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Reproductive Health Awareness among Higher Secondary School Students of Kozhikode District in Kerala

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Abstract: Adolescence is the transitional period between late childhood and the beginning of adulthood, marking the onset of the reproductive lifespan in humans. The reproductive health of adolescents is crucial as it determines the health of future generations. Providing awareness to adolescents about their physical changes, adolescence characteristics, sexually transmitted diseases (STDs), menstruation, and related issues can help reduce anxieties and lead them towards a healthy and successful life. With this objective in mind, this study aims to assess the awareness of reproductive health among higher secondary school students in Kozhikode district, Kerala. The study investigates the level of reproductive health awareness among higher secondary school students and its relationship with gender, school management, stream of education, and locality of the students. Data regarding reproductive health awareness were collected from 168 higher secondary school students using a reproductive health awareness tool. Independent sample t-tests and ANOVA were used to determine the significance of differences. The study reveals a significantly high level of awareness of reproductive health among higher secondary school students. There are significant differences in reproductive health awareness based on the gender of students, school management, and stream of education, while no significant difference was found based on the locality of the school. Reproductive health awareness is significantly higher among female students compared to male students. Government-aided school students have significantly higher awareness compared to government school students, and science stream students have higher awareness compared to commerce students.
Key Words: Awareness, Reproductive Health, Adolescents.

Introduction

Adolescence is the transitional period between late childhood and the beginning of adulthood, marking the onset of the reproductive lifespan in humans. Adolescence involves sexual maturity in terms of hormones and physical development, as well as an increase in the complexity of group interactions and social behavior (Lerner and Steinberg, 2004).

Reproductive health among adolescents is crucial as it determines the health of future generations. Reproductive health refers to the state of physical, mental, and overall well-being, as well as the proper functioning of reproductive organs in all phases of reproduction. According to the World Health Organization (WHO), it encompasses total well-being in all aspects of reproduction, including physical, emotional, behavioral, and social aspects. Adolescents often have doubts and questions about their sexuality, leading to anxiety and confusion. Therefore, it is essential to provide awareness and education on reproductive health to empower youths to make informed decisions and lead healthy and successful lives.

Recognizing the importance of reproductive health education, the Government of Kerala has incorporated it into the school curriculum. Regular and continuous awareness programs are being conducted in schools through adolescent counselling cells in all higher secondary schools of Kerala. Peers also play a vital role in providing sexual and reproductive health education and contribute to the psychosocial development of adolescents. However, there are societal obstacles, such as the patriarchal system and social barriers that hinder discussions with teachers, parents, and elders.

Debates are ongoing regarding who should be responsible for educating adolescents about sexual matters and reproductive health and to what extent. Considering these factors, this study aims to assess the awareness of reproductive health among higher secondary school students. By doing so, it seeks to contribute to the understanding of reproductive health awareness among this population and its associated factors.

2. Review of literature

Nidhi Kotwal, Neelima Gupta & Rashi Gupta (2008) conducted a study on the awareness of reproductive health among rural adolescent girls in Jammu. The study compared the awareness levels of reproductive health between school-going girls and dropout girls. The results showed that both groups had good knowledge regarding the identification of the reproductive system. Interestingly, the school dropout girls had more scientific information compared to the school-going girls. This difference was attributed to the hesitation of teachers to discuss such topics in schools.

Seema Grover *et al*. (2009) conducted a study in Faridkot, Punjab, to assess the awareness of reproductive health, contraceptive methods, sexually transmitted diseases (STDs) including HIV/AIDS, and HPV vaccine among adolescent girls. The findings revealed that a majority of the girls were not aware of the meaning of reproductive health. Knowledge about contraceptive methods was relatively higher for condoms (62.5%), while awareness about other STDs and their symptoms was low (less than 20%). Only a small percentage of the girls (17%) knew about the HPV vaccine.

Khan M (2019) conducted a review study on awareness about reproductive health in adolescents and youth. The findings highlighted that educational programs can increase awareness about reproductive health. However, increased awareness does not always translate into appropriate help-seeking behavior among adolescents. Limited knowledge about reproductive health makes young girls vulnerable to various diseases and infections, including HIV/AIDS/STDs, substance abuse, sexual violence, and exploitation.

John Mark R. Asio (2019) conducted a study on the reproductive health awareness of college students in Olongapo City, Philippines. The study assessed the awareness of six common reproductive health issues, including maternal and child health, family planning, adolescent reproductive health, and prevention and management of various reproductive health concerns. The results showed that the student-respondents had awareness of these issues, and they recognized the importance of socio-economic conditions, status of women, social and gender issues, culture, and psycho-social factors as sources of information.

3. Purpose of the study

The purpose of the present study is to examine the level of reproductive health awareness among higher secondary school students in Kozhikode district, Kerala. The study also aims to investigate the influence of socio-demographic variables such as gender, locale, school management, and stream of education on reproductive health awareness.

4. Objective

1. To assess the level of reproductive health awareness among higher secondary school students in Kozhikode district, Kerala.
2. To compare the level of reproductive health awareness among higher secondary school students based on gender.
3. To compare the level of reproductive health awareness among higher secondary school students based on the stream of education.
4. To compare the level of reproductive health awareness among higher secondary school students based on school management.
5. To compare the level of reproductive health awareness among higher secondary school students based on locale.

5. Hypothesis

1. There is no significant difference in reproductive health awareness among higher secondary school students based on gender.
2. There is no significant difference in reproductive health awareness among higher secondary school students based on school management.
3. There is no significant difference in reproductive health awareness among higher secondary school students based on the stream of education.

4. There is no significant difference in reproductive health awareness between rural and urban school students among higher secondary school students.

6. Research Design

The present study utilizes a quantitative, descriptive, and inferential research design. It involves a survey to assess the level of reproductive health awareness among higher secondary school students. The population for this study consists of higher secondary students in Kozhikode district, Kerala.

***Sample*:** A sample of 168 higher secondary school students from NHSS Vakayad and GHSS Naduvannur in Kozhikode District, Kerala, was selected. The sample included students from science, commerce, and humanities streams in the first and second year of each selected school. The researcher sought permission from the head of the institution to collect data and the respondents were requested to complete the survey form intended to measure the reproductive health awareness.

Research Instrument

The research instrument used in this study to assess the reproductive health awareness was developed by the researcher. It consisted of a total of 17 questions, divided into two parts. The first part included five demographic and background questions, while the second part consisted of 12 multiple-choice questions assessing the students' reproductive health awareness. The questions covered topics such as knowledge about changes during adolescence, features of adolescence, menstruation, premenstrual syndrome, and sexually transmitted diseases.

The research instrument was tested on a small group of higher secondary school students as a trial, and any necessary corrections were made. Descriptive and inferential statistics, including percentage analysis, independent sample t-tests, and analysis of variance, were used to summarize the properties of the population based on the known properties of the sample and to determine the significance of differences among variables.

7. Scope of the study

The objective of the present study is to know the reproductive health awareness among higher secondary school students in Kozhikode district of Kerala especially the changes during adolescent period, features of adolescence, menstruation, and sexually transmitted diseases. It helps to provide the basic knowledge about reproductive health awareness through the programmes.

8. Result and discussion

Profile of the respondents selected for the current research work from the higher secondary school students is presented in Table 1.

Table 1: Profile of the respondents

Variable	Group	Number	Percentage
Gender	Male	83	49.4
	Female	85	50.6
Management of school	Government	75	44.6
	Aided	93	55.4
Stream	Science	73	43.5
	Commerce	54	32.1
	Humanities	41	24.4
Locality of the students	Rural	155	92.3
	Urban	13	7.7
Total		168	100.0

8.1 Reproductive Health Awareness

To measure the reproductive health awareness among higher secondary school students, 12 multiple choice questions were used with one correct answer. The aggregates score of the respondents considered as the reproductive health awareness score. The result is presented in Table 2.

Table 2: Reproductive Health Awareness of the higher secondary school students

Reproductive health awareness questions	Aware		Not aware	
	Number	Percentage	Number	Percentage
AIDS day	104	61.90	64	38.10
Transmission of AIDS	110	65.48	58	34.52
Meaning of Adolescence	138	82.14	30	17.86
Period of adolescence	157	93.45	11	6.55
Wet dreams	58	34.52	110	65.48
Common feature of adolescents	86	51.19	82	48.81
Consequences of Masturbation	57	33.93	111	66.07
Physical change in boys at the time of adulthood	75	44.64	93	55.36
Fertile period of females	63	37.50	105	62.50
Changes during adolescent period	40	23.81	128	76.19
Menstrual hygiene among girls	117	69.64	51	30.36
First menstruation	77	45.83	91	54.17
Reproductive health awareness	1082	53.67	934	46.33

Table discloses that majority of the higher secondary school students are aware about the AIDS day (61.9%), Transmission of AIDS (65.48%), Meaning of Adolescence (82.14%), Period of adolescence (93.45%), Common feature of adolescents (51.19%) and Menstrual hygiene among girls (69.64%). It is also evident that majority of the higher secondary school students are not aware about the Wet dreams (65.48%), Consequences of Masturbation (66.07%), Physical change in boys at the time of adulthood (55.36%), fertile period of females (62.5%), Changes during adolescent period (76.19%) and First menstruation (54.17%).

8.2 Comparison of reproductive health awareness based on gender

Differences in reproductive health awareness between Male and Female student of higher secondary school was compared using independent sample t-test and the result is presented in Table 3.

H0: There is no significant difference in the reproductive health awareness among higher secondary school students based on gender.

Table 3: Comparison of reproductive health awareness between Male and Female student

Gender	N	Mean	SD	t-value	p-value
Male	83	5.9157	2.40530	2.899	0.004
Female	85	6.9529	2.23024		

Table shows that the reproductive health awareness among Female students is significantly higher (M = 6.95, SD = 2.23) as compared to Male student (M = 5.91, SD=2.40), t (166) = 2.899, p = 0.004. The table shows that there exist significant difference between the mean scores of male and female students in reproductive health awareness. Thus, null hypothesis stated that, 'There is no significant difference in the reproductive health awareness among higher secondary school students based on gender' is rejected at 0.05 level. Hence the alternative hypothesis stated that there exist significant difference in the reproductive health awareness among higher secondary school students based on gender is accepted.

8.3 Comparison of reproductive health awareness based on management of school

Differences in reproductive health awareness between government and aided school student of higher secondary school is presented in Table 4.

H0: There is no significant difference in the reproductive health awareness among higher secondary school students based on management of school.

Table 4: Comparison of reproductive health awareness between government and aided school students

Management of school	N	Mean	SD	t-value	p-value
Government	75	5.9067	2.52647	2.670	0.008
Aided	93	6.8710	2.15298		

It is seen from the table that the reproductive health awareness among government aided school students is significantly higher (M = 6.87, SD = 2.15) as compared to government school students (*M* = 5.90, *SD* = 2.52), *t* (166) = 2.67, *p* = 0.008. The table shows that there exist significant difference between the mean scores of government and government aided school students in reproductive health awareness. Thus, null hypothesis stated that, 'There is no significant difference in the reproductive health awareness among higher secondary school students based on management of school' is rejected at 0.05 level. Hence the alternative hypothesis stated that there exist significant difference in the reproductive health awareness among higher secondary school students based on management of school is accepted.

8.4 Comparison of reproductive health awareness based on stream

Comparison of reproductive health awareness among higher secondary school students based on stream of education – science, commerce and humanities – was done using Analysis of Variance (ANOVA) and the result is presented in Table 5.

H0: There is no significant difference in the reproductive health awareness among higher secondary school students based on stream of education.

Table 5: Comparison of reproductive health awareness based on stream of education

Stream of education	N	Mean	SD	F-value	p-value
Science	73	7.6164	1.97646		
Commerce	54	5.0926	2.06743	22.835	.000
Humanities	41	6.1220	2.37902		

Table discloses that the reproductive health awareness of science stream students is higher (M = 7.61, SD = 1.97) and it is lower among commerce students (*M* = 5.09, *SD* = 2.06). Analysis of variance gives that the calculated F-value is 22.835 and p-value is less than 0.001. The result explains that there is significant difference in reproductive health awareness among the higher secondary school students of various stream of education. Thus, null hypothesis stated that, 'There is no significant difference in the reproductive health awareness among higher secondary school students based on stream of education' is rejected at 0.05 level. Hence the alternative hypothesis stated that there exist significant difference in the reproductive health awareness among higher secondary school students based on stream of education is accepted.

Scheffe test of multiple comparisons was applied to know the significance of difference in reproductive health awareness among the various stream of education and it is presented in table 6.

Table 6: Multiple Comparisons of the reproductive health awareness based on stream of education

(I) Stream	(J) Stream	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Science	Commerce	2.52385*	.37862	.000	1.5886	3.4591
	Humanities	1.49449*	.41168	.002	.4776	2.5114
Commerce	Science	-2.52385*	.37862	.000	-3.4591	-1.5886
	Humanities	-1.02936	.43695	.065	-2.1087	.0500
Humanities	Science	-1.49449*	.41168	.002	-2.5114	-.4776
	Commerce	1.02936	.43695	.065	-.0500	2.1087

The results of multiple comparisons-Scheffe-test given in table 5 reveal that the reproductive health awareness between science and commerce (p = 0.000); science and humanities (p = 0.002) differ significantly.

But there is no significant difference between commerce and humanities (p = 0.065) students in the reproductive health awareness.

8.5 Comparison of reproductive health awareness between rural and urban students

Differences in reproductive health awareness between rural and urban student of high secondary schools is presented in Table 7.

H0: There is no significant difference between rural and urban school students in the reproductive health awareness among higher secondary school.

Table 7: Comparison of reproductive health awareness between rural and urban school students

Locality	N	Mean	SD	t-value	p-value
Rural	155	6.4194	2.39011	0.398	0.691
Urban	13	6.6923	2.17503		

It is seen from the table that the reproductive health awareness among urban school students is higher (M = 6.69, SD = 2.17) as compared to rural school students (M = 6.41, SD = 2.39), t (166) = 0.398, p = 0.691. The table shows that there is no significant difference between the mean scores of urban and rural school students in reproductive health awareness. Thus, null hypothesis stated that, 'There is no significant difference in the reproductive health awareness among higher secondary school students based on locality of the school' is accepted at 0.05 level. Hence the alternative hypothesis stated that there exist significant difference in the reproductive health awareness among higher secondary school students based on locality of school is rejected.

9. Major Findings

Major findings of the study on Reproductive Health Awareness among Higher Secondary School Students in Kozhikode District are:

- Study discloses that majority of the higher secondary school students are aware about the AIDS day (61.9%), Transmission of AIDS (65.48%), Meaning of Adolescence (82.14%), Period of adolescence (93.45%), Common feature of adolescents (51.19%) and Menstrual hygiene among girls (69.64%).
- It is also evident that majority of the higher secondary school students are not aware about the Wet dreams (65.48%), Consequences of Masturbation (66.07%), Physical change in boys at the time of adulthood (55.36%), fertile period of females (62.5%), Changes during adolescent period (76.19%) and First menstruation (54.17%).
- Gender wise comparison reveals that there exist significant difference between the mean scores of male and female students in reproductive health awareness (t = 2.899, p = 0.004). Reproductive health awareness among Female students is significantly higher (6.95) as compared to Male student (5.91).
- It is clear from the analysis that there exist significant difference in the reproductive health awareness among higher secondary school students based on management of school (t = 2.67, p = 0.008). Reproductive health awareness among government aided school students is significantly higher (6.87) as compared to government school students (5.90).
- Analysis of variance shows that there exist significant difference in the reproductive health awareness among higher secondary school students based on stream of education (F = 22.835; p = 0.000). Reproductive health awareness of science stream students is higher (7.61) and it is lower among commerce students (5.09).
- There is no significant difference in the reproductive health awareness among higher secondary school students based on locality of the school (t = 0.398, p = 0.691).

10. Conclusion and Suggestions

Present research work is to investigate the level of reproductive health awareness among higher secondary school students of Kozhikode district of Kerala. Study reveals that majority of the higher secondary school students in Kozhikode district are aware of reproductive health. Study discloses that majority of the higher secondary school students are aware about the AIDS day (61.9%), Transmission of AIDS (65.48%), Meaning of

Adolescence (82.14%), Period of adolescence (93.45%), Common feature of adolescents (51.19%) and Menstrual hygiene among girls (69.64%). But, majority of the higher secondary school students are not aware about the Wet dreams (65.48%), Consequences of Masturbation (66.07%), Physical change in boys at the time of adulthood (55.36%), fertile period of females (62.5%), Changes during adolescent period (76.19%) and First menstruation (54.17%). There exist significant difference in reproductive health awareness based on gender of the students, management of the school and stream of education and there is no significant difference in reproductive health awareness based on locality of the school. Reproductive health awareness among Female students is significantly higher (6.95) as compared to Male student (5.91); government aided school students is significantly higher (6.87) as compared to government school students (5.90) and science stream students is higher (7.61) and it is lower among commerce students (5.09). It is essential to provide intensive and separate awareness programmes for male students as well as government school students.

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