

Systematic review on sexuality education in university students

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ABSTRACT

Adequate sexual education in young people is a common concern for different disciplines. The aim of this study was to carry out a systematic review on sex education in university students. A descriptive documentary study was carried out, with a non-experimental and cross-sectional design, based on the analysis of scientific articles published on the subject during the period 2022-2024. The results show the scarce sexual education that young university students have and the behavior to follow, being required an integral and multidisciplinary effort to reverse the data found to achieve in them a healthy, conscious and responsible development.

Keywords: Sex education; Sexual behavior; Social interaction; University students

Introduction

The integral formation of young people, from their early childhood years, is a necessity nowadays; especially when considering the amount of information they are exposed to

when surfing the Internet or starting to use social networks. In this sense, sex education has become a basic topic, since it offers the opportunity to provide them with the necessary orientation knowledge to know their own body, as well as their emotions, so that they can relate in a healthy and safe way (Clotet *et al.*, 2023).

Coinciding with this position, García-Zambrano (2024) emphasizes that the subject of sex education has historically been a controversial factor, treated with criticism and fear, in view of which he stresses the importance of a formative process that should start from the early years or at least from adolescence, focused on a partnership between schools and families, due to the influence that this process is capable of having on the behavior or conduct of young college students in their future lives.

In accordance with the above, it is important that this information be handled and transmitted by people prepared to offer details in accordance with the age of their listeners, especially because it is a subject that has been included in curricular programs at different levels and according to the range of development of each country, It has been treated with greater breadth and concreteness in those countries with a more advanced system of culture and progress, as is the case of the European Union or the United States, as opposed to the situation in Latin America, where taboos, customs and fears abound and are transmitted from one generation to another in areas with less access to this type of knowledge.

The weaknesses inherent to a lack of sexual education lead to the existence of risky practices and their consequent health problems, both physical and emotional in young people who have not received adequate training on aspects related to sexual consent, infections or sexually transmitted diseases or the use of contraceptive methods, resulting in infections, unwanted pregnancies and even situations of gender violence due to a misunderstood conception and inadequate attitudes of an experience that is part of human nature and that should be developed with respect and responsibility to avoid unnecessary exposures.

This problem has led different disciplines to carry out research and from their perspectives, propose solution options for the results they have found in their processes and at the levels of childhood, puberty and youth, among others. In reference to the above, this study aims to conduct a systematic review on sex education in young university students from the analysis of scientific articles published during the period 2022-2024,

through a descriptive documentary study, with a non-experimental and transectional design.

Development

According to Aguilera *et al.* (2022), sexuality is an essential aspect of life that encompasses, among other factors, gender identity and role, eroticism, intimacy, pleasure, reproduction and sexual orientation, which are manifested in thoughts and behaviors related to psychological elements of the human being. For this reason, it has been the object of study of different disciplines, many of them linked to health (for example, clinical psychology, sexology, psychiatry) and pedagogy; basically because a distorted perception of this aspect, which should be seen as something natural, can cause disorders or conflicts in the behavior of young people when they have their first experiences, when it is logical for them to develop in a responsible way and without unfavorable consequences that make the intervention of specialists necessary.

To understand the importance of sex education, it is considered relevant to retake the definition of sexuality provided by UNESCO (2018), it is:

(...) a central dimension of the human being that includes: knowledge of the human body and our relationship with it; affective bonds and love; sex; gender; gender identity; sexual orientation; sexual intimacy; pleasure and reproduction. Sexuality is complex and includes biological, social, psychological, spiritual, religious, political, legal, historical, ethical and cultural dimensions that evolve over the course of a lifetime. (p. 17)

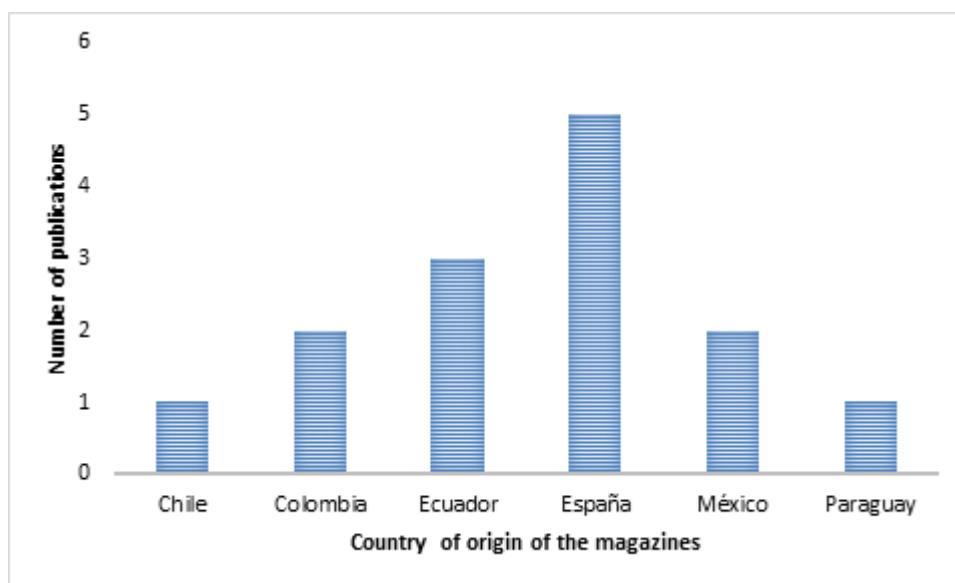
For Sánchez *et al.* (2023), the adoption of a comprehensive model of education is the best option, since it allows orienting educational actions towards a sexuality focused on the positive, avoiding fears and taboos, relating its practice to pleasure, bodily enjoyment and desire, avoiding risks to the well-being of young people. According to these authors,

At present, it is possible to find a wide range of educational guides, brochures and publications on Sex Education that focus on the prevention of sexual and/or risky practices, but that, often, obviate many aspects, annulling other topics of interest intimately related to human sexuality. (p. 30)

A descriptive documentary study was conducted, with a non-experimental and transectional design, based on the analysis of scientific articles published on the subject during the period 2022-2024, from a systematic search in Google Scholar of review articles in Spanish language with the terms “sex education” and “university students”, which yielded 81 results, which after analyzing to eliminate repeated documents, verify that they were downloadable in their entirety and that they were really published in academic journals, reduced the list to fourteen documents.

As for the results, we began with a description of the documents by means of three graphs, discriminating according to the country of origin of the academic journals where they were published, their subject of interest and the number of articles according to the range of years chosen, in order to know how much has been written on the subject in the last three years.

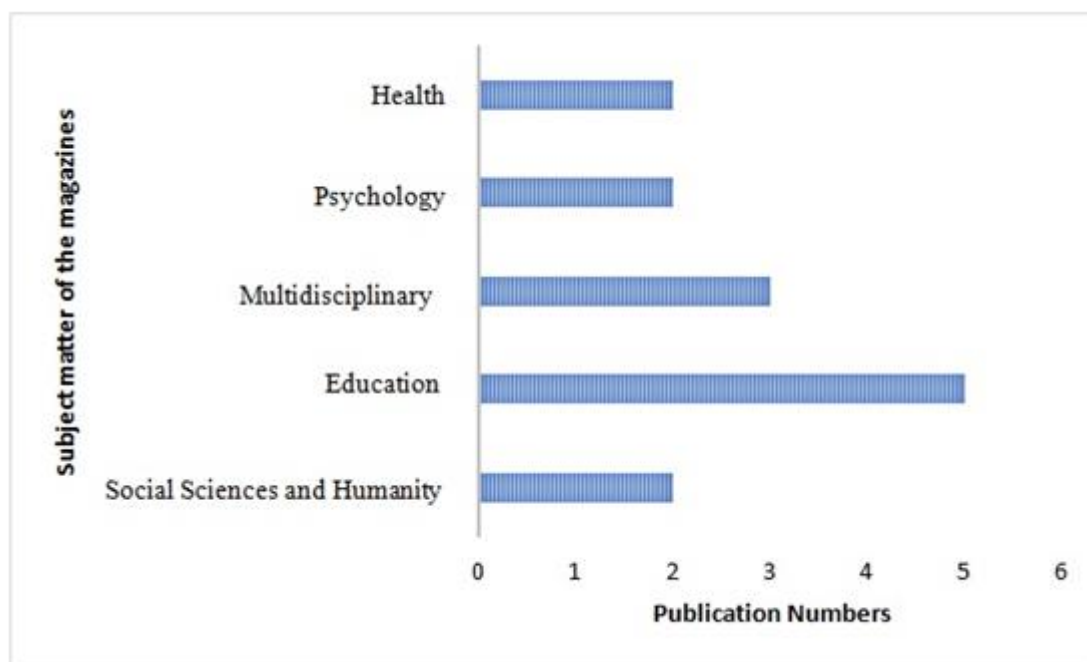
Source: Self elaboration



Graph N° 01. Number of journals by country of origin

Graph 1 show that the largest number of articles comes from Spanish journals, with Ecuadorian publications in second place, Colombian and Mexican journals in third place, followed by Chilean and Paraguayan, respectively.

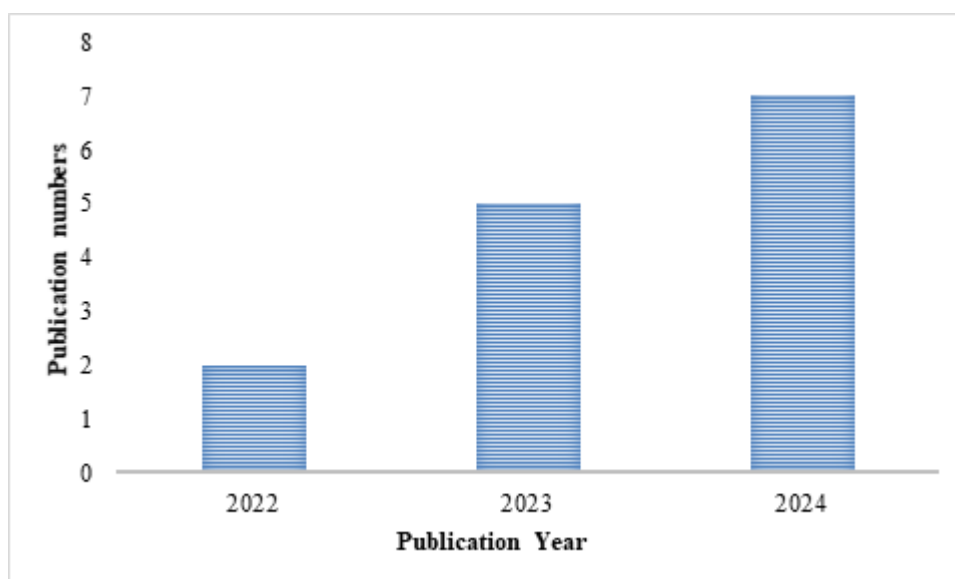
Source: Self elaboration



Graph N° 02. Subject matter of the journal according to number of publications

Regarding the general subject matter of the publications, it is noteworthy that most of them belong to the educational area (graph 2), thus showing the concern for the training or preparation received by young university students before or during their insertion into the university. In second place, multidisciplinary studies stand out, which gives an idea of the importance of the analytical integration of various disciplines to address the issue of sexuality education, while the third position is shared among journals specifically dedicated to the fields of health, psychology, social sciences and humanities.

Source: Self elaboration



Graph N° 03. Number of publications per year

Regarding the number of publications per year, the number of publications increased in the current year, i.e., in 2024 (seven publications), compared to five in 2023 and two in 2022, showing a growing interest in the issue (graph 3).

Table N° 01. Authors, titles and objectives of the reviewed articles

Authors	Titles	Objectives
Aguirre and Restrepo (2022)	Sexual behavior in young university students: a review study.	To describe and analyze studies on sexual behavior in Iberoamerican youth.
Arenas and Restrepo (2023)	Sexuality and sex education from a Foucauldian perspective, a review article.	Analyze sexuality and sex education in research that is based on the work of Michel Foucault.
Aznar-Martínez <i>et al.</i> (2024)	Responsible use of the Internet and digital security: systematic review of educational programs.	To analyze educational programs that addresses the responsible use of the Internet to manage the various challenges and risks of the digital space.
De los Santos <i>et al.</i> (2024)	Scientific review of sexual IQ.	To identify the scientific production on sexual IQ through analysis of 17 documents found in Google Scholar, in a timeline from 2013 to 2023; to determine the level of knowledge that young people have about sexuality.
González <i>et al.</i> (2024)	Pornography and sexual risk behaviors in adolescents and young adults: a systematic review.	To review in the current literature how pornography consumption may be related to sexual risk behaviors in adolescents and young adults.
Jiménez-Peña <i>et al.</i> (2023)	Factors involved in the prevention of cervical cancer in young women, prevention measures and the role of nurses: literature review.	To collect literature related to the factors involved in the prevention of cervical cancer in young people, prevention measures and the role of the nursing professional in its prevention.
Lima <i>et al.</i> (2023)	Systematic review on sex education to prevent bullying in students.	To examine the potential of teaching sex education as an effective population-level strategy for bullying prevention.
Matute <i>et al.</i> (2023)	Knowledge about emergency contraceptive methods in university students: systematic review.	To determine knowledge about emergency contraceptive methods in university students.
Muñoz-Fernández <i>et al.</i> (2024)	Influence of pornography from a gender perspective: a literature review.	To analyze the influence of pornography viewing on society from a gender perspective.
Rivera-Galván <i>et al.</i> (2022)	Perceived barriers to contraceptive use by women of childbearing age: an integrative review.	To synthesize available information on barriers to contraceptive use among women of childbearing age.
Sandoval <i>et al.</i> (2024)	Sexual risk perception in young people: an integrative review.	To analyze the available scientific literature on the perception of sexual risk among young people.
Sanz-Martos <i>et al.</i> (2024)	Predictors of contraceptive use in young people: a systematic review.	To analyze predictors of contraceptive use in young people.
Villarroel and Cashabamba (2024)	Factors that increase sexually transmitted infections in the population of Ecuador: a systematic review.	To describe risk factors for STIs in the population of Ecuador.
Villegas-José <i>et al.</i> (2024)	Systematic review of scales that measure attitudes towards sexuality.	To know the current status of validated scales on sexuality and sexual education and to classify them.

Source: Self elaboration

Table 1 shows the authors, titles and objectives of each article, allowing to capture the tendency of researchers according to their particular interests, highlighting the different approaches taken to analyze the problem of sex education in young university students,

showing some of the issues involved in the subject and that affect the behavior of students in these institutions.

Table N° 02. Authors, titles and objectives of the reviewed articles

Authors	Contributions
Aguirre and Restrepo (2022)	They highlight the growing importance of sex education in Ibero-America due to the understanding, through research praxis, of the increasingly evident relationship between the type of sex education received (school, family, religion, peers or the media) and the psychic-bodily component of the subjects.
Arenas and Restrepo (2023)	Sexuality and sex education in research based on the work of Michel Foucault interpret sexuality as an experience that links a set of techniques, practices, disciplines and institutions where it is possible to recognize that sexuality education should not be limited to curricula and educational policies that only seek to inform young people and promote a "healthy" sexuality based on the prevention of behaviors, practices and attitudes that may undermine this notion, leaving aside the acceptance of their active role in this process.
Aznar-Martínez <i>et al.</i> (2024)	In reference to their objective: to analyze educational programs that address the responsible use of the Internet to manage the various challenges and risks of the digital space, they found that only 19 programs out of 702 (2.7%) analyzed implemented educational programs on digital safety, adding that only five (5) were aimed at teachers, none at families and the remaining 14 at students, including children, adolescents and university students.
De los Santos <i>et al.</i> (2024)	The sexual IQ (SQ) detected is intermediate to low, due to misinformation on sexuality and reproductive health issues; there are no factors, such as socioeconomic, demographic, academic, marital or intellectual deficit environment that make significant differences in the existence of a high SQ, although a variation with respect to gender was detected: women show less unfavorable attitudes regarding certain sexual practices and are more open to different sexual orientations compared to men, who are more intolerant and show a lower SQ index.
González <i>et al.</i> (2024)	Pornography consumption is positively and modestly related to sexual risk-taking in young people, a relationship mediated by other influential elements, such as sexual permissiveness, sexual sensation seeking and parental supervision, as well as by the gender of the consumer.
Jiménez-Peña <i>et al.</i> (2023)	The lack of knowledge that young women have, beliefs, attitudes, economic and health system aspects are factors that intervene in the prevention of cervical cancer, hence the importance of the role of nurses to intervene and develop educational strategies for prevention.
Matute <i>et al.</i> (2023)	The level of knowledge about the use of contraceptive methods is low due to the lack of sexual education and the use of inadequate sources of information (Internet, friends and the media).
Lima <i>et al.</i> (2023)	Addressing a single risk factor can do little to reduce the incidence of sexual violence, due to the number of aspects involved in sexual harassment, which shows the need for a comprehensive strategy. Risk factors at the individual, interpersonal, community, environmental, and societal levels contribute to health and social problems, including sexual violence.
Muñoz-Fernández <i>et al.</i> (2024)	The main reasons for accessing pornography in both genders are: the search for sexual education, individual sexual satisfaction, socialization, identifying one's own sexual identity, satisfying boredom or improving the quality of the couple's relationship. They detected the existence of an association between the viewing of pornography and the development of an aggressive personality, due to the learning of a violent sexual script that is subsequently reproduced in their relationships.
Rivera-Galván <i>et al.</i> (2022)	Barriers to contraceptive use are persistent, depending on individual, interpersonal and organizational factors such as myths, misconceptions, beliefs and lack of training of personnel responsible for helping to combat it, but it is possible to reduce the level of this perception.
Sandoval <i>et al.</i> (2024)	In general, young people do not express a high perception of sexual risk, with a higher proportion of males expressing this attitude; they also found that this high perception is associated with a greater number of risk factors, indicating that these young people make up a vulnerable population, which, by practicing risky behaviors, has a high probability of acquiring sexually transmitted infections.
Sanz-Martos <i>et al.</i> (2024)	Although seven predictor variables were identified with respect to the use of contraceptive methods, the study focused on the use of condoms, the contraceptive pill and the emergency contraceptive pill, as these are the methods most used by young people. The level of knowledge about the contraceptive method and attitudes towards its use were the only predictor variables modifiable through educational interventions and with the possibility of having a greater effect on the prevention of unwanted pregnancy.
Villegas-José <i>et al.</i> (2024)	They identified heterogeneous tools to evaluate attitudes towards sexuality, detecting changes at a chronological level that have influenced sexual behaviors; among these, the use of instruments that link sexuality with new technologies stands out, showing the expansion towards a new dimension of sexuality and addiction to it; Similarly, they found scales designed to meet the needs of specialists and collect information on the sexual characteristics of disabled people, including those with a disease or in a vulnerable situation, thus reflecting the attention to the needs of population minorities.
Villarreal and Cashabamba (2024)	The main triggers of sexually transmitted infections (STIs) are largely related to education, knowledge about these infections, access to health care, cultural and social norms, which is why the author considers that comprehensive sexual education is essential to prevent them.

Source: Self elaboration

Regarding the contributions of these studies, there is agreement on the importance of education in improving the behavior of young university students, as well as on the need for multidisciplinary interventions. The persistence of taboos, myths, customs, cultures and the consideration of a passive role of young people during their education results in limitations in their knowledge and way of acting, which, however, can be overcome if minimum agreements are reached on the content and informative openness that should be transmitted to them. (Table 2)

In this sense, the researchers themselves shed clues on the path to follow, noting that Aguirre and Restrepo (2022) suggest a sex education plan designed from the erotophilic paradigm, with the capacity to generate positive changes, considering that its effects can be reflected in the cognitive, emotional and attitudinal dimensions of this vital sphere, emotional and attitudinal dimensions of this vital sphere, including aspects such as the positive acceptance of difference and diversity, the elimination of public health, social, state, religious and other barriers, as well as transgenerational stigmatizations (e.g., misogyny and sexual taboo).

Arenas and Restrepo (2023), in turn, highlight the role of adults, with emphasis on the role of teachers in the process of teaching about sexuality, characterizing it as limited by paradigms that underestimate young people, who are not sufficiently empowered to live their sexuality. As a result, the active role of youth in their formation has been underestimated, so that they repeat ideas and behaviors prefabricated and standardized by adults. Adults consider themselves as the bearers of truth, ignoring the needs and interests of young people with respect to how they wish to experience sexuality and not how it would be correct or expected by society. As a consequence of their findings, they suggest a transformation in teacher training to achieve their contribution both in educational quality and in the individual development of their students.

Aznar-Martínez *et al.* (2024) highlight that the programs reviewed addressed online risks such as: cyberbullying, sexting, digital privacy, grooming, impersonation, false information, problematic Internet use, phishing and social engineering, digital identity, as well as excessive information sharing, spam and fraud. Based on these findings, they suggest the design and implementation of programs that involve the entire educational community and address pornography consumption and online safety.

On the other hand, De los Santos *et al.* (2024) note that they have not found a conclusive result showing a significant difference between a high sexual IQ (SQ) and its relationship

with sexual pleasure, although they add that having a high SQ would help in decision making that contributes to prevent sexually transmitted diseases (STDs) and even sexual abuse. They state the need to continue researching the CIS, at a theoretical and practical level, considering that sexual education begins at home and that educators within school institutions can also provide useful guidance to be employed in order to improve these indexes, avoid STDs and unwanted pregnancies.

In this regard, according to González *et al.* (2024), the use of pornography by a high proportion of young people turns this consumption into a source of sexual knowledge, making it necessary for sexual-affective education programs to focus on the promotion of critical attitudes regarding the contents of these expositions, even suggesting the adoption of a gender perspective. They exemplify solutions: in the case of men, to work on the age of initiation in the consumption of pornography and in the case of women, to emphasize casual sex with unprotected penetration.

Jiménez-Peña *et al.* (2023) and Matute *et al.* (2023), coinciding in the detection of low knowledge about aspects of sexuality, propose the development of educational strategies. According to the second group of researchers, the source of information of university students has influenced the dissemination of misconceptions about emergency contraceptives (EC), such as whether or not it is an abortive method, whether or not it protects against sexually transmitted diseases (STDs) and the maximum time of administration, so they recommend working on socio-religious beliefs to improve attitudes regarding EC, in order to optimize knowledge, perception and access to contraceptive methods in these young people.

Lima *et al.* (2023) concur with the above by stating that, although sexuality education has traditionally been designed, implemented and evaluated to reduce unplanned adolescent pregnancies, HIV/STI acquisition and health risk behaviors, they add that it also has the potential to address sexual harassment, seen as a risky sexual behavior. From their perspective, primary prevention is the most effective way to prevent unfavorable health outcomes by slowing the development of risk factors, so they recommend reviewing and implementing actions from the foundations of the sex education curriculum, evaluating the longitudinal impact of students as they are exposed to the curriculum and observing their behaviors over time.

Another aspect of interest is the suggestion of Muñoz-Fernández *et al.* (2024), who, upon detecting pornographic viewing on sexual desire, recorded the decrease in libido and

pleasure experienced, sexual avoidance and difficulty in reaching orgasm, highlighting the controversial nature of the options to solve the situation due to the existence of abolitionist positions and feminist pornographic content.

Under this aspect, Rivera-Galván *et al.* (2022) report that social factors and cultural beliefs are elements that will always be present, and the lack of sexual and reproductive education among women reflects the intensity of impediments such as fear: the refusal to accept any method of family planning is mostly manifested in women from unprotected and developing regions; adding that the experiences of violence in courtship transcend the personal level, due to its interpersonal and social scope. In view of this situation, they point out that many of the existing barriers can be resolved through specific multidisciplinary strategies aimed at reducing the gaps related to the refusal to use contraceptive methods.

For their part, Sandoval *et al.* (2024) suggest continuing research to gather more scientific evidence on the perception of sexual risks, in order to work with updated and reliable data that will provide tools to act in response to this problem and establish appropriate support strategies for university students.

In correspondence with this position, Sanz-Martos *et al.* (2024) propose to evaluate the main sources of information used by these young people to obtain knowledge about contraceptive methods. They have moved from searching the Internet or consulting their friends to searching online sources where they manage to locate health professionals, from whom they obtain quality information. For this reason, they recommend that future training programs be oriented toward behavioral change assessment, which can be achieved by developing positive attitudes related to contraceptive use that prevail over contraceptive choices.

Given the characteristics of their research, Villegas-José *et al.* (2024) determined that the different scales found do not coincide in the object they will measure, showing definitions related to sexuality characterized by their breadth and lack of precision, which yields few explicit concepts about the construct and the modalities for measuring attitudes towards it, among which they list: permissiveness, addiction, sexual consent and erotophobia-erotophilia. This difficulty in delimiting the scales due to their heterogeneity led him to suggest the establishment of a more precise definition of attitudes towards sexuality that would allow a consensus among experts on the subject.

Finally, for Villarroel and Cashabamba (2024), the lack of appropriate educational systems contributes significantly to the spread of sexually transmitted infections, a common aspect in developing countries such as Ecuador, expressing that in nations where this issue is approached with greater openness and free of stigmas, the population has better information and willingness to adopt preventive actions. On this basis, they highlight the need for a good design and control of public health policies, with which these risks can be reduced, while promoting greater sex education and accessibility to health centers.

As can be observed, these data coincide with the theoretical approaches considered during this study; thus, the need to provide young people with comprehensive and multidisciplinary orientation training that allows them to live their sexuality in a natural and safe way is ratified (Clotet *et al.*, 2023; Aguilera *et al.*, 2022; Unesco, 2018), leaving aside fears and criticisms to be in a position to ensure that the years at university pass without setbacks or unwanted consequences (García-Zambrano, 2024), highlighting the positive aspects, without fears or taboos that limit their enjoyment of a practice that in itself is an essential part of human nature (Sánchez *et al.*, 2023).

Conclusions

The results show that young university students are poorly educated about sex, and that, in general, publications related to the area of health have the largest number of articles on this topic. All this shows that a comprehensive and multidisciplinary effort is required to reverse the data presented in the articles analyzed, including curricular programs that make this training possible from an early age, so that by the time they reach the university world, young people will be better prepared to know, understand and develop their sexual life in a healthy, conscious and responsible way.