

SEXUAL AND CONTRACEPTIVES ATTITUDES, THE LOCUS OF HEALTH CONTROL AND SELF-ESTEEM AMONG HIGHER EDUCATION STUDENTS

As atitudes sexuais, contraceptivas, o locus de controle da saúde e a autoestima em estudantes do ensino superior

Las actitudes sexuales, contraceptivas, el locus de control de la salud y la autoestima de los estudiantes de enseñanza superior

Original Article

ABSTRACT

Objective: To analyze the relationship between sexual and contraceptive attitudes, the locus of health control and self-esteem among students of a private institution of higher education. **Methods:** Descriptive and correlational study with a quantitative approach, performed in a higher education school in Lisbon, with 152 students, from the 1st to the 4th year of undergraduate courses in Nursing, Physiotherapy, Cardiopneumology and Radiology. As research instrument, it was used a questionnaire with rating scales on 'sexual attitudes', 'contraception attitudes', 'locus of health control' and 'self-esteem'. The data obtained was analyzed using descriptive and inferential statistics. **Results:** The majority of students (90.7%) have already had sexual intercourse. Sexual attitudes were influenced by gender ($p=0.0035$), but not by the start of sexual activity or by the course's year ($p>0.05$). Contraceptive attitudes were related to the year that students attended ($p=0.031$) and to gender ($p=0.029$). The external locus of control, on average, was higher among girls (29.2) than boys (30.1). The self-esteem increased with the student's age ($p=0.003$). **Conclusion:** Investment in the area of sexual education is needed in the undergraduate programs, since the young people live their days in the school setting, spending little time with their families. The university should assume a special position in the development of the concept of sexuality based on the holistic perspective of the human being, promoting sexual education as essential in the construction of human identity and fundamental for health promotion.

Descriptors: Students; Education, Higher; Sexual Behavior; Contraception; Health; Self Concept.

RESUMO

Objetivo: Analisar as relações entre as atitudes sexuais, contraceptivas, o locus de controle da saúde e a autoestima nos estudantes de uma instituição de ensino superior privado. **Métodos:** Estudo descrito e correlacional, de abordagem quantitativa, realizado numa escola de ensino superior da região de Lisboa, com 152 estudantes do 1º e 4º anos dos cursos de licenciatura em Enfermagem, Fisioterapia, Cardiopneumologia e Radiologia. Utilizou-se como instrumento de pesquisa um questionário com as seguintes escalas de avaliação: "atitudes sexuais", "atitudes contraceptivas", "locus de controle da saúde" e "autoestima". Os dados obtidos foram submetidos à análise descritiva e inferencial. **Resultados:** A maioria dos estudantes (90,7%; $n=138$) já teve relações sexuais. As atitudes sexuais foram influenciadas pelo gênero ($p=0,0035$), e não pelo início da atividade sexual ou pelo ano de curso ($p>0,05$). As atitudes contraceptivas estavam relacionadas ao ano que os estudantes frequentavam ($p=0,031$) e ao gênero ($p=0,029$). O locus de controle externo, em média, foi mais elevado nas raparigas (29,2) que nos rapazes (30,1). A autoestima aumentou com a idade dos estudantes ($p=0,003$). **Conclusão:** É necessário um investimento em educação sexual no ensino superior, pois os jovens vivem os seus dias inseridos no ambiente escolar, passando pouco tempo junto das famílias. A universidade deve assumir uma posição especial no desenvolvimento do conceito de sexualidade baseado na perspetiva holística do ser humano, promovendo a educação sexual como fundamental na construção da identidade humana e imprescindível na promoção da saúde.

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Descritores: *Estudiantes; Educação Superior; Comportamento Sexual; Contracepção; Saúde; Autoimagem.*

RESUMEN

Objetivo: *Analizar las relaciones entre las actitudes sexuales, contraceptivas, el locus de control de la salud y la autoestima de los estudiantes de una institución privada de enseñanza superior. Métodos:* *Estudio descripto y de correlación, de abordaje cuantitativo realizado en una escuela de enseñanza superior de la región de Lisboa con 152 estudiantes del 1º y 4º años de los cursos de licenciatura en Enfermería, Fisioterapia, Cardioneumología y Radiología. Se utilizó como instrumento de investigación un cuestionario con las siguientes escalas de evaluación: “actitudes sexuales”, “actitudes contraceptivas”, “locus de control de la salud” y “autoestima”. Los datos obtenidos fueron sometidos al análisis descriptivo y de inferencia. Resultados:* *La mayoría de los estudiantes (90,7%; n=138) ya tuvieron relaciones sexuales. Las actitudes sexuales fueron influenciadas por el género ($p=0,0035$) y no por el inicio de la actividad sexual o por el año del curso ($p>0,05$). Las actitudes contraceptivas estuvieron relacionadas al año en el cual los estudiantes se encontraban ($p=0,031$) y al género ($p=0,029$). El locus de control externo, en media, fue más elevado en las mujeres (29,2) que en los hombres (30,1). La autoestima aumentó con la edad de los estudiantes ($p=0,003$). Conclusión:* *Es necesario una inversión en educación sexual de la enseñanza superior pues los jóvenes viven sus días en el ambiente escolar quedándose poco tiempo junto a sus familias. La universidad debe asumir una posición especial en el desarrollo del concepto de sexualidad basado en la perspectiva holística del ser humano promoviendo la educación sexual como fundamental para la construcción de la identidad humana e imprescindible para la promoción de la salud.*

Descritores: *Estudiantes; Educación Superior; Conducta Sexual; Anticoncepción; Salud; Autoimagen.*

INTRODUCTION

Youth and adolescence are periods in life characterized by the maturation process and the adjustment of attitudes and competences for an effective management of personal wellbeing and also for effective social participation⁽¹⁾.

Improving health of adolescents and youngsters should be, today, one of the concerns of health care professionals, mainly those who start university and face a hiatus in sex education legislation. The development of useful programs for promoting health at university should start from a deep understanding of students' main needs and problems⁽²⁾.

Investigations in the United States of America, United Kingdom^(2,3) and Canada⁽³⁾ revealed that university students had different opinions on sexuality, a little knowledge of contraceptive methods⁽³⁾ and negative attitudes concerning infidelity and multiple sexual partners⁽²⁾. In Portugal,

there are few studies on aspects related to the sexuality of university students in the past ten years^(4,5).

Students who are more informed tend to adopt healthier lifestyles based on immunogenic behaviors. These behaviors result from the development of mental processes with underlying conceptions, ideas, beliefs, emotions, fantasies, desires, motivations and knowledge. Thus, studies have shown that socio-cognitive dimensions that justify the adoption of responsible and healthy sexuality^(1,4) are associated with the locus of control⁽²⁾ and the self-esteem of adolescents and youngsters⁽⁵⁾.

Sexuality also has an emotional perspective – a core element in the formation of identity of adolescents and interpersonal relationships, especially love relationships – that increases self-esteem⁽⁵⁾.

Individual and family attributes affect the decision on the sexuality experience and the deliberation of sex initiation^(1,6). Adolescents with high self-esteem and self-control tend to initiate sex later and have positive attitudes concerning contraceptive methods^(2,5,6).

Sexual behavior of adolescents and youngsters are often evaluated by the number of sexual partners, frequency of sexual activities and the age they initiated sex⁽⁶⁾. Other studies focused on sexual attitudes, including moral liberalism/conservatism, premarital sex and sporadic sex or sex with many partners⁽⁷⁾.

The literature highlighted that more information and a higher level of motivation for contraception can make youngsters change their attitudes and hence their behaviors in favor of a more positive and responsible sexual experience^(5,7,8). However, another study⁽⁹⁾ revealed that there is no significant association between the use of contraceptive methods and the degree of knowledge regarding the contraception used by youngsters.

In Portugal, 52.6% of young university students reported they always wore condoms in all sexual acts⁽¹⁰⁾. Studies conducted in other countries showed similar results, revealing that condom is the most used method, followed by hormonal contraceptives⁽⁸⁾. For others, the combined use of condom and birth control pill is a reality⁽⁷⁾.

Sexual attitudes vary according to different factors inherent to the adolescent or the society they live in. Scientific evidence pointed physical pleasure, curiosity and a desire to have an experience as the aspects that are mostly valorized by boys in sex acts while love was the thing that motivated girls^(1,8). Concerning premarital sex, girls' attitudes were more often negative than boys' attitudes⁽¹⁾. The same author concluded that adolescents and youngsters presented sexual attitudes that revealed a great permissiveness, sexual communion and liberation of sexual practices and little physical pleasure⁽¹⁾.

The World Health Organization (WHO) recommends two strategies to reduce pregnancy rate among adolescents/youngsters and the proliferation of Sexually Transmitted Infections (STIs): fidelity (that is, keeping sexual relationships with the same partner) and the use of the condom. The WHO decided to call it the “ABC for HIV prevention” – A refers to Abstinence (abstinence or delay of sexual debut among youngsters); B refers to Being faithful (to be faithful or keep committed relationships with sexual partners), and C for Condom use (correct and constant use of the condom)⁽¹⁰⁾.

Sexual abstinence is the practice of refraining from aspects of sexual activities⁽¹⁰⁾. This measure eliminates the risk of transmission of any sexually transmitted diseases; however, it is a private decision, and it cannot be used as a prevention method for the whole population⁽¹⁰⁾. Regarding fidelity, it is only effective when the couple is committed. It assumes that the relationship is established between two people only depending on the cultural context⁽¹⁰⁾. The meaning of fidelity is associated with the decision to use the condom⁽¹⁰⁾. Its use is reduced according to the duration, intimacy and commitment of the relationship⁽⁴⁾, which can increase the exposure to risky behaviors⁽¹⁾.

The use of condoms depends on personal, social and circumstantial factors⁽¹⁾, and it relatively increases in occasional relationships or the beginning of a new relationship^(3,7). As time goes by, confidence is built by the couple and the risk of STIs decreases, a moment when the use of the condom is changed for hormonal contraception⁽⁴⁾. Thus, the literature shows that as love and sexual relationship goes on, the chances of using condoms consistently decrease⁽¹¹⁾. The probability of using a condom also varies due to low education level, age⁽⁷⁾ and early sexual initiation^(11,12).

Thus, it is important to highlight that when calculating the risks of transmission, the calculation of the chances of using or not condoms considerably depends on the sexual histories of individuals and the relevant role of affective-sexual interactions in preventive behaviors⁽¹⁾. On the other hand, individuals’ reflexive mobilization of strategies for early prevention is preferably linked to other types of factors that relate to individual perceptions of “being at risk” and preventive logic. Changing behaviors, selecting partners and questioning about their past are attitudes that emerge when there is fear of getting infected^(4,6).

Although the literature researched refers to the “ABC approach” as a strategy for prevention of risky behaviors, we, health care professionals, should not judge people, their behaviors and lifestyle, even though our intervention can implicitly apply the ABC model for the use of condoms⁽¹⁾.

The locus of control refers to an individual’s capacity to rule or refrain from getting involved in undesirable health

behaviors, i.e., it is associated with disease prevention and, consequently, the self-monitoring of health promotion and adherence to health rehabilitation programs.

The results of some studies have shown that most participants who changed their risky behaviors had high levels of internal locus of control⁽¹³⁾. Individuals with an external locus of control may have difficulties to keep health behaviors and change risky behaviors. Thus, some authors point that the locus of control has an influence on individual decision-making concerning sexual and reproductive health, especially when it comes to safe sex and use of contraceptives⁽¹³⁾.

Boys’ and girls’ concerns about sexual satisfaction and pleasure have considerably increased over the past years. Therefore, there is an increasing need for a better understanding of sexual difficulties, their causes and consequences⁽¹⁰⁾.

It is known that sexuality is part of people’s total personality. Human sexuality is not limited to the sexual act only; it includes emotions, affections, sensations, etc. Thus, self-esteem can be understood as the acknowledgement of what one is and how he/she is. It is a trust in the right to be happy, in the perception of the value of the chance to be admired. The sensation of inadequacy, blame or shame, or even a lack of trust and self-love indicates harms to individual’s self-esteem⁽¹⁴⁾.

Adolescence and youth are characterized by physical, psychic and social changes^(1,2). Adolescents build their body image from sensations and emotions transmitted by the world around them⁽²⁾. The cult of the body and the concern about appearance are necessary for adolescents’ image and self-esteem⁽¹²⁾. The concern for the body and self-image are very relevant in the stage of life because it is through them that students differ from the group.

Within this context, the positive self-image is extremely important for it will psychologically and socially influence the student, changing into one of the determinant factors for the manifestation of his/her sexuality⁽¹⁴⁾. Low self-esteem in adolescents seems to be associated with the difficulty to make decisions⁽¹⁾, the non-use of contraceptives, the non-acceptance of the body and the early initiation of sexual relationships^(11,12).

In order to keep their relationship – because these are important for them –, girls present a lack of authenticity in the relationships and passivity concerning their sexual pleasure, ignoring their own needs and desires to avoid conflicts⁽¹⁴⁾. Such attitude has effects on pleasure that are evidenced by the desire to withhold unwanted sex, the use of condoms and the small number of sexual partners⁽¹⁵⁾.

Within this context, this study aimed to analyze the association between sexual and contraceptive attitudes, the

locus of control of health and the self-esteem of students from the 1st and 4th years of university.

METHODS

This is a descriptive and correlational study. Authorization to conduct this research was requested from the board of directors of a private higher education institution from Lisbon. The population consisted of students from that institution. It used a non probability intentional sampling that included students from the 1st and 4th years (249 students) in order to analyze possible differences due to the frequency of a health course.

After coordinators had revealed the objectives of the study and awareness-raising sessions were carried out with the participants, the sample ended up with 152 (61%) students of Nursing, Physiotherapy, Cardiopneumology and Radiology who volunteered to participate in the study. Data collection took place between May to July 2011. The duration of the instrument application was around 40 minutes.

For understanding sexual attitudes as a multidimensional concept, we decided to use the Sexual Attitudes Scale⁽¹⁶⁾ which comprises 43 items divided into four subscales that correspond to the following dimensions: 1) sexual permissiveness (0.83) – it refers to attitudes concerning “occasional sex,” “uncommitted sex” and the diversity and simultaneity of sexual partners; 2) sexual communion (0.71) – it refers to attitudes concerning “sex as an intimate, physical and psychological experience with sharing, commitment and idealism”; 2) sexual practices (0.65) – “attitudes concerning family planning and sex education” and “acceptance of practices such as masturbation”; 4) unconventional sex and physical pleasure (0.58) – it clearly indicates an attitude directed to “functional sex,” aiming to get physical pleasure only.

The Contraceptive Attitude Scale⁽¹⁷⁾ is constituted by 11 items that assess attitudes concerning the partner’s and the own use of contraceptive methods. The results obtained can range from 11-55 scores, with the highest score suggesting positive attitudes for the use of contraceptive/risk prevention. Regarding psychometric qualities of the original version, the test presented values of 0.88.

Regarding the Health Locus of Control Scale⁽¹⁸⁾, it is constituted by two dimensions: locus of control (0.74): eight items; and powerful others (0.67): six items. This scale comprises items relating to internal locus of control (e.g. luck plays an important role in the amount of time one takes to recover from the disease) and external locus of control (e.g. attending medical appointments regularly is a way to avoid getting sick). The result is the sum of all the items of the scale, which can range from 14-98 scores. The

lowest score corresponds to the external locus; the highest score corresponds to the internal locus.

Self-esteem was assessed by using the Self-esteem Scale⁽¹⁹⁾, which is constituted by 10 items about the feelings of acceptance and respect for oneself. Half the items are positively enunciated, and the other half are negatively enunciated. The scale has a total scoring ranging from 10-40. High scores reflect high self-esteem. The scale has two subscales: negative self-esteem and positive self-esteem, with an internal consistency of 0.63 and 0.74 respectively.

The analyses and statistical procedures were performed through the software Statistical Package for Social Sciences (SPSS), version 20.0 for Windows using descriptive and inferential statistics.

RESULTS

The sample consisted of 152 university students of which 75 (49%) studied Nursing; 33 (21.8%) Physiotherapy; 29 (19.2%) Cardiopneumology; and 15 (10%) Radiology. Regarding the distribution per year, 56 (37.1%) attended the 1st year and 96 (62.9%) attended the 4th year.

Most students (82.2%; n=125) were girls with an average age of 22 years (SD= ±3.59); 141 (92.8%) students were single; 103 (67.8%) were catholic; and 105 (69.1%) lived with parents during school time. By analyzing it by course, we can say there is a trend of the results across all of them.

Concerning sexual initiation, it stands out that 137 (90.1%) students have already had sexual relationships with an average age of 17 years (SD= ±1.70).

The use of contraceptive methods was reported by 133 (87.5%) interviewees, with condom being the most used method (44.7%; n=68), followed by the combined use of condom and pill (36.2%; n=55).

When assessing the current love relationship, it could be verified that 98 (64.9%) individuals dated and kept sexual relationships with their current partner. Comparing to the results for sexual initiation, the use of contraceptive methods dropped (63.8%; n=97), just as the use of the condom (12.5%; n=19), while the use of the pill increased (33.6%; n=51).

About sexual attitudes, the consistency of the scale applied presented Cronbach’s alpha values superior to those presented by the original scale for the dimensions “sexual communion” (0.73); “sexual practices” (0.75) and “physical pleasure” (0.69) but not for “sexual permissiveness” (0.81).

There are differences, in terms of weighted average, in sexual attitudes between young boys and young girls. Boys presented higher scores for sexual attitudes than girls did – permissiveness (M=57.75); sexual communion (M=55.23);

practices ($M=51.5$); physical pleasure ($M=58.9$). Thus, we can affirm that the idea that sexual attitudes are influenced by student's gender is statistically significant ($p=0.0035$). Sexual attitudes do not correlate to sexual initiation and the course year ($p>0,05$).

Sexual permissiveness ($p=0.037$) and sexual practices ($p=0.029$) influenced the use of contraceptive methods. However, it did not present statistically significant relations to other dimensions.

Median values were higher for boys in all subscales, with a bigger difference in "permissiveness". This shows that boys had more functional attitudes for sex than girls did, revealing attitudes of greater compliance with occasional sex, uncommitted sex and diversity of partners. The only exception refers to items concerning responsibility, for which girls present higher scores than boys do, revealing a greater compliance with shared family planning and sex education.

Regarding contraceptive attitudes – considering the scale ranges from 11 (negative) to 55 (positive) – they were different according to the year the student attended, becoming more positive as the student advanced in the course – 41 in the 1st year and 49 in the 4th year.

Girls presented more positive contraceptive attitudes (51), especially for the need to use condoms even if they knew their sexual partner for a long time. It was verified that contraceptive attitudes were influenced by the year the student attended at university ($p=0.031$) and by the gender ($p=0.029$).

The internal consistency of the health locus of control scale was 0.70 for the internal locus of control subscale and 0.62 for the external locus of control and powerful others. Cronbach's alpha values were significantly lower than those of the original scale. The scale ranges from 14 (external locus of control and powerful others) to 98 (internal locus of control) scores. We can say that the external locus of control was a little higher among girls (29.2) than among boys (30.1), but it was not significant.

There were no statistically significant differences ($p>0.50$) when relating the locus of control to gender, and the year students attended at university.

Regarding the self-esteem scale, the internal consistency of the negative self-esteem subscale was 0.61 and the negative self-esteem subscale was 0.67. These values are slightly lower than those of the original scale, with the scoring ranging from 10 (low self-esteem) to 40 (high self-esteem). Therefore, boys' self-esteem ($M=37.2$) is higher than girls' self-esteem ($M=29.1$). It was verified, then, that the relation between students' gender and self-esteem was statistically significant ($p= 0.001$).

There were no statistically significant relations between sexual initiation and self-esteem ($p>0.05$).

Concerning the relation between age and self-esteem, it was verified that both had proportionally increased ($p=0.003$).

DISCUSSION

The data from this study showed that adolescents initiate sexual life earlier and earlier, around the age of 14-16, although this average age is slightly superior to those presented by other studies^(1,3,12). Thus, the following items stand out as protective factors for adolescents: high education level⁽⁸⁾, better social conditions^(1,7) and living with both parents⁽¹³⁾ – for they can delay sexual initiation and facilitate the use of protective devices in the first sexual intercourse. This may justify the results of this research since the sample consisted of students of a private higher education institute, i.e., the students had socioeconomic resources above the average and lived with their parents. These factors may have contributed to delay sexual initiation.

The use of contraceptive methods reported in this study, especially the use of the condom and the combined use of condom and pill, is corroborated by other studies^(8,9,13,18). However, literature shows that youngsters generally use contraceptive methods in a little consistent way, exposing themselves to risky behaviors. The reasons are: loss of pleasure⁽¹¹⁾, lack of knowledge⁽¹⁾ and the embarrassment of getting contraceptive devices⁽¹¹⁾.

When assessing the current love relationship, it could be noticed that the use of the pill by students increased. Although this research did not assess the duration of the relationship, the pill emerges as the most used contraceptive method, which is partially in accordance with other studies^(13,14,19) that revealed that as the relationship gets stronger and lasts longer, the condom is substituted by the pill.

Concerning sexual attitudes, it was verified that boys' median values are higher than girls' values in all subscales. These data are in accordance with the literature searched^(1,17,20), which report that men are more permissive than women and have more sexual communion, sexual practices and physical pleasure. In another study, half of male participants reported that the family planning is a woman's issue⁽²¹⁾.

Regarding contraceptive attitudes, girls showed more positive attitudes; however, there is not an agreement in the results of the researched studies, and they do not show results by gender. In a study⁽¹⁾, adolescents stated that contraceptive attitudes could interfere with the heat of the

moment and hence diminish sexual pleasure. However, in other studies^(5,12,15), adolescents and youngsters stated that contraceptive attitudes that were responsibly adopted made sexual relations more pleasurable for both partners.

Concerning the locus of control, there were no significant differences by gender. The results obtained are not in accordance with the researched literature, which reports that boys present an external locus of control (powerful others) higher than girls⁽²²⁾. Adolescents and youngsters – thinking they have no power on external forces – do not make any efforts to change or improve the situation, leading them to indulgence and sexual promiscuity and making them more vulnerable to risky behaviors⁽¹³⁾.

Just like the researched literature, the self-esteem of most of the boys from this study was higher than the girls' self-esteem. In general, girls present significantly low average levels of self-esteem and from mid-adolescence, early youth and the whole adulthood, self-esteem tends to be stable^(16,23,24). The drop in girls' self-esteem may be associated with physical demands (compliance with ideals of physical beauty) and social demands (be good students and have a good behavior)⁽²⁴⁾. Another study⁽²⁵⁾ concluded that a high self-esteem has opposite effects in men and women – at least with regard to virginity and sexual initiation. High self-esteem helped women keep virginity longer, while the effect in men was just the opposite: the higher the self-esteem, the earlier they initiated sex.

Contrary to the results of this research, a study⁽²⁴⁾ reports that high self-esteem enhances sexual arousal, love relationships and sexual pleasure. In addition to this, self-esteem has been positively related to competency and decision-making concerning sexual initiation. In contrast, another study⁽²²⁾ revealed that adolescents with high self-esteem could get involved in unsafe sexual relations more often.

The current study verified that age and self-esteem proportionally increased. A few researches on this relation have been found; however, it is told⁽²⁵⁾ that self-esteem depended on the maturation of adolescents and youngsters, their life project and personal, social and family resources. For some, one way to keep a high self-esteem is to adopt risky behaviors – this occurs when adolescents and youngsters' success in socially desirable and acceptable areas is low⁽²⁵⁾.

Given the results above, there is an urgent need to apply this research in other universities, what should be done soon. We also intend to implement a sexual health program in the institution where this research took place in order to allow adolescents decide over their sexuality in an informed and responsible way. We will also establish partnerships with other higher education institutions and health institutions in

order to promote sex education at universities. In addition to this, to give visibility to this program, we will develop a guide with information on good sexual practices for university students that will be proposed to the Portuguese Order of Nurses.

CONCLUSIONS

The results of this research indicated that most students were girls around the age of 22 attending Nursing school. They initiated sex around the age of 17 and typically used condoms as their contraceptive method. It has been verified that the duration of the relationship reduced the use of contraceptive methods and, in most cases, led to the substitution of the condom for the pill.

Regarding sexual attitudes, we verified that they changed according to gender. Boys presented more permissiveness, sexual communion, sexual liberalization and they were more in favor of physical pleasure than girls. It is important to highlight that only sexual permissiveness and sexual practices of students influenced the use of contraceptive methods. Data also showed that their sexual attitudes did not depend on sexual initiation and course year.

The analysis of contraceptive methods showed they relate to the course year and gender of the interviewees. Positive attitudes increased from the 1st to the 4th year and were more often present among girls.

Concerning the relationship between locus of control, gender and course year of students, it has been verified that it is not statistically significant.

The results concerning self-esteem revealed that it was higher among boys and increased according to age; therefore, it was in accordance with the relation between gender, age and self-esteem of students that has been verified in our research. Regarding sexual initiation and self-esteem, no statistically significant relations have been found.

Finally, we can conclude that our goal has been partially achieved because some relations between all the investigated variables have not been found.

REFERENCES

1. Vilelas J. Influência da família e da escola na sexualidade do adolescente. Coimbra: Formasau; 2009.
2. Alvarez M, Nogueira J. Definições sexuais de estudantes universitários. *Psicol.* 2008;22(1):59-76.
3. Reis M, Matos MG. Contracepção: conhecimentos e atitudes em jovens universitários. *Psicol Saúde Doenças.* 2007;8(2):209-20.

4. Martins A, Nunes C, Muñoz-Silva A, Sánchez-García M. Fontes de Informação, conhecimentos e uso do preservativo em estudantes universitários do Algarve e de Huelva. *Psicol.* 2008;39(1):7-13.
5. Reis M, Matos MG. Comportamentos Sexuais e Influência dos diferentes Agentes de Socialização na Educação Sexual dos Jovens Universitários. *Rev Sex Planeam Fam.* 2008;48-49:22-29.
6. Weeden J, Sabini J. Subjective and objective measures of attractiveness and their relation to sexual behavior and sexual attitudes in university students. *Arch Sex Behav.* 2007;36(1): 79-88.
7. Manlove J, Welti K, Barry M, Peterson K, Schelar E, Wildsmith E. Relationship characteristics and contraceptive use among young adults. *Perspect Sex Reprod Health.* 2011;43(2):119-28.
8. Gavin L, Catalano L, Markham R. Positive youth development as a strategy to promote adolescent sexual and reproductive health. *J Adolesc Health.* 2010;46:S1-S6.
9. Falcão Júnior JSP, Rabelo S, Lopes E, Freitas L, Pinheiro A, Ximenes L. Profile and sexual practical of college students from health area. *Esc Anna Nery Rev. Enferm.* 2007;11(1): 58-65.
10. Cunha-Oliveira A, Cunha-Oliveira J, Pita J, Massano-Cardoso S. Obtaining condoms and their (non-) use by university students. *Rev Referência.* 2009;11:7-21.
11. Pingel E, Bauermeister J, Elkington K, Fergus S, Caldwell C, Zimmerman M. Condom use trajectories in adolescence and the transition to adulthood: the role of mother and father support. *J Adolescent Res.* 2012; 22(2):350-66.
12. Lebeso R, Maputle S, Ramathuba D, Khoza L. Factors influencing the uptake of contraception services by Vatsonga adolescents in rural communities of Vhembe District in Limpopo Province, South Africa. *Health SA Gesondheid.* 2013;18(1):1-6.
13. Gwandure C, Mayekiso T. Predicting HIV risk using a locus of control-based model among university students. *J Child Adolescent Mental Health.* 2010;22(2):119-29.
14. Brêtas J, Ohara C, Jardim D. O comportamento sexual de adolescentes em algumas escolas no município de Embu. *Rev Gaucha Enferm.* 2008;29(4):581-7.
15. Siebold C. Factors influencing young women's sexual and reproductive health. *Contemp Nurse.* 2011;37(2):124-36.
16. Alferes V. Encenações e comportamentos sexuais: para uma psicologia social da sexualidade. Porto: Edições Afrontamento;1997.
17. Reis M, Matos MG. Contraceção em jovens universitários portugueses. *Análise Psicológica.* 2008;1(26):71-9.
18. Ribeiro J. Reconstrução de uma escala de Locus-de-Controlo de Saúde. *Rev Psiq Clínica.* 1994;15(4):207-14.
19. Romano A, Negreiros J, Martins T. Contributos para validação da Escala de Autoestima de Rosenberg numa amostra de adolescentes da região interior norte do país. *Psicol Saúde Doença.* 2007;8(1):109-16.
20. Janeiro J. Sexual education of adolescents: a role for the family or the school?. *Rev Gaúcha Enferm.* 2008;29(3):382-90.
21. Commendador K. The relationship between female adolescent self-esteem, decision making, and contraceptive behavior. *J Am Acad Nurse Prac.* 2007;19(11):614-23.
22. Alves A, Lopes M. Locus of control and contraceptive knowledge, attitude and practice among university students. *Rev Saúde Pública.* 2010;44(1):39-44.
23. Ruth Y, Ulrich O. Self-Esteem Development From age 14 to 30 years: a longitudinal study. *J Pers Soc Psychol.* 2011;101(3):607-19.
24. Michael Y, Faahb J, George D. Area specific self-esteem, values, and adolescent sexual behavior. *American J Health Educ.* 2010;36(7):282-9.
25. Spencer J, Zimet G, Aalsma M, Orr D. Self-esteem as a predictor of initiation of coitus in early adolescents. *Pediatrics.* 2009;109(4):581-4.

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