation. Consultant reports included recommendations for: a) clear specification of limited targets; b) clear intervention theory; c) motivational components to engage participants and enhance attitudinal change; d) scripted manuals to allow delivery by paraprofessionals.

Based on the input from all sources, decisions were made to begin with pilot studies to demonstrate feasibility and efficacy for an iterative process prior to a large scale randomized controlled trial and to develop multiple, child age-targeted interventions to enhance the parent-child relationship. Interventions would be made at key transition points: a) kindergarten to primary school when formal education is initiated; b) early elementary school when the parent-child relationship is reported to change as schoolwork takes on more importance; c) late elementary school as children prepare for examinations to compete for the limited places in reputable secondary schools; and d) early secondary school, when parent-child conflict becomes common [21]. (A fifth program which focused on marital dyad and in-law/new mother relationships at the birth of the first child is also in progress, and will not be included in this paper because it has a distinct focus and different model. For each program, key targets relevant to parent-child relationships were identified as proximal outcomes for the intervention. These were somewhat different based on the age of the child; for example negotiation skills related to conflict management were more appropriate for the oldest age group.)
The intervention built upon the Health Action Process Approach model [22] that describes the components for behavior change. The model emphasizes the distinction between the preintentional motivation process that drives a person’s behavioral intention and a postintentional volition process that facilitates their adoption and longer-term maintenance of the specific behavior change [22]. While this model was developed for health behavior change, it was utilized to focus strategies on the two components of change: intention to make the desired change, and planning to move the participant from intention to action.

**Challenges**

**Local direction and relevance**

The research team was acutely aware of cultural acceptability issues in the diverse samples to whom we expected to offer the program, including not only middle-class native Hong Kong-born parents, but also recent immigrants from China and parents from socio-economic disadvantaged groups. Although the empirical data indicated that certain risk factors such as harsh parenting are associated with negative outcomes in Hong Kong and Mainland China [20] just as in the West, there are many behavioral alternatives to harsh parenting which may be varyingly acceptable and appropriate for different cultural groups. For these reasons, the interventions adopted a large group problem-solving approach utilized by, among others, Cunningham and his group [23]. Based on this approach, our parents observed a videotape of common parent-child interactions, identified the management errors made by the parent depicted, considered the consequences of these errors, generated alternative strategies to handle the situation and
considered the advantages of the solutions (see below for more detail). Although this method is Western in origin, solutions generated by the parents themselves are more likely to be respectful of the cultural context than solutions provided by an “expert.”

**Recruitment**

Our efforts were guided by the concept that programs that are concordant with the values of the sample of interest will promote successful program recruitment. Avoiding stigma is also important, particularly in the case of psychosocial interventions [24]. Discussion groups indicated that the most effective means of recruiting for a preventive intervention was to frame the program as enhancing parent-child relationship and reducing conflict in order to benefit the child’s academic success. No mention was made of behavior problems. Whenever possible, recruitment was conducted through the schools, which reinforced the legitimacy of the intervention and provided an accessible pool of eligible participants.

The early discussion groups also informed the operational aspects of the program; in order to increase recruitment and retention, barriers to participation were explicitly addressed [25]. The intervention was brief, with an average of four two-hour sessions, timed conveniently for participants, including evening hours, and offered in nearby community centers. Childcare was available, refreshments were served and an incentive (equivalent to US$20.00) was offered for completion of each of the assessments.
Retention: Enhancing engagement and intention

The challenge of engaging participants in prevention programs has been noted [e.g., 26, 27]. Educational content communicated directly (e.g. in a lecture format) appears to be less effective than presentations that allow for systematic processing of the information [28] through interaction and cognitive manipulation of the content. Guided by self-presentation theory [29], we asked each parent to describe why they wanted to attend the program and make a public commitment to complete the program. Engagement strategies maximize cognitive dissonance dynamics to enhance initial motivation. Heeding that psychoeducation rarely works in prevention programs [30, 31], and that parents had told us that such programs had not been useful, we internally adopted the theme “teaching without teaching” challenging ourselves in manual development to elicit rather than provide specific content. As described above, we also used group-generated solutions that were more likely to “ring true” because they were generated by like individuals.

Each session was focused on a single theme, e.g., “positive discipline”. The session structure was designed to maximize participant contributions. Videotaped scenarios were used to portray common opportunities for negative interactions between a parent and a child (e.g. a parent wants the child to turn off the video game and begin homework), where the parent’s behavior had some “errors” previously identified as frequent by parents in discussion groups (e.g. nagging or yelling). Parents were asked to identify the erroneous parental strategies and to explain why. Their responses were recorded and summarized by the interventionist as a tool to help the group generate alternative strategies that might work better than the ones deployed in the scenario. Then the interventionist queried the participants on the advantages of these strategies. Members
of the participant group were encouraged to contribute “answers” to each other’s concerns and questions, with the interventionist retaining the responsibility of highlighting the key components of solutions. The role of expert was downplayed to enhance “ownership” and promote behavior change, and to respectfully consider that specific solutions would better be generated by culturally similar individuals. Furthermore, intention to change behavior was increased by the “motivational enhancement” strategy of encouraging individuals to engage in attributional discussion (e.g., what would be the effect on the child if parents consistently behave the way the person in the role play is behaving?), consistent with strategies used for example, in motivational interviewing [32].

Maintaining attention and interest are also important challenges for retention [27]. Repeated motivational exercises and interactive techniques were built into the sessions. In addition, the interventions included an important positive affective component. Observers and the interventionists noted an immediate lifting effect on the atmosphere upon the introduction of the role plays that demonstrated “errors” in parenting. These role plays were the source of considerable amusement as parents recognized the parallel to themselves and their children in the scenarios.

**Enhancing the likelihood of carrying out change**

From the discussion groups, we already knew that most parents were aware of what they had to change; however, it was difficult for them to enact this change. The Health Action Process Approach model (HAPA) [22] proposes that enhancing intention is not enough to result in behavior change. The individual has to be able to visualize themselves in the
situation where the behavior is appropriate and have a script ready to perform it. In line with this theoretical model, after more appropriate strategies were generated and the advantages discussed in each session, participant were grouped into dyads and did a second role play, this time demonstrating the preferred strategies to accomplish the desired behavior. The interventionist observed and asked questions to ensure that enough detail was present in the role play to set the base for the internal “script” that the participant could draw upon in the future.

Practice was emphasized both in and after the session: the participants used part of a session to plan their “homework” by how they would incorporate one or more behaviors derived from the session into the following week, using a very concrete approach. For example, they completed a sheet that asked them to list specifically up to three occasions when a specific behavior might be appropriate, and what exactly they would do or say. Practice was then assigned based on the plan, and reviewed in the following session, with an emphasis placed on successful components in line with enhancing self-efficacy, as proposed by the HAPA model.

**Measurement**

Primary outcome measures were the behaviors that were targeted in the intervention programs, with secondary measures for the distal endpoints of health, happiness and harmony. Measurement was a significant challenge. First, there is a paucity of measures validated for individuals who are not in the mainstream of English-speaking western cultures. Although numerous measures of parenting have been translated into Chinese and used in survey research, many are too general and stylistic to measure change. This
is of course a problem in the West as well. Second, we were concerned about ceiling and basement effects in universal samples of the behaviors we were aiming to change. In contrast to clinical and selected samples, negative behaviors may be present less frequently and positive behaviors may be more common, leaving little room for change. Third, we were aware that the majority of the participants were not used to the process of observing and reporting their own behaviors in the quantitative manner of most scales and would be burdened by extensive assessments.

Assessments were developed with key stakeholder input. We began by surveying members of the targeted sample to develop items to assess change. Then we developed simple single item measures for the range of potential behaviors (e.g. “nagging”) that we planned to target in our interventions, to determine frequency (“How often in the last two weeks did you nag your child?” with response alternatives being never/sometimes/frequently). Their use in trial groups suggested that these were more likely to show change than were broader scales of warmth or harsh control. All items were developed simultaneously in English and Cantonese, and back translated into English.

We added an additional method to the measurement items, because of concerns that there may be differential error in responding to frequency questions. Baseline and follow-up situations may have resulted in a different degree of self-observation. At baseline, before the behaviors were discussed, their salience and therefore the accuracy of the report may have been different compared to that after the program. For this reason, we also asked the participant to report change in these behaviors to more accurately capture the small amount of movement that would be expected following a brief program.
Finally, we included information from the participants regarding their response to the program’s utility as well as affective responses to the program. The importance of affective components in learning has been emphasized with regard to evaluating programs [33] and is an essential feature of effectiveness research.

**Community partnerships**

Community partnerships initiated before the development of an intervention project are essential for implementation of programs with goals and strategies that are most likely to be acceptable and successful [34]. Our goal was to reduce the likelihood of incompatible goals by explicit discussions about these issues, early involvement of community partners in the development of the interventions, and genuine respect for the complementary nature of the skills and experience that they brought to the table. Appropriate NGO personnel were key members of all project teams and at least one experienced member of the NGO was also a part of the core group that developed and tested each intervention. Throughout the development and testing phase the community partners’ interpretation of the nuances of participants’ responses was invaluable, significantly enriching the quality of the study.

Some important issues presented initially as a hurdle. The concept of developing a program was overwhelming to the community agencies. They brought a good deal of experience to the table and were more interested in the programs they were already delivering, although some programs did not fit the parameters of our primary aims and approaches, which required focus on dyadic relationships in the family, brevity and sustainability. Through a process of discussion and negotiation, the NGO members
worked with the academic partners to manualize and test the effectiveness of their own
programs.

A second hurdle was the discomfort on the part of community partners with
research methodologies which are not sensitive to clinically observed change. The
academic group was able to reassure the community partners that capturing relevant
change was a problem to be solved in every study, rather than an inherent shortcoming in
the research process. The importance of the process of developing sensitive measures
through clinical input, and the validity of qualitative and consumer satisfaction measures
in evaluating a program were emphasized. Careful analysis of the participants’ post-
intervention responses was planned to determine whether the lack of observed change
could be attributed solely to measurement issues, and to guide future instrumentation.

A third hurdle was the choice of the RCT, particularly the inclusion of a control
group. The community partners were concerned about facilitating a process which
appeared to deny participation in a program to those people who had requested it. After
extensive discussions about the ethics of withholding an unproven program, the NGOs
were willing to offer either a assessment-only control group or a waitlist control group
that was offered the experimental condition after the study follow-up was completed.

Finally, there was a process of mutual education regarding relevance,
sustainability and feasibility of programs that must be developed to eventually be
delivered at the population level. The programs that are designed by clinicians drawing
on treatment models typically violate a number of the basic tenets of programs that are
amenable to being widely disseminated. Researchers do not adequately appreciate the
burden on participants in clinical trials from lengthy questionnaires, randomization, and
the requirement to attend all sessions. By emphasizing that an important goal of the pilot process was to develop an effective program that would have high utilization, both clinicians and academics were forced to acknowledge the inappropriateness of many program attributes that each might otherwise never have been questioned. For example, one NGO suggested a two-day intensive program that they believed would be successful. However, discussion with target group members revealed that not many participants had the time available to participate in a program structured in this fashion.

**Current Status**

The development of the scripted interventions for the five randomized controlled parenting trials is complete and all pilot studies have been completed. In most settings, the trials had three arms: a manualization of a clinical program proposed by the community agency; an intervention to enhance family relationships designed to be brief, focused on specific behaviors, and including motivational components; and an assessment only control group. All trials were reviewed and approved by the University of Hong Kong Institutional Review Board.

The interventions were designed to be delivered in the community as well as be cost-effective in anticipation of wide dissemination. The plan during the six months that followed this phase was to determine whether the pilot studies are feasible, acceptable, and have shown promise for effectiveness. Preliminary data support the feasibility of these interventions, as the NGO partners met or exceeded recruitment targets for most studies and they were able to retain target numbers of the participants (83% to 93%). Data also demonstrates the acceptability as the pilots averaged 90% attendance for at
least three of the four intervention sessions and over 80% of participants, post-
intervention, indicated that they “liked” the programs and “found them useful.” Finally
several of the trials have promising findings with ANOVA analysis indicating
improvements in primary outcomes for the experimental groups versus the control groups.
Complete results will be reported in follow-up papers.

We believe that these trials are unusual in that they were guided by local priorities,
based in community settings, involved primary prevention, and were sustainable and
cost-effective to deliver. Because of this set of important characteristics, it is hoped that
our experience may be of interest to the international scientific community.
Competing Interests

The authors declare that they have no competing interests.

Authors’ Contributions

SMS is the principal investigator (PI) of the Intervention arm of the Family Project and took the lead role in conceptualizing and drafting the manuscript. CSF is coordinator of the Intervention arm, PI for one of the projects, and contributed to the conceptualization and drafting of the manuscript. MH is a PI for one of the projects, and contributed to drafting the manuscript. THL is PI of the Family Project, advocate for RCTs and helped to conceptualize and draft the manuscript. All authors read and approved the final manuscript.

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References

1. Insel TR: Translating scientific opportunity into public health impact: a strategic plan for research on mental illness. *Archives of General Psychiatry* 2009, **66**:128-133.


27. Slep AMS, Heyman RE: **Public health approaches to family maltreatment prevention: Resetting family psychology’s sights from the home to the community.** *Journal of Family Psychology* 2008, **22:**518-528.


31. Larimer ME, Cronce JM: **Identification, prevention, and treatment: A review of individual-focused strategies to reduce problematic alcohol consumption by college students.** *Journal of Studies on Alcohol* 2002, **14:**148-163.


34. Sullivan G, Duan N, Mukherjee S, Kirchner J, Perry D, Henderson K: **The role of services researchers in facilitating intervention research.** *Psychiatric Services* 2005, **56**:537-542.
Figure Legends

Figure 1. Intergenerational Connection - an upstream protective factor against negative outcomes.

Figure 2. Transitions in the three-generation family life cycle.
Intergenerational Connection

Materialism
Poverty

Breakdown of Dyadic Relationship
Neglect of Children
Disregard of Elderly

Depression
Psychopathology
Ill Health

Happiness
Harmony
& Health

Negative Outcomes
Grand-parent generation

Old age

New Parent

Parent generation

Child generation

Birth

School

Enter workforce

Teenage years

Middle age

Children grow up

Retirement

Grand-parenthood

Middle age

Children get married

Elderly parents

Figure 2