


## Evaluation of a Formative Intervention on Sexuality and Gender for Early Childhood Education Teachers

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**Abstract:** The themes of sexuality and gender must be addressed at all stages of schooling. However, there is a certain invisibility during childhood, as well as a lack of interventions focused on educators. This study aimed to evaluate the effectiveness of a formative intervention about sexuality and gender in teachers of Early Childhood Education, in relation to the level of prejudice and attitudes related to sexual and gender diversity, gender roles, and educational competences for working with LGBT students. In total, 37 teachers participated in the study. Descriptive statistics and bivariate analyses were performed in the form of parametric tests (paired samples t-tests) and a thematic analysis. The intervention was positively evaluated, the prejudice level was significantly reduced and there was an immediate effect in relation to the application of knowledge. We suggest the development of interventions on subtle manifestations of prejudice towards sexual diversity and gender roles.

**Keywords:** sexuality, gender, early childhood education, prejudice

## Avaliação de uma Intervenção Formativa em Sexualidade e Gênero para Professoras de Educação Infantil

**Resumo:** As temáticas de sexualidade e gênero devem ser trabalhadas em todas as etapas da escolarização. Contudo, verifica-se certa invisibilidade no contexto da infância e uma carência de trabalhos com educadores/as. O objetivo deste estudo foi avaliar a eficácia de uma intervenção formativa em sexualidade e gênero para professoras/es de Educação Infantil, em relação ao nível de preconceito e de atitudes relacionadas à diversidade sexual e de gênero, aos papéis de gênero e às competências educacionais para trabalhar com estudantes LGBT. Trinta e sete professoras/es participaram. Foram realizadas estatísticas descritivas, análises bivariadas na forma de testes paramétricos (testes *t* de amostras pareadas) e uma análise temática. A intervenção foi avaliada de maneira positiva, o nível de preconceito reduziu significativamente e houve um imediato efeito em relação à aplicação dos conhecimentos. Sugerimos o desenvolvimento de intervenções sobre manifestações sutis de preconceito à diversidade sexual e aos papéis de gênero.

**Palavras-chave:** sexualidade, gênero, educação infantil, preconceito

## Evaluación de una Intervención Formativa sobre Sexualidad y Género para Profesoras de Educación Infantil

**Resumen:** Los temas de sexualidad y género deben ser abordados en todas las etapas de la escolaridad. Sin embargo, existe cierta invisibilidad en el contexto de la infancia y escasos trabajos con los/las educadores/as. El objetivo de este estudio fue evaluar la eficacia de una intervención formativa en sexualidad y género para profesoras/es de Educación Infantil, con relación al nivel de prejuicios y actitudes relacionadas con la diversidad sexual y de género, roles de género y competencias educativas para el trabajo con estudiantes LGBT. Participaron 37 profesoras/es. Se realizaron estadísticas descriptivas, análisis bivariados en forma de pruebas paramétricas (pruebas *t* de muestras apareadas) y un análisis temático. La intervención fue evaluada positivamente, se redujo significativamente el nivel de prejuicio y hubo un efecto inmediato con relación a la aplicación de conocimientos. Se sugiere desarrollar intervenciones sobre manifestaciones sutiles de prejuicio a la diversidad sexual y los roles de género.

**Palabras clave:** sexualidad, género, crianza del niño, prejuicio

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Early childhood education is a professional field that goes beyond the learning, development, and health of children aged under six years, since it aims to promote comprehensive child development in the affective, cognitive, social, and physical aspects. Thus, childhood education should seek to contemplate — within its pedagogical projects — the sexuality, playfulness, creativity, gender equality (Finco, 2015), and sexual diversity (Ciribelli & Rasera, 2019), since the

physical-motor, intellectual, affective-emotional, and social aspects are constitutive parts of human development (Bock, Furtado, & Teixeira, 2002). To this end, educators must be prepared to respond in a clear, true, and objective way to a child's most diverse questions — according to their age group — which may be linked to their bodies or the bodies of other and to topics related to human sexuality and gender relations.

School education with a continued curriculum — one that is guaranteed by educational policies toward citizenship — that engages with aspects of gender and sexuality would be more exempt of the educator's personal values, favoring the child's development of autonomy and emancipation. Moreover, when themes related to sexuality and gender are addressed in an educational context, there is a tendency to reduce the level of vulnerability to sexually transmitted diseases and infections, sexual abuse and violence, gender violence and prejudice, as well as offer greater integration in self-perception and satisfaction with oneself (Bartos, Berger, & Hegarty, 2014; Fonner, Armstrong, Kennedy, O'Reilly, & Sweat, 2014; Vladutiu, Martin, & Macy, 2011).

In a investigation conducted with 96 professionals in the field of Early Childhood Education, we sought to explore the motivations for formation and training in the topics of sexuality and gender. Two topics emerged for discussion based on the participants' opinion: the overwhelming presence of the subject in daily school life, causing misinterpretations and insecurity in their daily practices; and the significant lack of knowledge about the topics, which denotes the lack of formal training in their teaching and higher education courses (Blankenheim, Ramos, Pizzinato, & Costa, 2020).

Since the 1960s and 1970s — the period of introduction of sexuality in the Brazilian school curricula — up until the present day, we can observe a trajectory of advances and setbacks. The introduction of the topic of sexuality in the curriculum had some visibility due to the Law No. 5,692/1971, which emphasized that sexual education is to be overseen by educational advisors and teachers in the areas of Sciences or Health Programs, distancing sexuality and gender studies from the social sciences. In 1988, the Federal Constitution expressed, regarding the field of Education, that the State must develop parameters to guide educational actions (Vianna, 2018). In 1997, the National Curriculum Parameters (*Parâmetros Curriculares Nacionais* – PCN) were published, which constitute a flexible proposal of contents to guide the curricular structure of the educational system, supporting the elaboration and reviewing of curriculum by states and municipalities, considering their different social realities. Among its guidelines, we highlight the importance of discussions on gender and sexuality in Basic Education (Brandão & Lopes, 2018). In 2004, the Department of Continuing Education, Literacy, and Diversity (*Secretaria de Educação Continuada, Alfabetização e Diversidade* – SECAD) was created, which aims to place diversity at the center of public policy in Education, with its contents related to culture, racial ethnicity, generations, people with disabilities, gender, and sexual orientation (Guizzo & Felipe, 2016).

Currently, pressure from politically conservative groups — particularly those associated with Pentecostalism

and the Neo-charismatic movement — calls for the silencing of these issues in Brazilian schools (Louro, 2014). This issue can be observed in movements, such as the so-called *Escola sem Partido* (Nonpartisan School), which aims to prohibit the manifestation of teachers on topics such as gender and sexuality (Porto, 2019); the controversy around the didactic material of the program *Escola Sem Homofobia* (School without Homophobia), which, after significant criticism, ended up being suspended and no longer held in Brazilian schools (Guizzo & Felipe, 2016); and the movement that was politically established in Brazil as combating what they call, even if devoid of rational logic, as “gender ideology” — an expression that was appropriated by reactionary groups to criticize the social and historical construction of bodies; they sustain that gender is determined by the biological body and defend the traditional idea of family, attacking gender and sexuality studies for they consider that it distorts their religious and moral convictions (Nicolino, 2018).

The literature presents two forms of expressing prejudice: (1) the manifested (blatant), which is defined as the most direct and open way of expressing negative attitudes and includes extreme rejection toward individuals or social groups and (2) the subtle, which represents a more muted, disguised, or veiled way of expressing contrary opinions about individuals or groups (Souza, Silva, & Santos, 2017). These two forms manifest themselves in social spaces in various ways; the blatant prejudice, also called old-fashioned, is manifested as rejection and aggressiveness; the subtle, also known as modern, is manifested in animosities in political, social, and educational spheres.

Studies indicate that the phenomena of prejudice and discrimination are directly related to negative mental health outcomes, such as depression, anxiety, use of substances, suicide attempt, and suicidal ideation becoming more often associated with socially marginalized groups, such as blacks, refugees, immigrants, Indigenous people, and LGBTQIA+ people (Kelleher, 2009). Thus, the vulnerable social state of the queer population and their lower mental health rates are considered when compared to the general population.

In order to intervene in the evidenced gaps and assist with the visibility of the subject in Early Childhood Education and in the continuing education for professionals in this field, an intervention program was carried out for the training of early childhood teachers in Sexuality and Gender, via a doctoral project of the Graduate Program in Psychology of the Pontifical Catholic University of Rio Grande do Sul. This study aimed to evaluate the efficacy of a formative intervention in sexuality and gender for early childhood teachers, regarding the level of prejudice and attitudes related to sexual and gender diversity, gender roles, and educational skills to work with LGBTQIA+ students.

## Method

A psychoeducational intervention was developed, in the form of a free online course. The Moodle platform was

used for the construction and application of the training course. The content was developed based on: (1) demands raised by the focus group method, carried out directly with a population of professionals in the field of Early Childhood Education; and (2) the structure and content of a virtual course, previously conducted, aimed at health professionals, which had a significant effect on changing the levels of prejudice against sexual and gender diversity (Costa et al., 2016). Moreover, the material on sexuality and gender education, built specifically for the field of Education, was evaluated and approved by five psychologists — among which are doctors, doctoral students, and master’s students

of the Graduate Programs in Psychology of the Pontifical Catholic University of Rio Grande do Sul.

The training had four main components, called modules: (1) basic concepts, (2) education on sexuality and gender, (3) good practices in educational interventions, and (4) final project. Mixing didactic and experiential approaches, the theoretical contents were adjusted for children and the practical aspects were adapted to the school environment (Table 1). We will thus present the assessment of efficacy pre- and post-study, based on the modification of the prejudice level and attitudes related to sexual and gender diversity, gender roles, and evaluation of educational skills to work with LGBTQIA+ students.

Table 1  
*Intervention structure*

Module	Educational component	Methodology
Basic concepts	Sexuality, gender, child development	Exhibition material for reading, explanatory video on sexuality and asynchronous forum activity
Education in sexuality and gender	Education in sexuality and gender and the role of the school	Exhibition material for reading and asynchronous forum activity
Good practices in educational interventions	Interventions in situations related to sexuality and gender in child development, prevention of sexual abuse and violence, and family diversity	Exhibition material for reading, composed of educational scenarios and their possible resolutions and asynchronous forum activity
Final project	Intervention project	Autonomous and active task of preparation and writing of intervention project

## Participants

The participants who arrived for the research, either from direct invitation sent to schools or from the open dissemination in social networks, are professionals in the field of Early Childhood Education in the South and Northeast regions of Brazil. At enrollment, 152 people answered a questionnaire, showing interest in participating in the study and in the course. However, only 37 people completed the training and filled out all the required forms. The mean age of the participants was 32.08 years, ranging from 20 to 48 years old, with a standard deviation of 9.02 years.

Regarding the participants’ profile, most were women (91.89%), heterosexual (89.19%), single (56.76%), with complete tertiary education (51.35%), and graduate education (43.24%). Regarding race/skin-color they are white (86.49%), black (10.81%), and mixed-race (2.70%). A total of 62.16% declared religious affiliation; whereas, 37.84% did not declare religious affiliation. Out of those who declared religious affiliation, 4.35% declared affiliation with Candomblé/Umbanda or other Afro-Brazilian religions; 8.70%, Evangelicals; 43.48% Catholic and the same percentage are Spiritists. Out of those with religious affiliation, 52.94% consider themselves as religiously inactive persons.

## Instruments

The participants answered the following instruments:

*Sociodemographic data questionnaire.* A questionnaire prepared by the authors, containing questions addressing sociodemographic data (gender, gender, sexual orientation, schooling level, religion, access to information).

*Experiences with prejudice,* containing the following question: Have you seen or heard occurrences at your, or another, school of any kind of prejudice, humiliation, discrimination, physical aggression, or mistreatment of a teacher, parent, or student for being a gay, lesbian, *travesti*, or transsexual? In this question, there are three possibilities of answer: (1) I have not seen or known it to occur; (2) I did not see it, but I heard about it, and (3) I saw it at school.

*Scale of prejudice against sexual and gender diversity* (Costa, Machado, Bandeira, & Nardi, 2016). This scale has 16 items with various statements about prejudice against LGBTQIA+ (e.g.: Women who see themselves as men are abnormal and sex change operations are morally wrong), evaluated on a five-point scale (1 = “totally disagree,” and 5 = “totally agree”); it presents an internal consistency index of  $\alpha = 0.93$  and evidence of validity for the Brazilian context. In our data, the  $\alpha$  was 0.65. This version evaluates the self-reported prejudice by the participant.

*Brazilian version of the multidimensional scale of attitudes towards lesbians and gay men* (Gato, Fontaine, & Leme, 2014). This instrument consists of 27 items distributed in four dimensions: rejection of proximity (e.g., gays and lesbians annoy me); pathologizing queer people (if they really wanted to, lesbians and gays could be heterosexual); modern

heterosexism (gays and lesbians should stop pushing their lifestyle onto others); and support (I see the LGBTQIA+ movement as something positive) – evaluated on a five-point response scale (1 = “I totally disagree”, and 5 = “totally agree”). The scale presents good evidence of validity and reliability for the Brazilian context. In this study sample, the rejection of proximity dimension presented a Cronbach’s 0.26 alpha; the pathologizing queer people dimension, 0.78; modern heterosexism, 0.53; and, finally, support, 0.36. Since they presented unacceptable values in our sample, the rejection of proximity and support dimensions were not analyzed. Although modern heterosexism dimension presented a poor value it was used in the analysis, however, it should be cautiously interpreted, as described in the limitations of this study.

*Attitudes related to gender roles scale* (Andrade, 2016). Likert scale, with a factor, scored from 1 to 4 (1 = “totally disagree”, and 4 = “totally agree”) the higher the overall score obtained, the more negative the interviewee’s attitude towards gender equality (e.g., if a child gets sick, it should be the mother and not the father to miss work to take care of them). In our sample,  $\alpha = 0.85$ .

Indicators for assessing the impact of the training course consisted of three instruments: (1) *Assessment scale for educational skills in working with LGBTQIA+ students* (adapted from Bidell, 2017). Based on this scale, the relevant items were selected. It addresses institutional barriers and the empowerment of professionals when working with LGBTQIA+(e.g.: “I would feel morally uncomfortable if I worked with an LGBT student” and “I would feel unprepared to talk to an LGBTQIA+ student about topics related to their sexual orientation or gender identity”). (2) *Training course evaluation indicators*, which evaluated the workload, content, and acquired knowledge, according to the opinion of each participant. (3) *Impact of the training course on professional practice scale*, which, evaluated the skills learnt and the practical application of the contents addressed in the training, directly in their applicability in the work practices of the participants. In our sample, this scale presented  $\alpha = 0.86$ .

## Procedures

To promote the training course, emails were sent to schools, requesting that it be passed on to teachers, and a promotional card of the course was shared via online advertisements on social networks. In these promotions, there were instructions for the enrollment in the course, which consisted, firstly, of filling out the research form in Qualtrics and. Then, participants would be directed to register at the course platform, on the institution’s website.

At the beginning of the form, the participant accessed the consent form for online investigation, which had to be read and consented to continue the research. The inclusion criterion consisted in the person being a professional in the field of Early Childhood Education and following all the requested registration steps.

The research instruments were answered before the intervention and after its completion. The time between pre- and post-application was about one month, a designated period for participating in the training course.

**Data collection.** The registration procedure and monitoring of the training were carried out on two dates: the first class happened during September 2019 and the second class, during May 2020. The two classes were accompanied by tutors (doctoral students, master students, and scientific initiation fellows), who were available to assist and to follow the participants throughout the training course.

The pre-course form was composed of the sociodemographic data questionnaire, the scale of prejudice against sexual and gender diversity (Costa, Machado, Bandeira, & Nardi, 2015), the Brazilian version of the multidimensional scale of attitudes towards lesbians and gay men (Gato et al., 2014), the attitudes related to gender roles scale (Andrade, 2016), and the Assessment scale for educational skills in working with LGBTQIA+ students (adapted from Bidell, 2017). In the post-course form (answered after participation in the training) the same scales were answered, and the impact of the training course on professional practice scale and the course evaluation indicators were included.

**Data analysis.** For quantitative analyses, descriptive statistics were obtained for sociodemographic variables. Bivariate analyses were conducted in the form of parametric tests (t-tests of paired samples), to verify the differences before and after the intervention. The significance level was established at  $p < 0.05$ . The analyses were conducted using SPSS 23.

In the qualitative evaluation, 16 participants chose to register written responses about the training course. Based on a model proposed by Braun and Clarke (2006) thematic analysis was chosen since it assumes an inductive orientation, used for the codification of raw data without pre-defined categories, entailing a categorization based exclusively on the data. Three steps constitute the use of this analysis: pre-analysis, exploration of the material, and treatment of results and interpretation.

The pre-analysis began with a first reading, generating the initial impressions about the material to be analyzed. In the exploration phase, the material was read several times and grouped into specific themes, according to the proximity of the subjects addressed in the participants’ speeches. In the Results, it will be presented two themes that emerged during data processing and interpretation. The entire process of qualitative data analysis was conducted by two researchers, authors of this article.

## Ethical Considerations

The project was approved by the Research Ethics Committee of the Pontifícia Universidade Católica do Rio Grande do Sul. It is registered under the approval protocol number CAAE no. 01989718.6.0000.5336.

## Results

We noticed that discrimination against sexual and gender diversity in the educational context is present in the responses of participants according to the items about having seen or known that it occurred, in their or in other schools, some type of prejudice, humiliation, discrimination, physical aggression, or mistreatment of a teacher, student's parents, or student, for being queer. In total, 16 people (43.24%) did not see it, but knew it had occurred, while nine (24.32%) witnessed any of these situations, and 12 (32.43%) did not see nor knew any case.

Regarding the levels of prejudice against sexual and gender diversity, there was a significant decrease in prejudice when comparing before the beginning of the training course ( $M = 1.19$ ;  $SD = 0.24$ ) to after its completion ( $M = 1.11$ ;  $SD = 0.20$ ,  $t [3.17] = 36$ ,  $p = 0.003$ ,  $d = 0.36$ ) observed in the results of the scale of prejudice against sexual and gender diversity. In the evaluation of attitudes towards lesbians and gay men and gender roles, there were no significant changes in the used dimensions. Thus, we found evidence that may suggest that the training course decreased the level of explicit prejudice of the participants, which will be discussed below (Table 2).

Table 2  
Impact of the course before and after participation in training

Variables	n	Pre		Post		t	d	p
		M	SD	M	SD			
Sexual and Gender Diversity Prejudice Scale	37	1.19	0.24	1.11	0.20	3.17	0.36	0.01
Multidimensional Scale of Attitudes towards Lesbians and Gays – pathologizing queer people	37	1.10	0.36	1.07	0.22	0.43	0.05	0.67
Multidimensional Scale of Attitudes towards Lesbians and Gay men - Modern Heterosexism	37	1.51	0.44	1.52	0.44	-0.18	0.02	0.85
Gender Roles Attitudes Scale	35	1.19	0.24	1.18	0.24	0.11	0.04	0.91

In the assessment of educational skills to work with LGBTQIA+ students there were significant changes in three items: (1) In the item “I would feel unprepared to talk to an LGBTQIA+ student about topics related to their sexual orientation or gender identity,” there was a significant difference before ( $M = 3.86$ ,  $SD = 2.17$ ) and after the training course ( $M = 3.04$ ,  $SD = 2.03$ ,  $t [2.41] = 27$ ,  $p < 0.023$ ,  $d = 0.39$ ). (2) In the item “I have received educational training

to work with transgender students”, significant differences were presented between before ( $M = 2.31$ ,  $SD = 1.75$ ) and after the training course ( $M = 3.55$ ,  $SD = 1.94$ ,  $t [-3.21] = 28$ ,  $p < 0.003$ ,  $d = 0.67$ ). (3) In the item “I have received educational training to work with LGBTQIA+ students”, there was a significant difference between before ( $M = 2.52$ ,  $SD = 1.94$ ) and after participating in training ( $M = 3.62$ ,  $SD = 2.14$ ,  $t [-2.39] = 28$ ,  $p < 0.024$ ,  $d = 0.53$ ) (Table 3).

Table 3  
Assessment scale for educational skills in working with LGBT students

Items	n	Pre		Post		t	d	p
		M	SD	M	SD			
1. I am aware of institutional barriers that could inhibit transgender people's access to schools.	35	5.23	2.20	4.86	2.46	0.96	0.15	0.34
2. I am aware of the existence of institutional barriers that could inhibit access for LGBQIA+ people to schools.	33	5.21	2.12	4.82	2.42	1.09	0.17	0.28
3. I would feel unprepared to talk to an LGBQIA+ student about topics related to their sexual orientation or gender identity.	28	3.86	2.17	3.04	2.03	2.41	0.39	0.02
4. I have received educational training to work with transgender students.	29	2.31	1.75	3.55	1.94	-3.21	0.67	0.01
5. I have received educational training to work with LGBQIA+ students.	29	2.52	1.94	3.62	2.14	-2.39	0.53	0.02
6. I would feel morally upset if I worked with an LGBQIA+ student.	22	1.23	0.69	1.41	1.33	-0.56	0.16	0.58

We also see that training may have had repercussions in the daily professional practice of teachers. All participants scored “I don’t agree nor disagree” to “totally agree”, and the options “Partially disagree” and “totally disagree” were removed from the table since they resulted in 0.

In Table 4, we can observe that the following items show the highest agreement (those that show total agreement above 80%):

I take advantage of the opportunities I have to practice what I was taught in the training course (80.56%), the skills I learned in training lead me to make fewer mistakes in my work and in activities related to the content of the training (84.38%), the quality of my work improved in the activities directly related to the content of the training (82.35%), and my participation in the training served to increase my motivation for the work (86.11%).

Table 4

*Impact of training on professional practice*

Items	<i>n</i>	I neither agree nor disagree	I partially agree	I completely agree
1. I often use what I was taught in training in my current work.	35	5.71	31.43	62.86
2. I take advantage of the opportunities I have to put into practice what I have been taught in training.	36	-	19.44	80.56
3. The skills I learned in training lead me to make fewer mistakes in my work and in activities related to the content of the training.	32	6.25	9.38	84.38
4. I remember well the content taught in the activity.	37	-	24.52	75.68
5. When I apply what I learned in the activity, I work faster.	32	15.63	21.88	62.50
6. The quality of my work improved in the activities directly related to the content of the training.	34	2.94	14.71	82.35
7. The quality of my work improved even in those activities that did not seem to be related to the content of the training.	35	5.71	22.86	71.43
8. My participation in the training served to increase my motivation for the job.	36	2.78	11.11	86.11
9. My participation in this training increased my self-confidence (I now have more confidence in my ability to perform my work successfully).	35	2.86	22.86	74.29
10. After my participation in the activity, I have suggested changes in work routines more often.	30	16.67	26.67	56.67
11. This training I have done has made me more receptive to changes in work.	32	9.38	18.75	71.88
12. My training benefited my co-workers, who learned from me some new skills.	30	16.67	26.67	56.67

Additionally, we also verified that the evaluation indicators of the course were positively scored by the participants. The indicators were composed of 11 items, which addressed evaluatively the issues of workload, content, and material of the course, as well as the aspects of usefulness and application of knowledge, motivation, and intention of applicability in the practice of the participants. Most people considered all indicators as “great”, with more than 95% of the answers concentrated between good and great in all items. The item with the highest score was the “quality and organization of the distributed didactic material”, with 75.68% for great. We observed that, in relation to the previous results, we would like to highlight the item linked to “intention to apply at work the knowledge acquired in the activity” (72.97% for great).

In the qualitative evaluation, the first theme, *application of the course contents in the practice of the participants*, relates the reflection and training provided by the experience of the course with the application of the contents in the

participants’ daily life. Participants suggested, in clippings of their statements, that soon after the completion of the training new educational performances were possible in relation to the topics: “it was very productive and I will take these teachings to my classes”, “I reflected on my practices and I will certainly be a more ‘open-minded’ teacher with my students”, and “the course was really wonderful and ‘woke me up’ to some issues of great relevance for the integral development of my little students”.

The second emerging theme in qualitative analysis, *continuity of training on the theme*, was evidenced from the desire and interest of the participants to continue studying and deepening their knowledge about sexuality and gender. We can verify this position in the following statements: “I would like to undertake more training”, “I would like to be communicated of future courses”, “the desire to do continuous training on the subject, in school, was born”, “I expect further training”, and “I hope that there will be more [training courses], to improve ourselves in this area”.

## Discussion

Based on our results, we were able to verify, in general, that issues related to sexuality and gender permeate the daily life of Early Childhood Education and are perceived as important by teachers in their routine. The training on these topics, according to the presented proposal, may have entailed in a decreased level of prejudice and in the practical application of the knowledge acquired by the participants.

Moreover, the change in the levels of blatant prejudice in early childhood education professionals may have facilitated the motivation to apply future school interventions on the subject. In more specific terms, the significant change in the participants' levels of prejudice against sexual and gender diversity, before and after participation in the course, denotes a more explicit manifestation of prejudice than the subtle ones, in relation to attitudes towards lesbians and gay mens and gender expectations.

This data demonstrates that the decrease in the levels of more blatant prejudice may be related to the current Brazilian reality, in which the most serious forms of prejudice lead to the creation of interventions at social and legal levels. Some examples are the creation of the hotline 100, in 2011, to report human rights violations — including cases of homophobia and transphobia (Silva & Bahia, 2015) — and the criminalization of homophobia and transphobia, in 2019, in which the typification provided for crimes resulting from discrimination or prejudice of race, color, ethnicity, religion, or national origin extended to discrimination due to sexual orientation or gender identity. At this moment, the criminalization of homophobia is extremely necessary due to the large number of offenses, aggressions, and discrimination suffered by the Brazilian LGBTQIA+ population based solely on their sexual orientation and/or sexual identity (Figueiredo & Araújo, 2020).

Even though the levels of prejudice have decreased, we emphasize the need for interventions aimed at modifying attitudes towards gender roles, which, despite already showing low levels in the pre-application of the questionnaire, did not present significant changes after our intervention. This point deserves visibility since it is a subject present in the day-to-day of schools and especially in Early Childhood Education. Santos (2020) suggests gender roles as one of the main focuses within the theme of sexuality and gender, highlighting the gender pedagogies produced by adult (teachers) and aimed at children. The socialization process actively contributes to the construction of children's gender identity, through practices and rituals present in daily life (affecting both men and women, as well as boys and girls) living a collective life. The gender pedagogies present in this context demonstrate that, in different curricular dimensions and practices of Early Childhood Education, various ideas circulate on what it means to be a boy, or a girl, and they show how these meanings operate in the construction of gendered identities of children (Santos, 2020).

Based on the significant decrease in the manifested/blatant prejudice after participation in the course, it is expected that education professionals will present less rejection and negative

attitudes toward sexual and gender diversity. In relation to subtle/modern prejudice, we suggest that future interventions include a specific module on the most veiled forms of prejudice, which appear subtly in school life, such as the meanings that teachers give to children's games and attributions on home and family care. We would like to highlight that the intervention was originally developed and evaluated aimed at the decrease in manifested/blatant prejudice, which reinforces the need for this future adaptation.

We highlight some limitations found throughout the application of the intervention. We had a high number of people interested in the course; however, at the time of joining the registration and effecting their participation, the number decreased considerably, leaving a small number of participants to be included in the sample. The fact that the intervention was held online may have contributed to it being more accessible to people, on the other hand, it draws attention to the need for creating adherence and engagement strategies within the virtual training context.

Finally, the proposed methodology prevented the formation of a control group, so it is necessary to consider the inherent bias of a pre-experimental study when analyzing these results. Notably, the multidimensional scale of attitudes towards lesbians and gay men did not present reliability indexes considered optimal in all its dimensions. The modern heterosexism dimension was used even with an index considered weak. Therefore, the negative result in this analysis should be interpreted with caution since there is an error considered in the measure of this sample.

Investing in continuous training of education professionals, to reduce stigmas surrounding sexuality and gender and develop competent practices within this topic, can increase the chances that the institutions to which these professionals belong follow the examples as standard practice. Once a critical mass of professionals recognizes the benefits in their daily practice and in relation to human rights, they can advocate for the inclusion of training in other educational contexts.

Although we did not focus in seeking a relationship between prejudice and mental health, we know that reducing prejudice — especially from those who serve the LGBTQIA+ population in the health and education spheres — influences the mental health of the victims. Stigma, prejudice, and discrimination create a hostile and stressful social environment that causes mental health problems (Meyer, 2003). It is necessary to promote actions at individual and social levels aimed at reducing prejudice and stigma related to sexual and gender diversity, as well as public policies, not only to reduce prejudice, but to provide mental health support.

Empowering professionals with the knowledge and skills to offer good practices in relation to sexuality and gender can improve their educational interventions and their structural surroundings (Lelutiu-Weinberger & Pachankis, 2017). According to our data, the professionals who finished the intervention showed motivation to continue training on the topic and to rapidly apply good practices and interventions in their contexts of action.

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