

Sexual Knowledge and Attitudes in Students of the Faculty of Health Sciences of a University in Huancayo, Peru-2023

Nilton David Vilchez Galarza*, Giancarlo Villalva Lazaro, Jessenia Vasquez Artica, José Antonio Cuadros Espinoza, Jose Francisco Via y Rada Vittes, Luis Angel Huaynate Espejo

Faculty of Health Sciences, Professional School of Psychology, Universidad Peruana Los Andes, Perú

Received April 9, 2024; Revised July 1, 2024; Accepted July 21, 2024

Cite This Paper in the Following Citation Styles

(a): [1] Nilton David Vilchez Galarza, Giancarlo Villalva Lazaro, Jessenia Vasquez Artica, José Antonio Cuadros Espinoza, Jose Francisco Via y Rada Vittes, Luis Angel Huaynate Espejo, "Sexual Knowledge and Attitudes in Students of the Faculty of Health Sciences of a University in Huancayo, Peru-2023," *Universal Journal of Public Health*, Vol. 12, No. 4, pp. 660 - 668, 2024. DOI: 10.13189/ujph.2024.120405.

(b): Nilton David Vilchez Galarza, Giancarlo Villalva Lazaro, Jessenia Vasquez Artica, José Antonio Cuadros Espinoza, Jose Francisco Via y Rada Vittes, Luis Angel Huaynate Espejo (2024). *Sexual Knowledge and Attitudes in Students of the Faculty of Health Sciences of a University in Huancayo, Peru-2023. Universal Journal of Public Health*, 12(4), 660 - 668. DOI: 10.13189/ujph.2024.120405.

Copyright©2024 by authors, all rights reserved. Authors agree that this article remains permanently open access under the terms of the Creative Commons Attribution License 4.0 International License

Abstract The objective was to determine the relationship between sexual knowledge and attitudes in students of the Faculty of Health Sciences of a university in Huancayo in 2023. A quantitative approach was used as the methodology. In addition, it was a basic type of research, which applied an observational, cross-sectional, and correlational research method, with a non-experimental design. The population consisted of all students in the health area, from which a sample of 361 university students was obtained, to whom two questionnaires were applied according to the variables. For the knowledge variable, there were 18 items, while the attitude variable consisted of 31 items, both with a Likert scale. A significant and positive correlation between the sexual knowledge and attitudes variables in Health Sciences students evidenced this. Likewise, a medium level of knowledge was found, represented by 36.9%; and a low level of attitude, represented by 33.7%. In conclusion, it was possible to establish the relationship between knowledge and sexual attitudes in students with a correlation of $r=0.129$ and a significance of $p=0.013$, which shows a significant and positive relationship between the variables.

Keywords Knowledge, Sexual Attitudes, Health Students, Health Sciences

1. Introduction

The topic of sexuality has been gaining importance in recent years, mainly due to the various risk factors related to physical health. These risks, in many cases, come from the low perception that young people have about sexual activity, and from the scarce education on sexual issues.

Likewise, unwanted pregnancies and the increase in sexually transmitted diseases currently generate a certain vulnerability in this sector of the population, both in terms of their physical and mental health, as well as in quite important social aspects. Therefore, adolescents and young people must be oriented and become aware of the danger involved in having sex early, especially without protection.

Several factors trigger the desire to discover sexuality at an early age, for example, the search for social acceptance, which leads many young people - especially university students - to have sporadic sexual contact. This situation leads to a series of behaviors classified as risky [1].

On the other hand, due to the lack of knowledge about sexual practices, society faces several risks that affect the university population. For this reason, the educational issue

is very significant both for the prevention of pregnancies as well as for the knowledge about appropriate sexual attitudes to face, prevent, and assume the negative consequences of sexually transmitted diseases in young people.

However, at present, many young people are unaware of this issue, which has led to teenage pregnancies, the presence of sexually transmitted diseases, and emotional conflicts due to not knowing how to deal with this situation. The indexes registered by different studies are proof of this.

The Pan American Health Organization [2] has indicated that there is an annual increase of 4.7% and 13.2% of maternal deaths due to unsafe abortions, which means that for every 100,000 abortions, 30 deaths occur. It also notes that care to prevent vertical transmission of infectious diseases in cases of pregnancy has increased.

Likewise, at the national level, during the year 2021, 77.4 % of the female population of childbearing age used some contraceptive method; this percentage stands out in comparison with the years 2015 and 2020, in which the percentages were 53% and 55%, respectively, of people using some contraceptive method. These figures allow us to observe a significant improvement in terms of the services provided by the State in the face of the population's demands on sexual health [3].

According to the National Institute of Statistics and Informatics [4], in Peru, the percentage of adolescents between the ages of 15 and 19 who became pregnant in 2020 and 2021 was as follows: 7.2 % corresponded to the urban area and 15.6 % to the rural area. Finally, the Mesa de Concertación para la Lucha contra la Pobreza [5] reports that the highest prevalence of adolescent pregnancy is found in six Peruvian departments: Ucayali (25.1%), Loreto (18.3%), La Libertad (17.4%), Amazonas (15.7%), Madre de Dios (13.7%) and Lambayeque (13.0%).

Concerning this topic, in 2023, Luque [6] conducted a study in Peru on the level of knowledge of sexual and reproductive health in adolescents, the results of which showed that of the 215 young people consulted, 59.5% had sexual and reproductive health, 26% had a medium level of knowledge and the remaining 14.5% were low in sexual and reproductive health. This information was collected only in one educational institution in Lima.

On the other hand, in a university in Trujillo, Peru, according to the data shown in the study by Cuadra et al [7], the level of knowledge about the sexual and reproductive health of the students was high in only 16.1%, and regular in 46.2%, rated as acceptable. In addition, it was observed that two out of three students surveyed had had their first sexual intercourse before the age of 20, and 3 out of 4 students admitted not having used protection in their first sexual experience; it should also be noted that condoms and the pills are the contraceptive methods most familiar to students.

It is important to note that ignorance of certain factors associated with sexuality leads to a risk twice as high of

having a pregnancy at an early age or suffering sexually transmitted infections, in contrast to people who are knowledgeable about the subject.

According to Requejo [8], in his study conducted in Chota, Peru, whose objective was to demonstrate the relationship between STIs and sexual attitudes, most respondents presented attitudes of rejection towards sexuality; however, 84% presented a high level of knowledge. There was a significant relationship between the variables $p < 0.05$.

In Huancayo, under Cáceres and Chupan [9], it was observed that 3.31% presented a regular category of knowledge; 96.13%, a high category; and 0.55%, a low category. Regarding the level of attitudes, 92.27% presented a good level and 7.18%, a fair level.

Internationally, the study by Lyu et al [10] conducted in China has shown that female students are among the most conservative groups concerning sexual attitudes and behaviors. In addition, low levels of sexual knowledge favor the emergence of risky behaviors in Chinese youth. It is concluded that this country should implement online sex education.

Similarly, Avilés et al. [11] conducted a study in Cochabamba, Bolivia, in which they established that university medical students do not know about sexuality; this is reflected in the 70% of young people who reported that they were not well-informed on the topic in question.

These studies are valued as theoretical references in the present work, since they show the existing reality not only in Peru, but also at the international level, concerning the subject and young people's knowledge about it. Their main characteristic is that they are empirical investigations, which allows them to provide statistically reliable results. Likewise, the results presented a contrast with each other, since in some cases the level of knowledge is high and in others, it is regular or low.

Based on the above, carrying out the study at the University of Huancayo is justified because it is still possible to observe certain patterns, stereotypes, beliefs, and unrealistic myths about sexual health, which makes it difficult for the population to learn about this topic adequately. This problem is observed in adolescents, young people, and adults, specifically in the student sector of Huancayo. This reality originated the desire to know how sexual knowledge and attitudes are related in a specific group of students.

Therefore, this research focuses on knowing how sexual knowledge and attitudes are related, to delve deeper and recommend possible solutions.

1.1. Definition of Knowledge

Knowledge refers to the skills that are developed to act competently in any situation. Knowledge is the attitude and capacity that the individual uses to defend an issue or give a point of view in each situation [12].

Within the knowledge acquisition capabilities, it is

important to highlight the involvement of certain competencies, such as knowledge of theories, concepts, procedures, etc., so that from this already generated knowledge new ones are built and the one possessed is expanded [13].

Sexual knowledge has to do with all the information a person possesses about sex education and sexuality, which includes reproduction, physiological elements, and sexual behavior [14]. In turn, knowledge constitutes a necessity for young people, as they will achieve adequate sexual health. In this way, they can create healthy relationships, make informed decisions about sex, be critical of the reality around them, show solidarity with marginalized groups, and love themselves [14].

Understanding sexual health involves following a curriculum designed to teach and learn about the cognitive, emotional, physical, and social aspects involved in the sexuality of the individual. The objective is to equip the younger sector with skills, knowledge and skills, attitudes, and values that will enable them to achieve health, well-being, and dignity. It also seeks to foster the development of respectful social and sexual relationships, as well as to encourage consideration of how their choices impact their well-being and that of others. In addition, their rights are to be guaranteed throughout their lives [15].

Knowledge of Reproductive Health

Sexuality education has been designed so that social and emotional skills are developed, as they are necessary to transform people into caring and empathetic adults. With the knowledge provided by this kind of education, it is intended to appreciate the sexual diversity that exists, minimize violent situations in couple relationships, promote the establishment of healthy relationships, prevent child sexual abuse, ensure that there is real socioemotional learning, and increase media literacy in this regard. It can also help young people to avoid unplanned pregnancies and sexually transmitted infections [16].

Thus, educating about sexuality consists of gaining and appropriating knowledge and training in beliefs, values, and attitudes, which refer to intimacy, relationships, and identity. However, aspects such as religion, culture, and social norms hinder adolescents, in many cases, from being adequately taught by their parents, as this subject is taboo, arguing that the child does not need such information.

1.2. Definition of Sexual Attitudes

Attitude is the set of experiences or educational training that influences behavior and shapes the way people behave in different circumstances. Although attitudes tend to endure, they are not immutable and can undergo modifications. The fundamental elements of attitude encompass cognitive, emotional, and behavioral aspects, reflecting the integration of thoughts, emotions, and actions [16].

Similarly, attitude constitutes a manifestation of

favorable or unfavorable valuation towards a place, a person, an object, or a situation. These judgments are essential elements that influence perceptions and behaviors concerning all aspects of the social environment [17].

Thus, concerning the sexual area of any individual, appropriate attitudes need to be fostered, especially of children towards themselves and others; that is, well-oriented attitudes can guide children's curiosity in the right way. At this point, parents can serve as the ideal sex educators, because they can offer sex education sequentially and provide information as they receive questions from their children [18].

Hence, several studies show that an individual's sexual behavior is informed by cultural and family perspectives about sexuality, as well as by sex education, whether formal or informal. Previous sexual experiences contribute to the formation of an attitude that is supported by values and beliefs [19].

Sexual attitudes represent a series of arguments that a person has regarding sexuality. Thus, the attitudes manifested in the sexual behavior of everyone are conditioned by family and cultural aspects, sexual education, and sexual experiences [20].

Sexual Attitudes and Behaviors

Sexual attitudes and behaviors are governed by three levels: first, the cultural (social norms surrounding sexual behavior); then, the interpersonal (transformation of sexual desires into strategies); and finally, the psychological (sexual dialogues with oneself and the management of arousal). Thus, sexual attitudes are structured as characteristics of the individual's personality, which result from the experience and interaction that a person has with the social, cultural and family environment underlying certain cognitive-emotional and behavioral components [21].

Hence, it is possible to assert that the knowledge and attitudes incorporated throughout development regarding sexuality come, to a large extent, from what is sent by the different contexts of socialization. Moreover, some studies have shown that sexual attitudes determine people's sexual behaviors, which can affect their sexual and reproductive health in one way or another [22].

1.3. Variables and Dimensions

Based on the above, the study established the following variables: sexual knowledge and sexual attitudes.

- Sexual knowledge: Information gathering. It refers to the individual's awareness of sexual education and sexuality, which includes physiological elements, reproduction, performance, and individual sexual behavior [13].

Sexual attitudes: Arguments towards sexuality or sexual behaviors. These attitudes, which are manifested in a person's sexual behavior, are influenced by the social and

cultural context [19].

Based on the above, the following objectives were proposed:

General Objective

To determine the relationship between sexual knowledge and attitudes in students of the Faculty of Health Sciences of a university in Huancayo, 2023.

Specific Objectives

- To establish the level of knowledge about sexuality in students of the Faculty of Health Sciences of a university in Huancayo, 2023.
- To establish the level of sexual attitudes in students of the Faculty of Health Sciences of a university in Huancayo, 2023.

2. Materials and Methods

2.1. Research Method

The quantitative approach was considered since it allows finding objects and testing the hypothesis through statistical analysis or processing [23]. This approach was considered since it helps to obtain statistical data regarding the variables of sexual knowledge and attitudes in university students. The scientific method was used, considered as a general method for this study; and the deductive hypothetical method, as a specific method, which leads to contrast the statement that is a possible answer.

2.2. Type of Research

The study was of a basic type since it aimed to provide a theoretical explanation of the relationship between the phenomena and observable facts of the variables [24]. This made it possible to increase knowledge about the variables under study. Likewise, it was cross-sectional, since it was an observational study within the population, and achieved the execution of the instruments in a defined time and at a single moment [25].

2.3. Research Level

It was considered relational since it allowed the description of the variables of a given population and data on levels of knowledge and sexual behaviors in university students. However, it was carried out in a correlational manner to verify if it presents a relationship between the variables [26].

2.4. Research Design

The research adopted a non-experimental design approach, as it avoided the intentional manipulation of

variables. Its main objective is to explore the problem in its real context, observing it in its location and analyzing it carefully. In addition, this research is characterized by being cross-sectional, since the instruments were applied at a specific time. In addition, it was considered correlational, since it sought to determine the relationship between the variables proposed [26].

2.5. Population and Sample

The population of research can be categorized in two ways: being a finite set or an infinite one. These have common characteristics concerning an element that belongs to the scope of the study [27]. In this sense, we chose the finite selection of university students from the Faculty of Health Sciences, which consists of 5936 people. The Psychology and Nursing careers stand out with the highest number of students (1516 and 978, respectively).

The selected sample is a representative part of the population since it presents the same characteristics of the population under study referred to students of the aforementioned faculty and university institution [27]. A statistical-probabilistic sampling was then applied, resulting in a sample of 361 university students from the Faculty of Health Sciences, whose ages ranged between 18 and 21 years, with an average of 19.5 years. In addition, 57.3% of the sample was female and 42.7% was male.

This number of students received through their e-mail the invitation to participate in the study employing informed consent. Before this process, a request to carry out this study was sent to the Research Ethics Committee of the Universidad Peruana Los Andes.

2.6. Data Collection Techniques and Instruments

Observation was taken into account, as it provides insights into the behavior of individuals from the beginning to the end of the execution of the instruments [24]. The instrument used was the questionnaire, for which the Sex Knowledge and Attitude Test (SKAT) by Harold Lief and David Reed was adopted.

The Skat (Sex Knowledge and Attitude Test) survey was created by Harold Lief, MD, and David Reed, Ph. D. in 1967, and translated and adapted by Hell Alzate. This questionnaire is intended to gather information about knowledge, sexual attitudes, and experience of sexual behavior. The questionnaire has been previously modified and validated by Motedayen et al. [28] in Iran and examines the instrument's factor structure and criterion validity using exploratory structural equation modeling (ESEM) with a sample of Iranian adolescents and young adults. These models evaluate, among other aspects, masturbation, premarital sexuality, homosexuality, pornography, abortion, and sexual coercion. All the scales presented correct internal consistencies, which were between 0.66 and 0.85.

Similarly, Sümer [29] applied the SKAT scale to 297

Turkish university students from state universities in Ankara. Their age ranged from 18 to 24 years with a mean of 20.8 years. The applied instrument presented a subset of 26 items, which reported five content subscales assessing masturbation, homosexuality, pornography, premarital sex, and abortion. Reported reliabilities for middle-class college students exceeded .70 on the individual scale and .89 on the total scale. Higher scale scores indicate a more liberal attitude.

Thus, the instrument was designed as follows: the first part collected sociodemographic data of the students; while the knowledge section consisted of 18 items [Likert (True, False, don't know)], reflecting biological, psychobiological, psychological and social aspects of human sexuality. Finally, the attitudes section was composed of 31 items according to a Likert-type scale (Strongly Agree, Agree, Doubtful, Disagree, Strongly Disagree), with four dimensions: Heterosexuality (H), Sexual Myths (MS), Abortion (A) and Masturbation (M). For this purpose, the SKAT is evidenced in the scales of university students in Peru [30].

2.7. Data Collection Procedures

To collect the data for this research, permission was requested from the Dean's Office of the Faculty of Health Sciences. The research was approved by the Research Ethics Committee of the Universidad Peruana Los Andes according to Resolution No. 0919-2023-R-UPLA. In addition, all participating students gave their consent to participate in the study and signed a declaration of voluntary consent. The confidentiality of all participants was also guaranteed throughout the study.

After that, each professional school provided accessibility for the application of the instruments to the university students, following the type of sampling established in the work. Likewise, they were informed of the purpose of the research, considering voluntary participation, communicating the benefits of this and assuming all responsibility for confidentiality so that they could be part of the study. For this reason, the instructions had to be clear, precise and simple at the time the instruments were applied.

2.8. Data Processing and Analysis Techniques

To begin with, a letter of introduction was sent to the general director of the faculty to communicate the intention of the research, thus achieving the necessary access to the population required for the execution of the study. Then, the data were collected in person. For this purpose, the researcher went to the institution 10 days in advance to provide informed consent to the volunteer participants. The application of the instruments lasted 20 to 30 minutes. The data collected with the questionnaire were examined

and, subsequently, the data matrix was structured to apply the relevant explanatory statistical methods.

Data analysis was carried out using statistical software, in this case, Excel and SPSS-V27. For this purpose, descriptive statistics were considered, organizing the data clearly and precisely employing tables and figures. Subsequently, the normality test was performed to determine the distribution of the results, evaluating whether they were normal or non-normal, to determine the level of association between the study variables.

3. Results

3.1. Description of Results

According to the results obtained (Table 1 and Figure 1), it is concluded that the level of knowledge about sexuality in students of the Faculty of Health Sciences is at a medium level, which covers 36.9%. In addition, it is observed that 34.2 % show a low level, while 28.8 % show a high level.

Table 1. Level of knowledge about sexuality in students of the Faculty of Health Sciences of a university in Huancayo, 2023

	Frequency	Percentage	
Valid	Low	127	34.2
	Medium	137	36.9
	High	107	28.8
Total	371	100.0	

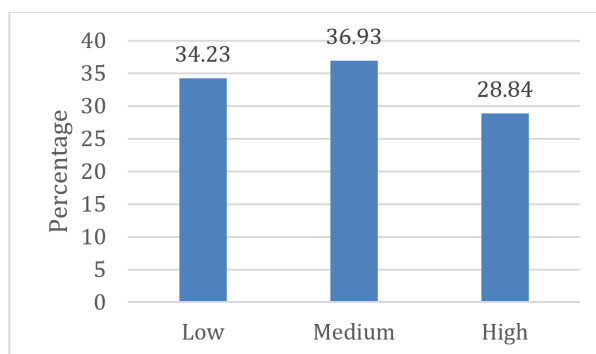


Figure 1. Level of knowledge about sexuality in students of the Faculty of Health Sciences of a university in Huancayo, 2023

According to the results obtained (Table 2 and Figure 2), the level of sexual attitudes in students is mostly classified at a low level, representing 33.7%, while 33.2% cover medium and high levels. Sexual attitudes are the arguments that a person has towards sexuality or sexual behaviors, and these attitudes are manifested in the individual sexual behavior of a person, influenced by the social and cultural context.

Table 2. Level of sexual attitudes in students of the Faculty of Health Sciences of a university in Huancayo, 2023

		Frequency	Percentage
Valid	Low	125	33.7
	Medium	123	33.2
	High	123	33.2
	Total	371	100.0

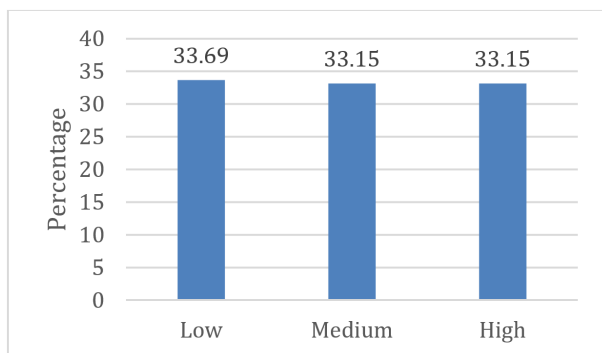


Figure 2. Level of sexual attitudes in students of the Faculty of Health Sciences of a university in Huancayo, 2023

3.2. Hypothesis Testing

Normality Test

Ho: The sexual knowledge and attitudes variables follow a normal distribution.

H1: The sexual knowledge and attitudes variables do not follow a normal distribution.

Then, where p is the significance level:

If p is less than or equal to 0.05, the H_0 is rejected.

If p is greater than 0.05, the H_0 is not rejected.

Table 3 presents the data related to the normality test applied to determine whether the statistics follow a normal distribution. Two tests were used: the Kolmogorov-Smirnov normality test and the Shapiro-Wilk test.

Table 3. Data normality test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	gl	Sig.	Statistic	gl	Sig.
Knowledge	,123	371	,000	,965	371	,000
Attitudes	,081	371	,000	,981	371	,000

a. Lilliefors significance correction

We worked with a sample of 371 people, so the Kolmogorov-Smirnov test was used since the sample size is less than 371. As for the significance level, it is observed that it is 0.000, both for the knowledge variable and for the attitude variable. This means that the alternative hypothesis is accepted, indicating that there is a non-normal distribution in the data. Therefore, Spearman's Rho test is applied to test the hypothesis.

3.3. General Hypothesis

Hi: There is a positive relationship between sexual knowledge and attitudes in students of the Faculty of Health Sciences of a university in Huancayo, 2023.

Ho: There is no positive relationship between sexual knowledge and attitudes in students of the Faculty of Health Sciences of a university in Huancayo, 2023.

In Table 4, Spearman's Rho coefficient for the hypothesis contrast test was $r=0.129$, with a bilateral significance of $p=0.013$, a value less than 0.05, which indicates that the null hypothesis is rejected and the alternative hypothesis is accepted. This means that there is a relationship between the variables of sexual knowledge and attitudes in students of the Faculty of Health Sciences of a university in Huancayo, 2023.

Table 4. To determine the relationship between sexual knowledge and attitudes in students of the Faculty of Health Sciences of a university in Huancayo, 2023

		Knowledge	Attitudes
Knowledge	Correlation coefficient	1,000	,129*
	Sig. (bilateral)	.	,013
Rho de Spearman	N	371	371
	Correlation coefficient	,129*	1,000
Attitudes	Sig. (bilateral)	,013	.
	N	371	371

*. The correlation is significant at the 0.05 level (bilateral).

4. Discussion

Research shows that young people have low levels of information about sexuality, reproduction, contraception and sexually transmitted diseases. Likewise, it is shown that during childhood, adolescence and early adulthood, individuals have been forming their opinions about who they are and how they should act concerning their sexuality.

Accordingly, the results of the present study showed that 36.9% of the students had a medium level of knowledge about sexuality; 34.2% had a low level of knowledge; while the remaining 28.8% had a high level of knowledge. These results are consistent with another research conducted in Peru [6,7].

Thus, by establishing that the level of knowledge about sexuality was represented by 36.9 %, it is evident that students have a balanced and moderate understanding of topics related to sexual health. This finding indicates that, although students have some degree of familiarity with key aspects of sexuality, there are no extremes of total lack of knowledge or advanced understanding. This balance

reflects the effectiveness of the faculty's existing educational programs, but also provides an opportunity to adjust and improve instruction to address specific areas that could benefit from further deepening.

These results are consistent with the study of Lyu et al. [31], who note that most of those analyzed have average knowledge. Likewise, the study by Zelada [32] argues that the level of knowledge is classified as an average range. On the other hand, the study by Guan [33] evidences that the level of knowledge is limited regarding contraceptive methods and that most of the students get information through the Internet or programs, and only 54% do so through their school. On the other hand, Bustamante's research [34] differs from the results found in his research conducted with nursing students, because it was found that most of them (58.7%) have a good level of knowledge.

Likewise, when establishing the level of sexual attitudes in Health Sciences students, it was obtained that most of them have a low attitude (33.7%); this means that there is no homogeneity in the attitudes towards sexuality within this student group and that opinions can vary widely. These results coincide with the study by Shin et al. [18], in which it was found that attitudes are low, due to low knowledge.

When studying the level of sexual attitudes, it is essential to consider a decisive aspect of people's sexuality, and that is the cultural aspect. The study by Alomair et al [35] shows how the low levels of sexual attitudes among university students may be because many countries do not consider this issue a priority, despite the efforts of those who defend the need to educate young people about sexual health issues and provide adequate services to those who need them. This is due, in some cases, to reluctance because of cultural sensitivities surrounding sexuality, especially that of young people.

In addition, research conducted on the topic of sexual attitudes shows that there are cultural influences on knowledge and attitudes about sexually transmitted infections (STIs), for example, negative attitudes toward HIV-infected persons and unfavorable attitudes toward STI education, prevention, and testing. This can be seen in studies conducted in the United Arab Emirates, Iran, Saudi Arabia, and Egypt, among others. These countries are characterized by personal, cultural, and religious barriers, highlighting religious barriers, which highlight the importance and influence of culture on the sexual attitudes of a particular population [35].

On the other hand, it was possible to determine the relationship between knowledge and sexual attitude in Health Sciences students, obtaining that many of them are at a medium-low level. In addition, when establishing the correlation between the variables, a level of association was obtained between them, and they are statistically significant; this means that as students acquire more information and understanding about issues related to sexual health, their attitudes towards sexuality will be more positive.

In turn, sexual health education provided in the

academic setting contributes to greater awareness and informed decision-making in this aspect of students' lives, promoting more open and positive attitudes. These results coincide with the research of Guan [33], who found a positive relationship between the variables of knowledge and sexual attitude. Along the same line, the study by Boey and Ng [36], conducted with nursing students, determined that the variables are related with a significance of 0.047. Also, the study by Salazar [30], conducted with obstetrics students, found a significant relationship between the variables.

Both the findings of this study and those examined agree and suggest that the level of knowledge constructively influences the formation of healthy and respectful attitudes toward sexuality.

5. Conclusions

The life of a college student is marked by the topic of sexuality, beyond the possible existing social and cultural differences. And because many of the young people learn about sexuality in their closest environment -their friends-, incomplete and faulty information has become frequent, which can lead to unsafe sexual practices. From the students surveyed, a high level of knowledge about sexuality was expected, however, the results achieved showed that this level was at a mid-point.

The students knew contraceptive methods, however, many of them did not use them correctly, although they are very important to prevent unwanted pregnancies and sexually transmitted infections. Regarding sexual attitudes, it could be observed that this is low. In this variable, dimensions referring to heterosexuality, abortion, sexual myths, and masturbation were considered.

It is concluded that the sexual knowledge and attitudes of the students of the Faculty of Health Sciences of a university in Huancayo are significantly related. In this sense, it was evidenced that an education oriented to increase sexual knowledge and to achieve changes in negative attitudes can allow the student to perform adequately in the social sphere.

Based on the above, it is necessary to implement specific educational interventions to improve understanding and awareness of sexual issues. These interventions could include sex education programs that address not only biological but also emotional and ethical aspects. In addition, consideration could be given to the implementation of open and accessible discussion spaces for students to express their concerns and receive appropriate guidance. This would not only strengthen knowledge in this area but would also foster healthier and more respectful attitudes, thus contributing to the overall well-being of university students.

Finally, since these results were obtained in a sample of students belonging to the Faculty of Health Sciences of a university in Huancayo, it is suggested to extend this type

of research to a population that includes the rest of the faculties or, if possible, to other university institutions in the region. This is to corroborate the results obtained in the present study.

REFERENCES

- [1] OMS, "Sexual Health", 2022. <https://www.who.int/es/health-topics/sexual-health>
- [2] OPS, "Sexual and Reproductive Health", 2022. <https://www.paho.org/es/temas/salud-sexual-reproductiva>
- [3] MINSA, "Minsa: El 77.4% de mujeres en edad reproductiva usa métodos anticonceptivos en el Perú", 2021. <https://elperuano.pe/noticia/126386-minsa-el-774-de-mujeres-en-edad-reproductiva-usa-metodos-anticonceptivos-en-el-peru>
- [4] INEI, "Main results of the Demographic and Family Health Survey, 2021", 2022. <https://www.inei.gob.pe/media/Men uRecursivo/boletines/endes-2021-presentacion.pdf>
- [5] Mesa de Concertación para la Lucha contra la Pobreza, "Mortalidad materna y embarazo en adolescentes en el contexto de COVID-19. A problem of human rights, inequity and development", 2022. <https://www.mesadeconcertacion.org.pe/storage/documentos/2022-09-27/mclcp-ca rtila-preveniciondelembrazoenadolescentes-2022-vf6.pdf>
- [6] Luque, S., "Level of knowledge on sexual and reproductive health among adolescents in an educational institution in Lima, Peru", *Agora Rev. Cien*, vol. 10, no. 1, 26:30, 2023. <https://revistaagora.com/index.php/cicUMA/article/view/234>
- [7] Cuadra, M., Solano, M., Paz, E., Izquierdo, M., Córdova, F., Tapia, Carlos., Gutiérrez, A., "Level of knowledge and practices on sexual and reproductive health among university students of Trujillo", *Revista de investigación estadística*, vol. 4, no. 1, 2022.
- [8] Requejo, C. B., "Level of knowledge of sexually transmitted infections and attitude towards risky sexual behaviors in nursing students, Universidad Nacional Autónoma de Chota, 2022", 2023. <http://repositorio.unach.edu.pe/handle/20.500.14142/375>
- [9] Cáceres J., Chupan, S., "Relationship between the level of knowledge and attitudes about sexuality in students of a private university, Huancayo—2021", *Universidad Peruana Los Andes*, 2022. <http://repositorio.upla.edu.pe/handle/20.500.12848/4176>
- [10] Lyu J, Shen X, Hesketh T. "Sexual Knowledge, Attitudes and Behaviours among Undergraduate Students in China—Implications for Sex Education", *International Journal of Environmental Research and Public Health*, vol. 17, no. 18, 6716, 2020. <https://doi.org/10.3390/ijerph17186716>
- [11] Avilés, C., Untoja, D., Vasque, J., "Ethics of sexuality and prior knowledge in young university students," *Ciencia Latina Revista Científica Multidisciplinar*, vol. 7, no. 4, 2023. https://doi.org/10.37811/cl_rcm.v7i4.7136
- [12] Ramírez, A., "Open Knowledge: Definition, tools and resources", *Open to people*, 2022, julio 25. <https://blogs.iadb.org/conocimiento-abierto/es/conocimiento-abierto/>
- [13] Giraldo R., "The concept of relationship in knowledge processes", *Ingenio Libre*, vol. 7, no. 17, 2019. https://revistas.unilibre.edu.co/index.php/inge_libre/article/view/6259
- [14] Fernández, Y., Calle, A., "Knowledge about sexuality and its link with sexual behavior", *Manglar Revista de Investigación Científica*, vol. 14, no. 2, pp. 157-164. <https://erp.untumbes.edu.pe/revistas/index.php/manglar/article/view/84/146>
- [15] Sotomayor M., "Influence of knowledge on sexual and reproductive health education in secondary education Lima, Peru", *Paideia XXI*, vol. 12, no. 1, 2022. <https://doi.org/10.31381/paideia.v12i1.4384>
- [16] Delgado P., "The importance of sex education", *Observatory / Institute for the Future of Education*, 2022, agosto 18. <https://observatorio.tec.mx/edu-news/la-importancia-de-la-educacion-sexual/>
- [17] Andrade-Valles A., Arciniega F., Guerra Q., de la Torre A., Ramírez F., González R., "Attitude, study habits and academic performance: Approach from the theory of reasoned action", 2018. https://www.scielo.org.mx/scielo.php?script=sci_arttextpid=S1665-70632018000400342
- [18] Shin H., Lee J. M., Min J., "Sexual Knowledge, Sexual Attitudes, and Perceptions and Actualities of Sex Education among Elementary School Parents", *Child Health Nursing Research*, vol. 25, no. 3, pp. 312-323, 2019. <https://doi.org/10.4094/chnr.2019.25.3.312>
- [19] Alonso L., Heras D., Charilaou L., Puente J., Fernández M., "Different attitudes towards sexuality among first- and fourth-year nursing students", 2022. https://scielo.isciii.es/scielo.php?script=sci_arttextpid=S1695-61412022000100473
- [20] Estada S., Arjona N., Pérez G., "Attitudes towards sexuality and gender equality among adults and young people in rural and urban areas of Campeche, Mexico", *Revista Sexología y Sociedad*, vol. 26, no. 2, pp. 146-158, 2020.
- [21] Rincón Barreto, D. M., Acosta-Barreto, M. R., & Fajardo-Tejada, D. M. "Sexual attitudes according to the level of severity of the cranioencephalic trauma", *Revista Colombiana de Ciencias Sociales*, vol. 13, no. 1, pp. 22-42, 2022. <https://doi.org/10.21501/22161201.3527>
- [22] Restrepo, Pineda, JE., Villegas, Rojas S., "Factors associated with condom use among Venezuelan sex workers in Colombia", *Rev Panam Salud Publica*, Vol. 47: e2, 2023. <https://doi.org/10.26633/RPSP.2023.2>
- [23] Jiménez J., Contreras I., Ornelas M., "Quantitative and qualitative as methodological underpinnings in educational research: An epistemological analysis", *Revista humanidades*, vol. 12, no. 2, 2022. <https://doi.org/10.15517/h.v12i2.51418>
- [24] Arispe C., Yangali J., Guerrero M., Lozada O., Acuña L., Arellano C., "Scientific research", *Digital Books, GUAYAQUIL/UIDE/2020*, 2020. <https://repositorio.uide.edu.ec/handle/37000/4310>

- [25] Hernández R., Mendoza C., "Research methodology: Routes: quantitative, qualitative and mixed", Mc Graw Hill educación, 2018. <http://repositorio.uasb.edu.bo/handle/54000/1292>
- [26] Guevara G., Verdesoto A., Castro N., "Educational research methodologies (descriptive, experimental, participatory and action research)", RECIMUNDO, vol. 4, no. 3, pp. 163-173, 2020.
- [27] Arias J., "Thesis project: Guide for the elaboration of a thesis Repositorio CONCYTEC", 2020. <https://repositorio.concytec.gob.pe/handle/20.500.12390/2236>
- [28] Motedayen, M., Kalantarkousheh, S., Scheier, L., Komarc, M., "Psychometric validation of the Sexual Knowledge and Attitudes Test –Adolescents (SKAT-A) in an Iranian sample", Cogent Psychology, vol. 6: 1585505, 2019. <https://doi.org/10.1080/23311908.2019.1585505>
- [29] Sümer, Z. H. "Gender, Religiosity, Sexual Activity, Sexual Knowledge, and Attitudes Toward Controversial Aspects of Sexuality", Journal of Religion and Health, vol. 54, no. 6, 2033–2044, 2014. <https://doi.org/10.1007/s10943-014-9831-5>
- [30] Salazar N., " Relationship between Salazar's level, knowledge and attitudes about human sexuality in university students", Universidad Nacional Mayor de San Marcos, 2018. <https://cybertesis.unmsm.edu.pe/handle/20.500.12672/7889>
- [31] Lyu J., Shen X., Hesketh T., "Sexual Knowledge, Attitudes and Behaviours among Undergraduate Students in China-Implications for Sex Education", International Journal of Environmental Research and Public Health, vol. 17, no. 18, p. 6716. 2020. <https://doi.org/10.3390/ijerph17186716>
- [32] Zelada C., "Sexual knowledge and attitudes among adolescents in secular and religious educational institutions in Metropolitan Lima", Universidad Ricardo Palma, 2020. <https://repositorio.urp.edu.pe/handle/20.500.14138/3220>
- [33] Guan M., "Sexual and reproductive health knowledge, sexual attitudes, and sexual behavior of university students: Findings of a Beijing-Based Survey in 2010-2011", Archives of Public Health, vol. 79, no. 1, p. 215, 2021. <https://doi.org/10.1186/s13690-021-00739-5>
- [34] Bustamante H., "Relationship between knowledge and attitudes towards prevention of sexually transmitted infections in nursing students", Universidad de Huánuco 2019, 2021.
- [35] Alomair N., Alageel S., Davies N., Bailey J., "Sexually transmitted infection knowledge and attitudes among Muslim women worldwide: a systematic review", Sexual and Reproductive Health Matters, vol. 28, no. 1, pp. 113-128, 2020. <https://doi.org/10.1080/26410397.2020.1731296>
- [36] Boey K. W., Ng A. H. N., "Enhancement of Hong Kong nursing students' knowledge and attitudes regarding sexuality in older adults", International Journal of Sexual Health, vol. 32, no. 4, pp. 342–356, 2020. <https://doi.org/10.1080/19317611.2020.1818661>