Author's response to reviews

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

Authors:

Sunita M Stewart (sunita.stewart@utsouthwestern.edu)
Cecilia S Fabrizio (fabrizio@hkucc.hku.hk)
Malia R Hirschmann (mhirsc@hku.hk)
Tai Hing Lam (hrmrlth@hku.hk)

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Author's response to reviews: see over
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Dear Dr. Thomson,

Re: MS: 1808541085529703 'Developing Community-based Preventive Interventions in Hong Kong: A Description of the First Phase of the Family Project' - revision

Thank you for your e-mail and for the reviewers’ comments. The rest of this document is a point-by-point address of each reviewer’s and your own comments. Our response appears in italics, and the text inserted into the manuscript is in red font. We have also indicated insertions in the manuscript in red font to facilitate quick location.

Reviewer: Dr. Strong

Major Compulsory Revisions

1. The relevance to public health remains insufficient. Although the authors state that “the quality of the parent-child relationship has emerged as a key risk factor for problems with physical and mental health in adults,” this is a very broad statement that doesn’t illustrate how parent-child relationships influence health. What are the mechanisms? Stress? Further, discussion of a conceptual framework (e.g. Figure 1) that describes how parent-child relationships are related to health and how modifying these relationships can lead to improved health, happiness, and harmony is needed, since those are the ultimate outcomes of interest. Otherwise, the basis for the interventions and the targeted behaviors is unclear.

We have now added more explicit information about the influences from parent-child relationships to emotional and health outcomes, and linked this risk factor to our figure (p. 8).

Most importantly, this focus is also in line with public health priorities. The Faculty of Public Health of the Royal College of Physicians has recently issued a briefing statement emphasizing the importance of the parent-child relationship as a key risk factor for problems with physical and mental health in adults [18]. Low rates of supportive parenting behaviors and high rates of harsh and negative parenting have been identified as important risk factors for depression (Dallaire et al., 2006), which is predicted to become the disease with greatest worldwide burden by 2020 (Murray & Lopez, 1997). Poor health in adulthood has been linked to harsh discipline and lack of affection in childhood (Stewart-Brown, Fletcher, & Wadsworth, 2005). Hypotheses regarding the mechanisms by which parenting exercises its effects have included biobehavioral effects from animal models, such as increased reactivity of the hypothalamic-pituitary axis, with chronically raised glucocorticoid levels (Meaney and Coatsworth, 1998) which result in susceptibility to emotional and physical health problems. Using a social-learning framework, poor parent-child relationships presage poor social relationships in adulthood with consequences for both emotional and
physical health (e.g., House, Robins & Mertzner, 1982). In line with our framework (Figure 1), we hypothesized that supporting intergenerational connection at the level of the parent-child relationship would serve as a protective factor against depression, psychopathology and ill health, and a pathway to health, happiness and harmony.

2. The problem described in paragraph 2 of the introduction refers to political, economic, and social changes that have placed stress on the family. These changes pertain more to the context rather than the issues that are addressed by the study/interventions. The interventions described in this manuscript address parent/child relationships and are focused on parental actions/behaviors toward their children. Thus the problems addressed are family relationships that may or may not be associated with the political and social changes.

*We agree that this paragraph describes the context and not the focus of the studies we describe. We have removed it in this revision.*

3. One would imagine that with the intervention design involving participants generating their own action strategies to follow that there would be considerable heterogeneity across the different groups of participants in terms of the behavior changes pursued. Was this discussed/considered by the research team and how is this dealt with in the assessment?

*This was indeed a challenge that was carefully considered by the investigators, as we had to balance between maintaining peer-generated options and accurately measuring change in the programs that were guided by the group problem-solving approach. We have now described that this dilemma was resolved by including a combination of specific items that we could count on being identified and discussed, and including broad categories of items. We have now described this as a challenge in discussing measurement on p. 22:*

…we had to balance between the heterogeneity of peer-generated options for change, and accurately measuring change. We resolved the dilemma by including both specific behavioral items that had been identified as common and recognized readily as problematic in the process groups, and umbrella items that allowed the participant some leeway in behaviors that fell into that category. Examples of the first kind of item are “nagging” and “criticizing”. Our brief videos which anchored sessions in some programs showcased these behaviors. They were quickly identified as problematic by the participants, and the interventionist capitalized on this identification by highlighting them and their consequences in discussion. Peer input usually involved alternatives to these behaviors, which we did not directly measure, but focused our assessment on decreases in criticism and nagging. The second kind of item allowed numerous solutions to the same endpoint. “Staying calm” was identified as a goal in the process group, and measured in our assessment. The videos showed a parent who was unable to control her anger, which again was quickly identified by the session participants. Discussion took place around strategies to remain calm, but we measured only the endpoint of managing to remain calm.
4. Discussion – The discussion seems lacking. A summary preceding the lessons learned regarding the benefits and challenges of designing locally relevant intervention and of academic–community partnerships (as stated in the Background) would help. Then, the lessons learned can go into more detail regarding specific issues that were particularly important and warrant further emphasis.

*We have now added a brief summary of the previous sections on pp. 25-26:*

Our programs were based on local priorities, and informed by the local literature and discussion groups with community members. The challenge of designing brief and relevant interventions guided, for some of the interventions, the selection of HAPA as the theoretical model for change, and the group problem solving approach to engage the participants and generate culturally appropriate strategies to enhance parent-child relationships. The programs were built in close collaboration with community agencies, which both enhanced their feasibility as we had ready partners in recruitment and implementation, but also required a great deal of cognitive flexibility on the part of both partners as the needs for scientific soundness and feasibility had to be balanced. We were able to successfully complete four randomized controlled trials with four different large community agencies to demonstrate the feasibility of our approach and interventions.

5. This is a long manuscript with a lot of detail that would benefit from further editing to make it more concise and improve readability. You don’t want readers to get lost in the detail.

*We have further edited the manuscript and removed some detail.*

Minor Essential Revisions

6. The life cycle figure shows times of transitions, which the authors suggest are times of vulnerability and opportunity and thus represent appropriate times for interventions. However, the interventions focus on parent-child relationships during the school-age years. Thus, only one or two of the time points shown in the cycle are targeted (school, teenage years) making the relevance of this figure and the delineation of different generations unclear.

*We agree that our interventions were focused on the “child” and the “parent” generation of the family life cycle (as attending school is a transition not only for the child, but also for the parent in the family), and have now acknowledged this in the manuscript (p.8).*

We selected parent-child relationships with mothers of school-age children as the target for our first interventions. By doing so, we concentrated our efforts on only the part of the family life-cycle that includes adults and their school-age children.
7. Measurement paragraph– What were the behaviors “that were targeted in the intervention programs”?

**We had four different programs targeting different behaviors and other outcomes, and we are reluctant to add to this already long manuscript the details that would be necessary to describe each of the assessments and their relationship to intervention features. We plan to publish details of the programs in separate manuscripts. We hope that by adding information in response to point 3 above for the group problem-solving programs that we have provided the reader with some idea of the behaviors measured.**

8. Harmony seems like a difficult construct to measure. The authors describe developing their own scale but don’t indicate the items used to measure it. Further, they provide evidence of reliability but not validity.

**Harmony is indeed a difficult construct to measure because it is an indigenous construct with specific and important meaning in China, and we did not have the convenience of translating an existing scale. We have now also reported some findings that support its validity on p.21.**

This scale (included in the appendix) shows some evidence of construct validity as it is significantly (p < .001) positively correlated with mental quality of life (r = 0.26) and negatively correlated with conflict with family members (r = -.31).

9. Page 6, first paragraph – “a cohort study to determine risk factors and causes of these problems” – what are the problems? What are the “identified changes”?

**We have clarified these statements now on p. 5 which read: ...a cohort study to determine risk factors and causes of impairment in family function; the deployment of social marketing strategies to help enhance family relationships;...**

10. It is still not clear who the target community and families are for these interventions. All families in Hong Kong who met eligibility criteria?

**We have now added the following statements on p. 13:**

Targets for the intervention were all families in Hong Kong who met eligibility criteria for the different programs. However, as the NGOs were based primarily in lower to middle class communities, we anticipated that these socioeconomic groups would be more likely to participate in the programs.

11. On page 22 the authors state that they “began by surveying members of the targeted sample to develop items to assess change.” First, who is the targeted sample? Second, these sessions that were taped and transcribed, were they part of the qualitative community need discussion groups?
We have defined targeted sample in response to the reviewer’s point 10, which appears in the manuscript on p. 13 prior to this paragraph. The sessions were part of the original discussion groups and we have now clarified this in the text on p. 22 which now reads as follows:

Assessments were developed with key stakeholder input, at the time of the community needs discussion groups.

Reviewer: Dr. Veniegas

General comments: This manuscript describes the development of a brief primary prevention intervention to promote family health, happiness and harmony (3Hs) in Hong Kong. This was a descriptive paper rather than a main results paper. The effort invested in developing culturally responsive measures and intervention constructs is commendable.

Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

Not applicable

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

The text on p. 9 and p. 21 are partially responsive to this reviewer’s request that the authors clearly and consistently operationalize constructs in the intervention. The measures which were developed and which now define the 3Hs are explained but they are not listed in Table 1 which includes a row labeled Key assessments.

These assessments were part of every program, and we had listed them as a note to the table to avoid redundancy.

Constructs listed on p. 16, e.g., intention and self-efficacy, from the HAPA model are not described in the measures section and are not listed in Table 1 in Key assessments.

These were not listed because they are not in fact key assessments. The constructs are relevant to the change model, but not to the content of our intervention.

The qualitative methods descriptions on pages 10-12 also include results. Please consider moving the “themes [which] emerged from the groups” to the results section.

We have moved these paragraphs as suggested in this revision.

Dr. Thomson’s comments:
I recommend that the authors attempt to incorporate a brief response to his comments. Some of his points raise broader issues about the conceptual underpinnings of the programme being described and it may only be necessary for the authors to acknowledge some of the shortcomings of the programme and the evaluation.

*Please see above for responses.*

Specifically the authors should respond to the issue of the potential heterogeneity in the intervention (*now addressed on p. 21-22*); state in the text which points of the life cycle figure that the intervention could potentially relate to (*now indicated on p. 8*); and state what items are included in the Harmony scale- a full list could be provided as an appendix (*now described on p. 21, list of items now appear in Appendix*).

Rosemary Veniegas has also drawn attention to some minor points which would benefit from attention.

*Please see responses above.*

We thank you for your consideration of our revised manuscript, and hope that it reaches standards for publication.

Sincerely,

Sunita M. Stewart