

Social Emotional Learning and the promotion of equal personal relationships among adolescents in Panama: a study protocol

Ana B. Araúz Ledezma*, Karlijn Massar , and Gerjo Kok 

Department of Work & Social Psychology, Faculty of Psychology & Neuroscience, Maastricht University, PO Box 616, 6200 MD, Maastricht, The Netherlands

*Corresponding author. E-mail: ana.arauzledezma@maastrichtuniversity.nl

Summary

Adolescents in Panama face multiple barriers that affect their health, such as high rates of teenage pregnancy, increased human immunodeficiency virus (HIV) infections and sexual violence. Equal relationships between women and men are likely to reduce such risks. Here, we suggest that the school-based enhancement of Social and Emotional Learning core competencies—awareness of self and others, positive attitudes and values, responsible decision-making, and social interaction skills—could foster positive changes in behaviors between boys and girls, specifically through a focus on equal roles, equal rights in relationships and nonviolent problem solving. This paper, using the Intervention Mapping Protocol, describes the process of development of, and planning surrounding the implementation and evaluation of the program ‘Me and My new World’, a Social Emotional Learning intervention for middle school students (12–15 years old) in Panama. Program development was based on a needs assessment (Araúz Ledezma et al. (2020) Behavioural and environmental influences on adolescent decision making in personal relationships: a qualitative multi-stakeholder exploration in Panama. *Health Education Research*, 35, 1–14.) and a literature review of theory- and evidence-based Social and Emotional Learning (SEL)-programs. Intervention outcomes, performance objectives and change objectives of the intervention were identified. The practical applications of different theory-based methods allowed for contextual considerations that could potentially influence the expected behavioral outcomes of the intervention. Teachers were the implementers of the program, and during development, implementation, and evaluation, the roles, opinions, and teaching methods of all stakeholders were recognized. We conclude that Intervention Mapping allows for the analysis of multiple factors influencing the development and implementation of Social Emotional Learning programs promoting equal relationships among adolescents in a developing country, with a special consideration of culture, educational systems, and policies, from a capability development perspective.

Key words: adolescents, decision- making, personal relations, social- emotional learning

INTRODUCTION

Globally, around 16 million girls between 15 and 19 years old and two million girls under the age of 15 become pregnant every year (UNFPA, 2015). Latin America is a region where teenage pregnancy is not decreasing substantially (Caffe *et al.*, 2017) and it is likely that the region will not meet the Sustainable Development Goals (SDG) on adolescent pregnancy by 2030 (Fullman *et al.*, 2017). This is particularly true in Panama, as the country has been included in the 50 countries with the highest teenage fertility rates list (PAHO, UNFPA, UNICEF, 2017). In Panama, around 30% of all pregnant women in 2017 were adolescents between 10 and 19 years old (Ministry of Health of Panama [MINSa], 2017). Likewise, sexually transmitted infection (STI), human immunodeficiency virus (HIV) infections and sexual violence remain at high rates influencing adolescents' health and well-being in the country.

Unequal relations between women and men at personal, legal, social and cultural levels remain globally (Ridgeway, 2011; Unterhalter, 2014; Cornwall and Rivas, 2015). They often arise from differences in the socially constructed roles ascribed to women and men (Wood and Eagly, 2015), which can (partially) generate unequal opportunities, rights, and power relations between them (Loots and Walker, 2015). Often these roles are reflected in a society's social institutions, defined as formal and informal laws, social norms, attitudes and practices that influence and limit individual and groups' decisions, choices and behaviors (North, 1991; Jütting *et al.*, 2008).

Behaviors such as violence against women/girls and violations of their sexual and reproductive health and rights constitute extreme, yet common forms of unequal treatment which affects girls' physical and emotional health (Chandra-Mouli *et al.*, 2017), and limiting agency and opportunities to advance through life (UNFPA, 2016). Evidence shows that one in three women worldwide have experienced either physical and/or sexual intimate partner violence or non-partner sexual violence in their lifetime (WHO, 2017). Despite global efforts to promote equality of rights and opportunities for both genders [i.e. gender equality; (DeJaeghere, 2012)], these strategies show limited results (UN Women, 2015). Researchers suggest that the legal categorization approach to promote equality between women and men overlooks the fact that gender is also a relational and social category (Unterhalter, 2014). The revised international agreement therefore encourages development of new knowledge, attitudes, skills

and socio-economic networks among adolescents and young people, to increase healthier and safer behaviors (UNAIDS, 2017). One approach that could achieve such change is Social and Emotional Learning [SEL; (Durlak *et al.*, 2011)]. Programs based on this approach comprise systematic lessons which foster children's capacities' development, enabling recognition and management of emotions, empathic views, establishment of personal and group goals, positive problem solving, as well as a range of inter- and intra-personal skills, including ethical decision-making (Payton *et al.*, 2000; Weissberg *et al.*, 2015; Wigelsworth *et al.*, 2016). Research has shown that SEL-programs in educational settings facilitate youths' inter-personal skills and capacities: cooperation, collaboration, critical thinking, decision-making and social awareness (Bierman *et al.*, 2010; Durlak *et al.*, 2011; Chung and Moore McBride, 2015; Durlak, 2016). SEL-programming is based on the understanding that the best learning emerges in the context of supportive relationships that make learning challenging, engaging and meaningful (Jones and Bouffard, 2012). The development of social and emotional skills is even more critical for students living in under-resourced areas (Yoder, 2014), including Panama.

In Panama, different strategies aimed at promoting healthier behavior—e.g. prevention of HIV and STI infection, intimate partner violence prevention—and capacity development of young people, such as laws, policies and school-based interventions, have shown limited effects, due to ineffective implementation, low sustainability and insufficient knowledge or capacities of implementers (Dholakia *et al.*, 2012). Likewise, the absence of a national Comprehensive Sexuality Education (CSE) law in the country has become a barrier in the public search for innovative educational alternatives promoting advancement of young people's well-being.

In the current paper, SEL is explored as a possible pedagogy to facilitate the social-emotional skills and capacities development of young people toward equal relations, roles and rights between women and men. Empirical evidence on the implications of SEL-program implementation with a gender equality component is almost non-existent, especially in developing countries. The study aims to address this gap in the literature and describes the design and study protocol of a school-based, SEL-program. The 'Me and My New World' (MANW) is a contextualized, middle school SEL-program of 14 lessons, with a particular focus on the promotion of equal personal relationships between boys

and girls. The program was implemented in a Panamanian middle school.

The current research

The development of the program followed the process of Intervention Mapping (IM), an effective protocol for theory- and evidence-based intervention development (Schutte *et al.*, 2016; Van Der Veen *et al.*, 2012), see Figure 1. First, a needs assessment was carried out with various stakeholders [this is reported elsewhere; please refer to Araújo Ledezma (Araújo Ledezma *et al.*, 2020)]. After the objectives and limitations of the program were set, theory and empirical evidence were selected accordingly to develop the program. One part of the program focuses on social emotional competences development, the other is focused on promoting changes toward gender equality behaviors. Both parts were interwoven due to its direct implications between behavioral determinants (knowledge, awareness, attitude, perceived skills and social norms) and the desired behavioral change in the context of gender equality. The program's lessons were implemented by teachers.

A literature review of theory- and evidence-based SEL-programs revealed that most programs took place in Northern and developed countries (mainly USA), with the majority showing successful results (Harlacher and Merrell, 2010; Durlak *et al.*, 2011). However, there are mixed results for adopted or imported programs, with even some null-outcome results (Wigelsworth *et al.*, 2016). This indicates that the transferability of SEL-learning program outcomes requires further investigation, especially regarding the context in which the SEL-intervention will be implemented, and the assumption of a universality of teachable SEL-competencies (Durlak, 2016). Barriers to success mentioned in the literature were a lack of experienced organizational support, effective preparation, and ongoing support during implementation (Durlak, 2016; Oberle *et al.*, 2016).

Moreover, from our literature review it became evident that SEL-programs with an emphasis on the promotion of gender equality were almost non-existent, whether in developed or developing countries. A few studies show findings on teenage pregnancy prevention, the impact of programs by gender: the recognition of different needs of boys and girls in the designing process and the ratio of participants by gender (Coelho *et al.*, 2015; Coelho and Sousa, 2017; Hahn *et al.*, 2007). However, evidence is limited regarding how social institutions (e.g. contextual formal and informal laws, social norms, attitudes, and practices) may impact on

adolescents' social-emotional capacity development toward changing gender unequal behaviors. In the case of Panama, for example, a few initiatives such as PROBISIDA Juventud (PROBISIDA) and Youth with Options (APLAFYA) have focused on HIV prevention and reproductive health. These programs, while useful for the objectives they aim to achieve, might not focus on youth empowerment, sexuality and the gender issues that influence personal relationships and decisions of adolescents [see also (Dholakia *et al.*, 2012)]. Thus, the current program aims to foster changes on gender equality behavior, specifically through a focus on equal roles, equal rights in relationships and nonviolence problem solving, using Social Emotional Learning as educational approach.

METHODS and RESULTS

Intervention mapping

Intervention Mapping (IM) (Bartholomew-Eldredge *et al.*, 2016) was used to describe the development process, as well as the implementation and evaluation of the school-based Panamanian MANW program. IM supports a systematic theory- and evidence-based design of health promotion programs (Bartholomew-Eldredge *et al.*, 2016). It provides a framework to first identify the problem (Step 1), including the perspective of all of the program's stakeholders. Then, a selection of the program's objectives and outcomes is made (Step 2). Further planning and selection of theory-based methods for behavior change encourages the selection of appropriate practical applications for the program, taking into account the population and group's ecology (Step 3). In Step 4, the program is developed integrating themes, sequence, material and inputs from implementers and beneficiaries of the program. Step 5 includes a plan for adoption, implementation and sustainability in a real time context, considering the users' needs and strategies to fulfill those (Fernández *et al.*, 2019). Lastly, evaluation (Step 6) involves the development of a detailed plan for measuring the effectiveness of the program, as well as the evaluation of the development and implementation process. An evaluation is crucial to unveil the underlying effect between the designed intervention in theory, and what happened during the practical implementation (Durlak, 2016). Both Steps 5 and 6 are anticipated from the beginning of the planning process.

This paper presents a description of the planning process and the implementation of MANW program (Steps 1–5), as well as the evaluation plan (Step 6). This paper describes the Behavioral Outcomes (BOs) of the

intervention, Performance Objectives (POs), determinants, Change Objectives (COs), procedure and measures selected. Further, it details the theory- and evidence-based methods selected for the intervention; program development, including its scope and core components, as well as the steps of adoption and implementation. The results of the program's evaluation will be presented in a separate paper.

This intervention focuses on seventh and ninth grade students enrolled in middle school (12–15 years old) as the target group. Most participants come from a low socio-economic level, including some living in extreme poverty. The intervention was developed and implemented in the Province of Chiriquí, specifically in the region of Boquete. Boquete is located 481 km west of Panama City, the capital of the Republic of Panama. Tourism and agriculture are the main economic activities of the region. Boquete as a level of poverty of 30.8%, and 10.4% of its population lives in extreme poverty (MEF, 2015). Teenage pregnancy (pregnant girls between 10 and 19 years old) in Boquete is high. In 2017, around 30% of total pregnancies were in this age group (MINSA, 2017). The demographics of Boquete include indigenous groups, mestizo and foreigners (mainly Americans and Europeans). Teachers were the implementers of the program. Following IM, the program (the lessons) was therefore developed for the target group—teenagers—and a trainer's guide was developed for the implementers—the teachers. This paper only presents the outcomes of the student's program IM.

Step 1: needs assessment

The needs assessment during this IM-process offered a wider view of the health problem. Likewise, it voiced the opinion of different stakeholders ($n=34$) in the country, as well as suggesting possible alternatives for intervention development. This needs assessment is part of a larger SEL research project. First, the Ministry of Education in Chiriquí, Panama, approved the complete research project proposal. Likewise, this study was approved by the Ethics Review Committee, Faculty of Psychology and Neuroscience, Maastricht University, the Netherlands (reference number: OZL 188_10_02_2018_S29). Then the selection of the school followed a suggestion from the Ombudsman Office in the province. The school was in charge of selecting teachers and students to participate in the research project. A teacher leader was selected by the school director, and this teacher subsequently recruited teachers from different subjects, e.g. Geography, English, Sports, who would be interested to participate in the research project.

Parents were invited to participate through means of an invitation letter and an information session about the project. Second, participants from different institutions such as government, ombudsman office, NGOs', academics and religious groups received a short description of the research, including the purpose, as well as the voluntary and especially the confidential nature of handling the research information. For a full overview of this needs assessment, please see Araúz Ledezma (Araúz Ledezma *et al.*, 2020).

The research consisted of in-depth, semi-structured interviews conducted in Spanish (by the first author) with diverse stakeholders: government representatives (2 males, 1 female), academics (2 females), teachers (1 male, 13 females), health promotion specialists (1 male, 1 female), ombudsman (1 female), religious groups members (2 males), NGO representative (1 female) and parents (6 females, 3 males). The opinions of adolescents are presented in a separate article.

Interviews lasted from 30 to 60 min. Participants were informed that they could end the interview if they wanted, without any explanation and at any given moment. Furthermore, at any sign of distress the interviewer terminated the interview. At the request of the respondents, the interviews were not audio-recorded. Notes taken during the interview were verified with each respondent after each interview. The topics covered the current gender equality discourse in Panama, including knowledge, attitudes, beliefs, social norms. Moreover, the implications of the lack of CSE at schools, the high rate of teenage pregnancy and gender-based violence were addressed. Likewise, stakeholders' opinions regarding the role of education, teachers, government, as well as the current limitations and challenges to the promotion of gender equality through innovative learning (i.e. SEL) were explored. The interview protocol was based on theoretical concepts, and a literature review on the topics of equality between women and men, CSE and SEL. Participants were asked questions such as 'How do you define gender?', 'What is gender equality?' and 'What is the role of education in the promotion of gender equality?'. The results of this needs assessment are described in detail elsewhere (Araúz Ledezma *et al.*, 2020).

After each interview, notes were immediately transcribed, and translated from Spanish into English. The transcripts were then anonymized and stored on a password-protected personal computer. The researchers subsequently analyzed the transcripts line by line and coded them thematically. The coding scheme was similar to the topics in the interview protocol, as the interviews were semi-structured. The data were analyzed

using a directed content analysis approach (Hsieh and Shannon, 2005). This approach facilitated a categorization based on data derived from theory and relevant previous findings. An iterative coding process was used (Mayring, 2010) which guaranteed that preliminary and inductively arrived coding categories, were a reliable and accurate representation of the data content.

The needs assessment, in conclusion, offered a wide view of the behavioral and environmental factors that affect adolescents' inter-personal relationships, and shed light on the importance to search for educational strategies and methodologies addressing the realities of young people, the context where they grow-up, and the capacities they require to achieve well-being. The complete methods and findings of this needs assessment are described in detail elsewhere (Araúz Ledezma *et al.*, 2020).

Step 2: identification of intervention outcomes/ performance objectives and change objectives

Based on the needs assessment and literature review, in this step the program goal and desired behavioral outcomes for students were stated. The program's main goal was to develop social emotional knowledge, awareness, attitudes, and perceived skills of students toward equal relationships among young people. First, based on the needs assessment, three behavioral outcomes were associated with this goal:

- i. *Equal gender roles*, students (a) Become aware of the difference between sex, gender and gender role allocation, (b) Become aware of the necessity to practice gender equality and recognize its importance in personal relationships and economic independence, (c) Improve their behavior regarding gender roles allocation and gender equality at home, school and with friends, boyfriends and girlfriends.
- ii. *Equal rights in relationships*, students (a) Claim their rights to be respected, (b) Demand equal access to opportunities and resources (at home and school), (c) Communicate their needs and ask for support when needed (home, school and with friends), (d) Recognize gender-based violence and report it to trusted persons or authorities.
- iii. *Nonviolence problem solving*, students (a) Use non-violence to deal with and solve problems, (b) Use positive strategies to manage negative emotions, (c) Respect themselves and the opinion of others, (d) Show empathy toward others who have problems.

Second, these outcomes were subdivided into performance objectives related to the behavior's determinants identified during the needs assessment (see Supplementary Appendix 1). The performance

objectives are referred to as the actions required achieving changes in the behavior and environmental outcomes (Bartholomew-Eldredge *et al.*, 2016).

Third, determinants, i.e. the factors that rest within individuals and that affect behavior either directly or indirectly (Bartholomew-Eldredge *et al.*, 2016), were selected. These determinants were based on the preliminary findings of the needs assessment, a SEL-programs' literature review, and theories of health behavior and behavioral change such as The Theory of Planned Behavior [TPB, 'The TPB postulates that intention, the most important determinant of behavior, is in turn influenced by three constructs: attitudes, subjective norms and perceived behavioral control' (Ajzen and Fishbein, 2000), p. 160] (Ajzen, 2011), the Social Cognitive Theory [SCT, This theory encompasses both determinants of behavior and methods for behavior change (Bandura, 1997). SCT describes as main determinants of behavior: outcome expectations, self-efficacy, outcome expectancies, behavioral capability, perceived behaviors and environment (Bandura, 1986)] and the Health Belief Model [HBM, According to the HBM, 'behavior depends mainly upon two variables: (i) the desire to avoid illness (or if ill, to get well) and (ii) the belief that a specific health action will prevent (or ameliorate) illness (i.e. the individual's estimate of the threat of illness, and of the likelihood of being able, through personal action, to reduce that threat)' (Janz and Becker, 1984), p. 2]. In accordance with these theories, the determinants of awareness, attitude, perceived skills, and perceived social norms were selected as most relevant for the intervention. Following IM, these determinants were then linked with specified change objectives, the specific and measurable changes expected at the individual level (Bartholomew-Eldredge *et al.*, 2016). A performance objective could be: 'students critically analyze how gender roles are assigned to women and men'. The accompanying change objective for the determinant attitude then could be: "students describe the benefits of acknowledging and enacting equal gender roles at school, home, and with peers (see Supplementary Appendix 2).

Step 3: selection of theory-based methods and practical applications

The aim of this step is to search for the most adequate general techniques or processes, known as *methods*, which can influence changes in the previously identified determinants of behaviors (Bartholomew-Eldredge *et al.*, 2016). First, methods were identified in the theoretical and empirical literature. For instance, modeling is a *method* of behavior change: general techniques or processes that have

been shown to be able to change one or more determinants of behavior of members of the at-risk group or of environmental decision-makers (Kok *et al.*, 2016). Through the IM-process, methods of behavior change are subsequently translated into practical *applications*: specific translations of theory-based methods for practical use in ways that fit the intervention population and the context in which the intervention will be conducted, (Kok *et al.*, 2016). Moreover, the same method can be translated into various possible applications depending on the specific population and context. Similarly, one application can be a manifestation of multiple methods. An application of modeling could be: observing a role model perform the desired behavior.

Second, the methods were chosen for each change objective of the program. For *awareness* we chose ‘providing information, elaborating, and feedback’, for *attitudes* we chose ‘discussions, self-reevaluation’, for *perceived skills* ‘guided practices’, and for *perceived social norms* we chose ‘modeling, identifying peer, teachers, and family behavior’. Third, these methods were translated into practical applications: specific techniques for the practical use of theoretical methods in ways that fit with the target group and the context in which the intervention will be conducted. Importantly, here the parameters of use, which are defined as the conditions in which a program should work (Bartholomew-Eldredge *et al.*, 2016), should be identified. For example, to achieve the change objective ‘Demonstrate the ability to communicate better their opinions about equal gender roles at school, home and with peers’, modeling was selected as an appropriate method for changing ‘perceived skills’ and role modeling as application. In the program, the Panamanian context and the target group should be taken into consideration. Special attention was given to the conservative and ‘machismo’ cultural model of the country, which influences educational pedagogies and therefore influences changes in behavioral outcomes (see Supplementary Appendix 3).

Step 4: program development

In this step, the purpose is to design the program and develop materials combining methods and applications selected in Step 3 (Bartholomew-Eldredge *et al.*, 2016). Based on the results of the needs assessment regarding the current factors affecting personal relationships and decision-making of young people in Panama, an educational program aimed at social and emotional capacities development was suggested as a feasible avenue to promote behavioral changes. From the interviews with the stakeholders it emerged that these types of programs

embedded in an educational setting might play a role in the transformation of current unequal gender relations in Panama, and ultimately contribute in the long term to diminish the high level of teenage pregnancy and gender violence in the country.

Therefore, the program MANW program was then designed, to promote equality behaviors between women and men, aiming as a starting point for more equal and respectful inter- and intra-personal relationships among adolescents. It is a pioneer program, tested for the first time in Panama. Furthermore, a focus on enhancing capacities of students, taking into account their agency, power relations and decision-making skills are also embedded in the program. The program is based on evidence-based health psychological theories (e.g. HBM, SCT and TPB). Likewise, it was designed according to the social emotional learning framework of the Collaborative for Academic, Social, and Emotional Learning (CASEL) and follows the guidelines for successful outcome achievements of SEL within educational settings, also known as SAFE (Durlak *et al.*, 2011). The Gender Equality component of the program includes some lesson activities that were inspired by comparable life skills and gender equality programs (Butterfly Works, The Netherlands, 2009; Ricardo *et al.*, 2010; Rutgers, 2013).

During the MANW program, students learn about the impact of gender roles in their lives—in school, society, but also between peers—and how they might challenge these patterns. Using active and participatory learning methods, students are acquainted with the five areas of Social Emotional Learning (SEL) competencies. Through the SEL-competence *self-awareness*, students are guided to deep explorations of own aspects of identity development, especially of their genders and ways they portray their gendered social norms and values through their own thinking, feeling and acting. Then, based on this personal knowledge, students develop a broader personal and inter-personal (about others) perspectives (SEL-competence: *social awareness*). Furthermore, students recognize their own impact on decision-making and choices at intra–inter levels, whether on stress situations, emotions management or goal settings (SEL-competence: *self-management*). Effective communication strategies, negotiation and respectful personal relationships are elicited through the *SEL-competence: relationship management*. And making informed decisions avoiding peer pressure and rejecting abuses in personal relationships are encouraged through self-reflection, evaluation and effective action (SEL-competence: *responsible and ethical decisions*). The activities of the program focus on providing real

practical experiences to influence determinants of behaviors. Through role-plays, modeling among other activities, lessons promote fun and a positive atmosphere to reduce resistance and increase intrinsic motivation of students. A SEL-competencies framework incorporating methods and applications for the WSWM program was developed (see Supplementary Appendix 4). The program design encompasses concepts of the *evolving capability process/capability* approach (CA), namely the *capacity/ability concept* (individual, social-emotional skills), the *opportunity* concept (consideration of culture and social norms barriers) and the *agency* concept (self-determination and choices) (Ballet *et al.*, 2011). Even though agency is a contested concept when related to the age of children, it is a relevant aspect in the process of pursuing goals or changes that ‘one values and has reason to value’ [(Comim *et al.*, 2008), p. 7], fostering inner motivation of students toward the program outcomes and diminishing resistance. The CA and the evolving capability process recognize the different values and aspiration that different people in different cultures and societies may have (Clark, 2006). In fact, this ensures considerations of the contextual and cultural conditions in which programs are implemented (Biggeri and Santi, 2012).

Program content: lessons

The program consisted of 14 lessons (see Supplementary Appendix 5) of 90 min each, delivered over the course of four months within the academic school year.

Training the implementers

In order to achieve the main goal of the intervention: to develop social emotional knowledge, awareness, attitudes and skills of students toward equal relationships among young people, teachers are the implementers of the program. Teachers receive 40 h of training (training of trainers) before the beginning of the program. The preparation of teachers includes the use of participatory and active experience methods. These methods involve processes, which directly acknowledge, welcome, value and use the existing knowledge and competence of those being taught. It is particularly appropriate where the subject matter under consideration touches on people’s deeply held beliefs and attitudes. Furthermore, teachers receive instructions about the nature of the program and participate in workshops which encourage first, exploration of own social-emotional capacities and gender equality behaviors, second to increase their teaching capacities. Teachers carry pilot sessions during the training of trainers, in which they practice the way lessons will

be carried out according to the program design and manual for trainers, as well as to ensure understanding of the topics and methodologies. These sessions provide practical experience to teachers, as well as a way to improve their self-confidence and reduce resistance on the program’s themes. SEL can be especially powerful when adult stakeholders in children’s education are actively involved in cultivating and modeling their own social and emotional competencies (Brckett *et al.*, 2012).

Special emphasis is given to the use of a *learner centered approach*. Teachers actively practice this kind of approach during the training of trainers to prepare them to integrate it during the activities of the lessons. Teachers receive a program manual as support material, which is based in literature review and successful SEL Life Skills and Gender programs. The manual covers instructions for each lesson, as well as background materials. While it offers specific description of the lessons’ steps, the manual can be easily adjusted by teachers to the context and specific situations related to the topics. The content of the lessons of the program is sensitive to the contextual reality of Panama, and lessons take the legal limits of concepts regarding gender equality and equal personal relationships into account. The contributions of multiple stakeholders during the needs assessment contributed to the implementers’ ownership, relevance, and understanding toward the selected focus of the program. The manual includes a wide preparation content for the teacher and the structure/content of lessons. This last section covers the outline of sessions, step-by-step process in the classroom, including objectives, expected outcomes, methodologies, time management, activities and support documents for each of the lessons.

Training the target group

Using participatory- and experience-based learning, the lessons start with a warm up exercise, such as ‘The mirror’ (participants discover more positive qualities of themselves), then knowledge and information on the content of the specific lesson will be provided by an info-cartoon. Next step is usually a game, which serves as a mechanism to internalize new information and explore different opinions and scenarios. The last step is an activity, making or doing, theme-based (gender equality in this case) for positively changing attitudes and skills building: posters, storyboards, photography, artwork or a role-play. The sessions are rounded up by a short discussion, for reflection and positively changing attitudes. To increase participation and reduce resistance, the program is presented as a game, using positive language and motivational focus during lessons.

Step 5: implementation

In this step, the objectives for program adoption and implementation are established. Theoretical methods and applications are linked to these objectives, clarifying roles and tasks of stakeholders of the program, as well as strategies facilitating implementation (Fernández *et al.*, 2019).

The program is implemented by teachers, during regular curriculum hours. Teachers use the teachers' manual as a guide for preparation and support during implementation. Due to the innovative nature of the program's topics, teachers carry preparation meetings before lessons, as agreed on the activities and methodologies used during implementation. If they encounter difficulties, the program leader (one of the schoolteachers) is the contact person and provides support in the school setting. This program leader is selected by the school director and is the person in charge of the school's orientation and personal development programs. Teachers use the same methods of the training of trainers: participatory and active learning. Preparation of teachers for the lessons emphasizes that teachers first review their own knowledge, views, assumptions, beliefs and prejudices about gender and social-emotional skills. The researcher (developer of the program) is available to support the whole program implementation. The school management commitment is crucial during implementation to ensure effective communication, fair allocation of time to carry out lessons and teachers' preparation, as well as to provide all required materials and logistics. The program leader coordinates and ensures support of school management (all actors).

During implementation, every lesson of the program was assessed by teachers and students through questionnaires and evaluation forms, facilitating the improvement of methodologies and promoting fidelity and completeness of program implementation. Teachers will receive 'refresher' training sessions, provided by the facilitator who was also present in the 'Training of Trainers' sessions, once per month with the goal to reinforce their motivation, clarify doubts and foster high completeness and fidelity. During each lesson throughout the program, students were highly encouraged to express their opinions regarding the content, how to improve the program, and about the teacher's delivery of the lessons.

Step 6: evaluation plan

During this IM-step, the evaluation plan and effectiveness measurements are set. The behavioral outcomes and change objectives (Step 2) were used in the evaluation plan. As initially planned, the evaluation goal is to

assess to what extent this SEL-program for adolescents can foster gender equality behaviors among young people. The intervention will be carried out in a middle high school in Panama. The evaluation process of the program will lead to improvements of future interventions. The results of this evaluation will be presented in a separate paper.

DISCUSSION

The aim of the current paper was to describe the process of developing and planning surrounding the implementation and evaluation of the MANW program, a SEL-intervention for middle school students in Panama for the promotion of equal personal relationships. In this study, IM proved to be a useful framework to describe the process of program planning, designing and implementation of the MANW program, exploring how SEL as an innovative learning tool, can contribute to behavioral determinants change toward gender equality in a developing country, Panama.

First, the IM-protocol provided a structural system to gather and filter theories, empirical evidence and practical experiences relevant to the specific context of Panama and the health problems faced by young people. Second, the thorough needs analysis offered an opportunity for multi-stakeholders to voice their opinions, and influence the selection, of the desired outcome behaviors of young people. The needs assessment revealed deeper insights on the problem itself and the perceived causes, and fostered a more nuanced perspective about the personal capacities young people could develop and apply in their daily lives. These findings are in line with studies in similar context as Panama, highlighting the influence of socio-cultural and contextual factors on young people's health and sexual behaviors (Leerlooijer *et al.*, 2014; Krugu *et al.*, 2016). Since Panama currently does not have a program of comprehensive sexuality education in schools, the information provided by the stakeholders during the needs assessment was valuable. It allowed stakeholders to express and question their own perceptions, as well as to consider potential new strategies to encourage personal capacity development of young people, which in turn can influence gender behaviors in personal relationships and improve their health and well-being. Given the existing differences in the country between classes, men and women's opportunities and roles, as well as the state and civil society groups' powers on educational decisions, the sense of belonging and ownership of stakeholders in the process of developing the intervention, could encourage new

roles and innovation in a process of citizens' participation to solve problems.

Third, due to the complexities of the context and the topic of equality for women and men, creating matrices of change objectives was time consuming. However, it was important to specify the changes required at all individual levels to be able to achieve the outcomes of the intervention, as well as measuring these in the evaluation phase. Fourth, the IM-process allowed a more realistic selection of practical applications, taking into consideration learning pedagogies and cultural practices in the educational system of Panama. Furthermore, IM enhances understanding on the conditions and possibilities of applying SEL in contexts outside developed countries, especially on programs such as MANW, designed and implemented as alternative strategy, not only toward social and emotional development of young people, but focusing especially on promotion of equal personal relationships between women and men. These findings resonate with past research highlighting the benefits of using Intervention Mapping to assist complex interventions development focusing on young people's intra-personal and inter-personal development within developing (conservative) contexts (Leerlooijer *et al.*, 2014).

Nevertheless, challenges were observed during the IM-process. First, topics such as early pregnancies, adolescents' health (sexual) and well-being, gender equality are contested in Panamanian society, opening a discussion about these proved difficult at all stages. Cultural beliefs and social norms about the role, rights and opportunities of women and men, especially in personal relationships, as well as a machismo culture were evident at all stages of the IM-process. However, since the process of developing the intervention was presented as constructive, considering the context and involving stakeholders, the IM-protocol seemed a feasible alternative to develop a theory-evidence-based program in the context of Panama. It helped to guide the directions of analysis and actions chosen throughout the entire IM-process. Emerging as an alternative path for discussion, the focus on 'personal capacities development' of young people seemed a less contested and more comfortable way to achieve participation of stakeholders. This fact reassured the intention of the research project to develop an educational intervention oriented to personal capacities development of young people. Even though the inducement of this type of intervention toward gender equality might have raised a risk, it was mitigated by the fact that stakeholders unambiguously opted for *education* as a main avenue to offer a space to young people to develop and practice new capacities and possibly affect behaviors. The chosen methods and applications were

influenced by defining in advance the type of intervention. However, a thorough analysis of theories, evidence-based SEL-programs, behavioral change techniques, the context and the opinion of stakeholders, facilitated the best possible applicable methods and applications selection.

While education was perceived as an effective path for an intervention, serious concerns were raised about the capacities of teachers to teach social-emotional capacities development, especially if there would be a focus on gender equality. Coupled with a lack of room for extra activities or lessons in the school curriculum, this was considered a risk factor for the implementation, and therefore the achievement of the desired outcomes. This result is in line with evidence showing that teachers might not deliver lessons completely and according to program goals, and therefore might decrease program effectiveness (Bessems *et al.*, 2014). Moreover, the program was delivered by female teachers only, providing a role model for girls, and possibly facilitating discussions on sensitive issues among girls. However, it is important to also provide such role models for boys, especially in a context such as Panama, where male role models are often lacking in boys' families [e.g. (Wood and Brownhill, 2018)].

The IM-protocol allowed for careful deliberation on how much training teachers needed in order to carry out this type of interventions successfully, taking into consideration the less optimal conditions of education in the local context, as well as environmental factors such as culture and religious beliefs. This type of educational interventions based on SEL are necessary to provide more evidence on how a lack of experienced organizational support, effective preparation and ongoing support during implementation appears to be important barriers (Durlak, 2016; Oberle *et al.*, 2016), including cultural transferability. Since the current empirical evidence on the implications of SEL-program implementation with a gender equality component is limited, especially in developing countries, the current research and the application of IM to the development of a SEL-based program allows for deeper understanding on capacity development of young people toward better decision-making, choices, and quality of life.

CONCLUSION

The program that resulted from this IM development process was carried out as a pilot project in one middle school in Panama. The overall program goal highlights a combination of psychological insights with innovative learning strategies. Schools remain a primary arena

where youngsters not only share accepted social norms, beliefs and behaviors, but also have the opportunity to create, promote and exacerbate new ways of thinking and acting linked to breaking current unequal roles, relationships and quality of life of the genders. The outcomes of this intervention will indicate whether behaviors of youngsters were improved toward equal behaviors between women and men in the long term. If positive, it could be of great importance to reduce the increasing rate of early pregnancies and sexual violence in the country; and improve the decision-making capacities of young people toward more equal and meaningful personal relationships, and ultimately offering equal opportunities for men and women.

Supplementary Material

Supplementary material is available at *Health Promotion International* online.

CONFLICT OF INTEREST STATEMENT

None declared.

Ethics

All procedures and materials described were in accordance with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Approval was given by the Ethics Committee of Psychology and Neuroscience at Maastricht University.

REFERENCES

- Ajzen, I. and Fishbein, M. (2000) Attitudes and the attitude-behavior relation: Reasoned and automatic processes. *European Review of Social Psychology*, **11**, 1–33.
- Ajzen, I. (2011) The theory of planned behaviour. Reactions and reflections. *Psychology & Health*, **26**, 1113–1127.
- Araúz Ledezma, A. B., Massar, K. and Kok, G. (2020) Behavioural and environmental influences on adolescent decision making in personal relationships: a qualitative multi-stakeholder exploration in Panama. *Health Education Research*, **35**, 1–14.
- Ballet, J., Biggeri, M. and Comim, F. (2011) Children's agency and the capability approach: a conceptual framework. In Biggeri, M., Ballet, J. and Comim, F. (eds), *Children and the Capability Approach*, Chapter 2. Palgrave Macmillan, New York, pp. 22–45.
- Bandura, A. (1986) *Social Foundations of Thought and Action: A Social Cognitive Theory*. Prentice Hall, Englewood Cliffs, NJ.
- Bandura, A. (1997) *Self-Efficacy: The Exercise of Control*. W. H. Freeman, New York, NY.
- Bartholomew-Eldredge, L. K., Markham, C. M., Ruiters, R. A. C., Fernández, M. E., Kok, G. and Parcel, G. (2016) *Planning Health Promotion Programs: An Intervention Mapping Approach*, 4th edition, Jossey-Bass, San Francisco, CA.
- Bessemers, K. M., van Assema, P., de Vries, N. K. and Paulussen, T. W. G. M. (2014) Exploring determinants of completeness of implementation and continuation of a Dutch school-based healthy diet promotion program. *International Journal of Health Promotion & Education*, **52**, 315–327.
- Bierman, K., Coie, J. D., Dodge, K., Greenberg, M. T., Lochman, J. E., McMahon, R. J., Conduct Problems Prevention Research Group. et al. (2010) The effects of a multiyear universal social-emotional learning program: the role of student and school characteristics. *Journal of Consulting and Clinical Psychology*, **78**, 156–168.
- Biggeri, M. and Santi, M. (2012) The missing dimensions of children's well-being and well-becoming in education systems: capabilities and philosophy for children. *Journal of Human Development and Capabilities*, **13**, 373–395.
- Brackett, M. A., Reyes, M. R., Rivers, S. E., Elbertson, N. A. and Salovey, P. (2012) Assessing teachers' beliefs about social and emotional learning. *Journal of Psychoeducational Assessment*, **30**, 219–236.
- Butterfly Works, The Netherlands (2009) *Learning about Living (LAL) program*. One World UK, Action Health Incorporated FLHE Program and NERDC Nigeria, Amsterdam, The Netherlands.
- Caffe, S., Plesons, M., Camacho, A. V., Brumana, L., Abdool, S. N., Huaynoca, S. et al. (2017) Looking back and moving forward: can we accelerate progress on adolescent pregnancy in the Americas? *Reproductive Health*, **14**, 83.
- Chandra-Mouli, V., Plesons, M., Adebayo, E., Amin, A., Avni, M. and Kraft, J. M. et al. (2017) Implications of the global early adolescent study's formative research findings for action and for research. *Journal of Adolescent Health*, **61**, S5–S9.
- Chung, S. and Moore McBride, A. (2015) Social and emotional learning in middle school curricula: a service-learning model based on positive youth development. *Children and Youth Services Review*, **53**, 192–200.
- Clark, D. A. (2006) Capability approach. In Clark, D. A. (ed.), *The Elgar Companion to Development Studies*. Edward Elgar, Cheltenham, UK, pp. 32–45.
- Coelho, V. A., Marchante, M. and Sousa, V. (2015) "Positive Attitude": A multilevel model analysis of the effectiveness of a Social and Emotional Learning Program for Portuguese middle school students. *Journal of Adolescence*, **43**, 29–38.
- Coelho, V. A. and Sousa, V. (2017) Comparing two low middle school social and emotional learning program formats: a multilevel effectiveness study. *Journal of Youth and Adolescence*, **46**, 656–667.

- Comim, F., Qizilvash, M. and Alkire, S. (2008) *The Capability Approach: Concepts, Measures and Applications*. Cambridge University Press, Cambridge, UK.
- Cornwall, A. and Rivas, A. M. (2015) From 'gender equality and 'women's empowerment' to global justice: reclaiming a transformative agenda for gender and development. *Third World Quarterly*, 36, 396–415.
- DeJaeghere, J. (2012) Public debate and dialogue from a capabilities approach: can it foster gender justice in education? *Journal of Human Development and Capabilities*, 13, 353–371.
- Dholakia, J., Buchanan, R. and Nash, W. (2012) Multifaceted adolescent reproductive health education strategies in Panama. *The Journal of Global Health*, 2, 21–26.
- Durlak, J. A., Weissberg, R. P., Dymnicki, A. B., Taylor, R. D. and Schellinger, K. B. (2011) The impact of enhancing students' social and emotional learning: a meta-analysis of school-based universal interventions. *Child Development*, 82, 405–432.
- Durlak, J. A. (2016) Programme implementation in social and emotional learning: basic issues and research findings. *Cambridge Journal of Education*, 46, 333–345.
- Fernández, M. E., ten Hoor, G. A., van Lieshout, S., Rodríguez, S. A., Beidas, R. S., Parcel, G. *et al.* (2019) Implementation mapping: using intervention mapping to develop implementation strategies. *Frontiers in Public Health*, 7, 158.
- Fullman, N., Barber, R. M., Abajobir, A. A., Abate, K. H., Abbafati, C., Abbas, K. M. *et al.* (2017) Measuring progress and projecting attainment on the basis of past trends of the health-related Sustainable Development Goals in 188 countries: an analysis from the Global Burden of Disease Study. *The Lancet*, 390, 1423–1459.
- Hahn, R., Fuqua-Whitley, D., Wethington, H., Lowy, J., Crosby, A., Fullilove, M. *et al.* (2007) Effectiveness of universal school-based programs to prevent violent and aggressive behavior: a systematic review. *American Journal of Preventive Medicine*, 33, S114–S129.
- Harlacher, J. E. and Merrell, K. W. (2010) Social and emotional learning as a universal level of student support: Evaluating the follow-up effect of strong kids on social and emotional outcomes. *Journal of Applied School Psychology*, 26, 212–229.
- Hsieh, H. F. and Shannon, S. E. (2005) Three approaches to qualitative content analysis. *Qualitative Health Research*, 9, 1277–1288.
- Janz, N. and Becker, M. (1984) The Health Belief Model: a decade later. *Health Education Quarterly*, 11, 1–47.
- Jones, S. and Bouffard, S. (2012) Social and emotional learning in schools from programs to strategies. *Social Policy Report*, 26, 1–33.
- Jütting, J. P., Morrisson, C., Dayton-Johnson, J. and Drechsler, D. (2008) Measuring gender (In)Equality: the OECD gender, institutions and development data base. *Journal of Human Development*, 9, 65–86.
- Kok, G., Gottlieb, N. H., Peters, G.-J. Y., Mullen, P. D., Parcel, G. S., Ruiter, R. A. C. *et al.* (2016) A taxonomy of behaviour change methods: an Intervention Mapping approach. *Health Psychology Review*, 10, 297–312.
- Krugu, J. K., Mevissen, F. E. F., Prinsen, A. and Ruiter, R. A. C. (2016) Who's that girls? A qualitative analysis of adolescents girls' views on factor associated with teenage pregnancies in Bolgatanga, Ghana. *Reproductive Health*, 13, 39.
- Leerlooijer, J. N., Kok, G., Weyusya, J., Bos, A. E. R., Ruiter, R. A. C., Rijdsdijk, L. E. *et al.* (2014) Applying Intervention Mapping to develop a community-based intervention aimed at improved psychological and social well-being of unmarried teenage mothers in Uganda. *Health Education Research*, 29, 598–610.
- Loots, S. and Walker, M. (2015) Shaping a gender equality policy in higher education: which human capabilities matter? *Gender and Education*, 27, 361–375.
- Mayring, P. (2010) Qualitative Content Analysis. Basics and Techniques. [Qualitative Inhaltsanalyse. Grundlagen Und Techniken.], 12th edition. BeltzVerlag, Weinheim Basel.
- Ministry of Health of Panama (MINSA) (2017). *Proporción de Adolescentes embarazadas, Enero a Noviembre. [Proportion of Pregnant Teenagers, January to November 2017]*. Ministerio de Salud de Panamá, Panama.
- North, D. (1991) Institutions. *Journal of Economic Perspectives*, 5, 97–112.
- Oberle, E., Domitrovich, C. E., Meyers, D. C. and Weissberg, R. P. (2016) Establishing systemic social and emotional learning approaches in schools: a framework for schoolwide implementation. *Cambridge Journal of Education*, 46, 277–297.
- PAHO, UNFPA and UNICEF (2017). *Accelerating Progress Toward the Reduction of Adolescent Pregnancy in Latin America and the Caribbean*. Report of a Technical Consultation. Pan American Health Organization, United Nations Population Fund and United Nations Children's Fund, Washington, D.C.
- Payton, J. W., Wardlaw, D. M., Graczyk, P. A., Bloodworth, M. R., Tompsett, C. J. and Weissberg, R. P. (2000) Social and emotional learning: a framework for promoting mental health and reducing risk behavior in children and youth. *Journal of School Health*, 70, 179–185.
- Ricardo, C., Nascimento, M., Fonseca, V. and Segundo, M. (2010) *Program H and Program M: Engaging Young Men and Empowering Young Women to Promote Gender Equality and Health*. Promundo and PAHO, Washington, DC, USA.
- Ridgeway, C. L. (2011) *Framed by Gender: How Gender Inequality Persists in the Modern World*. Oxford University Press, Oxford, UK.
- Rutgers (2013). *The World Start with Me (WSWM) Program*. Utrecht, The Netherlands.
- Schutte, L., van den Borne, M., Kok, G., Meijer, S. and Mevissen, D. E. F. (2016) Innovatively supporting teachers implementation of school-based sex education: developing a web-based coaching intervention from problem to solution. *Journal of Medical Internet Research*, 18, e136.

- UNAIDS (2017). Ending AIDS: Progress Towards the 90–90–90 Targets. Global Aids Update, 2017. Joint United Nations Programme on HIV and AIDS, Geneva, Switzerland.
- UNFPA (2015). *Girlhood Not Motherhood. Preventing Adolescent Pregnancy*. United Nations Population Fund. https://www.unfpa.org/sites/default/files/pub-pdf/Girlhood_not_motherhood_final_web.pdf (last accessed 16 September 2019).
- UNFPA (2016). *Universal Access to Reproductive Health: Progress and Challenges*. United Nations Population Fund, New York. https://www.unfpa.org/sites/default/files/pub-pdf/UNFPA_Reproductive_Paper_20160120_online.pdf (last accessed 21 November 2019).
- Unterhalter, E. (2014) Thinking about gender in comparative education. *Comparative Education*, 50, 112–126.
- UN Women (2015) *Progress of the World's Women: Transforming Economies, Realizing Rights 2015-2016*. United Nations Entity for Gender Equality and the Empowerment of Women, New York, NY, USA.
- Van Der Veen, Y. J. J., Van Empelen, P. and Richardus, J. H. (2012) Development of a culturally tailored internet intervention promoting hepatitis B screening in the Turkish community in the Netherlands. *Health Promotion International*, 27, 342–355.
- Weissberg, R. P., Durlak, J. A., Domitrovich, C. E. and Gullotta, T. P. (2015) Social and emotional learning: past, present, and future. In Durlak, J. A., Domitrovich, C. E., Weissberg, R. P., and Gullotta, T. P. (eds), *Handbook for Social and Emotional Learning*. Guilford Press, New York, NY, pp. 3–19.
- Wigelsworth, M. A., Lendrum, A., Oldfield, J., Scott, A., ten Bokkel, I., Tate, K. et al. (2016) The impact of trial stage, developer involvement and international transferability on universal social and emotional learning programme outcomes: a meta analysis. *Cambridge Journal of Education*, 46, 347–376.
- Wood, W. and Eagly, A. H. (2015) Two traditions of research on gender identity. *Sex Roles*, 73, 461–473.
- Wood, P. and Brownhill, S. (2018) ‘Absent fathers’, and children’s social and emotional learning: an exploration of the perceptions of ‘positive male role models’ in the primary school sector. *Gender and Education*, 30, 172–186.
- WHO (2017) *Violence Against Women. Strategy and Plan of Action on Strengthening the Health System to Address Violence Against Women*. World Health Organization, Geneva. http://iris.paho.org/xmlui/bitstream/handle/123456789/18386/CD549Rev2_eng.pdf?sequence=7&isAllowed= (last accessed 25 November 2019).
- Yoder, N. (2014) *Teaching the Whole Child: Instructional Practices That Support SEL in Three Teacher Evaluation Frameworks*. Center on Great Teachers and Leaders at American Institutes for Research, Washington, DC.