

## HOW DO PARENTS AND TEACHERS EVALUATE AN ALMANAC ON SEX EDUCATION FOR ELEMENTARY/HIGH SCHOOL STUDENTS?

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**Highlights:** (1) The evaluation of the Sexual Education Almanac showed that it meets the needs of teachers and parents/guardians in the process of sexual education for students in the last years of elementary and high school. (2) The Almanac was considered by participants as a good strategy to bring parents and children closer together in the difficult task of sexual education. (3) Parents and teachers suggest that the Sex Education Almanac be presented and used by adolescents after the age of 11.

PRE-PROOF

(as accepted)

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### ABSTRACT

This study is part of an extension project of a medical course, in São Paulo State, whose aims are to promote sexual education, prevent pregnancy, and promote health in adolescence. In it, medical students work with elementary and high school students from public schools. Interactive activities with teenagers include conversation circles, workshops, and dramatization. Medical students developed an almanac on sex education to be used by elementary and high school students and help their parents in the sex education process. The interactive almanac features educational recreational activities, explanatory drawings, comics, word searches, and technical information. **Objective:** This study sought to evaluate, from the perspective of parents/guardians and teachers, the usefulness of this almanac and the appropriate age for students to use it and collect suggestions on how to use and improve it. **Methods:** a qualitative study in which participants answered an open semi-structured questionnaire, giving their opinions on the terms, figures and examples used, if they were adequate. They opined about the most appropriate age to introduce the almanac to students and whether it could help bring parents and children closer together in the task of sex education. **Results:** twelve teachers and 20 parents or guardians participated. The almanac was approved by all teachers and by 90% of parents or guardians, who made comments and suggestions for its use in printed or virtual form. **Conclusion:** teachers and parents considered the almanac a useful tool to bring parents and children closer together in the task of sex education. **Keywords:** health education, sex education, adolescence, pregnancy in adolescence, sexually transmitted infections, sexual child abuse.

### INTRODUCTION

According to the World Health Organization (WHO), adolescence extends from 10 to 19 years of age. There is an estimated population of 30,149 million Brazilian adolescents, which corresponds to 13.9% of the population in 2024<sup>1</sup>. Adolescence is a period of recognition of sexuality and the changes that adolescence projects on the body, leaving childhood behind<sup>1</sup>.

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The individual organization that will follow the disruptions and constructions provided by this whirlwind of experiences typical of adolescence will depend on a series of protective factors, such as family, friends, school, and everything that surrounds them<sup>2</sup>. To avoid that girls and boys do not have to face this challenging experience alone or only in the company of friends of the same age who are also discovering themselves, it is important that the protective groups and the adolescents themselves are guided and strengthened about the steps to be overcome<sup>3</sup>.

In addition to all the age-related changes, children and adolescents also suffer from the violence to which they are subjected. According to the WHO, the prevalence of sexual violence (worldwide) can vary from 9% to 20% against girls and 3% to 8% against boys under 18 years of age<sup>4</sup>.

The responsibility and role of the school in relation to the rights and protection of children and adolescents, assumed in the 1988 Brazilian Constitution<sup>5</sup>, are defined in the Law of Guidelines and Bases of National Education (1996)<sup>6</sup>. Then, in the National Curricular Parameters (2018, 2021), sexual education was included as a transversal theme in elementary and high school education<sup>7,8</sup>. The National Common Curricular Base<sup>9</sup>, a normative document that defines the organic and progressive set of essential learning that all students must develop throughout the stages and modalities of basic education, explains that students, already in the 8<sup>th</sup> year of elementary school, must be able to discuss:

[...] analyze and explain the transformations that occur during puberty, considering the role of sexual hormones and the nervous system [...]; compare the mode of action and effectiveness of different contraceptive methods and justify the need to share responsibility in choosing and using the most appropriate method for preventing early and unwanted pregnancy and sexually transmitted diseases [...]; discuss prevention strategies and methods and select arguments that highlight the multiple dimensions of human sexuality (biological, sociocultural, affective and ethical)<sup>9</sup>.

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In 2021, the prevention of violence against women was included in basic education curricula, and the School Week to Combat Violence against Women was established<sup>10</sup>.

Although Brazil has made progress in health and well-being indicators, there is still a lot to be done among adolescents, especially in relation to the risks of death, violence, including domestic violence, and school exclusion<sup>1</sup>. Without guidance from family and other educational centers, such as school, adolescents become more vulnerable and susceptible to the risks to which they are subjected.

In this sense, Brazil has very precise information from the National School Health Survey (PeNSE), which has been evaluating the behavior of schoolchildren since 2009<sup>11</sup>. It was developed as an action by the Ministry of Health in partnership with the Brazilian Institute of Geography and Statistics (IBGE). It was supported by the Ministry of Education (MEC)<sup>11</sup>. Its latest version (2019) had a very representative sample of approximately 188,000 students between 13 and 17 years old from 4,361 schools (public and private) in 1,288 municipalities across the country<sup>11</sup>. According to this survey, 35.4% of all respondents had ever had sexual intercourse (37.5% in the public network and 23.1% in the private network), and of this percentage, 36.6% reported that this occurred before the age of 13 years old<sup>11</sup>. Among female students who have had sexual intercourse, 7.9% have become pregnant at some point in their lives, and, of this total, 8.4% come from public schools and 2.8% from private schools. This social asymmetry is even greater in the most vulnerable areas. The highest rates of teenage pregnancy were reported in the Northeast Region, with 10.9% of students, 11.6% in public schools, and 2.3% in private schools<sup>11</sup>.

Sexual education presupposes that adolescents accept their bodies freely, without guilt, shame, or fear. Emancipatory education presumes the unfolding of educational actions, providing autonomy and responsibility, and overcoming prejudices and taboos<sup>12</sup>. But for this, it is essential that the concern comes from parents and educators, who need to be aware of their own behavior and the behavior of others, with respect and without

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prejudice, to promote healthy sexual education. It is also important that health professionals recognize their role in this educational process<sup>13</sup>.

In this context, since 2016, medical students at a university in a large city in the State of São Paulo have been working on a curricular extension project that aims to develop partnerships with public schools to promote sexual education to students in the final years of elementary and high school education. The project is organized into educational workshops developed with elementary and high school students, their parents or guardians, and schoolteachers. Medical students participate in the project as part of curricular activities and scientific initiation projects or as complementary activities<sup>3,14</sup>.

In continuation of the extension project, between 2020 and 2021, an almanac on sexual education was developed (<https://repositorio.pucsp.br/jspui/handle/handle/37506>) with the purpose of providing safe information about sexual development in a playful. It was also considered that the almanac could create opportunities for discussion about sexual education among students and their families if the material were used as homework. The objective of this study was to evaluate, from the perspective of parents/guardians and teachers, the usefulness of this almanac and the appropriate age for its use by students. It also collected suggestions on how to use and improve it.

This study sought to understand the opinions of teachers, parents, or guardians of students at a public school about the almanac and collect their impressions and suggestions on how to improve it and adapt it to the community's needs.

## **METHODS**

This is a qualitative and exploratory study that sought to evaluate the participants' perceptions and reactions to an almanac on sexual education in adolescence, aimed at students in the final years of elementary and high school, their parents or guardians, and their teachers. The Sex Education Almanac is available in the institutional repository as a

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technical-technological product described as “teaching and instructional material” and can be accessed via the link: <https://repositorio.pucsp.br/jspui/handle/handle/37506>.

### **Study participants**

The study participants were 12 (twelve) teachers from the last years of elementary and high school, who were invited and agreed to participate, and 20 (twenty) parents or guardians of elementary and high school students from an urban public pre-qualified school from a region of the municipality where social classes C and D predominate (average monthly income of 1 to 5 minimum wages) and which is included in the extension project. As a qualitative study, the number of participants cannot be defined in advance, as it depends on the saturation (systematic repetition) of the information collected. The data collection period was from August to September 2022.

In the preparatory phase, a presentation was made to parents/guardians and teachers about the project and the approach that was intended to be used with the students. Participants were selected randomly for convenience and contacted at a parents' meeting and via WhatsApp with the help of the school's academic coordinators. The inclusion criteria were being a parent or guardian of a student in the last years of elementary or high school and having the necessary literacy to evaluate and respond to the questionnaire. The 21 (twenty-one) parents/guardians present at the parent-teacher meeting were invited, and of these, 8 (eight) remained after the meeting and agreed to participate in the study in person. Before applying the questionnaire, the process of obtaining the free and informed consent form (ICF) was explained and carried out, and the Sexual Education Almanac was presented for evaluation. The ICF, the questionnaire, and the almanac were also sent virtually (WhatsApp) to 28 (twenty-eight) parents/guardians, and of these, 12 (twelve) sent a response within two weeks. The confidentiality of the data collected was guaranteed in the ICF. The questionnaire answered by the participants contained the personal data of teachers (age, gender, area of knowledge, and level of activity) and parents or guardians (age, gender, and family relationship). Eleven open questions were pre-established about perceptions regarding different aspects of the almanac: whether they approved it; whether they considered the terms, figures, and activities appropriate;

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if they had restrictions; what the appropriate age for use with students is; and if they had comments or suggestions for adaptation. All questions had free space for answers. In the questionnaire sent to teachers and parents or guardians, the term used to identify the document that would be analyzed was “booklet”, but later, it was decided to identify it as “almanac” due to its more comprehensive nature, the diversity of subjects, the proposed activities and their interactive nature. Therefore, the questions and answers to the questionnaires it is referred to as a "booklet" and, in this text, as an "almanac." The almanac was offered in printed and virtual form (PDF). The questionnaire was sent to parents and teachers virtually via the Google Forms platform, together with the almanac in PDF, so that they had time to handle and explore it before answering the questionnaire. The teachers' approach to explaining the characteristics of the research and obtaining the ICF was carried out during rest periods or outside of academic activities. As the questions were direct and justifications were requested for the answers, the data analysis was carried out descriptively using content analysis.

The study was approved by the University's Research Ethics Committee (CAAE: 58542922.7.0000.5373) and only began after approval.

## RESULTS

### Characterization of teachers participating in the research

Among all 26 teachers who work in elementary and high school programs at the pre-established school, 12 (46%) answered the questionnaire. The sample was mostly made up of women, with an average age close to 40 years old, working in the final years of elementary and high school education and in almost all areas of knowledge (Table 1).

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**Table 1.** Characterization of teachers participating in the study

<b>Parameters</b>	<b>Results</b>
<b>Gender</b>	10 cisgender women 02 cisgender men
<b>Age (years)</b>	39.3 ± 8.4* (minimum=22 and maximum=49)
<b>Area of Activity and School Cycles</b>	07 teachers in the final years of elementary school 06 teachers in high school 01 teacher works in both cycles  02 science teachers 02 math teachers 01 geography teacher 01 history teacher 01 Portuguese language teacher 01 English language teacher 01 biology teacher 01 study guidance teacher 01 human sciences teacher 01 teacher of training itineraries 01 elective subject teacher 01 teacher from “all areas”

Source: authors. \* mean ± standard deviation

### **Characterization of parents and guardians of students who participated in the study**

Twenty parents or guardians agreed to respond to the questionnaire. Of these, 14 were cisgender mothers, with a mean age of 40.4 ± 6.3 years (minimum of 28 years and maximum of 55 years); 4 (four) were cisgender parents, with a mean age of 38.5 ± 4.5 years (minimum of 34 years and maximum of 47 years); 02 (two) were responsible family members, cisgender women, aged 55 and 58.

### **Teachers' responses to the booklet/almanac evaluation questionnaire**

All teachers who responded to the questionnaire considered the booklet generally “good” and justified their response with adjectives such as simple and explanatory,



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objective and useful. They also made comments such as providing information in a fun way for elementary school students, the illustrations helping the students understand the subject, and the images and text facilitating students' understanding.

Regarding the question, "Is the text clear to parents?" all teachers answered "yes" and justified that the language is accessible to the target audience, contains clear information, and uses easy-to-understand words. One teacher suggested including a glossary at the end of the booklet or at the foot of each page with the meaning of new terms, as "some are not part of everyday life".

When asked, "Is the text clear to students?" 11 teachers responded "yes" and 1 "no." They justified their responses by saying that the texts were objective and appropriate for the students' age. The teacher who answered "no" did not justify his answer.

Regarding the question "Are the activities proposed in the booklet suitable for elementary school students?", 11 answered "yes", justifying that it is a good support material for school activities, appropriate for their age, and that students are interested in the activities proposals. The teacher who answered "no" explained:

The activities are more suitable for younger children. For 8<sup>th</sup> and 9<sup>th</sup> grade students, it may be interesting to swap some activities, increasing the difficulty.  
(Teacher 6)

The next question to teachers was, "Are the activities proposed in the booklet suitable for high school students?" Nine answered "yes" and 3 "no". The teachers who said "yes" presented a few justifications, including the fact that the "pastime" activities are of interest even to adults and that the proposed activities are a good support for learning. Those who answered "no" justified it as follows:

It may need to increase complexity, but it could be used in some classroom activities. They can be used in content reviews. (Teacher 9)

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It could be used for content review but with increased complexity. At this stage, they may no longer be interested in the hobby (Teacher 2)

The content and form apply more to fundamental [education]. (Teacher 6)

To the question “Are the drawings presented in the booklet easy to understand?”, everyone answered “yes” and explained that the drawings are very clear and appropriate. But there was this suggestion:

Perhaps I shouldn't start with the image of the sexual organs so as not to impress from the first moment. (Teacher 7)

The next question was, “Do you think the booklet can help parents and children talk about sexual education? For example, discussing the figures and the text together?” Eleven teachers answered “yes” and explained that the booklet/almanac could be useful in this sense, as parents recognize that it is very difficult to talk to their children about sexual education. Among the justifications, the following stand out:

I believe it is a strategy that can help with communication since they can carry out activities together, but this would depend on the family's openness to talking about the subject. (Teacher 8)

I think that in some families, this conversation could happen. However, there is still a taboo regarding this subject. (Teacher 11)

Parents do not interact with their children on these issues. (Teacher 1)

Most don't talk to their children. They have difficulty talking to their children. (Teacher 4)

The teacher who answered “no” explained:

Parents don't talk to their children... [and I believe] that only the school will be the place where the conversation will take place. (Teacher 5)

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Regarding the question, “Is there any point in the booklet that could cause shame or embarrassment and that you would have difficulty talking to students or parents about?”, 3 teachers answered “no”, and 9 teachers answered “yes”, and gave the following reasons:

The students would laugh at the crosswords, but it would be easy to deal with. (Teacher 2)

I suggest not starting with the image of the sexual organs so as not to impress from the first moment. (Teacher 7)

To the question, “In your opinion, from what age could this booklet be used with students? Why?” The answers ranged from 9 to 13 years old, but opinions between 11 and 12 years old predominated (75%), with the following justifications:

I believe that from the age of 12, they enter puberty. (Teacher 9)

12 [years], because it is very important, and they need to know about the body and sexual relations. (Teacher 3)

Among the teachers who mentioned earlier ages for working with the booklet/almanac, the justifications were:

10 years, because from the 6<sup>th</sup> year [of elementary school] children start to enter puberty and begin to have contact with older [children], so it would be important for them to already know about these topics. (Teacher 8)

09, 10, 11, 12 [years old], because older people need other activities, perhaps games. (Teacher 4)

The last question prompted, “Do you have suggestions for the booklet? Which?”. The responses repeated previous comments, such as including a glossary, adapting the proposed activities according to the children's age, or having more than one option for activities of lesser and greater difficulty.

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**Responses from parents and guardians to the booklet/almanac evaluation questionnaire**

All participants answered all questions and left comments and contributions on most of them. Regarding the general impression of the booklet, 17 participants said it was “good”, two said it was “average”, and one considered it “bad”.

Among those who considered the booklet “good”, the majority left short comments, such as children need to learn about the subject, it is fun for the age group, easy to understand, and provides important information. Two mothers also shared their thoughts on sexual education and explained their difficulties and doubts about how to conduct it:

Sexual education is necessary at home and at school. We are living in a delicate moment regarding our children's sexuality, hence the importance of educating them. (Mother 14)

Dealing with this issue at home is complicated; whenever I approach it, I don't know if I'm doing it correctly and being clear. The booklet will help me deal with the topic with my son in a simpler way, I hope. (Mother 7)

One of the participating mothers who considered the booklet “regular” explained that the booklet is:

“Good to discuss the subject, but too early for my daughter who is 10 years old.”  
(Mother 13)

Another mother, who declared herself separated, commented:

The subject is very important and essential for young people, but I didn't like the comic about pregnancy. It reproduces our society's sexist behavior of leaving women to deal with all the difficulties of pregnancy alone. If the booklet is to educate, do it the right way and show young men and women facing the challenges

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of teenage pregnancy together. I want my son to read the booklet when he realizes the responsibility of being a father and not that he can run away and leave everything to the young woman and only show up when he feels comfortable. (Mother 6)

The mother, who considered the almanac “bad” explained that:

“In due time, children will learn about sexuality”. (Mother 12)

Regarding more specific questions about the booklet/almanac, the answer “yes” was unanimous to the question, “Do you think the words used in the text are clear to your child?”. The justifications were varied:

An easy-to-understand language. (Father 3)

I haven't read it yet with my children, but I found the words clear. (Mother 6)

The language used is clear and calm, without causing embarrassment. (Rep. 1)

Yes, because they are easy to understand without being vulgar. (Mother 11)

Easy to understand without aggressiveness. (Mother 5)

Maybe it's too clear. (Mother 12)

Regarding the question, “Are the examples used in the text suitable for you?” There was also a unanimous “yes” answer, and the justifications were frequent:

They are easy to understand. (Mother 7)

This is well exemplified by the story of teenagers. (Mother 14)

I managed to understand everything. (Mother 3)

To the question, “Are the examples used in the text suitable for your child?” There were 18 “yes” responses and 2 “no” responses. Among those who answered “yes”, the following reasons stand out:

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This is well exemplified by the story of teenagers. (Mother 5)

Yes, because it helps to understand the subject. (Mother 7)

I think he even sees the subject on the internet and at school. (Rep. 2)

These very real facts serve as guidance. (Father 1)

I just didn't like the comic book example. (Mother 6)

They already know a lot, but a lot of it comes from the internet, and we don't even know where it comes from. (Mother 9)

If I understand, they will understand too (Mother 3)

Among the two mothers who answered “no” in relation to the adequacy of the examples used, their justifications were:

At the right time, children will learn about sexuality. (Mother 12)

It is too early for her to think about pregnancy. (Mother 13)

There was also unanimity regarding the answers to the question, “Are the drawings presented in the booklet easy to understand?”, everyone answered “yes”, and the most relevant justifications were:

The figures are an ideal size and very clear. (Father 3)

They are light, very playful designs. (Mother 14)

They are well-made and very simple. (Mother 7)

Regarding the question, “Do you think the booklet can help parents talk to their children about sexual education? For example, discussing the figures and the text together?” There were 18 “yes” responses and 2 “no” responses. Among the participants who answered “yes”, the most significant justifications were:

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The booklet will open up a conversation about sexuality, and if any further questions arise, we can talk about them. (Mother 3)

It makes it easier to explain without having to look for embarrassing words. (Father 4)

It gives them a start so they can ask questions and introduce a topic into the conversation. (Mother 7)

Yes, because they will want to show off their school supplies. (Responsible 1)

It helps to break the ice, especially if the school gives it as homework. (Mother 11)

I believe so, as many parents don't know how to talk about sexual education with their children, and the booklet can be a starting point. (Mother 8)

Make it easier, open this door on the subject. (Mother 10)

I think my children have to learn everything. (Mother 14)

Among the participants who answered “no”, one of the mothers gave the following justification:

At the right time, children will learn about sexuality. (Mother 12)

Regarding the question, “Is there any point in the booklet that may cause shame or embarrassment and that you would have difficulty discussing with your child?”, 16 participants answered “yes”, and the relevant justifications were:

Figures of sexual organs. (Mother 11)

It's always difficult to talk about characteristics of the opposite sex to those of my children, but it's necessary. (Mother 5)

The hard part is talking. (Mother 9)

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Many people will think so, but it will help. (Rep. 2)

It's difficult to talk about this subject, but that's why it's good. (Mother 4)

To the question “Do you have suggestions for the booklet? What suggestions?”  
Several suggestions were made, and the most relevant were:

Place in all schools. (Mother 3)

Place the pictures of sexual organs in the middle of the book. (Mother 12)

Tell parents so we can prepare ourselves or make one for parents to read  
beforehand. (Mother 8)

Maybe it will be [presented] in parts, to go little by little. The comic could be a  
part. (Mother 7)

I suggest it can be done in parts, according to age, so as not to scare the parents  
and the conversation will start. (Mother 10)

Maybe some parents would prefer to have one for girls and the other for boys.  
(Father 4)

The last question was, “In your opinion, at what age should this booklet be shown  
to students? Why?” The responses were quite varied. One participant responded at age 8  
or 9, one responded at age 9 or 10, four responded at age 10, four responded at age 11,  
four responded at age 12, three responded at age 13 years, and one responded at 16 years.  
The median was 12 years old; the average was 11.8 years old; the suggested minimum  
age was 8 years old, and the maximum was 16 years old. One participant presented the  
following justification for using the booklet earlier:

9 or 10 years old, as this is the age where curiosity about sex begins. (Mother 3)

Participants who gave their opinion on the average (between 11 and 12 years old)  
explained how:



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At 11 years old, when young people enter the last years of elementary school and begin to have a different perception of the school environment, interacting with older students. (Mother 4)

My son entered adolescence very early, my opinion is at 12 years old (Mother 13)

12 years old, as they are already starting to notice the differences. (Mother 9)

12 years old, as this age is where doubts and curiosity begin. (Responsible 2)

Among the participants who agreed to use the booklet/almanac later, the one who suggested 16 years did not present a justification, and another justified it as follows:

13 years old, because it is at this age that we will understand everything. (Mother 5)

## **DISCUSSION**

The Sexual Education Almanac was evaluated with the participation of teachers, mothers, fathers, and others responsible for students at an urban school in the central area of a large municipality in the state of São Paulo. This school has a basic education development index (Ideb) similar to the municipality's average. However, it is above schools in peripheral areas of the same municipality and above the Ideb of public schools in Brazil and in the state of São Paulo<sup>15</sup>.

Data from teachers who responded to the questionnaire and evaluated the almanac show that the sample is similar to data from teachers who work in the country in relation to gender and age<sup>16</sup>. The majority of teachers participating in the research are female, and the average age is 39. The 2022 Basic Education School Census shows that in Brazil, in the final years of elementary school, 66.1% of teachers are female, and their ages vary between 30 and 49 years old<sup>16</sup>.

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The mothers, fathers, and guardians who participated in the research were between 22 and 49 years old. The average age of 40 for female participants and 39 for male participants represents what was expected, considering IBGE data that show that, in 2010, women between 20 and 29 represented 50% of mothers of newborns, with an increase in the number of mothers over 30 years old<sup>17</sup>.

In relation to the almanac evaluation data, the participants considered the booklet/almanac good in general, and they made many comments and suggestions to contribute to the construction of the material. As expected, there were also opposing demonstrations, but to a much lesser extent.

Several studies have highlighted the difficulties that parents have in discussing the topic of sexual education with their children, and the natural consequence is that teenagers look for information about sexuality in other sources instead of talking to their parents. Nery et al.<sup>18</sup>, in a descriptive study with a qualitative approach, interviewed 22 parents and identified that, in addition to the difficulties that parents have in approaching the topic of sexuality and sexual education, when they do so, they treat it superficially. Furlanetto et al.<sup>12</sup> showed that although the family and school environment are the places where sexual education is most discussed, these discussions are usually limited to the prevention of sexually transmitted infections and pregnancy. Parents feel unprepared and shy to discuss sexual education and especially sexuality with their children, in addition to considering that talking about the topic may anticipate sexual activity. As one participant mentioned, the opposite sex of parents and children is highlighted as a factor that makes dialogue between them difficult, making discussion on the topic even more painful<sup>18,19</sup>.

In this sense, in the evaluation of the Sexual Education Almanac by the participants, there were repeated reports about the difficulty that parents have in dealing with the topic with their children, and they enthusiastically see the availability of the almanac as a good instrument and an opportunity to bring them closer to their children in this discussion. The almanac can be a facilitator, particularly in motivating and starting dialogue.

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In both groups of participants, the opinion prevailed that the appropriate age to present the almanac to students and work with it would be 11 years or older. However, it was more diverse among mothers, fathers, and guardians, with suggestions that varied between 8 years old and 16 years old. The justification for those who considered ages above 11 years old was the fact that students come into contact with older students when they go to the 6<sup>th</sup> year of elementary school. Among the participants who considered the almanac suitable for students aged 12 and over, the justification was that they enter puberty at 12 and begin to know their bodies and have curiosities from that age onwards. However, physical changes from childhood to adulthood in Brazilians begin before the age of 11<sup>20,21</sup>.

The 2019 PeNSE shows that more than a third of schoolchildren aged between 13 and 17 have had sexual intercourse at some time<sup>11</sup>. Of these, more than a third had their first sexual relationship when they were 13 years of age or younger, and this proportion is even higher among students in public schools<sup>11</sup>. For these reasons, the family and school need to be motivated to make sexual education a routine practice in order to give adolescents security about their decisions throughout the entire process of their education and not as a time frame related to active sexual life.

PeNSE data also reinforces the importance of having public policies that effectively include sexual education as a transversal theme throughout elementary school so that teachers and those responsible for students are equipped to initiate the discussion process with children and adolescents, and they can make their choices with knowledge and protection, at the appropriate time.

Some studies indicate that although adolescents consider family and school to be safe sources for discussing the topic of sexual education, they feel that adults are not prepared for this discussion<sup>12,22</sup>. Research also points to the need to use participative methods in the teaching-learning process and the need to go beyond addressing the issues of preventing sexually transmitted infections and teenage pregnancy<sup>12,19,23</sup>.

Several models of booklets and educational documents have been created and are available to assist in the presentation and discussion of sexual education in schools. All

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of them encourage discussion of the topic in a technical, comprehensive, and current way<sup>24-28</sup>. However, none are similar to this almanac, which is aimed at students and their parents or guardians and has activities to be developed and interactivity.

The document from the Ministry of Health, published for the first time in 2009 and updated, the Adolescent Health Handbook, one for female adolescents<sup>24</sup> and another for male adolescents<sup>25</sup>, in addition to stimulating personal and one's own changing body knowledge, are very didactic, comprehensive and cover many topics on adolescent health, including sexuality and sexual education, but omit the subject of gender identity. The document International Technical Guidance on Sexuality Education UNESCO<sup>26</sup> and the Sexuality Education Booklet<sup>27</sup> take an approach aimed at teachers and health educators anchored in scientific literature. The UEPG-PROEX Sexuality Education Booklet is aimed at teenagers, with texts and illustrations<sup>28</sup>.

In this context, this Sex Education Almanac can present itself as a more playful and active alternative for discussing the topic, as pointed out by the research participants. In the United States of America, the Center for Disease Control and Prevention's (CDC) sexual education program in association with schools and health services has demonstrated good results in protecting adolescents<sup>29</sup>.

Finally, evaluation participants were encouraged to submit comments and suggestions that could be incorporated into the almanac to improve it. Among the suggestions presented, the following stand out offering and encouraging the use of the almanac in all schools; sending the almanac in advance to parents so they can prepare to discuss it with their children; presenting the almanac material in parts and according to age, to make the task easier for parents; move the figures of sexual organs from the beginning to the middle of the almanac; include a glossary in the document.

Offering and encouraging the use of the almanac in all schools suggests that parents were satisfied with its form and content and want everyone to have access to and benefit from it.

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The suggestion to move the figures of sexual organs from the beginning to the middle of the almanac expresses the concern that the anatomical presentation of male and female sexual organs, already at the beginning of the almanac, would cause embarrassment. However, from the conception and during the production of the almanac, care was taken to ensure that the figures with the anatomical representations were neutral and technical drawings, which must be recognized as an integral part of the human body, without concerns about prejudice, but as initial information necessary for the proposed activities, within a logical sequence. Therefore, they were maintained at the beginning, precisely to help parents.

Regarding the teacher's suggestion to include a glossary with words that are less common in everyday life, it was not accepted by the authors, as it was considered that the search for solutions to possible difficulties could facilitate dialogue between parents and children since parents said they did not encounter any difficulties with the vocabulary used. Furthermore, any unknown terms or those that generate doubts could favor the search for shared knowledge or the clarification of doubts with the teachers, intensifying the discussion process based on the almanac.

The suggestion of presenting the almanac in parts or in advance to parents is perfectly within its scope and provided for in the different ways of using it. This way, each teacher will be able to choose the content they want to use with students and parents, each time they want to use it.

The study's main contribution was to verify that the Sexual Education Almanac meets the needs of teachers and parents/guardians in the sexual education process for students in the final years of elementary and high school and was considered by participants as a good strategy for involving parents and children in this difficult task.

The main limitation of the study was promoting the evaluation of the almanac in a single public school in a relatively central area of a large city, which may not represent the whole.

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### **FINAL CONSIDERATIONS**

The opinion of teachers, parents, and guardians of students in the final years of elementary and high school at the state public school surveyed was largely favorable to the proposed Sex Education Almanac.

With rare exceptions, research participants considered the structure of the almanac, language, figures, activities, and examples presented to be adequate. When they disagreed, they expressed their reasons clearly.

For teachers, the almanac can help parents and children talk about sexual education. However, the majority comments that parents and guardians do little in this educational task, which is almost always left to the school.

Almost all parents and guardians of students at this state public school believe that the almanac can help them in the task of discussing sexual education with their children, facilitating rapprochement, and serving as an appropriate script for these conversations which, in the majority's opinion, are difficult, permeated by taboos and for which they do not feel prepared.

Parents and teachers have similar opinions about the age (eleven years or older) at which the instrument should be introduced to children and adolescents. Many suggest providing information in parts, which is also the opinion of researchers.

Teachers and parents offered constructive suggestions for improving the almanac, and many were incorporated into the text.

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