## Supplemental online material

## **MISC** intervention adaptation

The Framework for Reporting Adaptations and Modifications-Expanded (FRAME; Wiltsey Stirman, Baumann, & Miller, 2019), offers a useful model by which adaptations of interventions can be described. It outlines eight components, which should be communicated to best capture intervention adaptation.

(1) Timing of adaptation: Regarding the question of timing, adaptations to MISC were made in the year preceding the implementation of the study, which required iterative adaptation until acceptability was reached.

(2) Planned or reactive adaptations: Modifications were therefore planned and proactive based on hypothesized fit with the culture and context, but included continuous feedback and approval from the community advisory board (CAB).

(3) Who determined adaptations: Because we were following community-based participatory research practices (Penchansky & Thomas, 1981), modifications were determined collaboratively through a series of iterative steps. First we established a community advisory board (CAB) to provide community participatory input on all aspects of adaptation. The CAB included the directors (not involved in the intervention) of the two CBOs, two community religious leaders and two representatives from a well-established NGO working with children rights. We also invited a member of the local municipality and a representative from the Department of Social Development. These community stakeholders were selected on the basis of their knowledge of and legitimacy in the community. MISC workshop presentations were conducted, followed by focus groups, including community religious leaders, CBO careworkers, OVC and their caregivers to incorporate the perspective of those that will use MISC. Feedback

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from the CAB was integrated with feedback from the focus groups, and the investigative team, with input from MISC consultants (CS and DG) who helped finalize adaptations.

(4) Types of modifications made: Topics for adaptations included cultural (Sesotho), context (CBO) and mental health adaptations. While MISC was considered culturally agile due to its implicit change model, focus group participants highlighted that authoritarian instruction is often the accepted mode of adult-child interaction in the Sesotho culture. Focus group participants acknowledged that the culture is modernizing, but foresaw that the affective component of eye contact and the cognitive component of Expansion in MISC may be hardest to integrate in their ways of working as these components require higher levels of agency in children and collaboration in dyads, which, according to focus group participants, was inconsistent with the child's passive role in interactions with adult caregivers. It was decided not to modify these components, but to evaluate its relevance through implementation. The strengths-based nature of MISC was seen as a particularly attractive feature for both CBO careworkers and legal guardians, in that MISC was viewed as sensitizing them to what they were already doing well, and helping them to do more of it, and therefore not culturally intrusive. Regarding context (CBO) adaptations, the study team had to build in stronger managerial support for careworkers taking on MISC training and consideration of how MISC should be managed in a group setting. Recommendations were made regarding the format of MISC to alternate individual video-feedback sessions with in-service training on a bi-weekly basis as it fit better with CBO schedules. Mental health adaptations required the incorporation of socio-emotional examples during MISC training sessions with careworkers. Thus, instead of using traditional "learning" examples (e.g. "This is a butterfly"), the use of socio-emotional learning events had to be incorporated (e.g. "You have tears in your eyes. Are you feeling sad?"). In addition,

provisions for children with severe trauma and emotional problems, and consideration that children will be going back to potentially adverse environments after receiving MISC were discussed. While these discussions did not lead to any modifications, they brought to light the importance of MISC trainers' sensitivity to the vulnerability of the population they work with. Child participants expressed interest in MISC and were mostly interested in whether MISC would help them resolve peer conflict at the CBO.

(5) Level of modifications: The modifications discussed above reflect modifications at different levels, including the child level (consideration of trauma histories), system's level (managerial support; scheduling), and treatment foci (socio-emotional context).

(6) Type and nature of content-level modifications: Adaptations reflected modification to the format (alternating in-service and video-feedback sessions).

(7) Were modifications fidelity-consistent? Modifications were fidelity-consistent in that they preserved the core elements of the intervention that are needed for the intervention to be effective.

(8) Rationale for the modifications: The main reason behind the adaptation process was to ensure cultural fit between MISC and the Sesotho CBO context, consistent with Schenk and Michaelis's (2010) recommendations for community-based service development for OVC.

These adaptations resulted in approval from the CBO to proceed with the adapted version, thereafter named MISC-CBO.

## Qualitative approach to evaluate feasibility and acceptability of MISC

The Consolidated Criteria for Reporting Qualitative Studies (COREQ; Booth et al., 2014) offers a framework for the reporting of studies using qualitative interviews. This framework was consulted in provided detail on the qualitative approach in the current study. The Penchansky

and Thomas (1981) model of "access" to care was used to develop a qualitative interview schedule that covered Acceptability, Affordability, Availability and Accommodation of MISC in the CBO context. This framework assesses the fit between intervention characteristics and its context and therefore offers a helpful model to evaluate feasibility and acceptability of MISC. CBO caseworkers were interviewed post-intervention face-to-face by a female Sesotho research team member at the CBO. The interviewer did not participate in the intervention, and had prior experience in conducting qualitative research. Interviewees understood that the goal of interviews was to ascertain their experience of MISC in their setting. The interview schedule was designed to directly prompt the domains of Penchansky and Thomas (1981) framework. Because the interview schedule was developed based on an existing framework, a directed content analysis (Hickey & Kipping, 1996) was used to identify themes of acceptability and feasibility consistent with the Penchansky and Thomas (1981) framework. Following this approach, the categories were operationally defined using Penchansky and Thomas (1981) definitions. After an initial prompt for each category, the interviewer asked additional open ended questions to follow up. Interviews lasted 30 minutes. Interviews were transcribed in Sesotho and then translated into English by a professional university-based translation service. Following the directed approach described by Hickey and Kipping (1996), transcripts were reviewed by the first author, and text describing each of the five categories were highlighted. Highlighted text was coded using the predetermined categories. The data for each category was then examined to determine the extent to which the data was supportive of MISC in each of the five categories. Direct quotes in support of each domain are provided in Table 2 in the main body of the manuscript and are discussed in the Results section of the manuscript. Limitations (and advantages) of the directed content analysis approach are discussed in the limitations section of the Discussion.