

## **EDUCATIONAL BOOKLET FOR PREVENTING TRANSPHOBIC BULLYING AT SCHOOL**

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### **ABSTRACT**

**Objective:** to describe the process of developing, validating and assessing an educational booklet to prevent transphobic bullying at school.

**Method:** this is a methodological study, carried out from February to December 2022 at a public school in João Pessoa, Paraíba, Brazil. The educational booklet was developed in accordance with the methodological trajectory proposed by Echer, and submitted to content validity and semantic assessment by expert judges and Elementary School II teachers, respectively. In data analysis, content validity and Intraclass Correlation Coefficients were used, in addition to semantic agreement index.

**Results:** the educational booklet had its content validated with a validity coefficient of 0.981 and an Intraclass Correlation Coefficient of 0.833 for the set of items in the assessment instrument. In semantic assessment, teachers considered the booklet understandable, with a minimum agreement level of 94%.

**Conclusion:** the booklet developed was considered valid by judges, to be used with teachers, individually and in continuing education or health actions, in order to contribute to preventing transphobic bullying at school.

**DESCRIPTORS:** Educational technology. Transgender persons. Transphobia. Bullying. Gender-based violence. School health services. Health education. Nursing.

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# CARTILHA EDUCACIONAL PARA PREVENÇÃO DO *BULLYING* TRANSFÓBICO NA ESCOLA

## RESUMO

**Objetivo:** Descrever o processo de desenvolvimento, validação e avaliação de cartilha educacional para prevenção do *bullying* transfóbico na escola.

**Método:** Trata-se de um estudo metodológico, realizado no período de fevereiro a dezembro de 2022 em uma escola pública de João Pessoa, Paraíba, Brasil. A cartilha educacional foi desenvolvida de acordo com a trajetória metodológica proposta por Echer, e submetida à validação de conteúdo e avaliação semântica por juízes especialistas e professores do Ensino Fundamental II, respectivamente. Na análise dos dados, utilizaram-se os coeficientes de validade de conteúdo e correlação intraclasse, e o índice de concordância semântica.

**Resultados:** A cartilha educacional teve seu conteúdo validado com coeficiente de validade de 0,981 e coeficiente de correlação intraclasse de 0,833 para o conjunto de itens do instrumento de avaliação. Na avaliação semântica, os professores consideraram a cartilha compreensível, com nível de concordância mínima de 94%.

**Conclusão:** A cartilha desenvolvida foi considerada válida por juízes, para ser utilizada com professores, de forma individual e em ações de educação permanente ou em saúde, a fim de contribuir na prevenção do *bullying* transfóbico na escola.

**DESCRITORES:** Tecnologia Educacional. Pessoas Transgênero. Transfobia. *Bullying*. Violência de Gênero. Promoção da Saúde Escolar. Educação em Saúde. Enfermagem.

# CARTILLA EDUCATIVA PARA PREVENIR EL ACOSO TRANSFÓBICO EN LA ESCUELA

## RESUMEN

**Objetivo:** describir el proceso de desarrollo, validación y evaluación de una cartilla educativa para prevenir el acoso escolar transfóbico.

**Método:** se trata de un estudio metodológico, realizado de febrero a diciembre de 2022 en una escuela pública de João Pessoa, Paraíba, Brazil. La cartilla educativa fue elaborada de acuerdo con la trayectoria metodológica propuesta por Echer, y sometida a validación de contenido y evaluación semántica por jueces expertos y docentes de la Escuela Primaria II, respectivamente. En el análisis de los datos, se utilizaron los coeficientes de validez de contenido y de correlación intraclase, y el índice de concordancia semántica.

**Resultados:** la cartilla educativa tuvo su contenido validado con un coeficiente de validez de 0,981 y un coeficiente de correlación intraclase de 0,833 para el conjunto de ítems del instrumento de evaluación. En la evaluación semántica, los docentes consideraron comprensible el cuadernillo, con un nivel mínimo de acuerdo del 94%.

**Conclusión:** la cartilla desarrollada fue considerada válida por los jueces, para ser utilizada con docentes, de manera individual y en acciones de educación continua o de salud, con el fin de contribuir a la prevención del acoso escolar transfóbico en la escuela.

**DESCRIPTORES:** Tecnología educacional. Personas transgénero. Transfobia. Acoso escolar. Violencia de género. Servicios de salud Escolar. Educación en salud. Enfermería.

## INTRODUCTION

Transphobia is a reflection of power relations historically constructed and perpetuated in societies around the world. The term refers to different meanings, such as negative behaviors of hatred, repulsion, indignation or anger due to transgenderism. Such behaviors can range from verbal insults to physical aggression and murder<sup>1-2</sup>.

At school, transphobic violence often begins in the form of transphobic bullying, which involves students who do not conform to social norms and expectations for their gender, such as effeminate boys or “masculine” girls, beginning a cycle of violence with discriminatory treatments, insults, prejudiced insinuations, aggression and embarrassment, giving a feeling of power/superiority in complying with cisnormativity<sup>3</sup>.

Worldwide, trans people’s educational experience involves a context of abuse, institutional exclusion and transphobic bullying. In Colombia, for instance, 92% of trans people have been bullied at school, followed by Venezuela (78%), Philippines (72%), Turkey (61%) and Serbia (50%)<sup>4</sup>.

In our scenario, a study with 120 families of trans children and adolescents about their experiences in the Brazilian educational system showed that 93 of them stated that their child/adolescent had already been a victim of some type of bullying<sup>5</sup>.

Due to the prejudice of students and teachers, constant situations arise of non-recognition of their social name during the call, unavailability of bathroom/clothing according to gender identity, exclusionary binary divisions in physical activities, and everyday life marked by physical and psychological violence and neglect trans people’s school experience as an experience marked by doubts, exclusion and pain<sup>4</sup>.

These situations occur because the school perpetuates hegemonic cultural norms that constitute society, such as the way men and women must construct their gender and express their sexuality as a naturalized standard and incorporated into educational practices, focusing their activities on teaching and learning<sup>6</sup>.

The consequences of transphobic bullying for victims include a greater risk of mental distress, such as low self-esteem, anxiety, and depression, and the possibility of developing self-harm and suicidal behavior. Furthermore, they are also more likely to drop out of school or miss classes and have lower academic performance than cisgender students<sup>5</sup>.

In Brazil, basic education is a right granted to every citizen under the Federal Constitution and which must be met in accordance with the demands of students’ interests with a view to democracy and social inclusion<sup>7</sup>. The Brazilian National Common Curricular Base (BNCC – *Base Nacional Comum Curricular*) for basic education contains the skills that must be returned throughout the stages, which includes valuing diversity without prejudice of any kind. In 2018, Law 13,663 was enacted, which mandates schools to promote measures to combat bullying and encourage the Culture of Peace<sup>7</sup>.

Seen in these terms, the role of a teacher is no longer solely to contribute to student learning, but also to encourage the development of skills and abilities in an articulated way to build knowledge and form attitudes and values<sup>7</sup>. However, a Brazilian study carried out with Elementary School teachers in João Pessoa, Paraíba, revealed that they did not feel prepared to address transgenderism and transphobic bullying at school<sup>8</sup>.

Facing the vulnerabilities that permeate trans children’s and adolescents’ full development full development finds in schools a privileged space for the association of education and health, especially in basic education in the public education network. It is essential that healthcare professionals turn their attention to transphobic bullying prevention and develop health education

actions to clarify and raise awareness among teachers, in order to promote a healthy development for trans children and adolescents through an educational process that contributes to mental health and minimizes inequalities in this population. Hence, nurses play a relevant role in the development of health educational actions within the scope of primary care, especially in school settings, in health promotion interventions<sup>9</sup>.

Educational technologies are tools that assist nursing health education practices, which includes school settings, and are important resources that can be used to increase the level of knowledge as well as change attitudes and behaviors related to a given object<sup>10</sup>.

Enlightening and raising awareness of teachers with the implementation of educational technologies to prevent transphobic bullying at school allows them to be multiplying agents for changing behavior in other teachers, students and staff, making it possible to transform exclusionary and violent behaviors committed against trans students through actions based on a Culture of Peace<sup>11</sup>.

Furthermore, the importance of adopting a Culture of Peace as a structuring axis of the guidelines contained in the educational technology of this study was recognized as it is a framework that values dialogue and non-violence for the prevention and resolution of conflicts involving trans students<sup>11</sup>. Therefore, this study aimed to describe the process of developing, validating and assessing an educational booklet to prevent transphobic bullying at school.

## METHOD

This is a methodological study with the development, content validity and semantic assessment of an educational booklet, carried out from February to December 2022, in João Pessoa/PB. The research was based on the Culture of Peace theoretical framework<sup>10</sup>, in order to present guidelines based on non-violence and dialogue principles as a guiding axis in the mediation of conflicts involving trans students.

The choice of educational technology occurred through individual interviews carried out with 12 Elementary School II teachers from a municipal public school in João Pessoa Paraíba, Brazil, carried out between November 2021 and February 2022. Knowledge, experiences and attitudes towards transphobic bullying to guide the booklet content were diagnoses.

To this end, a semi-structured script was used with the following questions: What do you understand by gender identity and transgenerity? If you have had any experience at school with a trans student, tell us what it was like. What would you do if you witnessed a trans student being transphobic bullied? What do you think you can do to prevent transphobic bullying at school? What do you know about implementing a Culture of Peace at school? In your opinion, what type of technology would be most appropriate to guide and raise awareness among teachers about transphobic bullying? What do you think it should have in terms of content?

To develop the booklet, the methodological trajectory proposed by Echer was used<sup>12</sup>, which outlines the construction of manuals, and consisted of seven stages: project submission to a Research Ethics Committee; search for specialized literature; suitability of literature information for the target audience; choice of relevant information; illustration of selected content; content validity by professionals specialized in the topic and by experts in Printed Educational Material (PEM) development; and assessment by the target audience.

The booklet content selection was based on analysis of teachers' statements, then there was a search for educational materials on Sexual and Gender Diversity (SGD), bullying, and Culture of Peace (CP) available on the Internet at in the form of manuals, booklets and official documents as well as books and scientific articles in the areas in question. Thus, a script was created containing the topics identified as relevant both in the literature consulted and in the statements of interviewed

teachers. After selecting content, the textual elaboration of the booklet began. To this end, the recommendations for written communication in PEM<sup>12</sup>, were followed in relation to language, illustration and layout. Literature language was adapted, where the best vocabulary use was observed to facilitate understanding by the target audience<sup>13</sup>.

Illustrations and layout were made by a professional graphic designer experienced in developing booklets, who assessed the script created by the researcher to define the scope. Subsequently, illustrations were defined through sketches and colorization in Illustrator CC. Subsequently, page graphic design and layout were carried out with the inclusion of illustrations in Corel Draw 2020.

After its development, the booklet was submitted for content validity by experts in SGD, CP and PEM development, selected according to Fehring criteria<sup>14</sup>. To define the number of judges in SGD, a sample calculation was chosen based on previous study<sup>15</sup>. The formula  $n = (Z\alpha)^2 \cdot P(1-P)/d^2$  was used, in which “n” represents the number of experts, “Z” is equivalent to the desired level of significance, “P” indicates the minimum proportion of experts who consider the item/instrument appropriate and “d” is equivalent to the degree of accuracy of the estimate. Applying an 85% acceptance rate among judges and a 95% Confidence Interval resulted in 22 judges. However, an odd number of judges was adopted to avoid ambiguous questions<sup>16</sup>. The proportion of one professional specialized in CP and one with experience in developing PEM for every ten professionals specialized in SGD was considered<sup>17</sup>. Thus, the sample consisted of 27 judges, 23 judges in SGD, two in CP and two in PEM development.

The sample was composed intentionally of snowballing based on the indication of “Education in Comprehensive Health, Gender and Diversity in Nursing Care Scenarios” research group members at the *Universidade Federal de Pernambuco* and subsequent consultation of *Curriculum Lattes* to confirm expertise according to established criteria<sup>14</sup>. Thus, the first experts nominated others to form the pool of experts invited to participate.

Nominees were contacted via their email addresses, sending an invitation letter, a link to fill out the electronic Informed Consent Form via Google Forms®, a digital version of the booklet in PDF and an assessment form also in electronic format via Google Forms®, adapted from a previous study<sup>18</sup>. This self-applied instrument was composed of 18 items divided into three dimensions: objectives; structure/presentation; and relevance. It comprises a Likert-type scale with three response options (disagree, partially agree, and completely agree), and with space for comments and/or suggestions. A ten-day deadline was established for returning the assessment, extended by another ten days for participants who did not meet the initial deadline, and those who did not submit within the new stipulated period were excluded.

The database was transported from Microsoft Excel® to Stata version 16.0. The Content Validity Coefficient was calculated for each item<sup>19</sup>. To this end, judges’ scores were used to calculate the mean scores for each item (Mx). The initial CVC (CVCi) was determined using the formula  $CVCi = Mx/Vmax$ , where Vmax represents the highest value that the item can reach. Judges’ polarization error (Pei) was also calculated to discount possible biases of judges for each item, using the formula  $Pei = (1/J) J$ , where J represents the number of judges included in the study. Therefore, it was considered as final CVC (CVCc):  $CVCc = CVCi - Pei$ .

To verify whether the proportion of agreement of booklet items reached the established cut-off point of 80%, based on a significance level of 5%, a binomial test was calculated. To analyze agreement among judges, the Intraclass Correlation Coefficient was calculated for the total set of items, and for the objectives, structure/presentation and relevance dimensions, with a 95% Confidence Interval.

After data analysis, the booklet was modified according to the changes proposed by judges, and the second version was subjected to semantic assessment. This type of assessment must be carried out with a group of six to 20 subjects;<sup>16</sup> in this case, intentionally including ten teachers who participated in the previous diagnosis. Thus, in addition to verifying the satisfactory understanding of the booklet by the target audience and whether this understanding makes its use viable<sup>16</sup>, teachers were also able to assess whether the booklet met the suggestions they had previously presented.

Teachers had already been informed about their participation in semantic assessment at the time of diagnosis. To this end, contact was established via WhatsApp®, where the digital booklet was sent in PDF format and the link to the self-applied Google Forms® assessment form, adapted Suitability Assessment of Materials (SAM), composed of 29 items that assess the objective, organization, language, appearance, motivation and cultural suitability dimensions, with answers presented on a Likert-type scale with five grades (1 – completely disagree; 2 – disagree; 3 – neutral; 4 – agree; 5 – totally agree), and with space for comments and/or suggestions<sup>20</sup>.

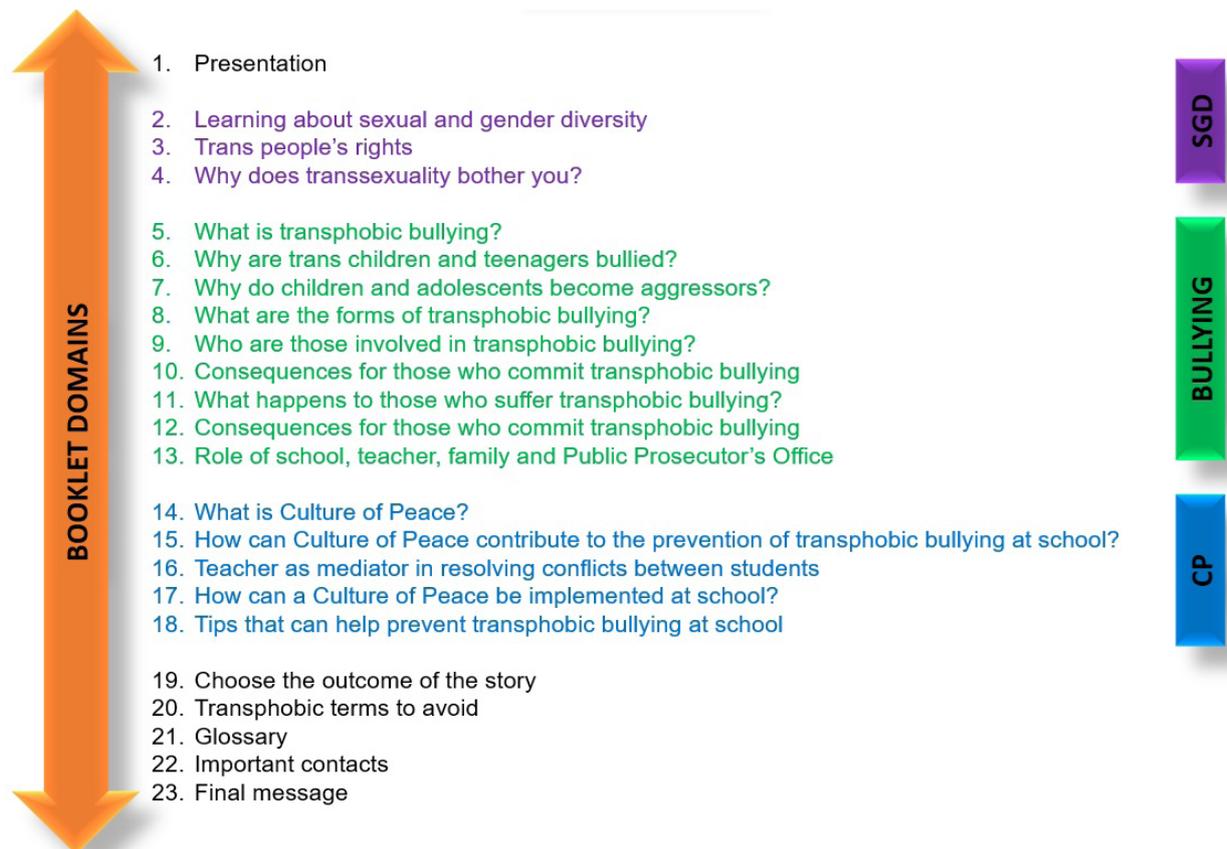
The semantic agreement index was calculated, considering a minimum agreement of 80% for the answers agree and completely agree<sup>21</sup>. After incorporating suggestions from the target audience, the final version of the educational booklet on transphobic bullying in trans students was created, and was subjected to grammatical and spelling correction by a professional trained in languages and linguistics and, then, textual adjustments were made for printing. The final version of the booklet is available in digital and printed formats.

## RESULTS

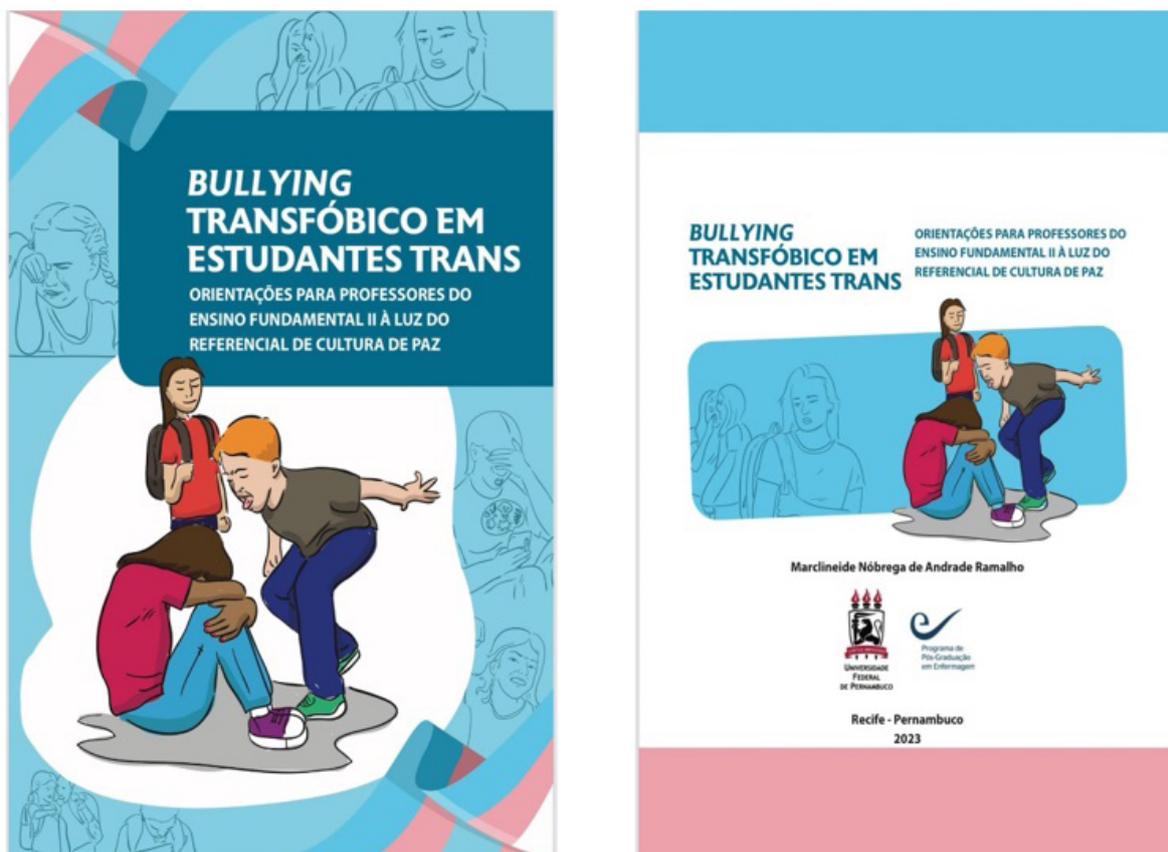
The final version of the booklet is made up of 36 pages, structured into an external part (front and back cover) and internal part (pre-textual, textual and post-textual elements). Technical sheet and summary constitute pre-textual elements, and references, post-textual elements. Figure 1 shows the textual elements that cover the booklet content, grouped into 23 domains that address SGD, transphobic bullying and CP.

The main illustration on the outside of the booklet, shown in Figure 2, highlights those involved in a situation of transphobic bullying, with three characters representing victims, aggressors and witnesses. Other illustrations appear in the margins of the cover, and also represent the phenomenon in different ways. The trans pride flag colors were used throughout the material as a way of honoring this population.

In content validity, four (14.8%) judges declared themselves as transgender, and the rest (85.2%), as cisgender. A total of 14 (51.8%) judges from the state of Pernambuco participated, four (14.81%) from Paraíba, three (11.1%) from São Paulo and one (3.7%) from each state in the others (Bahia, Alagoas, Ceará, Paraná, Rio de Janeiro and Rio Grande do Sul). Of the participating judges, 16 (59.3%) were nurses, four (14.8%) were psychologists, two (7.4%) were pedagogues, two (7.4%) were social workers and the other professionals were an anthropologist, a lyricist and a doctor, with one (3.7%) participant each. Of these, 16 (59.2%) held a doctoral degree, eight (29.6%), a master's degree, and the rest were experts. Regarding professional activity, 18 (66.7%) worked in the academic area and had experience in research and teaching in the area of interest (SGD, CP or PEM) and nine (33.3%) worked in assistance in health services or institutions supporting the trans population.



**Figure 1** – Domains that constitute the educational booklet content on transphobic bullying. João Pessoa, Paraíba, Brazil, 2022.



**Figure 2** – External part of the educational booklet on transphobic bullying (front and back cover). João Pessoa, Paraíba, Brazil, 2022

In the “objectives” dimension, the Content Validity Coefficient was 0.972, and for items, it varied between 0.938 and 0.987. In the “structure and presentation” dimension, the Content Validity Coefficient was 0.982 and varied between 0.938 and 1.0 for items. In the “relevance” dimension, the Content Validity Coefficient of items varied between 0.987 and 1.0. and was 0.991 for the dimension. The Content Validity Coefficient for the set of items was 0.981 (Table 1). Such findings represent the educational booklet content validity in terms of objectives, structure and presentation, and relevance.

**Table 1** – Content Validity Coefficient of items, dimensions and set of items. João Pessoa, Paraíba, Brazil, 2022. (n=27)

Item	CVCc*
Booklet objective	0.972
1. The booklet covers the proposed topic.	0.987
2. The booklet is suitable for the teaching-learning process.	0.975
3. The booklet clarifies doubts about the topic covered.	0.975
4. The booklet clarifies doubts about the topic covered.	0.987
5. The booklet encourages behavior change.	0.938
Booklet structure and presentation	0.982
6. The booklet presents language appropriate to the target audience.	0.975
7. The booklet presents language appropriate to the educational material.	0.975
8. The booklet presents interactive language, allowing active involvement in the educational process.	0.987
9. The information in the booklet is correct.	0.938
10. The information in the booklet is objective.	0.987
11. The information in the booklet is enlightening.	0.975
12. The information in the booklet is necessary.	1.0
13. The booklet presents a logical sequence of ideas.	0.987
14. The booklet presents a current topic.	1.0
15. The booklet has an appropriate text size.	1.0
Booklet's relevance	0.991
16. The booklet encourages learning.	1.0
17. The booklet contributes to knowledge in the area.	0.987
18. The booklet sparks interest in the topic.	0.987
Set of items	0.981

\*CVCc= Content Validity Coefficient.

Suggestions for corrections and textual additions were accepted to provide the material with completeness of information. Only one illustration was changed in the “choose the outcome of the story” domain, which showed the character hanged, being replaced by a tombstone, considering that the previous image could provoke negative emotions that could encourage suicide. Suggestions to use neutral language, include the word “manual” in the booklet title, develop gamification to retain learning, replace the term “transphobic bullying” with “transphobia” and teachers with “education professionals” were not accepted as they did not consider the study objectives.

The Intraclass Correlation Coefficient of the dimensions and set of items, expressed in Table 2, indicates satisfactory agreement among the judges included in the content validity process.

**Table 2** – Intraclass Correlation Coefficient among expert judges regarding dimensions and set of items. João Pessoa, Paraíba, Brazil, 2023. (n=27)

Dimensions	ICC*	95%CI <sup>¶</sup>	p-value
Objectives	0.794	0.479; 0.861	<0.001
Structure and presentation	0.816	0.415; 0.908	<0.001
Relevance	0.872	0.535; 0.949	<0.001
Set of items	0.833	0.582; 0.926	<0.001

\* Intraclass Correlation Coefficient. ¶ 95% Confidence Interval.

In semantic assessment, of the 29 items assessed, 13 obtained the maximum degree of semantic agreement (Table 3). The “The writing is in an appropriate style” item received a minimum score from an evaluator and, therefore, presented the lowest level of semantic agreement among the teachers included in this study. However, no suggestion for changes to the item was presented. The “objectives”, “organization”, “language”, “appearance”, “motivation” and “cultural suitability” dimensions presented a semantic agreement index that varied between 0.90 and 0.96. No item had a rating lower than 0.80. The only suggestion presented at this stage was the introduction of the contact of the Executive Management of Diversity and Inclusion of Paraíba (GEDI) in the “important contacts” domain, which was accepted.

**Table 3** – Degree of semantic agreement among teachers. João Pessoa, Paraíba, Brazil, 2023. (n=10)

Item	Semantic agreement index
Objectives	0.93
Meet teachers' objectives regarding preventing transphobic bullying at school.	0.90
The booklet can help prevent transphobic bullying.	1.0
It is capable of promoting reflection on transphobic bullying prevention.	1.0
Organization	0.93
The booklet cover is attractive and shows the material content.	0.90
The title and content size in topics is suitable.	1.0
The topics have a logical sequence.	0.90
There is coherence between the information on the cover, presentation, summary and content.	0.90
The number of pages is suitable.	0.90
Topics portray important key aspects.	1.0
Language	0.91
The writing is in an appropriate style.	0.80
The text is vivid and interesting.	0.90
The vocabulary is accessible.	0.90
All important concepts are covered clearly and objectively.	1.0
There is an association between the topic of each session and the corresponding text.	1.0

**Table 3 – Cont.**

<b>Item</b>	<b>Semantic agreement index</b>
The text is clear.	0.90
Appearance	0.96
The illustrations are simple.	1.0
Pages or sections look organized.	1.0
The number of figures is sufficient.	1.0
The figures correspond to the illustrated contents.	1.0
The figures are self-explanatory.	0.90
The figures arouse questions about the topic.	0.90
Motivation	0.94
The booklet is appropriate for age and culture.	0.90
The booklet presents logic.	0.90
The booklet arouses interest and curiosity.	0.90
The booklet addresses the topics necessary for teachers.	1.0
The information contained in the booklet is important for preventing transphobic bullying at school.	1.0
The booklet proposes to acquire knowledge to prevent transphobic bullying at school.	1.0
Interaction is invited by the text, readers are encouraged to discuss problems and solutions, the booklet suggests actions.	0.90
Cultural suitability	0.90
After reading the booklet, would you recommend it to Elementary School II teachers, considering the population's socioeconomic and cultural contexts?	0.90
Set of items	0.94

## **DISCUSSION**

The educational booklet developed constitutes a technological innovation given the scientific evidence of incipience in educational technologies aimed at combating transphobic bullying at school<sup>22</sup>. It has guidelines for conducting and preventing cases of transphobic bullying based on a CP framework. Information about the reality experienced by trans people is presented with the aim of raise awareness of teachers to welcome and include this population so that they have the right to formal education guaranteed. Thus, the content booklet content contains information that covers the need to understand concepts related to trans students' gender identity, rights and experiences in school settings, which includes the concept of transphobic bullying.

Innovation is also due to the fact that content was directed from individual interviews with Elementary School II teachers, configuring a participatory development, i.e., there was a contribution from representatives of the target audience for whom the booklet is intended both in the diagnosis of knowledge, experiences and attitudes regarding transphobic bullying and in material semantic assessment. This methodological research modality enables the negotiation of knowledge and experiences between researchers, professionals and users<sup>21</sup>.

In addition to innovation, the booklet developed has social relevance, as it the United Nations (UN) 2030 agenda Sustainable Development Goals (SDGs), and is closely related to goals four, ten and 16, which deal with access to inclusive education, reduction of inequalities, and promotion of peaceful societies, respectively<sup>23</sup>.

In Brazil, some educational materials in the form of a booklet on SGD were produced by bodies and associations supporting the LGBTQIAP+ population. They are mostly directed at the community itself, with the aim of clarifying their rights, protection in cases of violence and production of information, since data on sexual orientation and gender identity are neglected in the main national information systems<sup>24–25</sup>.

It is important that educational materials for teachers present a theoretical framework to guide guidance for this audience. Furthermore, educating towards non-violence in the context of differences is fundamental, as it encompasses learning about responsibilities and rights, respect for differences and similarities, cooperation, dialogue and intercultural understanding, and promotion of non-violent values and attitudes<sup>11</sup>.

The importance of a teacher as a mediator of conflicts in school settings is emphasized as a way of collaborating with alleviation of social problems and inequalities<sup>26</sup>. Inequalities caused by transphobic bullying among trans students stand out, which require teachers to have knowledge and sensitivity when dealing with the subject. Therefore, to develop an educational technology for Elementary School II teachers who have a mostly cisgender identity, it is essential that content and language are appropriate in order to achieve the expected results.

The educational booklet also innovates by validating it with health, education, social and human sciences judges with expertise in SGD and/or CP and/or in PEM development, providing greater reliability in adapting the technology to the target audience, as professional plurality is fundamental in improving the resource<sup>27</sup>.

Several studies that developed booklets carried out content validity by judges who are experts in the subject because it is an essential stage in the construction of educational materials that aims to improve the material based on experts' analyzes and suggestions<sup>26,27,28,29</sup>.

Content validity of educational materials increases the possibility of success in their use during practice, as the probability of having correct, didactic and understandable content is greater<sup>29</sup>. Thus, the booklet is a resource that allows its use without the need for mediation, and offers autonomy, and can also be used in a mediated way by education or healthcare professionals as a guide in educational interventions in school settings. Therefore, it is a useful resource for teacher training and qualification<sup>10</sup>.

The booklet was validated in the first round with satisfactory CVC values for "objectives" (0.972), "structure and presentation" (0.982) and "relevance" (0.991), and for the set of items (0.981), in line with the minimum recommended to consider them valid<sup>19</sup>.

So that educational materials do not contain misleading or incomplete information, the assessment of items referring to objective, structure/presentation and relevance is necessary in the content validity process so as not to mislead the target population or make it difficult to understand the topic<sup>27</sup>. The Intraclass Correlation Coefficient of the dimensions varied between 0.794 and 0.872, which indicates satisfactory agreement among judges included in the content validity process<sup>19</sup>.

Sata collection instrument answers aimed at the target audience showed that the booklet was considered suitable for use with final years Elementary School teachers, as all items presented a semantic agreement index greater than 0.80<sup>21</sup>. A study that carried out a semantic assessment of an educational booklet on fall prevention with hospitalized patients obtained agreement that varied between 0.90 and 1.0 for the SAM items and 0.98 for the set of items<sup>27</sup>.

Another important stage in educational material construction is approval by the target audience, where suggestions given must be considered in a coherent manner, even when content is numerically approved by experts<sup>27</sup>. Evidence reveals understandable and attractive educational resources characterized as alternative for raising awareness among the audience for whom the material is intended<sup>9</sup>.

The vocabulary in the booklet on transphobic bullying is consistent with the message it intends to convey to Elementary School II teachers. Short, simple words, known by the target audience, were used in order to guarantee text readability and understanding and facilitate reading, making it inviting and understandable<sup>13</sup>. Concepts and actions were presented in logical order with the repetition of important words and articulation of sentences<sup>13</sup>.

It is worth mentioning that the educational booklet was not created solely with the intention of direct use by teachers during their activities inside and outside the classroom, since they will be able to consult the material whenever they are interested, but also as a guide in carrying out training and/or health education activities with these professionals, in order to contribute to transphobic bullying prevention. In this regard, the successful educational process permeates the intersectoral education-health articulation, aiming at trans children's and adolescents' protection and mental health as a way of guaranteeing their access and permanence in the formal education to which they are entitled.

Above all, the strategic role of teachers must be considered when talking about promoting trans children's and adolescents' health. For this reason, it is recommended that professionals working in health education involve teachers and build educational technologies on different topics, thinking about these actors<sup>7</sup>.

Health education practices using printed educational technologies such as booklets facilitate the educational process and offer relevant and quality information for the success of the proposed action<sup>30</sup>.

Using PEM during the health education process favors the understanding of guidelines through the organization of information and the presence of illustrations<sup>27,29</sup>. Among these printed materials, the booklet stands out as a useful and viable resource for describing issues related to SGD and transphobic bullying due to its practicality and ease of application in school settings where nurses are an active agent in promoting actions of health education<sup>9</sup>. Therefore, the implementation of these actions at school is fundamental for a healthy development of trans children and adolescents.

The acceptance of the booklet by Elementary School II teachers reiterates and awakens the need to expand an educational perspective aimed at this audience on gender diversity in schools, taking into account the deficiency in the pedagogical training of teachers to approach this topic, the fragility regarding the curricular composition on the subject and the still precarious debate and attention in scenario settings<sup>6</sup>.

It is believed that, by using the booklet, teachers will feel more encouraged to learn about the topic and, as a result, will adopt less prejudiced attitudes that could positively influence the resolution of conflicts involving transphobic bullying at school. It is expected that intervention studies using the booklet will be developed with teachers and that using educational resources to prevent transphobic bullying will be increasingly encouraged.

The fact that the booklet was made available for assessment by judges and teachers in digital format in a PDF file, which may have possibly compromised the assessment of aspects related to material printing, and the fact that it was assessed only by Elementary School II teachers of municipal public education were limitations of this study, which may differ from teachers from other realities, such as teachers from other stages of basic education, private schools and prison schools.

## CONCLUSION

Interlocution of scientific knowledge in dialogue with prior knowledge and demands of Elementary School II teachers guided the development, content validity and semantic assessment of an educational booklet on transphobic bullying prevention. This proposal sought to prioritize commitment to the target audience at all stages of material development.

The educational booklet “*Bullying transfóbico em estudantes trans*” (Transphobic bullying of trans students), aimed at Elementary School II teacher, is an innovative educational technology with social relevance, valid and reliable, in terms of content for teaching about transphobic bullying prevention. The foundation with a CP framework allowed the development of an educational technology that encourages the resolution of conflicts in a peaceful and dialogical manner. Therefore, teachers, when using the resource, will be able to feel more prepared to develop general skills for basic education and to provide the necessary reception for trans children and adolescents so that their identity is recognized, respected and valued.

The booklet is an auxiliary resource in teacher training and can be used autonomously or mediated in continuing education actions by education professionals or in health education actions by school nurses or professionals who work in primary care through the School Health Program, in order to promote clarification for developing attitudes aimed at protecting trans children and adolescents and preventing transphobic bullying. It is also worth highlighting the possibility of using the educational booklet in academia to contribute to training new professionals as well as in extension activities in schools.

However, it is suggested that the booklet be assessed semantically with teachers from other stages of basic education, and from other realities, as is the case of private schools and prison schools, in addition to carrying out experimental studies with the application of the booklet in question, to verify its effect on teachers and comparison with other pedagogical resources.

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## NOTES

### ORIGIN OF THE ARTICLE

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### CONTRIBUTION OF AUTHORITY

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There is no conflict of interest.

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