

Conceptions of doctors and nurses about health education in sexually transmitted infections in adolescence

*Concepções de médicos e enfermeiros sobre educação em saúde
em infecções sexualmente transmissíveis na adolescência*

*Concepciones de médicos y enfermeras sobre la educación para la
salud en infecciones de transmisión sexual en la adolescencia*

Manoel Felipe Nunes da Rocha^a 

Gracielly Karine Tavares Souza^a 

Gabrielly Laís de Andrade Souza^b 

Daniela Tavares Gontijo^a 

Rosalie Barreto Belian^a 

How to cite this article:

Rocha MFN, Souza GKT, Souza GLA, Gontijo DT, Belian RB. Conceptions of doctors and nurses about health education in sexually transmitted infections in adolescence. Rev Gaúcha Enferm. 2025;46(spe1):e20250073. <https://doi.org/10.1590/1983-1447.2025.20250073.en>

ABSTRACT

Objective: To describe the conceptions of family and community doctors and nurses about health education on sexually transmitted infections in adolescence.

Method: A descriptive study with a qualitative approach, conducted between August and November 2023 with family and community physicians and nurses from a municipality in the interior of Pernambuco, Brazil. Data collection involved a sociodemographic questionnaire and individual semi-structured interviews. Data were analyzed using Bardin's content analysis technique.

Results: Sixteen health professionals participated. They recognized health education as a priority strategy in Primary Care, promoting quality of life, encouraging critical-reflective thinking, and empowering adolescents in decision-making. Schools were highlighted as the primary setting for these educational practices. A preference was also observed for dialogic dynamics using popular language, audiovisual presentations, humor, and playful resources.

Conclusion: Professionals recognize the importance of health education initiatives on STIs as fundamental strategies for promoting preventive behaviors among adolescents. However, factors such as family resistance, cultural taboos and insufficient resources still constitute obstacles to the implementation and scope of these practices in the daily routine of health services.

Descriptors: Health education; Sexual education; Sexually transmitted infection; Adolescent health; Primary health care.

RESUMO

Objetivo: Descrever as concepções de médicos e enfermeiros de família e comunidade sobre educação em saúde em infecções sexualmente transmissíveis na adolescência.

Método: Estudo descritivo com abordagem qualitativa, realizado entre agosto e novembro de 2023 com médicos e enfermeiros de família e comunidade de um município do interior de Pernambuco, Brasil. Para coleta de dados, utilizou-se um questionário sociodemográfico e entrevista individual semiestruturada. Os dados foram analisados por meio da técnica de análise de conteúdo de Bardin.

Resultados: Participaram 16 profissionais de saúde que reconheceram a educação em saúde como uma estratégia prioritária na Atenção Primária, por promoverem qualidade de vida, estímulo ao pensamento crítico-reflexivo e empoderamento na tomada de decisão dos adolescentes. A escola foi destacada como o principal ambiente para a realização dessas práticas educativas. Observou-se ainda a preferência por dinâmicas dialógicas com linguagem popular, apresentações audiovisuais, uso de humor e recursos lúdicos.

Conclusão: Os profissionais reconhecem a importância das ações de educação em saúde sobre IST como estratégias fundamentais para a promoção de comportamentos preventivos entre adolescentes. No entanto, fatores como a resistência familiar, tabus culturais e a insuficiência de recursos ainda constituem entraves para a implementação e abrangência dessas práticas no cotidiano dos serviços de saúde.

Descritores: Educação em saúde; Educação sexual; Infecção Sexualmente Transmissível; Saúde do adolescente; Atenção Primária à Saúde.

RESUMEN

Objetivo: Describir las concepciones de los médicos y enfermeras familiares y comunitarios sobre la educación para la salud en infecciones de transmisión sexual en la adolescencia.

Método: Estudio descriptivo con enfoque cualitativo, realizado entre agosto y noviembre de 2023 con médicos y enfermeras de

^a Universidade Federal de Pernambuco. Recife, Pernambuco, Brasil

^b Universidade Federal de Pernambuco. Vitória de Santo Antão, Pernambuco, Brasil

familia y comunitarios de un municipio del interior de Pernambuco, Brasil. La recolección de datos se realizó mediante un cuestionario sociodemográfico y entrevistas individuales semiestructuradas. Los datos se analizaron mediante la técnica de análisis de contenido de Bardin.

Resultados: Participaron dieciséis profesionales de la salud. Reconocieron la educación para la salud como una estrategia prioritaria en Atención Primaria, que promueve la calidad de vida, fomenta el pensamiento crítico-reflexivo y empodera a los adolescentes en la toma de decisiones. Se destacó la escuela como el principal escenario para estas prácticas educativas. También se observó una preferencia por dinámicas dialógicas con lenguaje popular, presentaciones audiovisuales, humor y recursos lúdicos.

Conclusión: Los profesionales reconocen la importancia de las iniciativas de educación para la salud sobre las ITS como estrategias fundamentales para promover conductas preventivas en adolescentes. Sin embargo, factores como la resistencia familiar, los tabúes culturales y la insuficiencia de recursos aún constituyen obstáculos para la implementación y el alcance de estas prácticas en la vida diaria de los servicios de salud.

Descriptor: Educación sanitaria; Educación sexual; Infecciones de transmisión sexual; Salud adolescente; Atención primaria de salud.

■ INTRODUCTION

Sexually transmitted infections (STIs) affect different population groups, with a heterogeneous epidemiological profile. However, incidence and prevalence remain significantly high among adolescents, especially in the 15-19 age group^(1,2). Among STIs, human papillomavirus stands out, considered one of the infections with the highest cumulative prevalence rates, affecting more than 80% of young people in this age group⁽²⁾.

The Ministry of Health has recorded a significant increase in notifications of new cases of Human Immunodeficiency Virus (HIV) among adolescents aged 15 to 24, with a growth of 700% between 2007 and 2017⁽¹⁾. In the same age group, more than 52 thousand adolescents with HIV developed Acquired Immunodeficiency Syndrome (AIDS), in the 2011-2021 period⁽¹⁾.

This epidemiological dynamic may be associated with multiple factors, including adolescents' level of knowledge about STIs and the characteristics of this phase of development. Adolescence is a special period in human development, marked not only by biological transformations. The complexity of adolescence has given it its own meaning, ceasing to be a simple preparation and transition from childhood to adulthood, becoming a crucial stage in the life cycle, the result of a social construct. It is a stage marked by complex development, fraught with difficulties in controlling desires and driven by impulsive behaviors, which can result in a greater risk of exposure to vulnerable situations, such as unprotected sex, STI contamination, and drug use⁽³⁾.

Other variables, such as the inadequate physical structure of Basic Health Units (UBS) and the work process focused primarily on specific groups, such as children and pregnant women, contribute to the fragility of care for adolescents. Added to this is the traditional nature of consultations and educational activities aimed at this population, often characterized by the presence of parents and the absence of youth leadership. This reality compromises the planning and implementation of actions in the context of STIs, affecting the quality and comprehensiveness of care provided⁽⁴⁾.

Weak relationships between Family Health Teams (eSF) professionals and adolescents, as well as the strategies adopted in educational actions, can compromise the promotion of sexual and reproductive health. This relationship also impacts the formation of more critical adolescents and has repercussions on the epidemiological situation previously mentioned⁽⁵⁾.

Given this scenario, the relevance of health education is understood as a central strategy for promoting adolescent health and preventing STIs in this age group. These actions aim to promote health through education and develop conscious, critical, and autonomous citizens capable of adopting healthy behaviors and developing protective attitudes in situations of vulnerability, including STIs⁽⁵⁾.

In this context, it is essential to highlight the importance of intersector public policies that promote the connection between health and education. An example of this integration is the School Health Program (PSE), established in 2007 through an intersector agreement. The PSE is a strategy aimed at promoting health education in the public school system, especially for adolescents, aiming to strengthen disease prevention, health promotion, and the link between schools and the Family Health Team (eSF)⁽⁶⁾.

Despite the strategies and programs developed over the years, the number of STI cases in adolescents in Brazil remains high⁽¹⁾. This context is aggravated by the limited knowledge and understanding of eSF professionals – especially doctors and nurses – regarding this public health problem, which can interfere with the effectiveness of health promotion and STI prevention actions in adolescence⁽⁵⁾.

Therefore, conducting a survey on the conceptions of health professionals involved in educational practices in eSFs, as well as on the health education process related to STIs among adolescents, is of great relevance for public health, as it will allow us to understand, in practice, how this educational process occurs and identify the main challenges faced by these professionals. This will enable the development of personalized strategies and solutions that strengthen health education among adolescents, acting as a tool to combat the increase in STIs in this population. Based on this context,

this study aims to answer the following question: What are the conceptions of eSF nurses and physicians regarding health education about STIs in adolescence?

Therefore, the present study aims to describe the conceptions of family and community doctors and nurses about health education on sexually transmitted infections in adolescence.

■ METHOD

This is a descriptive and exploratory study with a qualitative approach. This approach allows us to analyze the meanings individuals attribute to the conditions of reality they experience, as well as to represent their opinions, considering the social, cultural, economic, and relational contexts in which they are inserted. It also contributes to the understanding of concepts that explain social behaviors and enables the use of multiple sources of evidence⁽⁷⁾.

The study was developed in the Basic Health Units (UBS) of Garanhuns, Pernambuco, Brazil. This is the most populous municipality in the V Regional Health Management of Pernambuco, with 139,788 inhabitants, and has the lowest coverage of the Family Health Strategy, corresponding to 89.3%⁽⁸⁾. Its Primary Health Care (PHC) network is composed of 39 UBS, each of which consists of an eSF and an Oral Health Team (eSB). Approximately 78 oral health professionals and 273 professionals linked to the eSF, including physicians, nurses, nursing technicians, and community health agents, make up this network.

The municipality has three expanded multidisciplinary teams and one complementary team, four health academies, two community health agent program units, a home care service, three psychosocial care centers, a street clinic, and a testing and counseling center.

Sixteen health professionals participated in the study, including 10 nurses and 6 doctors working in the eSF of the UBS in Garanhuns. The selection of participants was based on the intentional sampling technique, to allow the researcher to select participants directly involved with the phenomenon under study, so that they could satisfactorily respond to the research problem⁽⁹⁾.

The study was developed only with doctors and nurses, to the detriment of other professional occupations, due to the direct and intense involvement of these professionals in health education actions on STIs, especially in the school environment, through the PSE⁽¹⁰⁾. Furthermore, these are two mandatory professional occupations in the various configurations of health teams established by the country's National Primary Care Policy (PNAB)⁽¹¹⁾.

This context reinforces their direct involvement in primary care services and their responsibility in implementing public policies aimed at health promotion. The selection, therefore, reflects the central role of these professionals in implementing educational and preventive actions, especially on sensitive topics such as STIs, which require technical knowledge, communication skills, connection with the territory, and social sensitivity⁽¹²⁾.

The inclusion criteria were: physicians and nurses of both sexes, with at least six months of uninterrupted experience in the Family Health Teams (eSF) where they worked at the time of the study, and who had provided at least some care to adolescents in the previous six months. The exclusion criteria were physicians and nurses working in the FHS who had not provided any direct or indirect care to adolescents. The inclusion criteria were physicians and nurses of both sexes, with a minimum of six uninterrupted months of experience in the eSF in which they worked at the time of the research and who had already provided at least some care to adolescents in the last six months. The exclusion criteria were physicians and nurses from the FHS who had not provided any direct or indirect care to adolescents.

During the study, no participants withdrew. However, one medical professional refused to participate, and four were excluded for not meeting the inclusion criteria, as they had less than six months of experience in the eSF. Among the nurses, there were no withdrawals or refusals; however, one participant was excluded for the same reason: having less than six months of experience in the eSF.

For data collection, the interview technique was used, widely used in field research, allowing the researcher to understand the subjectivity of individuals by obtaining information through interaction with participants, motivating them to express their knowledge on the topic in question⁽¹³⁾. The interviews were conducted exclusively by the researcher, someone with knowledge in the collection technique and in qualitative studies and who is also a nurse specializing in public health, with an emphasis on eSF and family and community health nursing.

To conduct the interviews, the researcher used two instruments: a structured questionnaire designed to characterize the participants' profile (profession, country of study, age, gender, religion, time spent in the eSF, field of activity, and academic background); and a semi-structured interview guide with nine questions about the profile of adolescents in the assigned area, the professional-adolescent-family relationship, methods and resources used in health education about STIs, barriers and challenges faced, and the potential and perspectives of these actions. These instruments, when applied in the individual interview technique, present a

“conversation with a purpose,” enabling, based on the collection of relevant information, the investigation and analysis of the object of study⁽¹⁴⁾.

Before data collection began, a pilot test of the instruments was conducted with the target audience. This test aimed to verify, in practice, whether the proposed instruments were clear and understandable to the respondents, allowing for responses appropriate to the study's intended purpose. This procedure provided the researcher with the opportunity to make adjustments to the instruments when necessary, making them more calibrated, accurate, and easy to understand for the research target audience.

The test was conducted with three nurses who had worked in the eSF for more than three years, two in urban areas and one in rural areas. All had specialized in areas related to family health and had previously provided care and health education programs on STIs for adolescents.

The professionals understood the instruments; however, after analyzing and discussing the material collected during the test, the researcher found that some responses were broad, resulting from unspecific questions. To clarify the interview guide, some questions were reformulated and two more questions were included: *“Describe in what situations you assist the adolescent population in the territory?”* and *“How would you describe the characteristics of the assigned adolescent population in the area covered by the Basic Health Unit (UBS)?”* This reduced the guide from seven to nine questions related to the topic under study. The three interviews conducted during this stage were archived and were considered solely for instrument validation purposes, not comprising the final sample database for the study.

The empirical data collection was conducted between August and November 2023, divided into three stages at different times.

First stage: the researcher visited the primary care units (UBS), introducing himself and inviting professionals to participate in the research. During the visits, the purpose and importance of the study were explained, as well as the participants' contributions to the research and to society, as well as the benefits they would derive from participating.

Second stage: doctors and nurses who expressed interest in participating in the research had an appointment made to administer the sociodemographic questionnaire and interview.

The third stage consisted of two sequential situations: I - application of the sociodemographic questionnaire, which participants completed individually and returned to the researcher; II - interview, conducted based on a script, lasting an average of 30 minutes. The interviews took place at the primary care units (UBS) where the professionals worked, in

a previously reserved space, with only the interviewer and the respondent present, ensuring the absence of external interference. The audio recordings were recorded using a smartphone.

To complete data collection, the content saturation criterion, widely used in qualitative research and in the health field, was used. Saturation occurs when there is repetition in the discourse, indicating that collecting new data will not provide significant contributions to the study⁽¹⁵⁾. To identify saturation, analysis was conducted concurrently with data collection and discussed with another researcher with experience in the study area. Thus, saturation was reached around the 13th interview. For safety reasons, three additional interviews were conducted, totaling 16 interviewees, whose data were submitted for analysis.

The methodological framework used for data interpretation and analysis was guided by Bardin's content analysis, which allowed us to identify the real meaning of the content through a set of communication analysis techniques, thus enabling a greater understanding of the data. The analysis occurred in three stages, carried out in parallel with data collection: pre-analysis, exploration of the collected material, and content analysis⁽¹⁶⁾.

In pre-analysis, using NVivo® 14 software, the interviews were transcribed and organized into a single study corpus. The researchers then critically analyzed the interviews to identify units of meaning within the recording units (discourses), i.e., relevant parts of the content. These units were coded as new patterns and codes emerged during the analysis.

Based on the first stage of content analysis, the collected material was explored through a critical and reflective rereading, fostering a dialogue between theory and the study objectives. The process of coding and classifying the recording units allowed the information to be grouped and organized into initial codes. These codes were progressively refined until they aligned with the study's purpose, resulting in the formulation of 18 initial categorizations, with “Health Education in STIs” as the central focus.

To meet Bardin's criteria of homogeneity, exhaustiveness, relevance, and exclusivity, the process of refining the initial categorizations began. Guided by guiding ideas, these categorizations of convergent ideas were progressively grouped, resulting in seven intermediate categorizations.

During the ongoing analysis process, it was found that the categorizations established thus far did not fully represent the complexity of communication. Therefore, and considering the similarity of the meanings of the recording units in each intermediate categorization, these categorizations were combined. This refinement process resulted in the consolidation of two broad categories, as shown in Chart 1.

Chart 1. Process for consolidation of final categories. Recife, Pernambuco, Brazil 2024.

Initial categorizations	Intermediate categorizations	Final categories
I • Adolescents' search for APS services II • Access to health education III • Health education spaces IV • Educational themes V • STI guidance activities VI • Educational methods VII • Teaching resources VIII • Health educators IX • Information vehicles about STIs X • Family-adolescent dialogue XI • Professional-adolescent relationship	I • Promotion of sexual, reproductive and STI health II • Educational approaches in health III • Health information vehicles IV • Relationship and dialogue between family, professional and adolescent	I • Agents, spaces and strategies for the development of health education on STIs among adolescents
XII • Population and assigned territory XIII • Profile of adolescents XIV • Barriers and challenges in IST education XV • Difficulties in IST education XVI • Perspectives on health education in IST XVII • Perspectives for improvements in health education in IST XVIII • Potentials of health education	V • Sociodemographic characteristics of the enrolled population VI • Challenges in health education about STIs VII • Professionals' perceptions of health education on STIs	

Source: The authors, 2024.

The two broad categories represent the main meanings of the collected data and serve as the basis for analyzing and interpreting the results. To give meaning to the interpretation and deepen the understanding of the reality investigated, the data were analyzed in dialogue with the scientific literature in the field, considering the frameworks of Ricardo Ayres, from the perspective of vulnerability, and Paulo Freire, based on the concepts of dialogue and problematization.

All participants previously signed the Free and Informed Consent Form (TCLE), in accordance with Resolutions No. 466/2012 and No. 510/2016 of the National Health Council (CNS). To ensure anonymity, participants' statements were coded as follows: "ENF" for nurses and "MED" for physicians, followed by a number corresponding to the chronological order of the interviews, for example: ENF1, [...] and MED1, [...]. Participants were assured that all data collected and produced during the study would be stored in physical and digital format, on a drive under the researcher's responsibility, for a minimum period of five years after the end of the research, according to the current ethical regulations.

The study was approved by the Research Ethics Committee of the Health Sciences Center of Universidade Federal de Pernambuco (UFPE), under CAAE No. 70526123.5.0000.5208. The preparation of the study report was guided by the Consolidated Criteria for Qualitative Research Reports (COREQ), used as a reference to ensure transparency and quality in the description of methodological procedures.

■ RESULTS

The study involved 16 healthcare professionals, including 10 nurses and 6 physicians, all working in urban areas. Their ages ranged from 25 to 42, with between one and 15 years of experience in the Family Health System (FHS). Regarding educational background, 15 participants graduated in Brazil and only one abroad.

Regarding specialization, three had training in Family Health, four in Public Health, three in Obstetrics and Gynecology, while six had no specialization. Furthermore, five reported short courses focused on obstetrics, gynecology, education, Comprehensive Management of Childhood Illness (IMCI), clinical medicine, occupational medicine, syphilis, and dermatology.

In the context of health education for adolescents, 13 professionals reported developing educational activities on family planning, STIs, vaccinations, nutrition, physical activity, mental health, drugs, violence, sexuality, pregnancy, sexual and reproductive health, and parasitic diseases.

Only three participants reported that they do not conduct educational activities directly with adolescents, but rather provide individual care.

Given that most participants have additional training in relevant areas, experience in the eSF, and are involved in health education activities with adolescents, it can be inferred that they have sufficient knowledge and experience to contribute information on health education related to STIs for this audience.

Description of categories

Agents, spaces and strategies for the development of health education about STIs among adolescents

During adolescence, various people and media act as agents for disseminating information about STIs. Among these, friends and the internet stand out as the main sources of information. Furthermore, other agents were also mentioned, such as community health workers, psychologists, psychotherapists, and nutritionists, thus forming a potential multidisciplinary team. On the other hand, it is possible to identify that family members were also recognized as information agents, although less frequently compared to the others.

The health agents are the starting point for the work, going into homes and explaining that there is a nurse and a doctor here and that if they need anything they can come and talk to us [...] and if they need it, after their assessment, more attention we refer them to the reception service, the e- multi team, where there is a psychologist and psychotherapist (ENF 1).

They arrive at the unit with a good amount of information, both from home and school (ENF 5).

Teenagers who are beginning their sexual life often ask their friends or use Google to clarify their doubts, and end up waiting a long time to get to the unit, and when they get there, they are already infected (ENF 7).

Teenagers generally have little information, and such little information comes from their peers (MED 1).

Professionals identified schools as the primary locations for educational practices. However, it was evident that educational activities at the UBS occur primarily during individual consultations, where professionals address sexual and reproductive health, STIs, teenage pregnancy, contraception, and family planning.

Our main contact is in the school health program, when we leave the unit and go to do activities at school through the PSE (ENF 4).

At the UBS, we don't provide health education on STIs, family planning, or alcohol and drug use. This is more the case at the PSE, where we cover a different topic related to these issues every month. (ENF 8).

During consultations we try to talk about contraceptive methods and STI prevention [...] (MED 4).

Dialogue was highlighted as the main strategy used in developing health education about STIs. In this sense, preference was given to discussion groups, using popular, accessible, and targeted language; question-and-answer dynamics; and the use of humor.

In our methodology, we always try to use a simple, easily understood format, often through discussion groups and slides showing photos. We try to talk about popular topics, but without addressing gender or homosexuality options. At this point, we try to be very general, because they're in the discovery phase. Thus, we don't encourage them, because otherwise their families will say that we're inducing them to take certain paths (ENF 2).

It's more of an introduction, a conversation circle, and sometimes we do Q&A. It's really cool and dynamic. But we take a more superficial approach, because these are like kids, leaving the stage and going into pre-adolescence. Now that we have high school level, then we can go a little deeper, with more authority, but also with a certain amount of care to avoid causing controversy in relation to the parents, like, "My children were lectured at school today about sexuality and there the health center staff was influencing them to use condoms." You have to be careful (ENF 3).

With teenagers, we always have to use a little humor to keep them engaged, otherwise they won't pay attention. In fact, I think that learning with humor is more practical, easier for everyone; they learn and participate more (MED 3).

The concern of the health professionals about parents' reactions to the strategies used with their children, both at school and at the UBS, was perceived. This directly impacts their approach. With this in mind, the professionals strive to adapt strategies that meet the unique needs of each adolescent, respecting their age group and developmental level, to promote inclusive, less superficial, and family-friendly STI health education.

Pamphlets, images, and physical supplies, such as tests and molds, were mentioned as the main resources used by professionals to implement strategies and, thus, promote meaningful health education about STIs with adolescents.

I always try to bring resources to show, devices to try to illustrate and draw more attention to them, such as: figures and films. [...] breast and vagina molds to talk about cytology, condoms to talk about prevention and use during sexual intercourse and the medication packet to explain how to use them (ENF 8).

Posters, which are more practical examples to see, and for them to handle condoms, to try to facilitate their understanding of the subject (MED 6).

Conceptions of health professionals about adolescence, factors that make people vulnerable to STIs, and health education

According to the health professionals, the age of the target audience assisted by their teams ranges from 9 to 19 years old. The main issues that interfere with the well-being of adolescents in the area were STIs, teenage pregnancy, and exposure to social and economic vulnerabilities, such as poverty, hunger, family breakdown (parents deprived of liberty), and drug use. On the other hand, it was also possible to identify in the discourses, albeit to a small extent, references to adolescents living in areas considered affluent, where there is less exposure to situations of vulnerability related to drugs and STIs, which may be associated with the better socioeconomic and educational conditions of this population.

A very glaring issue here in the area is the family issue [...], parents deprived of freedom and at risk of vulnerability [...] and some adolescents live in poverty and hunger, and many with STIs (ENF 1).

This region is very vulnerable to drugs and also has a high rate of STIs [...]. Furthermore, I have many pregnant teenagers aged 16, 17, 18, 19, who began their sexual life early [...] (ENF 6).

The problems end up varying according to the purchasing power of families [...]. We don't have as many teenage pregnancies, at the moment we have one, this is because it is a population that has more access to contraceptives, they have more access to information (MED 4).

The territory ends up being well divided, [...] there is a stable population that is, theoretically, protected because they are informed about STIs, there is a very vulnerable population with little information, with drug-related problems [...] (MED 6).

Participants reported that health education practices in the context of STIs are a fundamental strategy in PHC for improving adolescents' quality of life, as they contribute to the development of critical-reflective thinking and empowerment in decision-making regarding the issue at hand. Furthermore, it was pointed out that health education, when actively developed with adolescents, can positively impact the prevention of STIs, teen pregnancy, sexual abuse, and other health problems to which this population is exposed.

Health education is part of the patient's teaching-learning as a whole. I believe it is the basis for these adolescents to have a good evolution and not lead to consequences for their health, especially regarding STIs. In other words, it acts by carrying out this process of prevention, health promotion and rehabilitation (ENF 9).

The potential, obviously, is to make people more informed about the subject, empowering them to make decisions, consequently, a reduction in the number of people affected by STIs and a general decrease in health costs, because it is much easier to prevent than to treat, especially those that have no cure (MED 6).

It became clear that health education about STIs is widely recognized by the Family Health Team (eSF) professionals as an essential strategy for comprehensive adolescent health care. More than just a practice of knowledge transmission, it is seen as a fundamental tool for developing critical and reflective thinking. This approach not only impacts the reality of adolescents but also contributes to the development of conscious and responsible citizens, capable of making assertive decisions about their health and well-being.

Professionals described family resistance and difficulty in talking to adolescents about sex and other related topics as challenges they experienced that deserved to be highlighted, as they interfere with the process of promoting adolescent health. Other potential barriers to implementing educational practices aimed at adolescents within PHC were highlighted, such as the lack of studies on educational practices related to sexuality in adolescence, effective public policies, training, material resources, adequate structure and management support, as well as work overload.

They don't look for the unit out of shame, out of fear, they normally don't come to the unit, [...] the biggest fear of teenagers is their parents, that's why they withdraw from their parents [...] (ENF 2).

[...] we don't have an effective policy to be developed in the unit and we don't have frequent training. Furthermore,

when we organize ourselves to carry out actions in schools, we face limitations imposed by the educational management. They limit our visits to the schools [...] (ENF 4).

[...] more adherence is necessary, because they don't seek out the unit for prevention. There is also the lack of support from the management in encouraging health education and providing materials for us to disseminate. Furthermore, there are few studies targeted to policies more focused on adolescents (ENF 7).

Adherence of the staff, because they don't always come, [...] they refrain to come, because they have associated drug problems, [...]. Another aspect concerns the infrastructure available, the need for more flashy materials, because the materials available are somewhat ordinary [...] (MED 6).

■ DISCUSSION

The study revealed the conceptions of eSF physicians and nurses regarding health education in the context of STIs in adolescence, demonstrating that this process is carried out by multiple agents and spaces, with schools and informal media being the main sources of information, while family members play a less prominent role. The results show that the educational strategies adopted are centered on dialogue, using accessible language and playful resources, but are still marked by superficial approaches, often motivated by fear of family backlash. These findings reflect structural, social, and economic barriers that permeate the region and limit the implementation of broader and more effective educational practices for adolescents.

Such conceptions, when analyzed in light of the concept of adolescence established by the World Health Organization (WHO), reveal a broader understanding of being an adolescent and the multiple vulnerabilities that surround it. Thus, when reporting the definitions of adolescence established by the WHO, such as all individuals between 10 and 19 years old, marked by particular characteristics — anatomical, psychological, social and behavioral modifications⁽¹⁷⁾ —, it is possible to infer that health professionals understand being an adolescent and the biopsychosocial factors associated with the period, as factors that influence the vulnerability of this group to the early initiation of sexual activities, teenage pregnancy, drug use and exposure to STIs.

This perception is in line with what is presented in the literature, which highlights adolescents as a group that represents a quarter of the sexually active population and

that can be affected by biopsychosocial factors. Attitudes that make vulnerable, desires for autonomy, drug use and multiple older partners are potential factors in the increase in STIs in adolescence⁽¹⁸⁾.

In this context, it can be inferred that the economic and social conditions of the territory are factors that can contribute to the greater exposure of adolescents to situations of vulnerability⁽¹⁹⁾. In general, adolescents assisted by PHC professionals live in socially vulnerable areas and are mostly pregnant, with cases of STIs and problems in the family structure.

On the other hand, professionals working in areas with better socioeconomic and educational conditions reported that adolescents are less exposed to situations of vulnerability, since populations in privileged areas have greater access to information, which suggests greater health literacy. Thus, economic and social stability is associated with better health conditions and less vulnerability⁽¹⁹⁾.

It can be accepted that the vulnerable factors that expose adolescents to STI contamination are diverse, such as lack of access to adequate information, socioeconomic conditions and even cultural issues. This view reinforces the direct and indirect influence of territory and other Social Determinants of Health (SDH), which involve ethnic, racial, psychological, social, cultural, behavioral, educational, and economic issues, on the increase in STIs in adolescence, as well as on the early initiation of sexual activity and multiple partners⁽²⁰⁾.

In this regard, the Ministry of Health's document "Protecting and Caring for the Health of Adolescents in Primary Care" reinforces the need for a comprehensive approach, considering adolescents in their biological, psychological, and sociocultural dimensions. Family health professionals must, therefore, promote health comprehensively, guiding the population toward improvements in sanitary and environmental conditions, as SDH directly influences the health and disease process.

Despite these recommendations, it is worth noting that the infrastructure and environment of the UBS do not favor the development of effective educational actions for adolescents, which may justify the difficulty in carrying out these actions⁽²¹⁾. Therefore, it is essential that the eSF adopt systematic and regular strategies in the UBS in order to complement the activities developed in schools through the PSE, as well as other programs that are developed in the school environment, thus being able to create a comprehensive support network, capable of guaranteeing comprehensive health care for adolescents, as well as continuous access to health education, amplifying the expected results⁽²²⁾.

Additionally, the means by which adolescents obtain health information also influences this scenario. Regarding the means by which adolescents obtain health information,

it was found that most of the information acquired by adolescents about sexual and reproductive health, as well as other related topics, comes primarily from friends, magazines, television, and digital media, while family members are a less frequent source⁽²³⁾. However, the presence of family in the sex education process is recognized as a positive and protective factor for the prevention of STIs in adolescence, therefore, having family members also as a source of information contributes positively to the prevention of STIs in adolescence⁽²³⁾.

The interviews clearly demonstrated health professionals' concern about how parents perceive the educational strategies adopted with their children, both in schools and in primary care facilities. Health professionals then seek to adapt strategies to the unique needs of each adolescent, respecting their age group and developmental stage. The goal is to promote a more inclusive, less superficial, and acceptable health education about STIs for families. Therefore, these professionals must be prepared to provide personalized care.

Some of these professionals also use educational methods, such as discussion groups, audiovisual presentations, humor, and playful resources, to avoid controversy on the subject. However, the use of these methods to avoid and/or make superficial discussions on these and other subjects, such as sexual diversity and gender identity, contrasts with the author's perspective⁽²⁴⁾, which values dialogue and problematization as ways to stimulate critical thinking and autonomy of young people. This limitation can hinder the development of a comprehensive and critical education, which is fundamental for the development of adolescents' consciousness.

While understandable considering the sociocultural context these adolescents and their families experience, the lack of in-depth discussions limits the development of a critical and meaningful understanding of sexual and reproductive health, which is essential to promoting adolescents' autonomy and empowerment in decision-making regarding STI prevention.

The results are in line with other research⁽²⁴⁾, which states that avoiding relevant topics for fear of reprisals or to avoid influencing adolescents can perpetuate misinformation and exclusion, contradicting the principles of emancipatory education. It is, therefore, essential to promote an open and inclusive dialogue that addresses controversial issues critically, empowering adolescents to make informed and responsible decisions.

Health education practices about STIs for adolescents must go beyond merely imparting knowledge. It is essential to promote awareness and transformation, enabling adolescents to critically understand the factors that make them vulnerable to STIs and adopt an autonomous and responsible attitude towards their sexual and reproductive health.

The educational process should not be based on a “banking” approach⁽²⁴⁾, in which the educator merely passes on information. It should be based on dialogue and the collective construction of knowledge, creating a space where adolescents, health professionals, and family members can express their doubts, concerns, and understanding, thus building an educational practice around the issues being discussed.

Therefore, it is essential that health professionals seek to balance respect for cultural sensitivities with the responsibility to provide critical education that empowers young people to deal with the challenges of sexual and reproductive life in a conscious and safe manner, as well as including family members in dealing with and supporting adolescents in this context and at this stage of life.

In this sense, the conceptions of physicians and nurses about health education related to STIs among adolescents align with the results reported in the literature, which highlight health education as a strategy to strengthen adolescents’ ability to understand broadly and in-depth issues related to sexual and reproductive health. This results in more informed and responsible decisions about their health, which can contribute to a significant reduction in the incidence of STIs among them⁽²⁵⁾.

The potential of this strategy lies in promoting preventive behaviors and a critical understanding of sexuality and health. Another study shows that adolescents exposed to health education programs become more aware of safe practices, increase their adherence to contraceptive methods, and develop informed decision-making skills⁽²⁶⁾. This can have a direct impact on reducing the incidence of STIs, as well as reducing costs for the healthcare system, especially related to infections such as HIV. Thus, health education fulfills its role, contributing to economic, social, and public health improvements.

Even with the understanding demonstrated by professionals about the importance of health education and programs linked to health and education to improve adolescents’ access to health services and the quality of their sexual and reproductive health, professionals face several challenges in implementing educational strategies aimed at this public⁽²⁷⁾.

Adolescents’ resistance to seeking health services, often related to shame, a lack of awareness of the importance of prevention, fear that family members will discover they have sought health services, and in some cases, drug use, limits access. These behaviors reflect a disconnect between the services offered and the adolescents’ perceived needs.

Furthermore, family resistance and cultural taboos regarding sexuality hinder open dialogue on essential topics, such as STI prevention, sexuality, and sex, limiting the impact of educational initiatives. The literature reinforces that strategies that include families in the educational process, without

compromising adolescents’ privacy, are more effective in overcoming these challenges and barriers⁽²⁸⁾.

The professionals also highlighted that, in addition to adolescent access and adherence, structural and institutional issues, such as the lack of adequate material resources, management support and incentives for the promotion of permanent and continuing education, are presented as difficulties faced daily by these professionals, limiting the development of educational actions in schools, communities and in the UBS itself.

These challenges become even more significant in the absence of intersector coordination, especially between health units and schools. Although the PSE represents progress, the resistance of school administrators and families to addressing issues related to sexuality still constitutes a significant barrier. To overcome these barriers, the literature highlights the need for intersector approaches that involve health professionals, schools and family members, creating environments conducive to a comprehensive and continuous dialogue on sexual and reproductive education, including the prevention of STIs and other health problems⁽²⁹⁾.

The limitations of the study include low participation among physicians and the limited inclusion of other stakeholders, which reduced the diversity of perspectives gathered. To overcome these limitations, it would be beneficial to expand physician participation by offering practical and dynamic training related to the topic, working with other stakeholders, such as adolescents and family members, to enrich understanding of the health education process focused on STIs in adolescence and, consequently, foster stronger ties with the community and other professionals.

Despite this limitation, the findings offer valuable insights that can be adapted to different realities, applying the logic of transferability. This allows the results to serve as an initial reference for professionals and municipalities that share similar population or structural conditions, respecting the specificities of each location.

■ FINAL CONSIDERATIONS

The present study showed that primary care physicians and nurses recognize the importance of health education as a fundamental strategy for preventing STIs in adolescence. The findings reveal that, although professionals adopt strategies based on dialogue, accessible language, and playful resources, these practices still face significant limitations, such as family resistance, superficial approaches, the fragility of the UBS structure, and the lack of effective public policies focused on the issue. Furthermore, it was observed that adolescent vulnerability is directly related to SDHs, such as poverty, unequal access to information, and family fragility.

Given the challenges facing the promotion of adolescent sexual and reproductive health, the urgent need for more integrated, critical, and dialogic approaches by the Family Health Units (eSF) is evident. Therefore, actions developed in the Primary Health Care Units (UBS) must be systematically coordinated with strategies implemented in schools, through the PSE and other programs, to create a continuous and comprehensive care network that ensures adolescents have access to valuable information and appropriate support.

To achieve this, it is essential to adopt multifaceted approaches, such as implementing educational groups, workshops, the use of technology and social media, as well as valuing spaces dedicated to listening and dialogue. Health education needs to go beyond the traditional, banking-based model, promoting the collective construction of knowledge and youth empowerment, with the active participation of adolescents, healthcare professionals, and family members.

Only through an intersector and humanized approach, which values the uniqueness of this stage of life and strengthens public policies aimed at this group, will it be possible to break down existing sociocultural barriers and achieve effective results in the prevention of STIs and other diseases. Thus, building a transformative educational practice becomes not only a challenge, but a shared responsibility between the health system, schools, families, and society.

Therefore, the study contributes significantly to the field of health education by expanding understanding of the challenges faced by Family Health Team professionals in developing educational practices on STIs with adolescents, pointing to ways to strengthen comprehensive care for this group. Its practical implications reinforce the need for investment in continuing education, improving the structural conditions of health units, and intersector actions that integrate families, schools, and health services. It is also recommended that further research explore the perspectives of other stakeholders involved in this educational process, including adolescents themselves, their families, other primary care professionals, and PSE stakeholders, in order to develop more dialogical, effective, and culturally sensitive approaches.

REFERENCES

- Ministério da Saúde (BR). Boletim Epidemiológico HIV e AIDS 2024 [Internet]. Brasília: Ministério da Saúde; 2024[cited 2025 Feb 18]. Available from: https://www.gov.br/aids/pt-br/central-de-conteudo/boletins-epidemiologicos/2024/boletim_hiv_aids_2024e.pdf/@download/file
- Ministério da Saúde (BR). Estudo Epidemiológico sobre a Prevalência Nacional de Infecção pelo Papilomavírus Humano POP-Brasil 2015/2017. Brasília: Ministério da Saúde, 2020[cited 2025 Feb 18]. Available from: <https://www.gov.br/aids/pt-br/central-de-conteudo/publicacoes/2020/estudo-epidemiologico-sobre-a-prevalencia-nacional-de-infeccao-pelo-papilomavirus-humano-pop-brasil-2015-2017/view>
- Carvalho CB, Arroaz AM, Martins R, Costa, R, Cordeiro F, Cabral JM. "Help Me Control My Impulses!": adolescent impulsivity and its negative individual, family, peer, and community explanatory factors. *J Youth Adolesc* [Internet]. 2023[cited 2025 Feb 18];52:2545–58. Available from: https://pmc.ncbi.nlm.nih.gov/articles/PMC10522498/pdf/10964_2023_Article_1837.pdf
- Queiroz RO, Moroskoski M, Shibukawa BMC, Uema RTB, Oliveira RR, Higarashi IH. Family and community guidance in adolescence: assessment in the family health strategy. *Rev Latino-Am Enfermagem*. 2021;29:e3457. <https://doi.org/10.1590/1518-8345.4599.3457>
- Santos C, Roso A. Saúde sexual e reprodutiva nas adolescências no contexto brasileiro: indicadores, potencialidades e desafios. *Rev Ispsi* [Internet]. 2024 [cited 2025 Feb 18];24. Available from: <https://www.e-publicacoes.uerj.br/revispsi/article/view/67677>
- Bueno DR, Köptcke LS. A participação juvenil no Programa Saúde na Escola (PSE): uma reflexão sobre o papel da gestão federal. *Saúde Debate*. 2022;46(spe3):29–44. <https://doi.org/10.1590/0103-11042022E302>
- Yin RK. Estudo de caso: planejamento e métodos. Porto Alegre: Bookman; 2015.
- Godoi MFRS. Mapa da saúde V GERES 2015–2019 [Internet]. Garanhuns: Secretaria do Estado de Pernambuco; 2020 [cited 2024 Nov 30]. Available from: http://portal.saude.pe.gov.br/sites/portal.saude.pe.gov.br/files/mapa_de_saude_2020_v_regiao_de_saude.pdf
- Saunders M, Townsend K. Choosing Participants. In: Cassell C, Cunliffe A, Grandy G. *The SAGE handbook of qualitative business and management research methods: history and traditions*. Londres: SAGE Publications Ltd; 2019. p. 480–492.
- Antunes EMS, Matos JGS, Bentes CML. A atuação do enfermeiro no Programa Saúde na Escola: uma revisão integrativa. *Rev FT*[Internet]. 2023 [cited 2024 Nov 30]. Available from: <https://revistaft.com.br/a-atuacao-do-enfermeiro-no-programa-saude-na-escola-uma-revisao-integrativa/>
- Ministério da Saúde (BR). Portaria nº 2.436, de 21 de setembro de 2017. Aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes para a organização da Atenção Básica, no âmbito do Sistema Único de Saúde (SUS) [Internet]. Brasília, 2017. Available from: https://bvsms.saude.gov.br/bvs/saudelegis/gm/2017/prt2436_22_09_2017.html
- Silva FC, Souza Érica F de, Silva JV de O, Azevedo A karulina R de, Silva IC da, Bernardes MSV, et al. Práticas educativas em saúde aplicadas enfermagem no brasil. *REASE* [Internet]. 2024 [cited 2025 Jun 18];10(11):1710–21. Available from: <https://periodicorease.pro.br/rease/article/view/16403>
- Batista EC, Matos LAL, Nascimento ABA. A entrevista como técnica de investigação na pesquisa qualitativa. *Rev Interdiscip Cien Aplic* [Internet]. 2017[cited 2024 Nov 28];11(3):23–38. Available from: <https://www.researchgate.net/publication/331008193>
- Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. São Paulo: Hucitec, 13. ed., 2013.
- Nascimento LCN, Souza TV, Oliveira ICS, Moraes JRMM, Aguiar RCB, Silva LF. Theoretical saturation in qualitative research: an experience report in interview with schoolchildren. *Rev Bras Enferm*. 2018;71(1):228–33. <https://doi.org/10.1590/0034-7167-2016-0616>
- Bardin L. *Análise de conteúdo*. Lisboa: Edições 70; 2011. 223 p.
- Freire IM, Minayo MCS. Trajetórias de adolescentes que vivem com o vírus HIV por transmissão vertical. *Ciênc Saúde Colet*. 2024;29(8):e05172024. <https://doi.org/10.1590/1413-81232024298.05172024>
- Westin MR, Martinez YF, Silva AP, Greco M, Marques LM, Campos GB, et al. Prevalence of syphilis and sexual behavior and practices among adolescents MSM and TrIGW in a Brazilian multi-center cohort for daily use of PrEP. *Cad Saúde Pública*. 2023;39:e00118721. <https://doi.org/10.1590/0102-311XEN118721>

19. Justino NF, Gomes RNS, Carminatti M, Barros LFM, Guerra JML, Rodrigues JCT, et al. Determinantes sociais da saúde: impactos no desenvolvimento de crianças e adolescente em situações de risco. REASE [Internet]. 2025[cited 2025 Jun 18];11(2):1927-42. Available from: <https://periodicorease.pro.br/rease/article/view/18210>
20. Costa MIF, Rodrigues RR, Teixeira RM, Paula PHA, Luna IT, Pinheiro PNC. Adolescents in situations of poverty: resilience and vulnerabilities to sexually transmitted infections. Rev Bras Enferm. 2020;73:e20190242. <https://doi.org/10.1590/0034-7167-2019-0242>
21. Silva RAR, Venturi T. Pesquisas, vivências e práticas de educação em saúde na escola. Chapecó: Editora UFFS; 2022. 461 p. <https://doi.org/10.7476/9786586545722>
22. Oliveira FPSL, Vargas AMD, Hartz Z, Dias S, Ferreira EF. Integração das ações do Programa Saúde na Escola entre profissionais da saúde e da educação: um estudo de caso em Belo Horizonte, Minas Gerais. Saúde Debate. 2022;46(spe3):72-86. <https://doi.org/10.1590/0103-11042022E305>
23. Mirieli LF. Educação Sexual e Reprodutiva para Adolescentes na Atenção Primária: uma revisão narrativa. Ciênc Biol, Agrár Saúde [Internet]. 2020[cited 2025 Jun 18];24(1):82-87. Available from: <https://ensaioeciencia.pgscogna.com.br/ensaioeciencia/article/view/7404>
24. Freire P. Educação como prática da liberdade. 54. ed. Rio de Janeiro: Paz & Terra; 2022.
25. Lima PMP, Nunes AFF, Santos BLA, Vilela EAP, Souza KGA, Sousa LB, et al. Conexão Adolescente: a importância do debate sobre sexualidade nas escolas. Braz J Implantol Health Sci. 2024;6(8):1373-84. <https://doi.org/10.36557/2674-8169.2024v6n8p-1373-1384>
26. World Health Organization (WHO). Sexual and reproductive health education in adolescents [Internet]. 2023[cited 2022 Oct 24]. Available from: <https://www.who.int/publications/i/item/978924151288>
27. Assaife TFC, Gomes MK, Carvalho LL, Lucas EAJCF. Desafios e potencialidades do Programa Saúde na Escola no município do Rio de Janeiro. Physis. 2024;34:e34029. <https://doi.org/10.1590/S0103-7331202434029pt>
28. Vieira RP, Gomes SHP, Machado MFAS, Bezerra IMP, Machado CA. Participation of adolescents in the Family Health Strategy from the theoretical-methodological structure of an enabler to participation. Rev Latino-Am Enfermagem. 2014;22(2):309-16. <https://doi.org/10.1590/0104-1169.3182.2417>
29. Silva RAR, Venturi T. Pesquisas, Vivências e Práticas de Educação em Saúde na Escola. Chapecó: Editora UFFS; 2022, 461 p. <https://doi.org/10.7476/9786586545722>

■ Availability of data and material

Access to the dataset may be granted upon request to the corresponding author.

■ Acknowledgments

This study was supported by the Brazilian Coordination for the Improvement of Higher Education Personnel (CAPES). I gratefully acknowledge the academic and institutional support of the Federal University of Pernambuco (UFPE), through the Graduate Program in Child and Adolescent Health, whose contribution was fundamental throughout this work.

■ Authors' contribution

Conceptualization: Manoel Felipe Nunes da Rocha, Gracielly Karine Tavares Souza, Gabrielly Laís de Andrade Souza, Daniela Tavares Gontijo, Rosalie Barreto Belian

Data curation: Manoel Felipe Nunes da Rocha, Gracielly Karine Tavares Souza, Gabrielly Laís de Andrade Souza, Daniela Tavares Gontijo, Rosalie Barreto Belian

Research: Manoel Felipe Nunes da Rocha

Methodology: Manoel Felipe Nunes da Rocha, Gracielly Karine Tavares Souza, Gabrielly Laís de Andrade Souza, Daniela Tavares Gontijo, Rosalie Barreto Belian

Project administration: Manoel Felipe Nunes da Rocha
Supervision: Rosalie Barreto Belian

Validation: Rosalie Barreto Belian

Writing - original draft: Manoel Felipe Nunes da Rocha

Writing - proofreading and editing: Manoel Felipe Nunes da Rocha, Gracielly Karine Tavares Souza, Gabrielly Laís de Andrade Souza, Daniela Tavares Gontijo, Rosalie Barreto Belian

The authors declare that there is no conflict of interest.

■ Corresponding author:

Manoel Felipe Nunes da Rocha
E-mail: manioelfelipeenfermeiro@gmail.com

Received: 04.13.2025

Approved: 07.22.2025

Associate editor:

Bruna Hinnah Borges Martins de Freitas

Editor-in-chief:

João Lucas Campos de Oliveira

