

## RESEARCH ARTICLE

# Occupational Therapy and Sexual and Reproductive Health Promotion in Adolescence: A Case Study

Daniela Tavares Gontijo<sup>1,2\*†</sup>, Anna Carolina de Sena e Vasconcelos<sup>1</sup>,  
Rosana Juliet Silva Monteiro<sup>1</sup>, Vera Lúcia Dutra Facundes<sup>1</sup>, Maria de Fátima Cordeiro Trajano<sup>2</sup> &  
Luciane Soares de Lima<sup>2</sup>

<sup>1</sup>Occupational Therapy Program Department, Universidade Federal de Pernambuco – UFPE, Brazil

<sup>2</sup>Postgraduate in Child and Adolescent Health, Universidade Federal de Pernambuco – UFPE, Brazil

## Abstract

Occupational therapy can contribute to sexual and reproductive health through health education. The purpose of this study was to describe an occupational therapy intervention aimed at sexual and reproductive health promotion in adolescents. Fifty-eight adolescents were involved in the study, before, during and after the interventions. Educative activities such as puzzles, storytelling, mime and board games were used, which occupational therapy faculty and students had constructed. The games were employed as mediators for gaining knowledge in sexual and reproductive health. Outcome was measured using a questionnaire, audio recordings and field diaries. The data were analysed by descriptive statistics and thematic content analysis. The results showed the adolescents' increased knowledge of sexual and reproductive health information immediately after the intervention. The thematic analysis was grouped into three categories: the adolescents' initial expectations regarding the project, reflections on the process experienced during the interventions and use of educational games by occupational therapists. The importance of rapport and dialogue was highlighted in the construction of interventions based on participatory methods. The absence of a longitudinal follow-up is a limitation in this study. Further research is important to systematically assess sexual health promotion strategies in adolescence. Copyright © 2015 John Wiley & Sons, Ltd.

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## Keywords

occupational therapy; health education; educational games; adolescence; sexuality

## \*Correspondence

Daniela Tavares Gontijo, Occupational Therapy Program Department, Universidade Federal de Pernambuco – UFPE, Av. Prof. Moraes Rego, 1235-Cidade Universitária, Recife, PE, CEP: 50670-901, Brazil.

†Email: danielatgontijo@gmail.com

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## Introduction

In Brazil, in recent decades, occupational therapy has increasingly approached the field of health promotion (Wilcock, 2006; AOTA, 2008a; Bazyk and Bazyk, 2009; Bassi *et al.*, 2012; Reis *et al.*, 2012; Wood *et al.*, 2013). Specifically concerning the adolescent public, the occupational therapists are confronted with

different demands. These include actions in schools and other social facilities to provide social and reproductive health orientations (Reis *et al.*, 2012).

In these scenarios, the professionals are expected to create health education spaces in which the adolescents play a protagonist role in the knowledge acquisition process and can discuss sexuality and reproduction

beyond the biological aspects, valuing experience exchange based on the reality experienced in the different social contexts (Cunha and Gontijo, 2013; Bechara *et al.*, 2013).

In view of these aspects, the objective in this article was to describe an occupational therapy intervention process aimed at sexual and reproductive health promotion in adolescents.

## Literature review

### Sexuality and adolescence

Sexuality is considered an important aspect in all phases of life. During adolescence, the sexuality experience contributes to the ability to solve problems, take responsibilities and affirm identities. It is an important route towards gaining autonomy and freedom from one's parents, mediating social relationships with a view to interpersonal development (Cunha and Gontijo, 2013).

The experience of sexuality involves practices and desires related to satisfaction, affection, pleasure, feelings, the exercise of freedom and health (Brasil, 2006; Brasil, 2010). In recent decades, sociocultural transformations have promoted changes in the social and sexual behaviour patterns, considering that aspects like gender, socioeconomic and cultural conditions, colour and sexual orientation influence the sexuality experience (Brasil, 2006; Malta *et al.*, 2011).

A research undertaken in Brazilian capitals found that approximately one-third of the 60,973 students between 13 and 15 years who participated in the study had already had some kind of sexual relation, mainly boys and public-school students (Malta *et al.*, 2011).

According to data from United Nations Educational, Scientific and Cultural Organization, in general, adolescents do not consider health services an important space to gain reliable information about sexuality (Brasil, 2006). This fact can be explained by the limited adoption of health promotion interventions, considering the concepts of love, feelings, intimacy and desire, among others (Brasil, 2010; Barbosa *et al.*, 2010).

### Occupational therapy and sexual and reproductive health promotion

According to the Ottawa Charter, health promotion is the process of providing the community with the means needed to improve and increase control over its health (Pizzi and Reitz, 2010). In this context,

occupational therapy should contribute for subjects, communities and populations to engage, in a healthy and participatory manner, in daily activities and occupations they want and/or need (American Occupational Therapy Association, AOTA, 2008a; American Occupational Therapy Association, AOTA, 2008b). Among these activities, the adolescents' experience of sexuality is a right of this group and one of the fundamental axes of integral health care for adolescents and young people (Brasil, 2010).

From an occupational perspective, sexual health promotion implies interventions to allow subjects to relate, express themselves and engage in sexual activities that offer them wellbeing. In addition, a healthy sexual experience involves responsible sexual behaviours, for which information access is one of the prerequisites (Pizzi and Reitz, 2010).

Sexual health promotion can be systemized through health education. As a historical and social phenomenon, health education can be understood from different perspectives, against the background of the time and space it is developed in (Silva *et al.*, 2010). From a participatory perspective, health education can be highly effective. This practice produces quality of life and can promote dialogue towards the construction of populations' autonomy and emancipation, valuing their knowledge (Salci *et al.*, 2013).

In health education, the use of games is potentially effective (Coscrato *et al.*, 2010; Barbosa *et al.*, 2010; Preslei *et al.*, 2012; Bechara *et al.*, 2013; Mariano *et al.*, 2013). Different aspects that justify the potential use of educative games are discussed in the literature, highlighting the creation of a playful environment that enhances the adolescents' interaction and participation in the dialogic construction of knowledge (Coscrato *et al.*, 2010; Nogueira *et al.*, 2011; De Vitta *et al.*, 2012; Bechara *et al.*, 2013; Mariano *et al.*, 2013; De Vitta *et al.*, 2013).

## Method

### Methodological design: qualitative case study (Creswell and Clark, 2011)

The study is based on Paulo Freire's theoretical perspective of transformative education, based on the contextualization of humans' knowledge and experiences to allow them to, based on their social reality, reflect on and problematize their daily reality, adopting critical postures (Freire, 2005; 2011a; b).

The data were collected during occupational therapy activities with adolescents at a public school in Recife (Pernambuco, Brazil). The actions took place weekly between 16 August and 20 October 2012.

### Description of interventions

During the activities, educative games were used, which occupational therapy faculty and students had constructed. The games were used as mediators of the knowledge construction process about the themes discussed during the interventions. The development of the games was based on educative material from the Brazilian Ministry of Health and the experience of Bechara *et al.* (2013).

Although the themes discussed during each intervention were elaborated in advance, during the actions, questions, doubts and discussions that the adolescents raised were incorporated. Five games were developed, described in Figure 1.

### Study participants

The study participants were male and female adolescents, enrolled in the eighth or ninth year of basic education, who received authorization from their legal guardians and attended at least 75% of the interventions. Fifty-eight adolescents participated in the study, including 24 boys and 34 girls between 13 and 17 years of age, divided in six groups with approximately 10 participants each. Each group participated in 10 meetings of 50 minutes each.

### Data collection

#### Procedures

The data were collected at three moments. Before the interventions, the adolescents answered a questionnaire about the topics to be discussed during the interventions. During the interventions, the data were collected using the audio recordings of the interventions and notes the researchers had made in a field diary. After the intervention, the adolescents again answered a questionnaire and participated in audio recorded focal groups.

#### Instruments

- (a) Questionnaire (answered before and after the interventions): The questionnaire consisted of 29

questions, elaborated based on educative material, including themes on the reproductive and sexual organs, STDs, contraceptive methods and myths regarding sexuality. The adolescent should answer whether the assertion in each question was correct, incorrect or did not know.

- (b) Field diary: A researcher who served as an observer monitored the actions. The observations of the adolescents and professionals' behaviour during the interventions were registered in writing.
- (c) Focus group script: In the focus groups, the adolescents were asked to answer what it was like to participate in the interventions and what are their thoughts about using games in sexual and reproductive health promotion actions.

### Data analysis

- (a) Questionnaires: The data were systemized quantitatively and qualitatively in an electronic worksheet, analysed and described in terms of absolute and relative frequencies, before and after the intervention.
- (b) Audio of the interventions and focus group: The adolescents' discourse was recorded during the interventions, using audio equipment, and reliably transcribed. The transcriptions were submitted to content analysis (Gibbs, 2008). Initially, the text units were identified and coded to be grouped in categories related to the study objectives. For coding and categorization purposes, ATLAS.ti software for windows 6.0 was used.
- (c) Field diary notes: The notes made in the field diary were submitted to content analysis as described earlier.

### Ethical aspects

Approval for the research project was obtained from the Institutional Review Board at UFPE (protocol 24945). To guarantee the participants' anonymity, female participants were identified using F and male participants using M.

### Results

Fifty-eight adolescents answered the questionnaire, including 24 boys and 34 girls. Each questionnaire included 29 questions, resulting in 1,682 answers. Based

Game	Description	Objective	Procedures	Contents addressed
Puzzle "My body"	Puzzle with figures of the male and female body structures.	Permit the construction and discussion of knowledge about bodily development during adolescence.	The participants are divided in groups and each group receives a set of pieces to assemble the figures. After assembling the figures, the adolescents are invited to present their knowledge on the image. Based on that knowledge, the coordinator deepens the discussion, presents new knowledge and answers inquiries.	Puberty Hormonal and bodily changes during adolescence Body and sexuality
Mime game	Consists of cards that describe actions, objects, professions and places that should be dramatized through mime.	<b>Problematize</b> how gender relations are constructed and how they interfere in sexual and reproductive health.	The participants are divided in groups. In each group, one participant is chosen to mime, while the other participants should interpret this expression. The mime mainly refers to the actions, objects, professions and places traditionally known as belonging to men or women. After the mimics, the coordinator stimulates the discussion and reflection about the influence of gender relations in the adolescents' lives.	Sex and sexuality Gender relations Gender and adolescence Gender X sex Gender and sexuality
Roulette game	Question and answer games	Construct knowledge about sexually transmitted diseases STD's	The participants are divided in groups. Using roulette, questions are drawn about the STDs. The group that gives a correct answer continues playing. If the answer is wrong, the opportunity to answer is transferred to another group. In each question, the coordinator initially asks questions about the participants' previous knowledge and tries to collectively construct new contents.	Transmission forms, signs and symptoms and treatment of main STD's
Building my history	Collective story building game.	Facilitate reflections about the occurrence and consequences of an unplanned adolescent pregnancy	The start of a fictitious story is presented about two adolescents who meet and start to relate affective and sexually. During the story, the participants are stimulated to make choice related to the adolescents' behaviors in the story. The story ends with an unplanned pregnancy and the participants are invited to discuss and reflect on other possible developments and endings.	Adolescent pregnancy: motives and consequences in the course of life. Adolescent fatherhood and motherhood.
Board game	Board with figures of main contraceptive and STD prevention methods	Construct knowledge about contraceptive and STD prevention methods	The participants are divided in groups. Each group casts a dice that corresponds to the number of steps they will move in the game. Each square corresponds to a question about a contraceptive or STD prevention method. At each question, the coordinator stimulates the adolescents to present their knowledge and doubts about the method, besides introducing other contents.	Contraceptive methods Methods to prevent STD's

**Figure 1.** Description of games used during interventions

on the analysis of the answers before and after the intervention (Table 1), the number of correct and incorrect answers and the adolescents' lack of knowledge could be compared. A considerable increase was

observed in the number of correct answers and a drop in the number of "I don't know" answers after the interventions. The results were similar for the male and female groups.

**Table 1.** Answers obtained on the questionnaire before and after the interventions

Answers	Before						After					
	Women		Men		General		Women		Men		General	
	<i>N</i>	%										
Correct	524	53.1	365	52.4	889	52.9	765	77.6	518	74.0	1,283	76.3
Incorrect	158	16.1	159	22.8	317	18.8	148	15.0	125	18.0	273	16.2
Did not know	304	30.8	172	24.8	476	28.3	73	7.4	53	8.0	126	7.5
Total	986	100	696	100	1,682	100	986	100	696	100	1,682	100

The content analysis of the adolescents' discourse and the field diary notes resulted in a large number of data for discussion. In this paper, the contents specifically related to the intervention process were discussed in detail. The adolescents' initial expectations on the project are presented, as well as the reflections on the intervention process and the use of educative games in occupational therapy.

### The adolescents' initial expectations on the project

The adolescents were asked how they imagined the interventions would be like. They believed these would be similar to the traditional classes, which they considered monotonous and whose contents they found difficult to apprehend.

"I thought that the project would be the same as maths classes, tedious and boring. He ((the teacher)) just keeps on explaining things you can't understand". (M6)

"I also thought it would be boring, those boring lectures and that we were going to sleep". (F20)

Also regarding the expectations, the adolescents were asked to identify what themes they thought would be discussed when they were invited to participate in the project. The adolescents found that three topics would be discussed: STDs, condom use and the sexual act.

### The process experienced during the interventions

The participants assessed that the repercussions of the occupational therapy intervention experience went beyond the expansion of knowledge on the themes discussed, as expressed in the data analysis.

According to the adolescents' and the researchers' perceptions, the interventions promoted behavioural changes in relation to their peers. The participants found that, to be heard, they had to listen to their peers and thus foster the discussions.

"I thought we were going to say something, give our opinion and that the rest ((fellow students)) would be laughing at us [...]. But everyone gave their opinion". (M7)

Also regarding the social interactions in the groups, during the interventions, the need was perceived to create and strengthen the relationship of trust, not only between the adolescents and the researchers but mainly among the participants. In view of this need, a "group agreement/contract" was elaborated, considering the contents addressed in the project, which enhanced the participation and contributed for the adolescents to feel responsible for the construction of the learning space.

"although some adolescents initially asked for a permission to be absent from the intervention, after the group contract had been established, everyone asked to continue". (Field diary)

The interventions enhanced the construction of a safe environment to express the experiences, and the discussions considerably contributed to the shaping of opinions.

"while we discussed, the adolescent gave examples and doubts". (Field diary).

"it cleared our minds!" (F24).

During the group discussions, bonding and deeper discussions happened concomitantly. It should be highlighted that the sexuality theme encompasses a series of social restrictions that hamper its more open

discussion, mainly regarding the experiences during adolescence. Nevertheless, bonding between the researchers and adolescents permitted the “rupture” of the censorship and inhibitions and resulted in the adolescents’ progressive participation and appropriation of the educative scenario. At each meeting, the adolescents showed to be more interested in the discussion, as the occupational therapists offered space for them to be active in the construction of their knowledge.

“[] we started the intervention and the girls demonstrated that they were apprehensive and curious, but very timid and introvert towards me at the same time; I think it was a matter of bonding”. (Field diary)

“At the third meeting, I noticed the girls were feeling more comfortable and more trusting towards me”. (Field diary)

According to the adolescents, the researchers’ posture of proximity and flexibility facilitated this bonding process.

“You treated us as if you had known us for a long time”. (F7)

“What teachers do we lack? The teacher needs to be the student’s friend. We don’t have that much, when there’s one we get attached”. (M7)

Another noteworthy aspect was that the discussions during the interventions were not limited to the context, as the adolescents shared the information gained from relatives and friends, which granted them a new perspective in interpersonal relations and in knowledge dissemination.

“[...] there were a lot of diseases I was explaining to my father because he did not know. So, it was good for me as well because of my family”. (M4)

“(…) diseases I didn’t know of (...) many things I didn’t know and now I know and pass it on to other people who do not know”. (F1).

### Using educative games in occupational therapy

The adolescents unanimously assessed the use of games as an occupational therapeutic activity that mediates knowledge production positively.

As found earlier, the adolescents expected the actions to be based on traditional lectures or classes. When they experienced the game-mediated educative experience, however, the participants expressed that this method should also be used to learn disciplinary contents.

“if it were in the classroom it would be much better for us to learn. Because, in class, it’s something so standard that we are almost obliged to and not like that (with the games), we have fun, say what we want and learn a lot of things too”. (F6)

Among the advantages of using games, the adolescents mentioned the possibility to discuss a theme as surrounded by taboos and social prohibitions in a fun and pleasant environment.

“(…) in the game, we have fun and learn at the same time”. (F9)

“We learned more from the game. We understood the theme better while playing”. (M2)

Besides the relaxed environment, in their discourse, the adolescents highlighted that they valued the possibility to interact during the educative activity. According to them, using games permitted the construction of knowledge in the interrelation among the participants. Thus, the educative games, as tools that can be used for health education activities, facilitated the bonding among the participants, as well as the contact with the theme sexual and reproductive education.

“We can interact, one can ask the other, each gives her opinion. Not everyone likes lectures, and it makes you sleepy”. (F14)

“The game, it’s more interactive (...) it gives us the opportunity to speak, to ask”. (M14)

Concerning the difficulties during the interventions, it is emphasized that the length of the interventions, that is, about 50 minutes, was not sufficient to deepen some discussions and respond to each participant’s specific demands in terms of difficulties to interpret and appropriate the resources.

“The length was bad [...]”. (M21)

## Discussion

The data found in this study appoint the potential of sexual and reproductive health promotion actions

involving adolescents based on a participatory perspective of occupational therapy.

The answers obtained from the questionnaires indicate that the adolescents gained knowledge immediately after the intervention. Longitudinal studies are needed, however, to assess this aspect in the medium and long term.

The analysis of the data from the recorded interventions and focus group and from the field diary notes indicated important aspects, which occupational therapy should discuss. The adolescents' initial expectations found that they imagined the occupational therapy activities would be similar to their daily classes in school, based on the traditional teaching perspective.

In traditional education, the educative process is one-way, vertical and "commanded" by the educator. In a participatory perspective, however, through dialogue, knowledge is constructed dynamically, as a result of the educator's and students' action/reflection. In this process, both educators and students are characterized as subjects, as "nobody educates nobody, nor does anyone get educated alone: men get educated mediatized by the world" (Freire, 2005).

Also regarding the adolescents' initial expectations, it was observed that they imagined that the themes discussed in sexual and reproductive health promotion would be limited to questions directly related to the sexual act. This perception is in line with hegemonic conceptions in our society, in which sexuality, according to the reductionist paradigm, is considered something restricted to sexual intercourse (Brêtas *et al.*, 2011; Quirino and Rocha, 2012). This perception is not only present in the adolescents' discourse but also appears in the sexual education actions, which in most cases are limited to the discussions about the biological aspect, legitimizing the scientific knowledge as unique and true and resuming the theme to the genital systems (Silva and Ribeiro, 2011).

In occupational therapy aimed at adolescents, the need to further problematize the conceptions of sexuality and their impact on the occupational performance should be taken into account. According to Pizzi and Reitz (2010), the occupational therapists and the public they attend to should understand sexuality as a central aspect of human life that involves sex, identity and gender roles, sexual orientation, eroticism, pleasure, intimacy and reproduction. Beyond the sexual activity itself, sexuality is experienced through thoughts, phantasies, desires, beliefs, attitudes and values, in

different relational and cultural contexts (Pizzi and Reitz, 2010).

In the second analysis category, the contents related to the adolescents' perceptions of the process experienced during the actions were presented. The adolescents positively highlighted the importance of bonding among the participants and between them and the coordinators.

The bonding between the educator (role of the occupational therapist in this project) and student is related to feelings of trust and respect, permeated by welcoming, affection and openness to dialogue. When the educator critically immerses into the discussion of reality, the students feel challenged to understand and effectively participate in this debate, in which both are approximated through dialogue and the promotion and exercise of autonomy (Freire, 2005, 2011a, b).

In this perspective, Freire (2011a) affirms that teaching is an exercise of dialogue and exchanges, in which learning only takes place when the students relate theoretical contents with their reality. Hence, the existing relation is horizontal, as the exchange of experiences and knowledge between educator and student is constant, and one does not overlap with the other. According to that author, the educative act only takes form in a critical perspective, when the educator assumes the posture of learning from the students, characterizing a continuing and progressive education process of both actors involved in the process.

Thus, the adoption of the perspective Freire proposes (2005, 2011a, 2011b) in occupational therapy requires that professionals develop competencies and skills that commonly are not enhanced in a traditional approach that rests on the biomedical model. In the latter, the professional takes a central position in the therapeutic process, defining the intervention strategies and priorities. In that context, the relation the occupational therapist establishes is vertical, valuing only the scientific knowledge the professional offers.

On the other hand, in a participatory perspective, the occupational therapy process is built daily, in the relation established with the adolescents. This construction presupposes knowing not only the reality the adolescents experience, but also the strategies they have already used to cope with the challenges they are confronted with regarding their sexuality.

This knowledge is the base for the educative process, in which the role of occupational therapists is to stimulate and facilitate the adolescents' construction of new

knowledge, instead of simply “providing” them with information. The professionals facilitate this construction, as discussed earlier, in dialogic practices, mediated by the educative games, in which the adolescents are encouraged to criticize the previous knowledge, problematize it based on new information and elaborate new ways to deal with their sexuality (Gontijo *et al.*, 2014).

In this process, the professional also learns from the adolescents, not only new contents and strategies related to the theme but mainly what the professional activities should be like. This learning takes place through constant critical reflection on the actions developed, based on the underlying theoretical premises, characterizing the cycle reflection–action–reflection Freire proposes (2005).

The adolescents also mentioned that the contents built during the actions were shared with other people who were not part of the groups. The perspective of turning into “an educator” in other contexts, based on the knowledge constructed in the project, also contributed for the adolescents to join in on the proposal and deepen the discussions. Concerning this process, Freire (2011b, p.25) appoints that

Educating, and educating oneself for the purpose of liberation, is the task of those who know that they know little – for this very reason they know that they know something and can thus succeed in knowing more – in dialogue with those who almost always think they know nothing. Their aim is that the latter can also know more by the transformation of their thinking that they know nothing into the knowledge that they know little.

Specifically concerning the use of educative games, the data analysis also found their potential use as mediators of health education processes in occupational therapy. Through educative games, a relaxed environment can be created. Especially concerning health education actions in the field of education, the playful environment favours a “lighter” discussion of this theme, which is often considered a taboo in our society (Nogueira *et al.*, 2011; De Vitta *et al.*, 2012; Bechara *et al.*, 2013; Mariano *et al.*, 2013).

The knowledge construction process mediated by educative games generally takes place in a context of greater interaction among the participants when compared with traditional methodological approaches

in health education, like the use of lectures (Coscrato *et al.*, 2010, Nogueira *et al.*, 2011; De Vitta *et al.*, 2012, Bechara, *et al.*, 2013; Mariano *et al.*, 2013; De Vitta *et al.*, 2013).

This interaction culminates in the subjects’ greater participation in the teaching–learning process who, by reflecting, discussing and taking a global stand towards the theme, not only becomes co-accountable for the knowledge construction, but can also transpose that knowledge into their life contexts (Barbosa *et al.*, 2010; Lopes *et al.*, 2011; Nogueira *et al.*, 2011; Bechara *et al.*, 2013, Mariano *et al.*, 2013, De Vitta *et al.*, 2013).

According to Mariano *et al.* (2013), the interaction and often the competitiveness that characterizes educative games favour the subjects’ active posture towards the learning objects who, by presenting their opinions and perceptions, also reflect on their own conducts that contribute to or negatively affect their health conditions.

In addition, as Nogueira *et al.* (2011) discuss, the use of group games can contribute to the development of attitudes of union, companionship and solidarity. These attitudes can contribute to shape important spaces of social support, especially in adolescence.

## Conclusions

The adolescent sexuality experience is characterized as a complex phenomenon, involving individual, social and cultural aspects that can potentially influence the adolescents’ occupational performance, confronting occupational therapists with the responsibility to discuss this theme from a health promotion perspective.

As discussed in the course of this research, health promotion can take place from different perspectives. Traditionally, not only in occupational therapy but also in health in general; educative actions take the form of interventions based on decontextualized knowledge transmission.

In this study, however, an experience was presented from a participatory and critical perspective, based on health education. Stemming from Paulo Freire’s theoretical framework, the interventions were planned and put in practice to allow the adolescents to construct knowledge in a dialogical and participatory manner, allowing them to reflect on and contextualize their experiences.

In that sense, the interventions permitted the creation of a significant and culturally appropriate space

for the participants. The use of games and the coordinators' posture mediated the group process and the construction of knowledge on sexual and reproductive health. It should be highlighted that the adolescents signified this space as a pleasant learning environment that they could actively participate in, presenting their opinions and doubts on the themes discussed.

On the other hand, the length of each intervention should be increased in order to deepen the discussions and respond to the participants' individual needs. Virtual games can be elaborated that can be used to complement the in-class interventions.

The main limitation in this research is the fact that results were not monitored in the medium and long terms, nor whether the contents learned led to changed attitudes, calling for further research. In addition, the need for research was identified, which is focused on how gender perceptions are constructed and valued during adolescence and how these can influence this public's occupational performance and sexual and reproductive health.

Therefore, occupational therapists need to enhance their participation in this activity and research area. This participation involves the planning, implementation and assessment of actions, as well as the development and systemized monitoring of methods and technical resources, including games, which the professionals can use in different contexts.

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