

**Review on successful nursing interventions in sexual education
in adolescents**

**Revisión sobre intervenciones de enfermería exitosas en educación sexual
en adolescentes**

**Revisão sobre intervenções de enfermagem bem-sucedidas
na educação sexual em adolescentes**

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Abstract: Introduction: In adolescence, risky sexual behaviors associated with misinformation and lack of advice from the family and nursing professionals are frequent, which constitutes a public health problem. Objective: To analyze the scientific evidence on successful nursing interventions within the framework of sexual education oriented to the adolescent school population. Method: Bibliographic review in the Dialnet, LILACS and Pubmed databases. Inclusion criteria considered documents containing school nursing interventions in sex education in the adolescent population. Regarding the selection of articles for methodological quality, critical reading was used, by applying the CASP checklist. Content analysis techniques were then used and the results were presented in tables. Results: Nursing interventions in education showed positive effects on the sexual health of adolescents, improving their knowledge of pregnancy and sexually transmitted infection prevention and significantly reducing the probability of committing risky behaviors. Conclusion: According to the selected bibliography, it is concluded that the school nurse is an indispensable resource for parents and educators, implementing educational programs that promote healthy sexual development in adolescents.

Keywords: adolescent; sex education; nursing.

Resumen: Introducción: En la adolescencia son frecuentes los comportamientos sexuales de riesgo asociados a desinformación y falta de asesoramiento de la familia y de los profesionales de enfermería, lo que constituye un problema de salud pública. Objetivo: Analizar las evidencias científicas que existen sobre intervenciones de enfermería exitosas en el marco de la educación sexual orientada a la población escolar adolescente. Método: Revisión bibliográfica en las bases de datos Dialnet, LILACS y Pubmed. Los criterios de inclusión consideraron documentos que contenían intervenciones de enfermería escolar en educación sexual en población adolescente. Respecto a la selección por calidad metodológica de los artículos, se recurrió a lectura crítica, mediante la aplicación de la lista de comprobación CASPe. Luego se emplearon técnicas de análisis de contenido y se presentaron los resultados en tablas. Resultados: Las intervenciones de enfermería en educación demostraron efectos positivos sobre la salud sexual de los adolescentes, al mejorar sus conocimientos en prevención de embarazo e infecciones de transmisión sexual y disminuir significativamente la probabilidad de cometer conductas de riesgo. Conclusión: Según la bibliografía seleccionada se concluye que la enfermera escolar es un recurso indispensable para padres y educadores, al implementar programas educativos que promueven un desarrollo sexual saludable en los adolescentes.

Palabras clave: adolescente; educación sexual; enfermería.

Resumo: Introdução: Na adolescência, são frequentes os comportamentos sexuais de risco associados à desinformação e à falta de orientação da família e dos profissionais de enfermagem, o que constitui um problema de saúde pública. Objetivo: Analisar as evidências científicas sobre intervenções de enfermagem bem-sucedidas no âmbito da educação sexual voltada para a população escolar adolescente. Método: Revisão bibliográfica nas bases de dados Dialnet, LILACS e Pubmed. Os critérios de inclusão consideraram documentos que continham intervenções de enfermagem escolar em educação sexual na população adolescente. Para a seleção dos artigos quanto à qualidade metodológica, foi utilizada a leitura crítica, aplicando a lista de verificação CASPe. Foram empregadas técnicas de análise de conteúdo e os resultados foram apresentados em tabelas. Resultados: As intervenções de enfermagem na educação demonstraram efeitos positivos na saúde sexual dos adolescentes, melhorando seu conhecimento sobre gravidez e prevenção de infecções sexualmente transmissíveis e reduzindo significativamente a probabilidade de cometer comportamentos de risco. Conclusão: De acordo com a bibliografia selecionada, conclui-se que o enfermeiro escolar é um recurso indispensável para pais e educadores na implementação de programas educacionais que promovam o desenvolvimento sexual saudável em adolescentes.

Palavras-chave: adolescente; educação sexual; enfermagem.

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Introduction

Adolescence is a stage of the life cycle between 10 and 19 years of age, considered one of the most complex due to the biological, psychological and social changes it entails.⁽¹⁾ It is characterized by impulsivity, emotional and/or behavioral instability of adolescents and lack of self-care, making them more prone to engage in risky sexual behaviors.⁽²⁾ The latter are defined as vaginal, anal or oral sexual practices in which no contraceptive or barrier methods have been used, also accompanied by promiscuity, intravenous drug use during intercourse and premature sexual debut.⁽³⁾

Risky sexual behaviors are a worldwide public health problem due to the consequences they produce, such as the increase in sexually transmitted infections (STIs)⁽⁴⁾ and unwanted pregnancies (UWP) that account for 40 million abortions and the deaths of approximately 800 women per day as a result of complications.⁽⁵⁾ A study conducted in the Los Lagos Region, Chile, indicates that 65 % of adolescents have already started their sex life, but they use contraceptive methods infrequently. On the other hand, 21 % stated that they had experienced an unplanned pregnancy, a similar percentage observed for the country (22 %).⁽⁶⁾ These prevalent health problems in Chile are associated with self-care needs or requirements of development and other unresolved health deviations.⁽⁷⁾ This self-care deficit can generate long-term negative consequences in adulthood and consequently illness and death.

UNESCO pointed out that 87% of young people live in developing countries, so that access to opportunities, rights, quality education and health services is inappropriate or deficient.⁽⁸⁾ The lack of sex education is one of the problems with the greatest impact on the child population and one of the barriers to providing comprehensive sexuality education (CSE) is the resistance imposed by the communities.⁽⁹⁾ CSE provides knowledge and values to children and adolescents so that they can establish respectful and conscious sexual relationships that do not threaten their health and dignity. It has been proven that it delays the age at which sexual relations begin and their frequency and reduces the presence of risky behaviors, increasing the use of contraceptive methods and condoms.⁽¹⁰⁾ Sex education at school is a right for all boys and girls.⁽¹¹⁾ In European countries, the existence of sex education programs in schools is guaranteed because it has been proven that the rates of STIs and UWP in adolescents have remained low and sustainable due to the existence of sex education in schools.⁽¹²⁾

In Chile in 2010, Health Law No. 20.418 was enacted, which obliges educational establishments recognized by the State to implement a Sex Education Program at the high school level, materializing in the Sexuality, Affectivity and Gender Program.⁽¹³⁾ This education should be based on meaningful learning, which requires an active, interactive and integrative pedagogical approach, allowing the adolescent to cope well with this stage full of changes.⁽¹⁴⁾ A study conducted in Costa Rica on the adolescent population showed that group educational strategies generate greater interest, participation and interaction in carrying out activities.⁽¹⁵⁾ The Chilean General Education Law establishes that this is a task that corresponds to the family, since it is the family that delivers values in accordance with its cultural context.⁽¹⁶⁾ However, there are no models of education aimed at parents to train them in this type of education, which creates ignorance and insecurity in them when addressing these issues with their children, being necessary the help of health and education services for such educational work to be carried out.⁽¹⁰⁾

In this context, nursing care management, conferred by the Health Code in the areas of health promotion and prevention, has health education as one of the basic premises of the

profession, and is therefore jointly responsible for improving the quality of life of the adolescent.⁽¹²⁾ Nursing should be immersed in schools with educators, the family and various health professionals, to guide young people in their transition to adulthood.⁽¹⁷⁾ It has been proven that school nurses have the necessary competencies to provide care throughout life, strengthening self-care behaviors and healthy habits through education aimed at promotion and prevention.⁽¹⁸⁾

Dorothea Orem states that self-care corresponds to all the actions that human beings carry out to maintain their own health and wellbeing, which are learned throughout life.⁽⁷⁾ Its main purpose is to promote health by empowering the person and making him/her responsible for decisions about his/her health status. It states that nurses can intervene by compensating for the self-care deficit.⁽¹⁹⁾ Nursing support is fundamental in guiding adolescents in their decision making, as it can educate them according to their needs, promoting healthy sexuality.⁽²⁰⁾

The background presented above leads to the following research question: What nursing interventions have been successful in sex education in the adolescent school population? The general objective of this work is to analyze the scientific evidence that exists on successful nursing interventions in the framework of sex education oriented to the adolescent school population.

Methodology

The literature review was carried out in the Dialnet, LILACS and Pubmed databases. The following descriptors were used: adolescent, sex education, nursing, sexual behavior, health education, *educación sexual*, *adolescente*, *enfermería*. The Boolean operators used were AND and OR. The inclusion criteria considered documents on school nursing interventions in sex education with different types of study design for exploratory purposes, studies on the adolescent population, published in the last 6 years, both nationally and internationally, and which complied with ethical aspects of research such as informed consent and assent and approval by the Ethics Committee, also regulated by the journal in which they were published. Regarding the selection by methodological quality, we resorted to critical reading by means of critical reading checklists widely used in health sciences such as CASPe.⁽²¹⁾ Studies with other types of populations, with interventions by professionals who do not correspond to the discipline and studies that did not meet the methodological quality requirements according to CASPe⁽²¹⁾ were excluded. For the analysis of the documents, content analysis techniques were used, performing a coding process for each document by selecting quotes from the articles and assigning them a code referring to each objective aspect of the study. Finally, the results were presented in tables.

Results

Eleven studies met the inclusion and methodological quality criteria for the review. Most of them were extracted from Pubmed, a database specialized in health sciences.⁽²²⁾ The predominant study design was descriptive.

The results obtained are presented in Table 1.

Table 1. Review results

Author/Year/Country/ Method	Title	Results
Ana Isabel Antón 2017 Spain Qualitative descriptive	Healthy Sex Education for Adolescents ⁽²³⁾	Intervention carried out in Spain with 34 adolescents in 6th grade, directed by a school nurse and a teacher. Five educational interventions were performed in each class with a duration of 50 minutes. At the end of the class, the students had to express their doubts by means of ballot boxes so that they could anonymously express their concerns. The education was delivered through videos, illustrations and concrete answers to the students' doubts. 9 out of 10 adolescents stated that their doubts had been clearly answered.
Bertha Lorenzo Velázquez, Grisell Mirabal Martínez, Rodas Clavijo, Mayra González Reyes, Leonardo Botín del Llano 2018 Cuba Qualitative	Nursing Intervention on Sex Education in Adolescents ⁽²⁴⁾	378 students constituted the research sample. The vast majority reported having initiated sexual relations at an early age (14 and 15 years) and having received little (39.7 %) or no sex education (57.1 %). Knowledge of sex education in adolescents was evaluated as unfavorable before the intervention, 47.6 % of the adolescents had poor knowledge on the subject, 46 % obtained regular results, the best results were observed in only 6.35 %. After the educational intervention, the results obtained improved satisfactorily, 78.3 % showed good results, 14.5 % regular and 7.14 % showed poor results.
Renata Jacinto Cárdenas, Mariano Sánchez Ceuvas, María Antonia del Carmen Torres Álvarez, Marría Laura Ruíz Paloalto 2020 Mexico Systematic review	Mentoring as a Nursing Intervention for the Adolescent Empowerment in Reproductive Health ⁽²⁵⁾	Systematic review of 8 articles on the impact of mentoring on the process of empowerment in adolescent reproductive health. Of the documents retrieved, a study conducted in Tanzania established that after an educational intervention in empowerment and condom use, condom use increased in the adolescent population. Another intervention conducted in Kenya on peer mentoring to promote reproductive health showed that it is essential to improve skills such as mentoring. In Zambia, women were mentored with favorable results in behavioral, economic, social and health outcomes. It demonstrates the importance of mentoring by mentors who are nurses. In Korea, mentoring intervention was shown to enable nursing students to gain confidence in their professional abilities.
Kimberly Benavides Leal, Dayanna Alfaro Salas 2016 Costa Rica Quantitative descriptive	Didactic Mediation Strategies for Education on Sexually Transmitted Infections in Adolescents ⁽¹⁵⁾	An educational intervention led by a nurse was conducted in Costa Rica. 185 adolescents participated by answering a questionnaire on topics of interest in sexual health, with STIs standing out with 44.12%. The student population had only basic knowledge of STIs, acquired through classes given by teachers from educational establishments. Nursing provided 8 educational sessions, implementing didactic mediation strategies, of a participatory type, favoring the acquisition of knowledge. Group strategies generate greater interest and participation.
Blanca Vanegas, Marcela Pabón, Rita Plata 2018 Colombia Integrative review	Contribution of Research to Sexuality Education to Prevent Adolescent Pregnancy ⁽²⁶⁾	Integrative review of 23 studies with the intervention of health professionals, preferably nurses. The results showed a limited vision of sexuality, with a biological and not a comprehensive approach, without delving into sexual and reproductive rights and even less into gender approaches. It is concluded that sexual health programs for adolescents should include a biopsychosocial approach. In terms of benefits, the educational interventions provided by nurses had positive results due to improved knowledge and attitudes about self-care and intentions to use contraceptive methods.

<p>Jenyfer Rios-Becerril, Patricia Cruz-Bello, Patricia Becerril-Amero, Victoria Maldonado-Gonzalez</p> <p>2016</p> <p>Mexico</p> <p>Descriptive</p>	<p>Nursing Educational Intervention on Sexual and Reproductive Health in Adolescents ⁽²⁷⁾</p>	<p>Intervention that included 40 families in Mexico, questionnaires were given to the members of the families to give context to their situation regarding sexual and reproductive health issues. Through didactic and playful activities, families were educated, using the same questionnaire to evaluate the effectiveness of the intervention. Before the intervention, 52.6 % of the adolescents identified only HIV/AIDS as the most known STI; after the intervention this increased to 94.8 %. After the intervention the number of people who believed that condoms were the most effective barrier method increased from 73.7 % to 81.1 %. Adolescents mentioned that they would like their parents to talk to them more about these issues.</p>
<p>Luboslava Pavelová, Alexandra Archalousová, Zuzana Slezáková Dana Zrubcová, Andrea Solgajová, Zuzana Spáčilová, Erika Křištofová, y Alica Slamková</p> <p>2021</p> <p>Slovakia</p> <p>Descriptive-observational</p>	<p>The Need for Nursing Interventions in Adolescent Sex Education ⁽²⁸⁾</p>	<p>A nurse specialized in community nursing, designed and collected information from a questionnaire addressed to a group of 438 adolescents. This instrument sought to find out the position they had towards the school nurse in relation to sexual and reproductive health. The results of the surveys answered by the students showed that the greatest source of information for adolescents is their parents, who also do not have the support of school nurses.</p> <p>The evaluation of who should be the professional in charge of sex education in schools showed that for adolescents the school nurse would be the indicated professional. In addition, they show interest in having a school nurse in the school environment for the purpose of sex education and parental education.</p>
<p>Gyu Young Lee, Da Ye Lee</p> <p>2020</p> <p>South Korea</p> <p>Descriptive analysis</p>	<p>Sexual Risk Behaviors of High School Students According to School Nurse Placement Levels in Korea ⁽²⁹⁾</p>	<p>Study that analyzed data from the 14th risk behavior survey of 30229 high school students enrolled in 400 schools, in 2018. Alcohol prevention education experience reduced the likelihood of committing risky sexual behaviors by 0.87 times. Risky sexual behaviors increased in those without adequate knowledge by 3.99 times, just as drug use increased by 9.42 times. Those who had access to sex education provided by school nurses were 0.54 times less likely to engage in risky sexual behaviors.</p>
<p>Paloma Loiola Leite, Francisco Ayslan Ferreira Torres, Leonarda Marques Pereira, Adriana de Moraes Bezerra, Lucas Dias Soares Machado, Maria Rocinei de Ferreira da Silva</p> <p>2022</p> <p>Brazil</p> <p>Methodological study</p>	<p>Construction and Validation of a Podcast for Adolescent Sexual and Reproductive Health Education ⁽³⁰⁾</p>	<p>Nurse researchers constructed and validated a four-episode podcast on sex and sexuality. Adolescent schoolchildren participated in the production. To gather the information, a bibliographic review was made, and the adolescents were administered the Questionnaire of Knowledge on Sexuality, with an overall satisfactory score of 79.3 %. With the study of the adolescents' knowledge needs, the educational technology was developed to allow their participation and autonomy. The podcast episodes were validated with a content validity index at item level = 0.87 and Cronbach's alpha = 0.951.</p>
<p>Humbulani Munyai, Lufuno Makhado , Dorah Ramathuba, Rachel Lebese</p> <p>2023</p> <p>South Africa</p> <p>Qualitative, exploratory-descriptive study</p>	<p>Challenges Related to Sexual Health Communication with Secondary School Students in Limpopo Province: Parents' Views ⁽³¹⁾</p>	<p>This study analyzed, through interviews, the opinions of 56 parents of adolescents on communication with their children about sexuality. The parents transfer the responsibility of discussing sexuality issues with their children to external parties (teachers, nurses or priests) because they believe it is their role. They also expressed lack of knowledge on sexual health issues, lack of trust due to a poor relationship with their children and discomfort, embarrassment or taboo when addressing sexuality issues and late and reactive communication. Gender differences were also reported, with the mother talking to the daughter and the father to the son.</p>

Shefaly Shorey, Crystal Min Siu Chua 2023 Singapore Qualitative systematic review	Adolescents' Perceptions, Experiences, and Needs Regarding Sexual Health education in schools; a qualitative systematic review ⁽³²⁾	This review of 51 studies from North America, Europe, Asia, Africa and Oceania synthesized experiences of adolescents regarding sexual health education provided at school. They suggest that education should include more topics on STIs and how to use condoms and contraceptives, safe and consensual sex, prevention of sexual violence, early and timely sex education, having doctors and nurses as educators for their knowledge and confidentiality, representativeness including sexual and cultural minorities, and finally educational methodologies that incorporate technology, face-to-face interaction, debates and discussion groups.
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Source: Own elaboration (2023)

Table 2 presents a synthesis of the most important results from Table 1. The topics that stand out are: Parental role and needs of adolescents in sex education (SE), nursing Interventions in SE in adolescents and successful pedagogical strategies in SE in adolescents.

Table 2. Synthesis of the results

Parental Role and Needs of Adolescents in Sex Education (SE)	- Many parents shift the responsibility to the school or health professionals.
	- Poor parent-child relationships and lack of trust discourage SE.
	- Poor parental knowledge of sexuality issues, which is detrimental to SE.
	- Adolescents expect their parents to talk more with them about sexuality.
	- Adolescents expect more practical, comprehensive and interactive SE, including how to use condoms and contraceptives, how to have safe sex. They value an early and timely SE, privileging more knowledgeable and confidential rapporteurs (doctors and nurses) and representation of sexual and cultural minorities in SE.
Nursing Interventions in SE to Adolescents	- Improve adolescents' knowledge on sexuality issues.
	- Decrease risky sexual behaviors.
	- Increased empowerment, intention and use of contraceptive methods.
	- Acceptance, preference and appropriateness of SE provided by nurses were reported by adolescents.
Successful Pedagogical Strategies in Adolescent SE	- Active, integrative, participatory strategies.
	- Group, creative, playful, dynamic strategies.
	- Peer mentoring.
	- Use of educational technology.

Source: Own elaboration (2023)

Discussion

Risky sexual behaviors are frequent in the adolescent population and have a negative impact on their health. ⁽³³⁾ Sex education is considered a right in several countries. ⁽¹¹⁾ However, a review of the literature shows the lack of knowledge about sexuality in the adolescent population, ^(15, 24, 27) with the consequent burden of disease in adulthood and deterioration of quality of life.

In Chile, sex education has traditionally been taught in the educational establishments themselves, with the teachers who work there as rapporteurs, who have no or insufficient training in health. This has been recognized by the employees of these establishments themselves, who verbalize the importance of a permanent nurse in the school to meet these

educational needs, since nursing professionals have the appropriate training to perform this function.⁽³⁴⁾

The success of educational nursing interventions in the adolescent school population was documented in this international literature review, demonstrating their benefits on adolescent sexual health. In Korea, the importance and impact of having a school nurse in educational establishments was demonstrated by providing educational interventions for adolescents and significantly reducing the probability of committing risky behaviors.⁽²⁹⁾ In Spain, the results of the research showed that the nurses have all the necessary tools to provide education, resolving the doubts of adolescents with clear and understandable language, which also led them to show interest in sex education, asking themselves new questions.⁽²³⁾ In addition, two studies conducted in 2021 and 2023 in Slovakia and Singapore, respectively, demonstrated the acceptance of nurses by students in relation to the sex education provided.^(28, 32) En In Mexico, educational interventions by nursing professionals improved knowledge about sexually transmitted infections, identifying condoms as the most effective barrier method.⁽²⁷⁾

On the other hand, in the field of educational interventions, meaningful learning goes hand in hand with active, integrative and participatory pedagogical strategies.⁽¹⁴⁾ In the present literature review, the strategy that generated the greatest interest and participation in the adolescent population was the group type.^(15, 27) This coincides with the literature, which also states that when these activities are creative, playful and anonymous, they can create an atmosphere of confidence for the adolescent, who can ask questions and clarify their doubts without fear of being judged.^(13, 24, 27, 32) Likewise, a study from 2023 proposes the application of educational technology on sexuality aimed at adolescents, showing the benefits in terms of facilitating greater knowledge, participation and autonomy of the adolescents involved.⁽³⁰⁾ Other authors also agree in valuing this technology as another form of meaningful and collaborative learning.⁽³⁵⁾

At the same time, the family plays a key role in ensuring that adolescents avoid risky sexual behaviors that lead to pregnancy, STIs or other negative health outcomes.⁽³⁶⁾ In Chile, according to the General Education Law, sex education is an area that corresponds to the family, since it is the family that decides the form and content to be taught according to its cultural context.⁽⁸⁾ In the present literature review, a study showed the benefits of educating families about sexual and reproductive health issues, with children expressing interest in parents talking more with them about these issues.⁽²⁷⁾ In contrast, a recent study shows that parents transfer the responsibility of talking about sexuality to others, either because they think it is not their role, or because of lack of knowledge.⁽³¹⁾ This position hinders the sexual education of their children and the promotion of healthy sexuality.

It is striking that in Chile there is no evidence of studies on the impact of educational interventions by nurses on adolescents, despite the fact that Chile has a sex education policy.⁽⁴⁾ Also, the health code establishes that nursing work includes the development of people from birth to death, caring for their health, improving their quality of life,⁽³⁷⁾ with emphasis on at-risk populations such as adolescents. On the other hand, in Chile, school nursing is defined as “university-trained health professionals who lead and perform the link between the health and education systems [...]. Their training has the necessary competencies to provide care throughout the life course, allowing them to solve most of the health problems presented by students at school, from the preschool, school and adolescent stages”.⁽¹⁸⁾ Consequently, the nursing professional is the ideal health agent to intervene in the health of schoolchildren, providing health education and promoting self-care behaviors, preventing the development of risky sexual behaviors in adolescents.⁽³⁸⁾ Thus, nursing

should be present in a more integrated way in educational establishments together with teachers, the family and other health professionals, allowing the strengthening of protective health factors and reducing risks for students in the area of sexuality.⁽¹⁷⁾

An issue that has been observed to be absent is the effective involvement of the family in the sexual health of adolescents. It is necessary for the state to support and strengthen families and communities through the creation of policies that favor sexual education provided by nurses in educational establishments in order to improve social, cultural and economic conditions to reduce risk factors in adolescents such as violence in relationships, unwanted pregnancy (UWP), abortions, STIs, etc.⁽³⁹⁾ Es urgente entonces que el estado fortalezca la educación sexual y aminore las deficiencias existentes en el conocimiento,^(11, 17) creating jobs for nurses in educational establishments.

This review is a contribution to nursing. However, we recognize the limitation that it lacks a considerable number of studies to ensure a robust literature review and generalization of the results. Also, this and most of the literature reviews in the area tend to analyze descriptive studies. A future improvement would be to complement the evidence with studies of other type of methods, for a larger and more complex investigation.

Conclusion

This literature review shows that the 11 documents retrieved from the search show interventions with positive results in adolescents in increasing their knowledge of their sexual and reproductive health. This could attribute to nursing a position with a critical view on decision making and guide the management of self-care in adolescents. The demands of children for better communication with their parents on sexuality issues is a point to be addressed. Similarly, criticisms of sex education in schools could suggest greater communication and relational empowerment, as well as consideration of the felt needs of adolescents in the planning of sex education in institutions.

Nursing professionals play a fundamental role in this sexual education, as they are the professionals who can intervene throughout the life cycle, incorporating the family in this process and having all the tools to guide the adolescent to the full development of his or her sexuality. Early detection of the onset of sexual relations, together with adequate support and education of the family by the nursing professional, can significantly increase the overall health of adolescents.

It is important to continue conducting nursing research in the field of adolescent sexual and reproductive health, providing evidence and demonstrating the need for the implementation of a school nurse. These professionals, in addition to researching, guiding, accompanying and supporting school education institutions, adolescents and parents, would guide the empowerment of the latter as responsible for the self-care of their adolescent children, promoting healthy sexual development and improving their quality of life.

Bibliographical references

1. Calero Yera E, Rodríguez Roura S, Trumbull Jorlen A. Abordaje de la sexualidad en la adolescencia. *Humanidades Médicas* [Internet]. 2017 [cited 2023 Jan 9];17(3):577–92. Available from: http://scielo.sld.cu/scielo.php?script=sci_abstract&pid=S1727-81202017000300010&lng=es&nrm=iso&tlng=es

2. Antonio Blas R, Gómez Ortega M, Sánchez Arias A. El autocuidado en la sexualidad de los jóvenes. *Desarrollo Científ Enferm*. [Internet]. 2011 [cited 2023 Jan 11];19(10):339-342. Available from: <http://www.index-f.com/dce/19pdf/19-339.pdf>
3. Badillo-Viloria M, Mendoza-Sánchez X, Barreto Vásquez M, Díaz-Pérez A. Comportamientos sexuales riesgosos y factores asociados entre estudiantes universitarios en Barranquilla, Colombia, 2019. *Enf Global*. 2020 [cited 2023 Jan 11];59:422-35. doi: 10.6018/eglobal.412161
4. Ministerio de Salud. Política nacional de salud sexual y reproductiva [Internet]; 2018 [cited 2023 Jan 13]. Available from: https://diprece.minsal.cl/wrdprss_minsal/wp-content/uploads/2018/03/POLITICA-NACIONAL-DE-SALUD-SEXUAL-Y-REPRODUCTIVA-.pdf
5. Oficina Regional de Educación para América Latina y el Caribe. Educación Integral de la Sexualidad: Conceptos, Enfoques y Competencias [Internet]; 2014 [cited 2023 Jan 13]. Available from: http://535d08af8a1b.filesusr.com/ugd/355327_5a3152d3360141ef95b35b331de9d9c9.pdf
6. INJUV. Encuesta Nacional de Juventud [Internet]; 2015 [cited 2023 Jan 18]. Available from: https://www.injuv.gob.cl/sites/default/files/8va_enj_2015.pdf
7. Naranjo Hernández Y, Concepción Pacheco JA, Rodríguez Larreynaga M. La teoría déficit de autocuidado: Dorothea Elizabeth Orem. *Gac Méd Espirit*. [Internet]. 2017 [cited 2023 Jan 19];19(3):89-100. Available from: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1608-89212017000300009&lng=es.
8. UNESCO. VIH y Educación Sexual [Internet]; [cited 2023 Jan 19]. Available from: <https://es.unesco.org/themes/educacion-salud/vih-educacion-sexual>
9. Ciperchile.cl. Informe análisis del funcionamiento residencial en centros dependientes del Servicio Nacional de Menores [Internet]; 2018 [cited 2023 Jan 23]. Available from: <https://ciperchile.cl/wp-content/uploads/informe-emilfork4.pdf>
10. Razeto A. El involucramiento de las familias en la educación de los niños: Cuatro reflexiones para fortalecer la relación entre familias y escuelas. *Páginas Educ*. [Internet]. 2016 [cited 2023 Jan 23];9(2):190-216. doi: 10.22235/pe.v9i2.1298
11. Consejo de Europa. Una educación sexual integral protege a los niños y a las niñas, y ayuda a construir una sociedad más segura e inclusiva [Internet]; 2020 [cited 2023 Jan 25]. Available from: <https://www.coe.int/es/web/commissioner/-/comprehensive-sexuality-education-protects-children-and-helps-build-a-safer-inclusive-society>
12. González AE, Molina GT, Luttges DC. Características de la educación sexual escolar recibida y su asociación con la edad de inicio sexual y uso de anticonceptivos en adolescentes chilenas sexualmente activas. *Rev Chil Obstet Ginecol* [Internet]. 2015 [cited 2023 Jan 25];80(1):24-32. Available from:

http://www.scielo.cl/scielo.php?script=sci_abstract&pid=S0717-75262015000100004&lng=en&nrm=iso&tlng=en

13. Mineduc. Educación en Sexualidad, Afectividad y Género: Orientaciones para el diseño e implementación de un programa en sexualidad, afectividad y género [Internet]; 2017 [cited 2023 Jan 25]. Available from: <https://hdl.handle.net/20.500.12365/489>
14. Gobierno de Navarra. Manual de educación para la salud [Internet]; 2006 [cited 2023 Jan 28]. Available from: <https://www.navarra.es/NR/rdonlyres/049B3858-F993-4B2F-9E33-2002E652EBA2/194026/MANUALdeeducacionparalasalud.pdf>
15. Leal K, Salas D. Estrategias de mediación didáctica para la educación sobre infecciones de transmisión sexual en adolescentes. *Enfermería Actual en Costa Rica* [Internet]. 2016 [cited 2023 Jan 28];(31). doi: 10.15517/revenf.v0i31.24990
16. Alvarado Thimeos J. Educación sexual preventiva en adolescentes. [Tesis doctoral]. Madrid: Universidad Nacional de Educación a Distancia; 2015 [cited 2023 Jan 28]. Available from: <http://e-spacio.uned.es/fez/view/tesisuned:Educacion-Jealvarado>
17. Castro-Sandoval G, Carrasco-Portiño M, Solar-Bustos F, Catrien-Carrillo M, Garcés-González C, Marticorena-Guajardo C. Impacto de las políticas de educación sexual en la salud sexual y reproductiva adolescente en el sur de Chile, período 2010 - 2017. *Rev. chil. obstet. ginecol.* [Internet]. 2019 [cited 2023 Jan 30];84(1):28-40. doi: 10.4067/S0717-75262019000100028.
18. Sochiese.cl. ¿Quiénes son las enfermeras escolares? [Internet]; [cited 2023 Jan 30]. Available from: <https://www.sochiese.cl/sochiese/enfermeras-escolares-sochiese>
19. Marcos Espino M, Tizón Bouza E. Aplicación del modelo de Dorothea Orem ante un caso de una persona con dolor neoplásico. *Revista Gerokomos* [Internet]. 2013 [cited 2023 Jan 30];24(4):168-177. Available from: https://scielo.isciii.es/pdf/geroko/v24n4/05_notas.pdf
20. Naranjo-Hernández Y. Modelos metaparadigmáticos de Dorothea Elizabeth Orem. *AMC* [Internet]. 2019 [cited 2023 Feb 1];23(6):814-825. Available from: http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S1025-02552019000600814&lng=es.
21. Redcaspe. Programa de Habilidades en Lectura Crítica Español [Internet]; [cited 2023 Feb 1]. Available from: <https://redcaspe.org/>
22. Pubmed. [Internet]. Bethesda: National Library of Medicine; [cited 2023 Feb 1]. Available from: <https://pubmed.ncbi.nlm.nih.gov/>
23. Antón AI. Educación sexual saludable en adolescentes. *Fundación de la Enfermería de Cantabria.* [Internet]. 2017 [cited 2023 Feb 5];3(21):69-73. Available from: <http://www.index-f.com/nuberos/2017pdf/2169.pdf>

24. Velázquez B, Martínez G, Clavijo A, Reyes M, Llano LB del. Intervención de enfermería sobre educación sexual en adolescentes. *Enferm Investiga Investig Vincul Docencia Gest.* [Internet]. 2018 [cited 2023 Feb 7];3(3):138-41. Available from: <https://dialnet.unirioja.es/servlet/articulo?codigo=6602840>
25. Cardenas R. Mentoría como intervención de enfermería para el empoderamiento adolescente en la salud reproductiva. *Horiz Sanit* [Internet]. 2020 [cited 2023 Feb 7];19(1):15. Available from: <https://dialnet.unirioja.es/servlet/articulo?codigo=7445071>
26. Vanegas de A. BC, Pabón G. M, Plata de S. RC. Contribución de la investigación a la educación en sexualidad para prevenir el embarazo en adolescentes. *Rev. Colomb. Enferm.* [Internet]. 2018 [cited 2023 Feb 7];16:32-4. doi: 10.18270/rce.v16i13.
27. Rios Becerril J, Cruz Bello P, Becerril Amero P, Maldonado-Gonzalez V. Intervención educativa de enfermería sobre salud sexual y reproductiva en adolescentes. *Rev Enferm IMSS.* [Internet]. 2016 [cited 2023 Feb 10];24(1):51-54. Available from: <https://www.medigraphic.com/pdfs/enfermeriaimss/eim-2016/eim16i1.pdf>
28. Pavelová L, Archalousová A, Slezáková Z, Zrubcová D, Solgajová A, Spáčilová Z et al. The Need for Nurse Interventions in Sex Education in Adolescents. *Int J Environ Res Public Health.* [Internet]. 2021 [cited 2023 Feb 10];18(2):492. Disponible en <https://www.mdpi.com/1660-4601/18/2/492>
29. Lee GY, Lee DY. The Sexual Risk Behaviors of Middle School Students According to School Nurse Placement Levels in Korea. *Asian Nursing Research.* [Internet]. 2020 [cited 2023 Feb 15];14(4):212-20. PMID: 32781043 DOI: 10.1016/j.anr.2020.08.001
30. Leite PL, Torres FAF, Pereira LM, Bezerra A de M, Machado LDS, Silva MRF da. Construção e validação de podcast para educação em saúde sexual e reprodutiva de adolescentes. *Rev Latino-Am Enfermagem* [Internet]. 2022 [cited 2023 Feb 15];30(spe):e3706. doi: 10.1590/1518-8345.6263.3706
31. Munyai H, Makhado L, Ramathuba D, Lebeso R. Challenges on sexual health communication with secondary school learners, Limpopo province. *Curationis.* [Internet]. 2023 [cited 2023 May 28];46(1):2321. doi: 10.4102/curationis.v46i1.2321
32. Shefaly Shorey S, Min Siu Chua C. Perceptions, Experiences, and Needs of Adolescents About School-Based Sexual Health Education: Qualitative Systematic Review. *Archives of Sexual Behavior.* [Internet]. 2023 [cited 2023 Jun 1];52(4):1665-1687. doi: 10.1007/s10508-022-02504-3
33. Orcasita LT, Gil JAM, González TC. Autoconcepto, autoeficacia y conductas sexuales de riesgo en adolescentes. *Informes Psicológicos.* [Internet]. 2018 [cited 2023 Mar 3];18(2):141-68. doi: 10.18566/infpsic.v18n2a08
34. Ceballo Mella B, Fonseca Sanhueza D, Fuenzalida Palma N, Morales Rodríguez L, Parada Jiménez D, Morales Ojeda I. Importancia de la enfermera escolar según la percepción de funcionarios de colegios básicos de una provincia de Chile. *Cienc enferm*

- [Internet]. 2020 [cited 2023 Feb 18];26(5):1-9. Available from: http://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0717-95532020000100204&lng=es&nrm=iso&tlng=es
35. Pérez de Maza T. El papel que le corresponde a la tecnología educativa en la educación a distancia. *Multiensayos* [Internet]. 2023 [cited 2023 May 24];9(17):19-30. Available from: <https://camjol.info/index.php/multiensayos/article/view/15738>
 36. Quinta Cupe K, Palomino Rivera F. Influencia de los estilos de crianza en la sexualidad prematura de adolescentes de primero a quinto año de secundaria de la institución educativa pública 40010 Julio C. Tello, del Distrito de Paucarpata-Arequipa, 2019. [Tesis de grado]. Arequipa: Universidad Nacional de San Agustín de Arequipa; 2020 [cited 2023 May 24]. Available from: <http://hdl.handle.net/20.500.12773/12149>
 37. Milos Hurtado P, Bórquez Polloni B, Larrain Sundt AI. La “gestión del cuidado” en la legislación chilena (II). Estado actual. *Cienc Enferm* [Internet]. 2011 [cited 2023 Mar 8];17(3):23–33. doi: 10.4067/S0717-95532011000300003.
 38. Fernández Candela F, Rebolledo Mapica D, Velandia Mora A. Salud escolar, ¿por qué el profesional de enfermería en las escuelas españolas?. *Revista la Promoción de la salud* [Internet]. 2006 [cited 2023 Mar 8];11:21-28. Available from: <https://redalyc.org/articulo.oa?id=309126325004>.
 39. Caricote Agreda, E. Influencia de los padres en la educación sexual de los adolescentes. *Educere* [Internet]. 2008 [cited 2023 Mar 13];12(40):79-87. Available from: http://ve.scielo.org/scielo.php?script=sci_arttext&pid=S1316-49102008000100010&lng=es&nrm=iso

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