

**Table S1:** Reporting elements for the group-based ILP intervention program as specified in Borek et al.'s (2015): *A Checklist to Improve Reporting of Group-Based Behavior Change Interventions*

Reporting elements		Description
1	Intervention source or development methods	A seven-step systematic process was adopted to develop and pilot-test the novel group-based mPPI – the ILP, based on selected principles of positive psychology and cognitive-behavioral models. The first five steps (1–5) correspond to the “development” phase of the MRC’s framework for developing and evaluating complex interventions (Craig et al., 2013; Craig et al., 2008). Steps 6 and 7 correspond to the “feasibility/piloting” phase of the MRC framework.
2	General setting	The two-hour, 10 interactive group discussion and activity manualized sessions were delivered by two trained co-facilitators, and supervised by the first author.
3.	Venue characteristics	Tables and chairs were provided by participants and arranged in a semi-circular pattern, facing the facilitator. Rooms were well lit and ventilated.
4	Total number of group sessions	The two-hour, 10 interactive group discussion and activity manualized sessions were delivered by two trained co-facilitators, and supervised by the first author.
5	Length of group sessions	Ten two-hour, once-daily, five days per week closed group pilot sessions were organized for participants for two weeks.
6	Frequency of group sessions	Ten two-hour, once-daily, five days per week closed group pilot sessions were organized for participants for two weeks.
7	Duration of the intervention	Ten two-hour, once-daily, five days per week closed group pilot sessions were organized for participants for two weeks.
8	Change mechanisms or theories of change	Based on general evidence of its ability to facilitate behavior change and on previous research that pre-assigns BCTs to each of the domains (see Cane, Richardson, Johnston , Ladha, & Michie, 2015) of the Theoretical Domains Framework (TDF; Michie et al., 2005), we selected specific domains from the TDF to identify the most appropriate determinants of behavior change (i.e., intervention functions). The 12-domain TDF model has been widely used to identify relevant determinants of behaviour change in previous research (e.g., French et al., 2012; Tavender et al., 2015). For the current study, we selected five domains: knowledge, attitudes, self-efficacy, social support, and skills to facilitate the behaviour change process.
9	Change techniques	Based on a taxonomy of BCTs and evidence demonstrating relationship between BCTs and the effectiveness of health interventions (e.g., Craig et al., 2017), we selected a range of BCTs (e.g., providing information about the relationship between behavior and health, cultivating problem solving and goal setting skills, providing general support and encouragement) to facilitate the behavior change process. The interactive, group discussion

		and activity session mode of delivery was selected to deliver the content of the ILP intervention program. Other group-session related factors, such as nurturing group cohesion, managing conflict among participants at sessions, creating an atmosphere that supports appropriate emotional expression, and dealing with potential emotional and physical tensions in a timely and thoughtful manner were also discussed and incorporated into the draft.
10	Session content	A detailed description of the objective, content, activities, and implementation strategy of each session of the ILP intervention program is presented in the manuscript.
11	Sequencing of sessions	The structure and content of the ILP intervention program was sequential, with each session building on the foundation achieved in the previous sessions. Initial sessions were structured to focus on more easy lessons and successively to more complex ones.
12	Participants' materials	Given that most participants could not read or write in English, the agenda and key sections of the sessions were written on a flip chart in the native language (i.e, Twi) in which the intervention was delivered and also presented verbally what was written. Notepads and pens were made available to participants who could write or had someone to copy the information for them at a later time.
13	Activities during the sessions	<p>“...begins with participants welcoming each other and exchanging pleasantries. This is followed by an icebreaker, where a member volunteers to tell a short, interesting story or joke, sing a favourite song, or share a memorable experience that occurred in the past week. Facilitators lead the discussion of homework assignments, wherein participants take turns to share their findings and experience with the group. The session agenda, which is displayed on a flip chart, is discussed with participants.”</p> <p>“For the conclusion activities, as with all subsequent sessions, facilitators solicit for feedback on the PMR and deep breathing exercise; review the key lessons and activities of the session; discuss homework; present a brief overview of the main theme for the next session; and have each participant say a word or sentence which expresses how they experienced the session.”</p>
14	Methods for checking fidelity of delivery	Session facilitators completed a brief daily questionnaire about attendance, participant engagement with the classes, and their ability to follow the sessions and carry out skills. In addition, the supervising psychologist attended all sessions to observe and assess fidelity to the intervention, completed an observation checklist, and discussed any findings with the facilitators in a debrief session immediately after the session.
15	Group composition	Sessions were held separately for each gender group – since the communities are patriarchal – to motivate female participants to freely share their views. Each group comprised of 10 members aged from 18 to 60 years.
16	Methods for group allocation	We randomly selected 20 individuals, comprising of five males and five females each from two communities from the target population, to participate in a pilot study after community entry protocols and individual consents were obtained.
17	Continuity of	Ten two-hour, once-daily, five days per week closed group pilot sessions were organized for participants for

	participants' group membership	two weeks.
18	Group size	We designed the ILP to be feasible and cost-effective, in that it can be easily administered in a group setting to a small group of eight or 10 participants by non-specialists.
19	Number of facilitators	The two male facilitators who delivered the program were psychology graduates and native speakers of Twi (which is the native language of participants). Both facilitators had previous experience in delivering behavior change intervention program sessions to adult participants in rural communities. One facilitator was involved in the community appraisal and session simulation phases of the program development.
20	Continuity of facilitators' group assignment	All sessions were held in a primary school classroom and a church premise and delivered by the same facilitators.
21	Facilitators' professional background	"...were psychology graduates and native Twi-speakers (which is the native language of participants). Both facilitators had previous experience in delivering behavior change intervention program sessions to adult participants in rural communities. One facilitator was involved in the community appraisal and session simulation phases of the program development."
22	Facilitators' personal characteristics	The two male facilitators who delivered the program were psychology graduates and native speakers of Twi (which is the native language of participants). Both facilitators had previous experience in delivering behavior change intervention program sessions to adult participants in rural communities. One facilitator was involved in the community appraisal and session simulation phases of the program development.
23	Facilitators' training in intervention delivery	The first author, who is a trained psychologist with previous experience in community interventions, provided one week extensive training on the 65-page ILP manual (with key words translated into Twi) and group management skills for the two facilitators for a week, prior to the commencement of the pilot study. The first author also supervised a one-hour daily rehearsal of each session before they were delivered the next day.
24	Facilitators' training in group facilitation	The first author, who is a trained psychologist with previous experience in community interventions, provided one week extensive training on the 65-page ILP manual (with key words translated into Twi) and group management skills for the two facilitators, prior to the commencement of the pilot study. The first author also supervised a one-hour daily rehearsal of each session before they were delivered the next day.
25	Facilitators' materials	Simpler, summarized 'field guides' that highlight key aspects of each session were also provided to facilitators, in addition to the main program manual, to allow for easy reference as needed, during the sessions.
26	Intended facilitation style	The ILP is designed to be supportive, participant-centered, and interactive. Facilitators forge strong relationships with group members that enable participants to discuss and share personal experiences that they might otherwise find difficult or embarrassing to discuss outside the session context.