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**THE RELATIONSHIP BETWEEN EMOTIONAL COMPETENCE
AND SEXUAL HEALTH LITERACY IN SECONDARY SCHOOL
STUDENTS**

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Abstract

Health literacy is understood as the ability to make informed decisions about health. It constitutes the daily options of conscious health decisions, with a particular importance in adolescent sexuality. This paper analyses the relationship between emotional skills and literacy in sexual and reproductive health in secondary school students. A cross-sectional, descriptive and analytical study was conducted involving a sample of 213 students attending the 10th, 11th and 12th years of a secondary school in Portugal. The data collection was supported by a sociodemographic questionnaire which targeted variables pertaining to academic context, and contextual variables of sexual and reproductive health, the Emotional Competency Questionnaire (Taksic, 2000), adapted into Portuguese by Faria & Lima Santos (2001) and the Questionnaire of Knowledge on sexual and reproductive health (Santos, 2017). 67.6% of the sample had good to very good knowledge about sexual and reproductive health, and girls revealed more knowledge about this subject. Higher age and years of schooling were reflected in more knowledge the students had about sexual and reproductive health. The findings also showed that the less ability students had to deal with emotion, the less information they had about sexual and reproductive health. Emotional competence is therefore relevant in responsible sexuality. The earlier sexual and reproductive health education occurs, the better the achievement of results reflecting the commitment to safe sexuality among adolescents.

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1. Introduction

The development of emotional skills (from emotional resilience to the correct identification of feelings and emotions) is especially important in identity building, with impact in the different areas of the adolescent's life.

Throughout our personal development, we usually learn to identify and understand different categories related to basic emotions such as happiness, fear, anger, sadness, among others with the ability to recognize facial cues associated with these emotional categories (Martins, 2013). "This learning depends on the emotional knowledge of the situation and the situational cues that come from it, which enable the child and adolescent to understand and anticipate the emotions of others and of themselves" (Martins, 2013, p.39) and at the level of interpersonal relationships, emotional differentiation, which fosters the understanding and development of empathy in relation to others, provides information about what others experience during these relationships (Cardoso, 2011).

Five factors constitute emotional competence namely: emotional awareness, emotional regulation, emotional autonomy, social competence, and life and wellness skills (Alzina & Escoda, 2007).

Emotional awareness consists of being aware of one's own as well as another's emotions in a particular context, which implies being aware of one's own emotions and understanding the emotions of others. Thus, as Alzina and Escoda (2007) contend, emotional awareness refers to the exact understanding of feelings and emotions, identifying them with a positive or negative meaning. It is from this efficiency that you can reveal adaptive behaviours in certain situations and the importance of the perception and understanding of another's emotions.

Emotional regulation is defined by the capacity to manage emotions in a more adaptive way, which implies the interaction between emotion, cognition and behaviour; emotional expression; emotional regulation; emotional coping ability and the ability to self-handle positive emotions (Alzina & Escoda, 2007). The interaction between emotion, cognition and behavior emphasizes the interdependence between behavior and emotions, and both self-regulate through cognition. Therefore, cognition plays a role on the emotion and behaviour regulation (Alzina & Escoda, 2007).

Emotional expression refers to the ability of each person to adequately express their emotions, which implies knowledge of the emotional state in order to express them properly. Emotional regulation implies the ability to regulate one's own feelings and emotions, embracing impulsiveness. Confrontation skills refer to the ability to confront negative emotions using strategies of emotional self-regulation. The ability to self-manage positive emotions and the ability to voluntarily and consciously experience positive emotions and enjoy life is necessary in order to achieve the best quality of life (Alzina & Escoda, 2007).

The difference between emotional intelligence and emotional skills was conceptualized by Saarni and Harris (2011). They also argue that emotional competence is a dynamic process in the face of immediate emotional challenges, fostering the belief in the capacity for emotional resilience to overcome challenges effectively. However, the same author warns that this belief may be fragile, because it is contextualized in an unknown environment or even because social experiences may not have been positive and the management of emotions proves to be ineffective in relation to goals. Saarni and Harris (2011) further point out that everyone would have experienced emotional incompetence at a particular time and place because they did not feel prepared for certain situations. According to the authors,

emotional abilities are not developed in isolation, and their progression is intrinsically related to cognitive development.

Emotional competence is defined by Bisquerra and Pérez (2007) as the set of knowledge, abilities, skills and attitudes necessary to properly understand, express and regulate emotional phenomena. The mastery of these competences promotes a better adaptation to the life context, increasing the chances of success in more complex situations of life.

In many schools in the United States, there are programs that help adolescents to strengthen their emotional competencies, providing them with concrete skills to identify and master emotions, effectively communicate and resolve conflicts in a non-violent way (Santos, 2012). These abilities help to make the right decisions, to be more empathetic and more optimistic in the face of setbacks, to engage effectively and satisfactorily with their peers in assuming gender perspectives and highlighting the importance of respect and of other people's rights in relationships. The school is a privileged setting to promote the development of emotional competence. When working on the issues of Sexual Education, it should develop in an integrated and natural way, in the field of Health Education in general and has to raise awareness of individuals' own health, leading them to acquire skills that enable them to a progressive self-responsibility when they interact with others. Emotional competence allows the adolescent to live out his/her dreams, affections and dislikes with all the joys and sorrows that follow, but with safety and tranquillity.

Adolescence is the life stage related to the search for autonomy, the elaboration of projects, and personal and social expression, in the search for an independence that leads to adult life. There is a progressive affective autonomy in relation to the parents and an approximation of the peer group. It is at this stage of the human being's life that the onset of sexual activity begins, whose precocity may lead to vulnerability to risks such as unwanted pregnancies and sexually transmitted infections. The precocity of sexual initiation associated with increased rates of sexually transmitted infections and unintended pregnancy among adolescents requires intervention by health professionals. A planned intervention in sexual and reproductive education promotes a responsible sexuality that will be translated into its equilibrium, as well as the growth of literacy at this level (Flora, Rodrigues & Paiva, 2013). In this perspective, according to the same authors, the promotion of adolescent sexual and reproductive health has to proceed from the perspective of developing "enlightened and healthy sexuality, with gains in literacy in the area, where individual responsibility and decision process play a key role in ensuring positive sexual behaviours for the health and quality of life of young people " (Santos & Figueiredo, 2015, p.65).

To promote emotional and relational skills, sexuality education must enable one to improve one's relational capacities with oneself and with others; healthy sexual behaviours that allow for better socialization; to become aware that the onset of sexual relations requires physical, psychic and affective maturity; promote equality of rights and opportunities between the sexes and a more rewarding and more informed experience of sexuality (Bastos, 2003).

2. Problem Statement

Health literacy is understood as the ability to make informed health decisions. There is particularly importance for adolescents as they are at an important developmental stage in their life where their decisions related to sexual and reproductive health can have far reaching consequences on their adult life in terms of healthy sexual behaviours.

3. Research Question

What is the relationship between emotional competence and literacy in sexual and reproductive health in secondary school students?

4. Purpose of the Study

This study aimed to analyse the relationship between emotional competence and sexual and reproductive health literacy in high school students.

5. Research Methods

5.1. Research Design

This is a quantitative cross-sectional, descriptive study which aimed to investigate the relationship between emotional competence and sexual and reproductive health literacy in high school students.

5.2. Participants

A purposive sample of 213 students attending the 10th, 11th and 12th grades of secondary school in Portugal was obtained for this study. The sample is mostly female (60.4%) with an average age of 16.45 years. A number of sociodemographic variables were investigated and these are presented in Table 1.

5.3. Research Design

The data collection was supported by the Emotional Competence Questionnaire (Taksic, 2000), adapted into Portuguese by Faria & Santos (2001) and the Knowledge Questionnaire on sexual and reproductive health (Santos, 2017).

6. Findings

Table 1 provides the sociodemographic information related to the sample. With regard to age, the sample were aged between 15 years to 19 years; the average age being 16.45 years with a standard deviation of 1.03 years. 39.4% of the total sample were males and 60.6% were female. In both sexes, the minimum age was 15 years and the maximum was 19 years. The mean age for both boys and girls was 16.45 years with no statistical significance according to the t-test result for independent samples ($t = 1.273$, $p = 0.203$). The coefficient of variation presents a low dispersion, since the values are between 0% and 15% ($CV = 6.26\%$). The asymmetry and Kurtosis values show that the curves have a normal distribution because they are between -2 and +2.

More than two thirds (79.8%) of the sample live with parents (nuclear family), of which 76.2% were boys and 82.2% were girls. Of the 16% who live with only the mother or the father (one-parent family), the highest percentage is girls (52.9%).

Academically, most of the students have never failed, but were mostly indifferent to the school. The majority of the students have never been involved in fights with their peers. (see Table 2)

Table 01. Socio-demographic characterization of the sample according to gender

Gender Variables	Female		Male		Total		Residuals	
	N° (129)	% (60.6)	N° (84)	% (39.4)	N° (213)	% (100.0)	Mal	Fem
Age Group								
≤ 16	66	51.2	44	52.4	110	51.6	-0.2	0.2
≥ 17	63	48.8	40	47.6	103	48.4	0.2	-0.2
Place of residence								
Urban	20	15.5	14	16.7	34	16.0	-0.2	0.2
Rural	109	84.5	70	83.3	179	84.0	0.2	-0.2
Cohabitation								
Parents	106	82.2	64	76.2	170	79.8	1.1	-1.1
Father or Mother	18	14.0	16	19.0	34	16.0	-1.0	1.0
Brother(s)	1	0.8	1	1.2	2	0.9	-0.3	0.3
Grandparents	2	1.6	2	2.4	4	1.9	-0.4	0.4
Relatives	2	1.6	1	1.2	3	1.4	0.2	-0.2
Marital status of parents								
Marital/ non-marital partnership	115	89.1	72	85.7	187	87.8	0.7	-0.7
Single/Divorced	10	7.8	11	13.1	21	9.9	-1.3	1.3
Widowed mother	1	0.8	1	1.2	2	0.9	-0.3	0.3
Widowed father	2	1.6	0	0.0	2	0.9	1.1	-1.1
Both deceased	1	0.8	0	0.0	1	0.5	0.8	-0.8
Academic qualifications of the father								
Basic education	81	62.8	50	59.5	131	61.5	0.5	-0.5
Secondary education	36	27.9	24	28.6	60	28.2	-0.1	0.1
Higher education	12	9.3	10	11.9	22	10.3	-0.6	0.6
Academic qualifications of the mother								
Basic education	53	41.1	35	41.7	88	41.3	-0.1	0.1
Secondary education	51	39.5	32	38.1	83	39.0	0.2	-0.2
Higher education	25	19.4	17	20.2	42	19.7	-0.2	0.2
Monthly income of parents								
Low/Medium low	52	40.3	30	35.7	82	38.5	0.7	-0.7
Medium/Medium high	77	59.7	54	64.3	131	61.5	-0.7	0.7
Religion								

No	27	20.9	24	28.6	51	23.9	-1.3	1.3
Yes	102	79.1	60	71.4	162	76.1	1.3	-1.3

Table 02. Characterization of the school context of students according to gender

Gender Variables	Female		Male		Total		Residuals	
	N° (129)	% (60.6)	N° (84)	% (39.4)	N° (213)	% (100.0)	Mal	Fem
Year of schooling of the students								
10 th Year	38	29.5	29	34.5	67	31.5	-0.8	0.8
11 th Year	45	34.9	29	34.5	74	34.7	0.1	-0.1
12 th Year	46	35.7	26	31	72	33.8	0.7	-0.7
School failure								
No	116	89.9	74	88.1	190	89.2	0.4	-0.4
Yes	13	10.1	10	11.9	23	10.8	-0.4	0.4
Number of times failure								
1 time	11	84.6	10	100	21	91.3	-1.3	1.3
2 times	2	15.4	0	0	2	8.7	1.3	-1.3
Relationship with school								
Appreciate	48	37.2	25	29.8	73	34.3	1.1	-1.1
Indifferent	67	51.9	39	46.4	106	49.8	0.8	-0.8
Don't appreciate	14	10.9	20	23.8	34	16.0	-2.5	2.5
Involvement in conflicts								
No	117	90.7	76	90.5	193	90.6	0.1	-0.1
Yes	12	9.3	8	9.5	20	9.4	-0.1	0.1
Weight								
Thin	20	15.5	19	22.6	39	18.3	-1.3	1.3
Normal	63	48.8	50	59.5	113	53.1	-1.5	1.5
Obese	46	35.7	15	17.9	61	28.6	2.8	-2.8
Clarifying sex questions								
Parents	42	32.6	23	27.4	65	30.5	0.8	-0.8
Boyfriend/Girlfriend	4	3.1	5	6.0	9	4.2	-1.0	1.0
Friends	39	30.2	19	22.6	58	27.2	1.2	-1.2
Professionals	14	10.9	9	10.7	23	10.8	0.0	0.0
Books and internet	26	20.2	24	28.6	50	23.5	-1.4	1.4
Others	4	3.1	4	4.8	8	3.8	-0.6	0.6
Sex knowledge								
Good/Very good	77	59.7	67	79.8	144	67.6	-3.1	3.1
Reasonable/Insufficient	52	40.3	17	20.2	69	32.4	3.1	-3.1

For the purpose of this paper, only the relationship between gender and literacy in sexual and reproductive health was analysed. The Mann Whitney test used for this purpose reveals that girls have

more knowledge than boys in all aspects under analysis with statistical significance except for Sexually Transmitted Infections (STI) knowledge and risk behaviours. (see Table 3)

Table 03. Gender and Knowledge on sexual and reproductive health

	Female	Male	Mann-Whitney Test	
	OM	OM	Z	P
Information (SRH)	78.,10	125.82	-5.617	0.000
Vigilance (SRH)	93.60	115.72	-2.788	0.005
Methods (SRH)	92.31	116.57	-2.823	0.005
STI and Risk Behaviours (SRH)	104.33	108.74	-0.515	0.607
Total (SRH)	88.64	118.95	-3.514	0.000

*SRH refers to Sexual and Reproductive Health

Overall, older adolescents display more sexual health literacy than younger ones. The differences found are only significant for contraceptive methods. (see Table 4)

Table 04. T-test between age and literacy in sexual and reproductive health

Literacy in Sexual health	Age		Leven.s p		t	P	
	<=16 anos	>=17 anos	Medium	Dp			
Information	0.443	0.213	0.483	0.186	0.066	-1.443	0.151
Vigilance	0.188	0.211	0.169	0.195	0.818	0.669	0.504
Methods	0.460	0.186	0.540	0.172	0.511	-3.237	0.001
STI	0.549	0.174	0.547	0.157	0.534	0.065	0.948
Literacy (global)	0.464	0.140	0.498	0.110	0.050	-1.956	0.052

The emotional competencies of the students were evaluated with the Emotional Competence Questionnaire (Taksic, 2000), adapted by Faria and Santos (2011).

All three dimensions were considered; all of them in numerical variables.

The analysis revealed the adolescents as higher in emotional perception ($m = 4.72 \pm 0.660$) and lower in emotional memory ($m = 4.37 \pm 0.973$). The asymmetry values are indicative of curves skewed to the right being more accentuated in the emotional capacity. On the other hand, the values of kurtosis tend to be normal curves, except for the factor that presents as leptokurtic. (see Table 5)

Table 05. Statistics on emotional competencies

	Min	Max	M	D.P.	CV (%)	Sk/error	K/error
Factor1 - emotional expression	1.89	6.00	4.37	0.973	22.26	-2.712	-1.527
Factor2 - Emotional perception	2.78	6.00	4.72	0.660	13.98	-2.113	0.271
Factor3 - emotional capacity	1.25	6.00	4.67	0.820	17.55	-5.479	3.668
Emotional skills (global factor)	2.27	5.82	4.57	0.633	13.85	-1.970	-0.566

We tried to establish the effect that the variation of these dimensions causes on the dimensions of the inventory of knowledge on sexual and reproductive health (ICSSR). For this, multiple linear regression models were used. From the models obtained, we only present the information model, since it reveals an association between this dimension and the capacity to deal with emotion. The deduced model can be represented by the following regression equation:

$$\text{Information (SRH)} = 0.627 - 0.035 \text{ Ability to deal with emotions}$$

The coefficient of determination indicates that the ability to deal with emotion explains 21% of the variation of the information. The standardized beta coefficient reveals that there is a significant but weak positive correlation among the variables (see Table 6)

Table 06. Multiple linear regression between emotional competences and information on sexual and reproductive health

	R2	ANOVA	V independents	B	IC(95%)	t- test
Information	0.21	F=4.446; p=0.036	(Constant) Ability to cope with emotion	.627 .035	 -0.068; -0.002	 t=-2.109; p=0.036

The results lead us to conclude that a higher level of health literacy is associated to a greater capacity to deal with emotion.

7. Conclusion

The relevance of emotional competence for responsible sexuality is evident. The ability to deal with emotion was the dimension that was assumed as a predictor of sexual and reproductive health literacy. It is observed that the less ability the students have to deal with emotion, the lesser the information they have about sexual and reproductive health. The ability to manage one's own feelings and emotions confers the ability to discriminate, as well as use that information to guide thinking and action, which distinguishes multiple aspects of emotional skills such as emotional perception and emotional management (Akduman, Hatipoğlu & Yüksekbilgili, 2015), thus protecting themselves from risky behaviours that may result in unwanted pregnancies, STIs, among other harmful consequences for their lives.

It can be concluded that, for the most part, since the students in this study have recourse to parents, then to friends, books, the internet and, finally, health professionals when they have doubts about sexual and reproductive health, the students perceived that they have good/very good knowledge about sexual health.

On the whole, girls were statistically significant in having more knowledge regarding information related to sexuality and reproduction, surveillance and care with sexual and reproductive health, knowledge about contraceptive methods, both in relation to STIs and risk behaviours. It can be concluded that girls, by nature of their gendered responsibilities and roles in sexual relationships would be far more aware of matters related to sexuality.

The school programs on sexual health currently in place in Portugal can be considered to be highly effective as demonstrated by the results of this study. But more focus should be given to the boys who display a significant lack of knowledge in specific areas of sexual health. Special intervention programs for the boys should be emphasised. In view of these results, sex education in schools, including preventive interventions, is extremely important to ensure young people are equipped with the emotional competence to develop healthy sexual knowledge. Also gaining relevance is the development of more specific interventions in groups identified as priorities, so that more effective knowledge about sexual and reproductive health can be transmitted to the students, with gains in attitudes and skills that allow them to experience a safer sexuality.

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