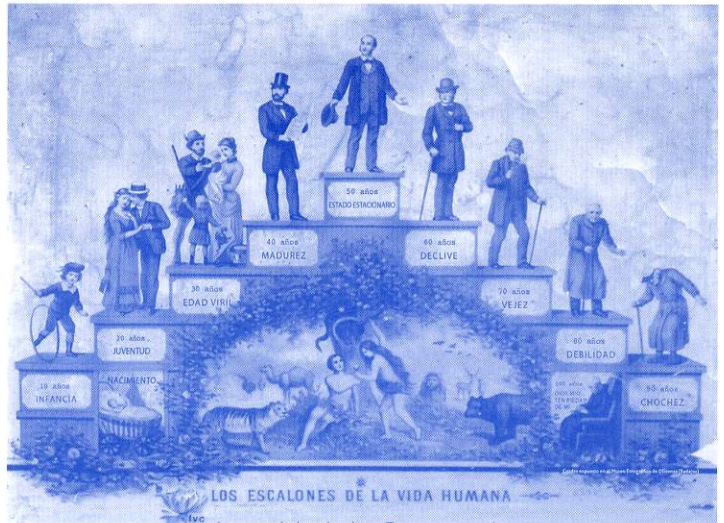


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RESULTS OF A SEX EDUCATION PROGRAM FOR 2ND AND 3RD CYCLE OF PORTUGUESE BASIC EDUCATION STUDENTS

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SUMMARY

It is important to promote adolescents sexual and reproductive health once it contributes to their personal and social education. Schools are privileged places where this goal can be achieved, since young people spend most of their day there. However, most sex education (SE) projects do not consider adolescents needs and, as so, may not be effective. With this action-research we aim to identify the needs of basic education students on sexuality and sex education and, from these, to develop their skills in order to promote a healthy sexuality. We worked with a sample of 2nd and 3rd cycle students of basic education attending an Oporto school. This action-research followed three stages: diagnostic phase, intervention phase and evaluation phase. The data we present here were obtained through questionnaires we carried out, in order to fit our needs. We found that after the intervention phase students had acquired a more comprehensive concept of sexuality. Students included in the intervention program revealed more knowledge about reproduction, sexually transmitted infections, contraception, pregnancy and hygiene. In the diagnostic stage students who had participated in SE activities agreed more than those who never participated that school is a place where they could clarify doubts about sexuality and that teachers were able to clarify them. These students also agreed more that they wanted to participate in more SE activities. Thus, we can conclude that a SE intervention that considers the needs of their target audience has a greater probability of effectiveness.

ABSTRACT

Background: Promoting sexual and reproductive health of adolescents contributes to their personal and social education (Ramiro et al, 2011). However, there is often a gap between the perception of the school about the sexuality of their students and the reality they actually live in. As so, the SE projects implemented may not coincide with the young people real needs (Allen, 2008).

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Objectives: This research aims to identify the needs of basic education students on human sexuality and sex education (SE) and, from these, to develop their skills in order to promote a healthy sexuality.

Participants: We worked with a convenience sample of 2nd and 3rd cycle students of Portuguese basic education attending a school in urban milieu.

Methods: Being an action-research project, at the diagnostic phase we carried out a questionnaire for the second and the third cycle of basic education students attending an Oporto school. Questionnaire was filled in online by 397 students. The data obtained were taken into account when developing a SE program applied to 6th, 7th, 8th and 9th grade students, in the school by teachers. After the program we applied a new questionnaire, which was filled in on paper by 112 students, in order to ascertain the changes occurred.

Results: About 47% of the students acquired a comprehensive concept of sexuality, against the 43,1% that in the diagnostic phase only considered the biologic dimension of sexuality. The intervention group of students revealed more knowledge about reproduction, sexually transmitted infections, contraception, pregnancy and hygiene. Students who participated in SE activities agreed more than those in the diagnose phase that school is a place where they could clarify doubts about sexuality and that teachers were able to clarify them. These students also agreed more that they wanted to participate in more SE activities.

Conclusions: A SE intervention that considers the needs of their target audience has a greater probability of effectiveness.

Keywords: Sexuality, sex education, intervention, questionnaire

BACKGROUND

According to Ramiro et al (2011) the promotion of sexual and reproductive health of adolescents is an important contribution to their personal and social education. As young people spend most of their time at school, these institutions are privileged places for the implementation of the SE projects.

However, for Allen (2008) there is often a gap between the perception of the school about the sexuality of their students and the reality they actually live in. So, frequently, the SE projects implemented in schools are based on the perception that adults have of the needs of young people, which may not always coincide with their real necessities.

Ingham and Hirst (2010) emphasize that there are, at least, two major justifications for the inclusion of SE within school curricula. The first is related to the rights of young people to adequate information and support to enable them to make informed decisions regarding their health. The second justification is that SE is effective in improving sexual health.

In Portugal several health programs have been developed in schools, with special emphasis on Sexuality Education (SE), which is compulsory from elementary to secondary school levels. According to the Progress Report of the Portuguese Working Group on Sex Education (GTES, 2007), the option for the inclusion of sexuality in the health domain does not intend to reduce it to a mechanistic, biological and sanitarian view. Rather, it seeks to stress the phenomenological, holistic and cultural concept of comprehensive health, as proposed by the WHO. Thus, SE should seek not only to mitigate the risk behaviours such as unwanted pregnancy and sexually transmitted diseases, but also to promote the quality of interpersonal relationships and intimacy experiences as well as their contextualization in cultural and socio-historical matrix.

OBJECTIVES

This action-research aims to identify the needs of basic education students on sexuality and sex education (SE) and, from these, to develop their skills in order to promote a healthy sexuality.

PARTICIPANTS

Our sample was a convenience sample including students from the same Oporto school (urban milieu), in which one of the researchers was teaching.

At the *diagnostic phase*, the questionnaire was answered by 397 students, being 192 females and 205 males. Regarding the distribution of students by cycles of education, we had 169 students at the 2nd cycle of basic education, and 228 at the 3rd cycle.

At the *intervention phase* a total of 121 students (64 females and 57 males) participated in SE activities at school developed by their teachers. Regarding the distribution of students by cycles of education, we had 22 students in the 2nd cycle of basic education, and 99 in the 3rd cycle.

At the *evaluation phase*, a total of 112 students (60 females and 52 males), answered the questionnaire to evaluate the implemented activities. Regarding the distribution of students by cycles of education, we had 22 students from the 2nd cycle of basic education, and 90 from the 3rd cycle.

METHOD

As an action-research project this study was developed in three stages: a diagnostic phase, an intervention phase and an evaluation phase.

During the *diagnostic phase* we sought to identify the conceptions and needs on SE of the students of second and third cycle of Portuguese basic education. For that we developed our own questionnaire in order to fit it to our methodology and we validated it with a pilot study. Pupils filled in the questionnaire online, and obtained data was processed with the SPSS statistical software.

At this stage, the questionnaire was answered by 397 students (192 females and 205 males). The average age of the respondents was 13 years old. The youngest was 10 and the oldest was 18. Regarding the distribution of students by different school years, 85 of them were at the 5th degree (2nd cycle of education), 84 were in the 6th (2nd cycle of education), 55 were studying at the 7th (3rd cycle of education), 95 in 8th (3rd cycle of education), and 78 were attending the 9th degree (3rd cycle of education).

This first questionnaire had a total of twenty six questions being four of characterization (year of schooling, class, gender and age) corresponding to independent variables; four about students previous participation in sex education activities at school; three concerning with conceptions about sexuality, ten related to conceptions about sex education at school, two about students sources of sexuality information and three concerning with psychosocial competencies.

The data obtained from this questionnaire were taken into account when developing a SE program applied to 6th (22 students), 7th (41 students), 8th (19 students) and 9th (39 students) grade students, by the school teachers, during the intervention phase. The activities were structured around three components: biological, psycho-affective and life project.

During the *evaluation phase*, after the intervention program, we applied a second questionnaire, which was filled in on paper by 112 students (60 females and 52 males), in order to ascertain the changes occurred. Regarding the distribution of students by different school years, 22 were in the 6th degree, 41 were studying at the 7th, 15 in 8th, and 34 were attending the 9th degree.

The evaluation questionnaire had a total of twelve questions being one of gender characterization, seven about the developed activities; three concerning with conceptions about sexuality and one related to conceptions about sex education at school. Obtained data was processed with the SPSS statistical software.

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RESULTS

Previous participation in sex education activities

During the diagnostic phase we found that only 102 students (25.7%) affirmed to have already participated in some sex education activities at school. From these, 14 (13.7%) were students of the 2nd cycle of basic education and 88 (86.3%) were of the 3rd cycle.

Of those who respond affirmatively, 34.7% classified these activities as very interesting and 57.4% as interesting. In the same way 82.0% of these students consider sex education activities at school as enlightening.

Concept of sexuality

At the diagnostic phase, 48.9% of the 397 students presented a concept of sexuality merely biologic, relating it to reproduction and sexual intercourse. Analysing those who answered at the diagnostic phase and had already participated in SE activities 43.1% (of 102 students) gave a biological concept of sexuality. After our intervention program, the percentage of students relating sexuality only to a biological dimension had fallen to 20.5%, according to table 1.

Table 1 - Comparison of students' concept of sexuality in the diagnostic phase and in the evaluation phase

	Diagnostic phase (%) N=102	Evaluation phase (%) N=112
Biological dimension	43.1	20.5
Psychological dimension	3.9	14.0
Biological and psychological dimension	14.7	35.7
Biological and social dimension	0.0	3.6
Psychological and social dimension	0.0	0.9
Biological, psychological and social dimension	2.9	7.1
No dimensions	13.7	8.0
Don't know	21.6	9.8

Regarding the cycle that students belonged to, we verified that the ones of the 2nd cycle were the ones that most often only mentioned the biological dimension of sexuality. The 3rd cycle students were those who most frequently referred the psychological dimension. There were also more 3rd cycle students mentioning two or three dimensions of the concept of sexuality. There were, however, more 3rd cycle students who reported not knowing what sexuality was.

Knowledge about reproduction, sexually transmitted infections, contraception, pregnancy and hygiene

At the diagnostic phase, we asked the students to rate sixteen statements on sexuality in true or false. We found that girls, oldest students and those who had participated in activities classified these sentences more accurately than boys, youngest students and those who had not yet participated in SE activities.

However, phrases like "Fertilization occurs in the vagina" and "A woman can get pregnant during menstruation" raised many doubts, since about one half the students rated these sentences as true and the other half as false. Also during the intervention phase we found that many students believed that a woman could not get pregnant during menstruation.

It was also verified, during the diagnostic phase, a confusion between the concepts of reproduction and fertilization, since most of the students rated the sentences "Reproduction is the union

of two cells - a female and a male" and "Fertilization is the union of two cells - a female and a male" as true.

So, we wanted to understand if after the intervention phase students began to rate, at a higher percentage, these phrases correctly. According to table 2, we found that, in fact, after the intervention phase students were rating these statements correctly at a higher percentage, when compared with the total responses of the diagnostic phase, as well as compared with the responses of students who have mentioned having participated in SE activities previously.

Table 2 - Comparison of the distribution of True and False responses in the diagnostic phase and in the evaluation phase (%)

	Diagnostic phase N=397		Diagnostic phase N=102*		Evaluation phase N=112		
	T	F	T	F	T	F	Missing values
Fertilization is the union of two cells - a female and a male	72.5	27.5	65.7	34.3	83.9	13.4	2.7
Fertilization occurs in the vagina	49.5	50.6	39.2	60.8	33.0	65.2	1.8
Reproduction is the union of two cells - a female and a male	86.9	13.1	90.2	9.8	40.2	56.3	3.6
A woman can get pregnant during menstruation	53.7	46.3	47.1	52.9	83.9	16.1	0.0

T – True; F – False; * students who had previously participated in SE activities

School role in SE

About the school role in SE, we verified at the diagnostic phase that, in general adolescents agree with the school context for SE, with teachers as educators, with their participation in SE activities at school and with the existence of an information office. However, after the intervention program, students who had participated in it agreed more than those in the diagnostic phase that school is a place where they could clarify doubts about sexuality and that teachers were able to clarify them. These students also agreed more that they wanted to participate in more SE activities (see table 3).

Table 3 – Comparison of the response means to five statements about the school role in SE

	Diagnostic phase N=397	Diagnostic phase N=102*	Evaluation phase N=112
I consider the school a place where I can clarify my doubts concerning on sexuality with confidence	2.78	2.74	3.13
Teachers know how to respond to my questions about sexuality	2.84	2.90	3.37
It is possible to approach SE in all disciplines	1.96	1.88	2.09
I would like to participate in more SE activities in school	2.68	2.87	3.06
Sex Education should be a teachers' responsibility	2.62	2.69	2.91

1-Totally disagree; 2-Disagree; 3-Agree; 4-Totally agree; * students who had previously participated in SE activities

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The data analysis of the diagnostic questionnaire, allowed us to conclude that girls tended to agree more than boys with the phrase "Teachers know how to respond to my questions about sexuality" and disagreed more than boys with the phrase "It is possible to approach SE in all disciplines". Boys tended to agree more than girls with the statement "I would like to participate in more SE activities in school".

The data analysis at the evaluation phase revealed no statistically significant differences in the responses of boys and girls. It seems that the intervention was able to bring together the ideas of boys and girls on the school role in SE. Moreover, it seems that students developed a more positive attitude towards the role that school can play in sex education.

Role of sex education on youth development

Analysing adolescents' conceptions about the role of sex education on youth development we found, at the diagnostic phase, that the ideas "sexuality is felt differently throughout life", "not always my friends know what is better for me" and "to talk about sexuality helps to decide" were the three with highest level of agreement. In opposite, the minor level of concordance was found for "sex education contributes to the reduction of violence in relationships between people" followed by "the sexual information prematurely arouses sexual behaviour".

However, the number of students which agreed or totally agreed with these sentences increased after the intervention performed, even when compared with the responses of the students who had previously participated in SE activities (table 4).

Table 4 – Comparison of the response means to eleven statements about the role of sex education on youth development

	Diagnostic phase N=397	Diagnostic phase N=102*	Evaluation phase N=112
To talk about sexuality helps to decide	2.99	3.00	3.36
There are different sexual orientations we should respect	3.03	3.11	3.57
Not always my friends know what is better for me	3.02	3.09	3.42
The sexual information prematurely arouses sexual behaviour	2.65	2.63	2.67
Sexuality is felt differently throughout life	3.08	3.06	3.44
Masturbation (stimulation of the genitals) is a normal practice	2.77	2.77	3.18
Sex education can help define our personality	2.75	2.77	2.90
Sex education makes us more responsible	2.99	3.02	3.30
Sex education helps to improve communication between men and women	2.94	2.98	3.21
Sex education contributes to the promotion of equal rights and opportunities between men and women	2.94	3.00	3.29
Sex education contributes to the reduction of violence in relationships between people	2.66	2.61	3.04

1-Totally disagree; 2-Disagree; 3-Agree; 4-Totally agree; * students who had previously participated in SE activities

According to the data analysis of the diagnostic phase, girls agreed more than boys with the idea that different sexual orientations should be respected. On the other hand, boys agreed significantly more than girls that sexual information awakens early sexual behaviour, masturbation is a normal practice and sex education contributes to improve communication between men and women.

However, the data analysis at the evaluation phase revealed no statistically significant differences in the responses of boys and girls. Thus, it appears that the intervention performed helped to bring together the views of boys and girls with regard to the role of SE on youth development.

CONCLUSIONS

The results obtained revealed that it is important to discuss with the students the concept of sexuality, so they can acquire a comprehensive view of sexuality. It seems that the results obtained at the diagnostic phase in relation to this concept are in agreement with the observations of Allen (2005, 2007), in the United Kingdom, and of Vilar et al (2009), also in Portugal, when they refer that the SE projects implemented at schools are under a preventive and medical perspective.

We can also conclude that it is necessary to provide more information about reproduction, diseases and sexually transmitted infections, contraception, pregnancy and hygiene. Before and after the intervention we verified that girls and oldest students have more knowledge about these matters. Vilar et al (2009) reached similar conclusions.

It seems that after the intervention, students developed more favourable attitudes about the role of SE on youth development. It also increased their confidence in school about the role it plays in relation to SE.

Moreover, it seems that the intervention was able to attenuate some gender differences. According to Rogow and Haberland (2005) SE programs do not reflect what is already known about the role gender plays in shaping attitudes and sexual behaviour and Stromquist (2007) stress that a critical curriculum area from a gender perspective is sex education. Thus, the understanding of different gender conceptions and needs should lead the design of effective SE projects, contributing to student personal and social education.

Finally, we can conclude that a SE intervention that considers the needs of their target audience has a greater probability of effectiveness.

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