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A STUDY TO ASSESS KNOWLEDGE AND ATTITUDE REGARDING CYBER SAFETY AMONG SCHOOL STUDENTS AT SELECTED SCHOOL, CHENNAI

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ABSTRACT:

Background: Cyber safety is a critical concern for school students in today's digital age, where online interactions are prevalent. With the increasing use of technology for education and socialization, students face various risks, including cyber bullying, privacy breaches, and exposure to inappropriate content. **Objective:** To assess the knowledge and attitude regarding cyber safety among school students. **Methods:** A quantitative study was conducted using a descriptive design. The population consisted of school students, with a sample size of 50 selected from those who met the inclusion criteria using systematic random sampling at Good Shepherd School, Valasaravakkam, Chennai. Data was collected with self-structured questionnaire. **Results:** The study assessed school students' knowledge and attitudes towards cyber safety, revealing that a majority (80%) had inadequate knowledge, 16% had moderately adequate knowledge, and 4% had adequate knowledge. Attitude levels were also varied, with 56% demonstrating a negative attitude, 32% a moderately positive attitude, and 12% a highly positive attitude. There was a mild positive correlation ($r = 0.327$, $p < 0.05$) between knowledge and attitude, suggesting that improved knowledge is associated with a more positive attitude towards cyber safety. (Among demographic variables, the area of residence showed a significant association with knowledge levels ($\chi^2 = 14.193$, $p = 0.001$), while other demographic factors did not significantly influence either knowledge or attitude.) **Conclusion:** This study shows that there was a inadequate knowledge and attitude regarding cyber safety among school students. we have to create more awareness about cyber safety among school students to improve the knowledge and attitude.

Keywords: Cyber safety, knowledge, attitude, school students.

INTRODUCTION:

Cyber safety is the responsible use of information and communication technology, encompassing not only keeping information secure but also being responsible with it, respectful online behavior, and practicing good internet etiquette. In today's digital age, teaching cyber safety to school students is crucial as they navigate the vast online world for educational and recreational purposes. Schools should incorporate comprehensive cyber safety education into their curriculum to empower students with the knowledge and skills needed to navigate the digital landscape safely.

Introducing awareness programs can equip students with the knowledge and skills needed to navigate the digital landscape safely, covering topics such as privacy settings on social media platforms, recognizing and avoiding online scams, and maintaining a positive digital footprint. Fostering an open dialogue about cyber safety encourages students to seek help when faced with online threats or harassment. Schools can establish a safe space for discussing their online experiences and seeking guidance from teachers or counselors.

Collaboration between schools, parents, and the wider community is essential in promoting cyber safety among students. Schools can organize workshops or informational sessions for parents to educate them about online risks and provide tips for monitoring their children's online activities. Partnerships with law enforcement agencies and cyber security experts can further enhance cyber safety initiatives within the school community.

A previous study found that approximately 65% of students exhibited a basic understanding of cyber safety principles, such as password security and online privacy. However, 35% of students demonstrated limited knowledge or displayed risky behaviors online. This underscores the need for comprehensive cyber safety education programs in schools to bridge the gap in knowledge and promote safer online practices among students.

2.METHODS

Research Approach

In the present research study Quantitative research approach was used in accordance with the nature of the problem.

Research Design

The investigators conducted this study to assess the knowledge and attitude regarding cyber safety among secondary school students. Hence, this made the investigators to undertake Non Experimental Descriptive research design.

Variable

The two categories of variables were discussed in the present study.

Demographic Variables

Age, Gender, Occupation of the parents, Socio economic status, Social media usage, Type of mobile, Area of residence, Source of information.

Research Variables

The research variable of the study was knowledge and attitude regarding cyber safety.

Setting of the study

This study was conducted at a Good Shepherd School, Valasaravakkam, is an English medium, co-educational school established in 1990. It is a renowned private school conducting classes from LKG to Standard XII. It is run by a diverse, well- experienced management team along with the support of qualified and dedicated teachers.

Population Target population

The target population comprises of school students at selected school, Chennai.

Accessible population

School students studying 8th, 9th, 10th Standards at Good Shepherd school, Valasaravakkam, Chennai.

Sample

The school students in the age groups of 13 to 17 years (8th, 9th, 10th standard students) studying in Good Shepherd School Valasaravakkam, Chennai. Who have fulfilled the inclusion criteria.

Sample size

The sample size consists of 50 high school students.

Sampling technique

The sampling technique is probability sampling technique-using systematic Random Sampling was used for selected school.

Criteria for sample selection

Inclusion criteria

- Students who are in studying 8th to 10th Standard.
- Students who are using mobile phones.
- Students who are using social media.

Exclusion criteria

- Students who are long absentees
- Students who have any psychiatric illness

- Students who are not available during data collection.

Description of the tool

The data collection tool was used to assess the knowledge and attitude regarding cyber safety among school students.

The tool used for data collection consists of three parts.

SECTION A

A demographic data consisting of age, gender, class, occupation of the parents, Socio economic status, social media usage, Type of mobile, Area of residence and source of information.

SECTION B

Self-structured questionnaire to assess the level of knowledge on cyber safety among school students

Score	Interpretation
≤ 10	Inadequate
11-15	Moderately Adequate
16-20	Adequate

SECTION B

Attitude scale to assess the level of attitude on cyber safety among school students.

Score	Interpretation
< 15	Negative attitude
15-19	Moderately positive attitude
20-25	Highly positive attitude

SECTION C

Attitude scale to assess the level of attitude on cyber safety among school students.

Score	Interpretation
< 15	Negative attitude
15-19	Moderately positive attitude
20-25	Highly positive attitude

DATA COLLECTION PROCEDURE

The data collection period was 1 week from 28.11.2023 to 06.12.2023. An official permission was obtained from the concerned authorities. The samples were selected in accordance to the

sampling criteria and sampling technique. Informed consent was obtained from each sample before collecting the data prior to the study.

DATA ANALYSIS:

The data collected will be analyzed using both descriptive and inferential statistics.

OBJECTIVES	DATA ANALYSIS
To assess the level of knowledge and attitude regarding cyber safety among school students.	Descriptive statistics (Mean, Standard Deviation)
To correlate the levels of knowledge and attitude regarding cyber safety among school students.	Karl Pearson's correlation coefficient
To assess the association between knowledge and attitude regarding cyber safety and selected demographic variables.	Inferential statistics (Chi-square test)

3.RESULTS:

Table 1: Frequency and percentage distribution of demographic variables of school students.

N = 50

Demographic Variables	F	%
Age in years		
13 years	9	18
14 – 15 years	21	42
15 – 16 years	20	40
16 – 17 years	-	-
Gender		
Female	30	60
Male	20	40
Class		
8 th std	10	20
9 th std	20	40
10 th std	20	40
Occupation of the parents		
Unemployed	-	-
Employed	50	100
Socioeconomic status		
Low class	-	-

Middle class	39	78
High class	11	22
Social media usage		
Yes	50	100
No	-	-
Type of mobile		
Tab	1	2
Android	49	98
Area of residence		
Urban	49	98
Rural	1	2
Source of information		
TV	9	18
Mobile Phone	38	76
News paper	2	4
Neighbourhood	1	2

The table-1 shows that most of the school students, 21(42%) were aged between 14 – 15 years, 30(60%) were female, 20(40%) were studying class 9th and 10th std, 50(100%) were employed, 39(78%) belonged to middle class, 50(100%) were using social media, 49(98%) were residing in urban area and 38(76%) had mobile phone as source of information.

Table 2: Frequency and percentage distribution of level of knowledge regarding cyber safety among school students. N=50

Level of Knowledge	Frequency	Percentage
Inadequate (≤ 10)	40	80.0
Moderately Adequate (11 – 15)	8	16.0
Adequate (16 – 20)	2	4.0

The table -2 depicts that 40(80%) had inadequate knowledge, 8(16%) had moderately adequate knowledge and 2(4%) had adequate knowledge regarding cyber safety among school students.

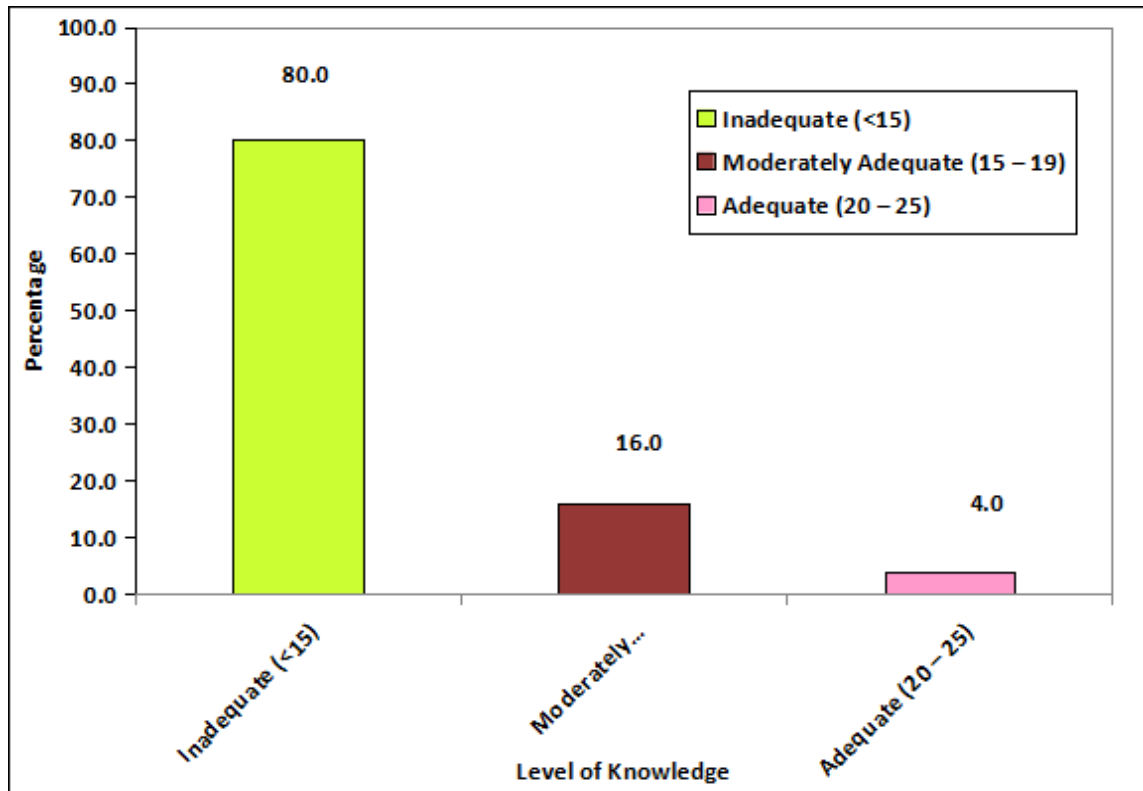


Figure 1: Percentage distribution of level of knowledge regarding cyber safety among school students

Table 3: Frequency and percentage distribution of level of attitude regarding cyber safety among school students. N = 50

Level of Attitude	Frequency	Percentage
Negative (<15)	28	56.0
Moderately Positive (15 – 19)	16	32.0
Highly positive (20 – 25)	6	12.0

The table- 3 depicts that 28(56%) had negative attitude, 16(32%) had moderately positive attitude and 6(12%) had highly positive attitude regarding cyber safety among school students.

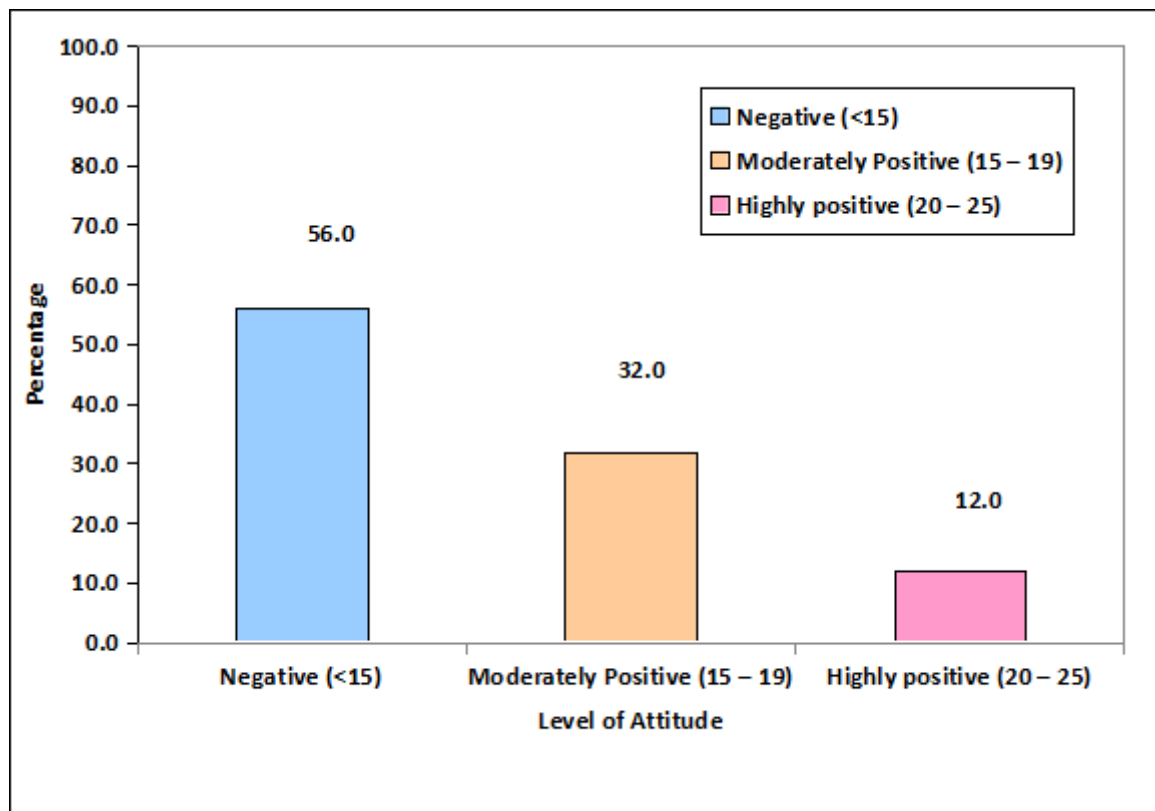


Figure 2: Percentage distribution of level of attitude regarding cyber safety among school students

Table 4: Correlation between knowledge and attitude regarding cyber safety among school students.

Variables	Mean	S.D	Karl Pearson's Correlation 'r' & p-value
Knowledge	7.48	3.80	r = 0.327 p=0.020, S*
Attitude	14.78	3.78	

***p<0.05, S – Significant**

The table- 4 depicts that the mean score of knowledge was 7.48 ± 3.80 and the posttest mean score of attitudes was 14.78 ± 3.78 . The calculated Karl Pearson's Correlation value of $r = 0.327$ shows a mild positive correlation which was statistically significant at $p < 0.05$ level. This clearly indicates that when knowledge regarding cyber safety among school students increases or improves then their attitude towards it also increased or improved.

Table 5: Association of level of knowledge regarding cyber safety among school students with their selected demographic variables.

Demographic Variables	Inadequate		Moderately Adequate		Adequate		Chi-Square Test & p-value
	F	%	F	%	F	%	
Age in years							$\chi^2=0.967$ d.f=4 p=0.915 N.S
13 years	8	16.0	1	2.0	0	0	
14 – 15 years	17	34.0	3	6.0	1	2.0	
15 – 16 years	15	30.0	4	8.0	1	2.0	
16 – 17 years	-	-	-	-	-	-	
Gender							$\chi^2= 0.938$ d.f=2 p=0.626 N.S
Female	23	46.0	6	12.0	1	2.0	
Male	17	34.0	2	4.0	1	2.0	
Class							$\chi^2=1.125$ d.f=4 p=0.890 N.S
8 th std	9	18.0	1	2.0	0	0	
9 th std	16	32.0	3	6.0	1	2.0	
10 th std	15	30.0	4	8.0	1	2.0	
Occupation of the parents							-
Unemployed	-	-	-	-	-	-	
Employed	40	80.0	8	16.0	2	4.0	
Socioeconomic status							$\chi^2=0.612$ d.f=2 p=0.736 N.S
Low class	-	-	-	-	-	-	
Middle class	31	62.0	6	12.0	2	4.0	
High class	9	18.0	2	4.0	0	0	
Social media usage							-
Yes	40	80.0	8	16.0	2	4.0	
No	-	-	-	-	-	-	
Type of mobile							$\chi^2=0.255$ d.f=2 p=0.880 N.S
Tab	1	2.0	0	0	0	0	
Android	39	78.0	8	16.0	2	4.0	

Demographic Variables	Inadequate		Moderately Adequate		Adequate		Chi-Square Test & p-value
	F	%	F	%	F	%	
Area of residence							$\chi^2=14.193$ d.f=2 p=0.001 S***
Urban	40	80.0	7	14.0	1	2.0	
Rural	0	0	1	2.0	1	2.0	
Source of information							$\chi^2=3.947$ d.f=6 p=0.684 N.S
TV	9	18.0	0	0	0	0	
Mobile Phone	28	56.0	8	16.0	2	4.0	
Newspaper	2	4.0	0	0	0	0	
Neighbourhood	1	2.0	0	0	0	0	

***p≤0.001, S – Significant, N.S – Not Significant

The table-5 shows that the demographic variable area of residence ($\chi^2=14.193$, p=0.001) had statistically significant association with level of knowledge regarding cyber safety among school students at p≤0.001 level and the other demographic variables did not show statistically significant association with level of knowledge regarding cyber safety among school students at p<0.05.

Table 6: Association of level of attitude regarding cyber safety among school students with their selected demographic variables.

Demographic Variables	Negative		Moderately Positive		Highly Positive		Chi-Square Test & p-value
	F	%	F	%	F	%	
Age in years							$\chi^2=1.688$ d.f=4 p=0.793 N.S
13 years	4	8.0	4	8.0	1	2.0	
14 – 15 years	13	26.0	5	10.0	3	6.0	
15 – 16 years	13	26.0	5	10.0	2	4.0	
16 – 17 years	-	-	-	-	-	-	
Gender							$\chi^2=1.389$ d.f=2 p=0.499 N.S
Female	20	40.0	7	14.0	3	6.0	
Male	10	20.0	7	14.0	3	6.0	
Class							$\chi^2=1.143$
8 th std	5	10.0	4	8.0	1	2.0	

9 th std	12	24.0	5	10.0	3	6.0	d.f=4 p=0.887 N.S
10 th std	13	26.0	5	10.0	2	4.0	
Occupation of the parents							-
Unemployed	-	-	-	-	-	-	
Employed	30	60.0	14	28.0	6	12.0	
Socioeconomic status							$\chi^2=2.076$ d.f=2 p=0.354 N.S
Low class	-	-	-	-	-	-	
Middle class	22	44.0	11	22.0	6	12.0	
High class	8	16.0	3	6.0	0	0	
Social media usage							-
Yes	30	60.0	14	28.0	6	12.0	
No	-	-	-	-	-	-	
Type of mobile							$\chi^2=0.680$ d.f=2 p=0.712 N.S
Tab	1	2.0	0	0	0	0	
Android	29	58.0	14	28.0	6	12.0	
Area of residence							$\chi^2=4.117$ d.f=2 p=0.128 N.S
Urban	30	60.0	13	26.0	5	10.0	
Rural	0	0	1	2.0	1	2.0	
Source of information							$\chi^2=3.556$ d.f=6 p=0.736 N.S
TV	7	14.0	2	4.0	0	0	
Mobile Phone	21	42.0	11	22.0	6	12.0	
News paper	1	2.0	1	2.0	0	0	
Neighbourhood	1	2.0	0	0	0	0	

N.S – Not Significant

The table-6 shows that the demographic variables did not show statistically significant association with level of attitude regarding cyber safety among school students at $p < 0.05$.

4. DISCUSSION:

Frequency and percentage distribution of level of knowledge and attitude regarding cyber safety among school students depicts were shows that 40(80%) had inadequate knowledge, 8(16%) had moderately adequate

knowledge and 2(4%) had adequate knowledge regarding cyber safety among school student and students depicts shows that 28(56%) had negative attitude, 16(32%) had moderately positive attitude and 6(12%) had highly positive attitude regarding cyber safety among school students.

Correlation between knowledge and attitude regarding cyber safety among school students depicts shows that the mean score of knowledge was 7.48 ± 3.80 and the post test mean score of attitude was 14.78 ± 3.78 . The calculated Karl Pearson's Correlation value of $r = 0.327$ shows a mild positive correlation which was statistically significant at $p < 0.05$ level. This clearly indicates that when knowledge regarding cyber safety among school students increases or improves then their attitude towards it also increased or improved.

The study results shows that the demographic variable area of residence ($\chi^2 = 14.193$, $p = 0.001$) had statistically significant association with level of knowledge regarding cyber safety among school students at $p \leq 0.001$ level and the other demographic variables did not show statistically significant association with level of knowledge regarding cyber safety among school students at $p < 0.05$.

5.CONCLUSION

The study concluded that school students had a inadequate knowledge about cyber safety, while awareness about cyber threats was moderate, there existed significant gaps in understanding specific risks and appropriate safety measures. Furthermore, attitudes towards online behaviour and privacy varied widely, reflecting the need for targeted educational interventions. Overall, the study underscores the importance of comprehensive cyber safety education in schools to equip students with the necessary knowledge and positive attitudes towards safe online practices.

RECOMMENDATIONS FOR FURTHER STUDY

- The study can be conducted as experimental approach.
- The same study can be replicated on large sample to generalize the findings.
- Cyber safety among school students can be compared with personal safety also it can be find how the students knowledge and attitude.
- The same study can be conducted in different settings.
- The same study can be conducted in comparative study between knowledge and attitude regarding cyber safety among school students and college student.
- The same study can be conducted with different demographic variables.

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