

User involvement in the development of the Helping Hand – a digital game for adolescents 13 – 17 years old

1. Adolescents were involved in deciding **the basic content on the app**, resulting in the ten scenarios the game consists of.
 - a. In Norway a contest on ung.no, the main webpage used by Norwegian adolescents searching high quality psychoeducation, was published. The adolescents voted for “my dream app” – starting with a list of 20 scenarios, and where they also could suggest other scenarios they wanted to get help through an application to deal with.
 - b. In Lebanon this was done in full classrooms of adolescents (n = 90) were presented for 15 different scenarios that were suggested/got many votes from Norwegian adolescents, and voted for what they would like the app to focus on.
2. Our first thoughts as game developers, were to create an online game, but we have created an app that is easy to **play offline on practically all types of phones and tablets**. After discussion with Syrian teachers and engineers in MAPS, a Syrian NGO in Beqaa, Lebanon, and learning about the situation in Lebanon for Syrians living in poverty, with little and unstable access to electricity and poor WIFI connection, this was an obvious choice to make a tool that can be accessible across digital and economic divides.
3. A game is more fun when you can identify with some of the main characters and the world they live in. **Places, main characters and visual design were chosen together with adolescents in Lebanon**, to make a game were adolescents, across several divides, could identify with. An Eastern part and a Northern part of the game was created. The names, looks and clothing of the two main characters in the Eastern part of the game, Mona (a quite rich, muslim Lebanese girl) and Rami, (a Syrian refugee boy living in a tent in a camp), were chosen and created after discussions with Palestinian, Lebanese and Syrian adolescents, teachers and PSS workers in Lebanon. After the pilot illustrations were made by the designers, clothes and accessories were adjusted according to input from adolescents of different backgrounds in Lebanon. Similarly, adolescents in Norway – strategically chosen with heterogeneity as a main rule – gave input when Nora and Adam were created.
4. **Arabic language details were chosen on the basis of advice from adolescents in Lebanon**, after discussions on 1) what will work for many Arabs? 2) what would *you* prefer to listen to and read? and 3) what do you think will be best if you think it should be easy to use for all Syrian refugees? In the written language, we ended up with using an official Arabic (fusha), while orally Mona speaks Lebanese, Rami speaks Syrian and sometimes pretends he speaks Lebanese, while Nora and Adam speaks a central Damascus dialect. For the more formal parts of the game where principles are explained, a more formal Arabic language with a central Damascus dialect is used.

- Finally, input from Arabic doctors, PSS professionals and teachers was used to polish the written language and to use words and phrases politically accepted across divides.
5. The Helping Hand booklet for kids was translated to Arabic in 2013, and the first Arabic digital material for children was introduced in 2014. The Helping Hand program has been highly accepted by central Arabic researchers and psychologists since Dr. Raknes was invited by professor Malik Badri to introduce the material at the world's 4th global conference for muslim psychotherapists in 2014, in Indonesia. Further on, the leader of MAPS in Lebanon, the Syrian refugee Dr. Fadi AlHalabi, has collaborated on implementing and adjusting the Helping Hand program for Syrian children since 2017, so has central SAMS PSS workers in Beqaa. To understand how to culturally adapt the program to Arabic kids in poverty, Dr. Raknes has worked extensively in Lebanon since 2017, partly staying in Chtoura and Majdal Anjar in Beqaa, partly in Shantilla, partly in Beirut.
 6. MAPS and SAMS have been local collaborators in Lebanon when the HH digital game has been developed, with funding from Innovation Norway (2018 – 2020). Further, MSF, Right to Play, UNRWA and The World Bank in Lebanon has been collaborating, helping the game developers to make better strategically decisions for a game to work across divides.

Our goal has been to develop a game for life skills that transcend economic, religious and cultural divides.

Hands (HH) is a psychosocial program for children and adolescents. The HH is a cognitive behavioral based program where the child learns how to problem solve, not for learning only, but for the healthy development. The program was originally developed in Norway and is widely implemented in Norwegian schools and school health systems, known as “Psykologisk førstehjelp” (Raknes, 2010a, 2010b, 2014). The program has been found highly effective to decrease anxiety, when run in Norwegian schools by school health nurses (Haugland et al., 2020). The program is translated into many languages, among these Arabic. Now the program has been culturally adjusted to be used in Arabic children living in Lebanon and Syria.

Description of The Helping Hand Program

The Helping Hands Program in Arabic, is a psychosocial-educational program for children between 5 and 12 years old (analogue), and adolescents 13 – 17 years old (digital). The HH program can be run either individually, in smaller groups or in full classrooms, and it can be run as pure self help (booklets/digital game only) or as blended learning (combination of booklets/digital game with discussion with program facilitator). When used as a blended learning program, the program consists of 10 group sessions where each session is of 60 minutes. Each session has its own goals and activities; some activities are related to conversations and discussions, others are related to art, drawing, role playing, imagining, reading and writing, along with presenting pictures and models. All activities are developed to help the child to learn the cognitive behavioral model and to strengthen the child's coping strategies.

The Helping Hand for adolescents, is an app with 10 stories where the gaming adolescent support friends to deal with emotional difficult situations, and will by playing the game learn 1)the central ideas in the cognitive behavioral model about how thoughts can both create problems and solve problems, 2) a general problem solving system that can be efficient in all types of situations where emotions are involved, and 3) be better prepared to handle these ten types of more specific, high frequent emotionally challenging situations:

1. Presentation anxiety
2. Dealing with criticism
3. Dealing with social rejections
4. Dealing with a parent's mental difficulties
5. Helping a heartbroken friend
6. Accepting your body as it is
7. Dealing with suicidal thoughts
8. Dealing with racism/bullying
9. Training self-assertiveness
10. Dealing with traumatic memories



User testing in Beqaa, MAPS, Lebanon



Focus group after user testing in Beqaa, SAMS, Lebanon January 2020

METHOD

Inspired by a model by Naeem et al., (2016), mixed methods was used in the process of culturally adjusting The Helping Hand program. Discussions, field observations, focus groups, in depth interviews and surveys were used to assess user satisfaction, get ideas for changes needed. Table 2 gives an overview of the process of cultural adaptations.

FRAMEWORK	AREA OF ADJUSTMENT	FOCUS OF ADJUSTMENT	ADJUSTMENTS
Philosophical orientation	Culture-related attitudes in explanatory models of suffering, problems, and help-seeking behavior.	Attitudes to health and suffering, understanding the causes of suffering, reasons for seeking help.	Discussed with expert therapists to find acceptable terminology. For many teachers and children, the idea that mood and health can be influenced by the way we choose to think, was a new idea – that needed time to sink.
Practical considerations of social and health-related factors	Capacity and factors affecting help-seeking.	Number of hours, hours, location, group composition in terms of number and gender, segregation, racism, stigma assessments. Who pays what for whom how long.	In order to reach children with difficulties, the HH sessions were mainly added to a learning centers where children already attended. Sessions were implemented by teachers if social worker/psychologist was not available/ led to extra costs.
Adaptation of methodology and skills	Identify barriers to relief and cultural formulations that can be used in the intervention.	Use of culturally appropriate metaphors and use of cultural opportunities social, practical, auditory and visual for socialization to the cognitive model.	Connected with what the kids already knew about emotions by talking about the heart and keeping the heart warm. Used "mtabbal" in relaxation exercise.
Theoretical adjustment of concepts	Observe the use of individualistic / collectivist concepts and therapeutic attitudes.	Understanding the client's perspective and worldview.	Systematic feedback from Arabic children, teachers, social workers and psychologists therapists involved in the implementation. Examples of bombing, child labor and crime added to get closer to the participating children's experiences.

Table 2, inspired by Naeem and co-workers` (2016) framework for cultural adaptation of cognitive measures, systematic work over years has been done to adapt The Helping Hand to Arabic children living in poverty.