

SEXUAL AND REPRODUCTIVE HEALTH LITERACY IN ADOLESCENCE: AN INTEGRATIVE REVIEW

LITERACIA EM SAÚDE SEXUAL E REPRODUTIVA NA ADOLESCÊNCIA: UMA REVISÃO INTEGRATIVA

ALFABETIZACIÓN EN SALUD SEXUAL Y REPRODUCTIVA EN LA ADOLESCENCIA: UNA REVISIÓN INTEGRADORA

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ABSTRACT: Objective: To explore the role of sexual and reproductive health literacy in adolescence. **Method:** Integrative literature review carried out in PubMed, LILACS, SCOPUS and WEB OF SCIENCE databases, with the following inclusion criteria: original article, without language and time filter. The descriptors applied were: Adolescents, Health Literacy and Sexual and Reproductive Health. **Results:** Six studies were selected. In all of them, there was a strong association between not receiving information about sexual health and teenage pregnancy. Positive literacy levels were associated with living in an urban area, access to the internet, schooling, being single, access to information with health professionals and classes on sex education. **Conclusion:** Higher levels of health literacy are associated with lower rates of teenage pregnancy, emphasizing the need to address the issue in schools and health facilities attended by adolescents.

KEYWORDS: Adolescent. Health literacy. Reproductive health.

RESUMO: Objetivo: Explorar o papel da literacia em saúde sexual e reprodutiva na adolescência. **Método:** Revisão integrativa da literatura realizada nas bases de dados PubMed, LILACS, SCOPUS e WEB OF SCIENCE, tendo como critérios de inclusão: artigo original, sem filtro de idioma e tempo. Os descritores aplicados foram: Adolescents, Health Literacy e Sexual and Reproductive Health. **Resultados:** Seis estudos foram selecionados. Em todos houve forte associação entre não receber informações sobre saúde sexual e gravidez na adolescência.

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*Níveis de literacia positivos estiveram associados a viver em área urbana, acesso à internet, escolaridade, ser solteiro, acesso à informação com profissionais de saúde e aulas sobre educação sexual. **Conclusão:** Maiores níveis de literacia em saúde estão associados a menores índices de gravidez na adolescência, enfatizando a necessidade de abordar o tema em escolas e equipamentos de saúde frequentados por adolescentes.*

PALAVRAS-CHAVE: *Adolescente. Letramento em saúde. Saúde reprodutiva.*

RESUMEN: ***Objetivo:** Explorar el papel de la alfabetización en salud sexual y reproductiva en la adolescencia. **Método:** Revisión integradora de la literatura realizada en las bases de datos PubMed, LILACS, SCOPUS y WEB OF SCIENCE, teniendo los siguientes criterios de inclusión: artículo original, sin filtro de idioma y tiempo. Los descriptores aplicados fueron: Adolescents, Health Literacy en Sexual and Reproductive Health. **Resultados:** Se seleccionaron seis estudios. En todos ellos hubo una fuerte asociación entre no recibir información sobre salud sexual y el embarazo adolescente. Los niveles positivos de alfabetización se asociaron con vivir en zona urbana, acceso a internet, escolaridad, soltería, acceso a información con profesionales de la salud y clases de educación sexual. **Conclusión:** Mayores niveles de alfabetización en salud están asociados con menores tasas de embarazo adolescente, lo que enfatiza la necesidad de abordar el problema en las escuelas y los establecimientos de salud atendidos por adolescentes.*

PALABRAS CLAVE: *Adolescente. Alfabetización en salud. Salud reproductiva.*

Introduction

Health literacy is understood as the ability to make informed decisions about health and meet the complex health demands in modern society (SVENDSEN *et al.*, 2020), focused on the socio-historical issues of the phenomenon (TFOUNI, 2006).

This term presents similar but with different meanings, especially in Portuguese-speaking countries, since dictionaries translate the term into *English literacy*, as synonymous with literacy, that is, quality of those who are literate, and in Spanish, literacy *is literacy*, is also recorded by dictionaries as a synonym for literacy (PERES; RODRIGUES; SILVA, 2021), therefore, the first studies conducted in Brazil have the names literacy or health literacy (SILVA, 2017). But in addition to the role of schooling and reading ability and numeracy for health outcomes, literacy has a multidimensional character.

According to Nutbeam (2008), health literacy has three dimensions: functional, such as the ability to read and understand basic health information in a medical context; interactive, such as communicative skills and maintenance of health in everyday life; and critical, such as

actions taken for the health of one's own and other people, awareness of the influence of norms and practices on health and understanding of the social determinants of health.

In addition, literacy was the daily choice of conscious health decisions, such as sexual and reproductive health, which is influenced by a myriad of social factors, including health literacy, social and cultural norms, health insurance, educational level, socioeconomic status, gender, gender identity and sexual orientation and behavior (STUMBAR; GARBA; HOLDER, 2018), access to information, prevention and treatment services involving contraception, sexually transmitted diseases, abortion, pregnancy, childbirth and postpartum (ALVAREZ-NIETO *et al.*, 2015).

Risky sexual behaviors such as the high number of partners and low frequency of condom use may result in outcomes such as Sexually Transmitted Infections (STIs) and unplanned pregnancy (ALVES; ZAPPE; DELL'AGLIO, 2015; MADKOUR *et al.*, 2014).

In adolescence, it is important to understand their vulnerability to predictors that expose them and result from greater difficulties in accessing preventive means. The situations of vulnerabilities should be seen by the individual, social and institutional components that refer to the perceive three items in the same situation: who is exposed, to which they are vulnerable and in what circumstances (MEYER *et al.*, 2006).

In the precepts of life cycles, it is of fundamental importance to educate the adolescent population about sexual and reproductive health, to mitigate the possible disparities resulting from lack of knowledge, as well as to improve the health of young people and their communities, considering the context in which minority groups such as non-white individuals and migrants are inserted. It is also relevant to discuss in an interdisciplinary way the connection between health literacy with risky sexual behaviors in adolescents (FLEURY; JOSEPH; PAPPAGIANOPOULOS, 2018), to propose coping strategies and solutions to this complex issue in the field of public health.

In this context, this study will help undergraduate students and health and education professionals to better understand the importance of the adolescent's ability to decide safely and autonomously about their health, considering the peculiarities of this moment of the life cycle. Thus, the aim of this review was to explore the role of literacy in sexual and reproductive health in adolescence.

Materials and Methods

This is an integrative review of the literature, which allows the systematic search, critical evaluation and synthesis of the available evidence on an investigated theme. This method aims to summarize the results acquired from research on a given theme of interest for the health area, enabling the identification of knowledge gaps (MENDES; SILVEIRA; GALVÃO, 2019).

The question that guided the research was: What is the role of sexual and reproductive health literacy in adolescence? Synthesized by the acronym PVO - Population, Variables and Outcomes (Outcome), in which he used vocabularies controlled according to the Descriptors in Health Sciences (DeCS) and MeSH (Medical Subject Headings) (Chart 1).

Table 1 - PVO acronym for obtaining descriptors

Acronym	DeSC/Keywords	Mesh
Population	Adolescents	<i>Adolescents</i>
Variables	Health Literacy	<i>Health Literacy</i>
Denouement	Sexual and Reproductive Health	<i>Sexual and Reproductive Health</i>

Source: Prepared by the authors

The search strategy used to contain the Boolean descriptors and operators (AND, OR) was: (health literacy) AND (sexual and reproductive health) AND (youth OR young OR childhood OR adolescent OR adolescent OR adolescents OR student).

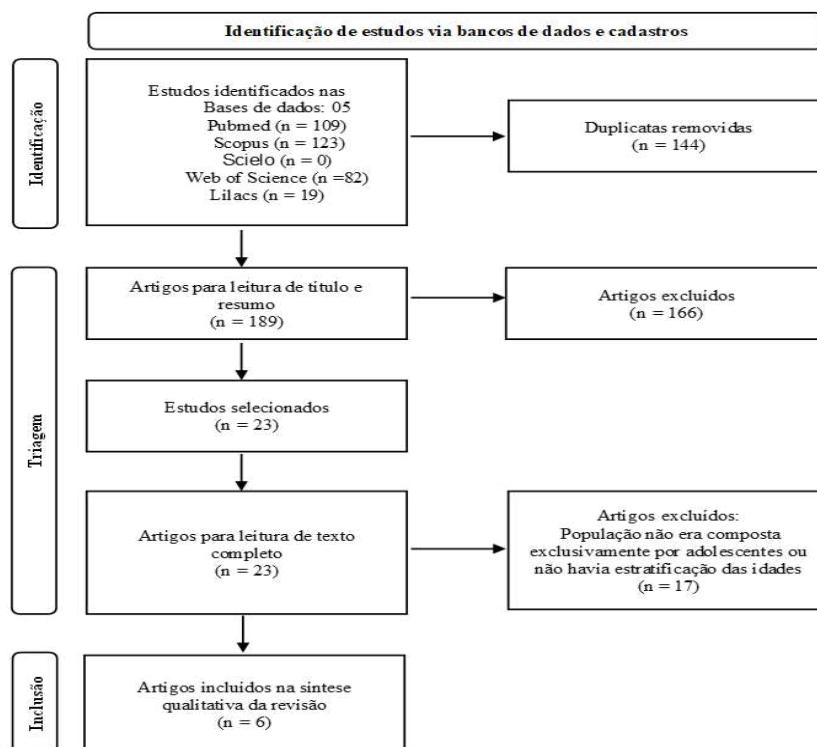
The literature survey took place in September 2021 in the following databases: PubMed, Latin American and Caribbean Literature on Health Sciences (LILACS), *Scientific Electronic Library Online* (SCIELO), SCOPUS and WEB OF SCIENCE. Studies on sexual and reproductive health literacy in adolescence without language and time filtering were included, and monographs, dissertations, theses and studies not consistent with the objective were excluded.

The selection was made in two stages. The first stage of the evaluation of the articles consisted of reading the titles and abstracts, and in the second, the reading of the complete texts. In all stages, the reading and analysis of the articles were performed by two independent researchers to avoid selection biases. Any disagreements were analyzed by a third reviewer. The references were imported into the Mendeley Software, through which repeated studies in the databases were excluded. After this, the references were transferred to the Excel-Windows 10 Program, rechecking the duplicates.

From this reading of the articles included in the qualitative synthesis, we identified the themes of the studies, the prevalence of high or low literacy, the predictors of the programs and results presented and the strategies to increase the literacy in sexual and reproductive health in

adolescence. Articles that did not answer the follower question of the study were excluded. This selection process is described in flowchart in Figure 1.

Figure 1 - Article selection flowchart in databases



Source: Elaborated by the authors

For data extraction, a form containing: identification (number, title, author, year of publication), study design/level of evidence was used; goal; results of interest. The studies were stratified as to the evidence in: Level I - Evidence from systematic review or meta-analysis of all randomized controlled trials or from clinical guidelines based on systematic reviews of randomized controlled trials. Level II - Evidence derived from at least one well-designed randomized controlled trial. Level III - Evidence obtained from well-delineated clinical trials without randomization. Level IV - Evidence from well-delineated cohort and case-control studies. Level V - Evidence from a systematic review of descriptive and qualitative studies. Level VI - Evidence from a single descriptive or qualitative study. Level VII - Expert opinions, experience reports, consensus, regulations and legislation (MELNYK; FINEOUT-OVERHOLT, 2015).

After data extraction, a qualitative synthesis of the studies and descriptive presentation of the data extracted from the reports were performed. Copyright was respected by preserving the content exposed by the authors, translated according to the meaning of literacy in the

language in which the article was published, and by referencing the information extracted from articles available in the public domain.

Findings

Seven articles were selected, published between 2019 and 2020. The results of the present study are found in **Table 1**, in which it presents the characteristics found in each study.

Table 1 - Statement of the articles that are part of the Integrative Review, Brazil, 2021

Identification	Study design/ Level of evidence	Goal	Results of interest
1. The effect of sexual literacy on adolescent pregnancy in Colombia Alzate <i>et al</i> , 2020	Cross/Level VI	Investigate the association between receiving information on sexual literacy topics and the probability of experiencing teenage pregnancy;	Not receiving information on fourth-year topics had the strongest association with teenage pregnancy. These topics were: changes related to puberty (prevalence ratio [PR], 2.15; 95% confidence interval [CI], 1.40-3.30), how sexual organs work (PR, 1.90; 95% CI, 1.37-2.66) and orientation (PR, 1.84; CI 95%, 1.38-2.44). In fact, adolescents who did not receive information on any topic related to sexuality were approximately 75% more likely (PR, 1.73; 95% CI, 1.09-2.74) of experiencing teenage pregnancy.
2. Influence of sexual and reproductive health literacy on single and recurrent adolescent pregnancy in Latin America Dongarwar; Salihu, 2019	Cross/Level VI	Examine the association between sexual and reproductive literacy and teenage pregnancy in Latin America	The prevalence of teenage pregnancy for all five countries was 19.1%. There was a relationship between illiteracy in sexual and reproductive health and teenage pregnancy: Effective sexual and reproductive health interventions in all five countries were associated with 147,771 fewer

<p>3. Pregnancy health literacy among teenagers in Kaysone district, Savannakhet Province, Lao PDR</p> <p>Santisouk, Hansana, Thanh Huong, 2020</p>	Cross/Level VI	Describe pregnancy health literacy and its related factors among adolescents in Kaysone district.	<p>recurrent pregnancies in adolescence.</p> <p>The overall score for Teen Pregnancy Health Literacy - LSGA was an average of 27/50. Most adolescents had problematic LSGA levels and only 0.4% had excellent levels of LSGA. LSGA was positive and significantly associated with living in urban areas ($p = 0.002$), higher education ($p = 0.004$), schooling ($p = 0.018$), being single ($p = 0.029$) and attending classes with sex education content ($p < 0.001$).</p>
<p>4. Sexual and reproductive health literacy of school adolescents in Lao PDR</p> <p>Vongxay <i>et al.</i>,</p>	Cross/Level VI	Measuring literacy in sexual and reproductive health - SRHL in adolescents attending school in the Democratic People's Republic - RDP of Laos, as a start to obtain information about their current level of literacy in sexual and reproductive health and find out how it is related to sociodemographic factors, sexual knowledge and behavior, health-lifestyle and functional literacy.	<p>The overall average SRHL score was 19.2/50. Most adolescents had scores in the 'inadequate' SRHL level range. The mean and median SRHL score was significantly higher in schools in urban environments and with Internet access. Age and having a family member working in the health area were marginally associated with better SRHL ($p: 0.049$ and $p: 0.053$). Personal health characteristics showed no significant difference in SRHL. 14% of the adolescents reported having had sexual intercourse. Of 461 students, two girls have already become pregnant and three boys have already impregnated girls. The mean functional literacy score of school adolescents was 6.6/10. Groups with higher knowledge of</p>

<p>5. Unaprjeđenje zdravstvene pismenosti učenika osmih razreda o reproduktivnom zdravlju–prikaz radionice "Komunikacija, emocije, spolnost"</p> <p>Sorta-Bilajac Turina <i>et al.</i>, 2019</p>	<p>Cross/Level VI</p>	<p>Present the experiences of health literacy improvement workshops and analyze the assessment of knowledge about communication, emotions and sexual health of eighth graders.</p>	<p>SRS and higher functional literacy in condoms also had significantly higher SRHL scores. Specifically in the knowledge section, SRHL scores were significantly higher for adolescents learning about gender relationships and respect from sources other than school teachers, who regularly attend reproductive health classes and who have a higher sexual and reproductive health knowledge score. Students believe they have very good (24.7%) and excellent knowledge (35.3%) about sex, and that they are very good (42.2%) and excellent (25.8%) in communication. They evaluate their knowledge about health (37%) and STDs (32.2%) as good. Boys think they know more about sex than girls (20.6% vs 14.7%, $P=0.004$). Girls think they know more about emotions (15.3% vs. 3.7%, $P=0.003$). Although 90% of the students knew one or more forms of contraception, only 67% knew how to cite a method for which they knew a source and only half of the sexually active interviewees had used contraceptives during their last sexual experience. The interviewees reported that teachers and family members were the most important sources of information; only</p>
<p>6. Contraceptive literacy among school-going adolescents in Botswana</p> <p>Barchi <i>et al.</i>, 2019</p>	<p>Cross/Level VI</p>	<p>Examine adolescent contraceptive literacy and knowledge about condoms in Botswana</p>	

8.2% of the interviewees identified health professionals in this function. Adolescents who consulted nurses were eight times more likely to report correct knowledge about condom use than those who consulted teachers.

Source: Prepared by the authors

Discussion

Teenage pregnancy affects the psychosocial of young women, besides being associated with worse health outcomes for them and their children, negatively affecting educational and employment opportunities. The birth rate in Latin America and the Caribbean is 66.5 per 1,000 adolescent girls, making it the second highest rate of teenage pregnancy, behind only sub-Saharan Africa (ALZATE *et al.*, 2020). The Demographic Health Survey (DHS) in Colombia showed that the percentage of adolescents who were pregnant or already mothers is around 17.5% in 2015.

Similarly, the survey by Dongarwar and Salihu (2019) found a prevalence of teenage pregnancy of 19.1% in the following Latin American countries: Colombia, Honduras, Peru, Dominican Republic and Guatemala. A positive dose-response relationship was observed between illiteracy of sexual and reproductive health and pregnancy in adolescence; adolescent with complete illiteracy of sexual and reproductive health presented 44% increase in the prevalence of pregnancy compared to a teenager who reported accurate literacy in sexual and reproductive health.

In the Democratic Republic of Laos, teenage pregnancy was also considered a problem, since 19% of women became mothers before the age of 18, which was the highest rate in Southeast Asia (VONGXAY *et al.*, 2019). It is worth remembering that there are differences in relation to those with a lower educational level, and poorer, being five times more likely to become pregnant in adolescence compared to the most favored girls (ALZATE *et al.*, 2020).

As was also seen in the study by Guanabens *et al.* (2012), in which it states that in Brazil even in decline, the incidence of teenage pregnancy is still high, being more frequent in the lower income classes, and scored in the study by Aquino *et al.* (2003), that the lowest degree of study of these adolescent mothers is one of the main causes of pregnancy in this age group.

Although they have often stopped studying, it is very common for school dropout to occur in this situation (MOLINA *et al.*, 2004).

In Ecuador, data received from the latest national health surveys also indicate that unwanted teenage pregnancy is increasing, with this the government through comprehensive sex education programs projecting to reduce about 15% in relation to teenage pregnancy by the year 2030 (CABRERA; IGARTUA, 2016).

A study conducted in the Kaysone district of the Laos People's Democratic Republic, located in South-West Asia, with 262 adolescents between 15 and 19 years of age, on Adolescent Pregnancy Health Literacy - LSGA through face-to-face interviews, found that the LSGA was positively and significantly associated with living in urban areas, higher education, schooling, being single and attending classes with sex education content (SANTISOUK; HANSANA; HUONG, 2020).

The study representing the north, center and south of the Democratic Republic of Laos, showed that adolescents who attended schools in urban environments had significantly higher scores of Literacy in Sexual and Reproductive Health - SRHL (VONGXAY *et al.*, 2019), as well as found no association between health literacy and marital status. Although other studies show the association with the age variable, this study in question did not obtain the same outcome, probably due to a smaller age group of the sample.

Although schooling has been positively associated with LSGA, it is important to highlight that literacy corresponds to the skills to understand and communicate health information and interests, however, when considering years of schooling it can be misleading to estimate literacy and literacy skills, since it is possible for someone to have a high level of education with limited knowledge of health literacy, that is, to make informed decisions about your health (PERES; RODRIGUES; SILVA, 2021).

Regarding knowledge in sexual and reproductive health, the study by Vongxay *et al.* (2019) obtained results in which adolescents with greater knowledge of sexual and reproductive health, as well as higher functional literacy in condoms, also had significantly higher SRHL scores. In the knowledge section, specifically, it was also found higher scores of SRHL that learn about gender relations and respect from sources other than school teachers, from family, friends, internet, etc.

The social norms that regulate right and wrong have shaped a series of behaviors and manifestations that shape the character and collective identity. The expressions of gender and sexuality of children and adolescents have played an important role in the conflict between different peoples in Brazilian society. Today, there is a social and political context in which

different moralities in relation to sexuality and gender face each other in society and dispute places of power in the structures of the state (LEITE, 2019). The school erected under the influence of historical-cultural processes, is belonging to the power relations that were sketched. And social groups of class, race, gender and sexuality are implicit in this construction (LOURO, 2003).

Therefore, sexual minorities suffer from oppression, intolerance, stigma and exclusion that reveal the vulnerability of certain individuals and groups due to non-acceptance and their sexuality, when different expressions of orientation and gender identity are considered abnormal (SILVA *et al.*, 2021).

Health literacy in the form of cognitive and social skills allows access to health promotion activities, which is often deficient among migrants, partly due to language and cultural barriers. Therefore, culturally sensitive health education provides a strategy to improve health literacy (SVENSSON; CARLZÉN; ANETTE, 2016).

Unlike health literacy, the structural determinants of health are more difficult to modify, while literacy can be modified through interventions of health promotion, group education, motivational interview and counseling, increasing autonomy in decision-making. Changes in literacy levels can be measured with validated instruments that are easily accessible to patients, individually or collectively (DENNIS *et al.*, 2012; SILVA-JUNIOR; SOUZA; BATISTA, 2020) as observed in the present review.

According to Nelson *et al.* (2014) social norms foster the "culture of silence", in which adolescents can hardly express themselves without judgment, they are afraid of receiving criticism from their parents and family members. The lack of information and understanding is only one of several complex factors that influence the sexual behavior of young people, in addition to socioeconomic disadvantage and emotional deprivation (CABRERA; IGARTUA, 2016).

As in Camargo and Ferrari's study (2009), the transformations of this phase cause adolescents to live their sexuality intensely, often manifesting it through unprotected sexual practices, which can become a problem due to the absence of information, dialogue among family members, taboos or even because they are afraid to assume it. Despite advances on this theme, it is still impregnated with myths, prejudices and contradictions, to the point that many people continue to affirm that it should only be discussed among adults, which is harmful to the development and healthy sexual behavior of adolescents (GIR; NOGUEIRA; PELÁ, 2000).

The use of substances such as drugs and alcohol are related to risky sexual behavior, as well as the early onset of active sexual life (RITCHWOOD *et al.*, 2015). Corroborating what

Caputo and Bordin (2008) bring in their study, that the use of illicit drugs is a factor associated with teenage pregnancy.

Regarding media literacy, Area-Moreira and Ribeiro-Pessoa (2012) state that it facilitates the work of social communicators so that they can achieve their goals, such as changing attitudes to improve health and well-being. Interventions in the field of health communication are subject to transformations related to constant technological innovations. Today, young people use the internet as a resource for sexual information, through which they can expose themselves to inaccurate information (MARQUES *et al.*, 2015).

This exposure becomes worrisome in view of the immaturity of adolescents who do not yet have the mechanism of information filtering (MARQUES *et al.*, 2015). Internet access without supervision of guardians may allow adolescents to connect to content with distorted information about sex and sexuality (SELOILWE *et al.*, 2015). This, together with the lack of family dialogue and school sex education, can favor exposure to risky sexual behaviors (FURLANETTO; MARIN; GONÇALVES, 2019).

As much as a good knowledge of health is acquired or acquired and this fact is possibly a reflection of a good activity in education, the educational or biological-anatomical-physiological component of reproductive health is not enough, needing to be complemented by relevant aspects (psychological, social and emotional). Thus, improving reproductive health literacy in children and young people requires an interdisciplinary approach (SORTA-BILAJAC TURINA *et al.*, 2019). It is essential that this knowledge begins from the beginning, in a contextualized and sensed way. It has already been seen that even among medical university students the level of knowledge about sexual health was low, and may represent an unpreparedness in future clinical practice (WARNER *et al.*, 2018).

On the specific knowledge related to contraception, there is a low number of adolescents adopting and making the correct use of condoms (which is the easiest method of access for this population) both for infection prevention and for birth control. There is an important but underutilized role that health professionals can play as resources for effective information on sexual and reproductive health. Interventions to reduce risk behaviors for HIV and unwanted pregnancy in adolescents may be more effective if nurses are involved as communicators and educators (BARCHI *et al.*, 2022).

Therefore, there is still inadequate sexual and reproductive health literacy, especially among adolescents, which can be considered even worse in relation to those who are not in school, thus focusing on assertive and comprehensive sexual education for the empowerment of this public (VONGXAY *et al.*, 2019). As a counterpoint, limiting often the success of actions,

what is still seen is a denial of adolescent sexuality, a historical, cultural and social phenomenon (MERTEN; MLOTSHWA; SCHWARZ, 2020), which can also be worked by schools and professionals.

Final considerations

The present study concluded that higher levels of health literacy are associated with lower rates of teenage pregnancy. Given the low prevalence of literacy in sexual and reproductive health among adolescents, a more in-depth analysis is needed as to its value for improving the health of adolescents and, consequently, of adult health, given that STIs and teenage pregnancy are still considered as serious public health problems, it can be preventable through access to quality information by adolescents – which is suppressed in several family environments due to social paradigm issues and little addressed in school and health environments.

The school is a place where adolescents are concentrated, who remain there most of their time, favorable for the stimulation and development of healthier skills, behaviors and lifestyles. Therefore, it is a prominent environment for educational actions in sexual and reproductive health, with consequent promotion of development and healthy sexual behavior in adolescence.

However, public educational policies need to advance this issue, since the National Education Plan 2014-2024 does not even mention gender and sexuality issues. In addition, in teaching practice, it is necessary to have changes in professional training in order to redeem teaching models. The teaching of sex education must take place through dialogue, without judgments, so that students feel welcomed in a relationship of respect and trust, to ensure access to safe knowledge, through a multidisciplinary and contextualized approach.

In addition, comprehensive education and counseling in sexual and reproductive health are initiatives that can be taken by the health sector, as they have the potential power to avoid a significant number of teenage pregnancies. In practice, health professionals of basic units with academic training considering the peculiarities of adolescence or previous training to improve knowledge in this theme, can develop actions in the service that operates or in schools in its area of coverage.

The Brazilian education legislation guarantees the student full training through the School Health Program (PSE), through intersectoral articulation. This program consists of actions to promote, prevent and care for health on themes intrinsic to adolescence, such as

sexual and reproductive health, with a view to coping with vulnerabilities that compromise the full development of children and young people from the public school system, occurring in the area covered by health units. However, in practice, the PSE sins because it does not cover private schools, which are part of the territory and also lack actions to prevent and promote health, as well as in continuing education for health professionals who do not master the theme of sexuality.

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