

A Study to Assess the Knowledge Regarding Cyber Bullying Among Higher Secondary Students in Selected College, Kolhapur

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Abstract—Background: Cyber bullying has become a growing concern among adolescents due to increased internet and social media use. Assessing students' knowledge is essential for planning effective awareness and prevention programmes.

Objectives: (1) To assess the level of knowledge regarding cyber bullying among higher secondary students in a selected college, Kolhapur. (2) To examine the association between knowledge scores and selected socio-demographic variables.

Methods: A quantitative, non-experimental descriptive survey design was adopted. A total of 100 students studying in 11th and 12th standards were selected using a non-probability purposive sampling technique. Data were collected on 29 November 2023 using a validated structured questionnaire comprising 20 multiple-choice questions.

Results: The mean knowledge score was 9.45 ± 4.34 , with a median of 10, mode of 12, and a score range of 18. Overall, 46% of students had average knowledge, 29% had poor knowledge, 17% had very poor knowledge, and only 8% demonstrated good knowledge. Knowledge scores were significantly associated with father's education ($\chi^2 = 8.0212, p < 0.05$), parental occupation ($\chi^2 = 8.5625, p < 0.05$), and the primary source of information on cyber bullying ($\chi^2 = 7.9101, p < 0.05$).

Conclusion: The findings indicate that higher secondary students possess only moderate knowledge regarding cyber bullying. These results emphasize the need for structured educational programmes and awareness initiatives to improve cyber safety among adolescents.

Index Terms—Cyber bullying; Adolescents; Knowledge; Higher secondary students; Internet safety.

I. INTRODUCTION

Brief Background

Adolescence is a crucial stage of development marked by rapid physical, emotional, and social changes. During this period, young people are more likely to engage in risk-taking behaviours and may not fully recognize the long-term consequences of their online activities. The widespread use of smartphones, social networking platforms, and internet-based communication has increased adolescents' exposure to digital environments, creating greater opportunities for both positive interactions and online risks.

Cyber bullying refers to the deliberate and repeated use of digital communication technologies, such as social media, messaging applications, emails, and other online platforms, to intimidate, threaten, or harass individuals. Compared with conventional bullying, cyber bullying can occur at any time, reach a wider audience, and often allows perpetrators to remain anonymous. These characteristics make it particularly harmful, with victims frequently experiencing anxiety, depression, low self-esteem, social isolation, poor academic performance, and school absenteeism. UNICEF has emphasized that no child is completely protected in today's digital environment, highlighting cyber bullying as an important public health concern.

Rationale for the Study

The increasing use of digital technology among adolescents has contributed to a rise in cyber bullying worldwide. Reports from the Pew Research Center (2022) indicate that nearly half of young people in the United States have experienced online bullying. Evidence also suggests that cyber bullying increased during and after the COVID-19 pandemic, with approximately 28% of children experiencing racially motivated online harassment, particularly in India and the United States. In India, the growing number of cyber bullying incidents, including those reported in Maharashtra, demonstrates the need for effective preventive measures.

Despite increasing awareness of cyber safety, many adolescents continue to have limited knowledge regarding cyber bullying and its consequences. Assessing their level of knowledge is essential for designing targeted educational programmes, promoting responsible online behaviour, and reducing the incidence of cyber bullying in schools.

Objectives of the Study

1. To assess the knowledge regarding cyber bullying among higher secondary students in a selected college, Kolhapur.
2. To determine the association between knowledge scores regarding cyber bullying and selected socio-demographic variables among higher secondary students.

II. MATERIALS AND METHODS

Research Design

A quantitative, non-experimental descriptive survey design was employed to assess the baseline knowledge of higher secondary students regarding cyber bullying.

Study Setting

The study was carried out at selected College, Kolhapur, Maharashtra, India.

Study Population

The study population comprised students enrolled in the 11th and 12th standards of the selected college.

Sample Size

A total of 100 higher secondary students participated in the study.

Sampling Technique

Participants were selected using a non-probability purposive sampling technique based on the predefined eligibility criteria.

Eligibility Criteria

Inclusion Criteria

- Students enrolled in selected College, Kolhapur.
- Students who were able to read and understand English.
- Students who provided informed consent to participate.

Exclusion Criteria

- Students unwilling to participate in the study.
- Students absent during the period of data collection.

Data Collection Instrument

Data were collected using a structured questionnaire consisting of two sections. Section A included socio-demographic information, while Section B comprised a 20-item multiple-choice questionnaire designed to assess knowledge regarding cyber bullying. Each correct response was awarded one mark, whereas incorrect or unanswered items received zero marks. Based on the total score, knowledge levels were categorized as very poor, poor, average, and good.

Validity of the Instrument

The questionnaire was reviewed and validated by experts in Obstetrics and Gynaecological Nursing and Community Health Nursing to ensure its content validity, relevance, and clarity.

Data Collection Procedure

Prior to data collection, permission was obtained from the Principal of Selected College, Kolhapur. The researcher explained the purpose of the study to the participants, assured them of confidentiality, and obtained written informed consent. Eligible students were selected through purposive sampling and asked to complete the questionnaire. The average time required to complete the instrument was approximately 30 minutes.

Data Analysis

The collected data were coded, entered, and analysed using descriptive and inferential statistical methods. Descriptive statistics, including frequency, percentage, mean, median, mode, range, and standard

deviation, were used to summarize the participants' knowledge scores and socio-demographic characteristics. The Chi-square test was applied to examine the association between knowledge scores and selected socio-demographic variables. A p-value < 0.05 was considered statistically significant.

Results

Data from 100 higher secondary students were analyzed to assess their knowledge regarding cyber

bullying and its association with selected socio-demographic variables. Most participants (76%) were aged 17–18 years, while 73% were female. Regarding educational level, 64% were studying in the 11th standard and 36% in the 12th standard. More than half (52%) belonged to joint families, and 63% resided in rural areas. The distribution of all socio-demographic characteristics is presented in Table 1.

Table 1: Frequency and percentage distribution of subjects according to selected socio-demographic variables (n=100).

Sr. No.	Socio-Demographic Variable	Frequency (f)	Percentage (%)
1	Age in Years	24	24%
	a) 15–16 Years	76	76%
	b) 17–18 Years		
2	Gender	27	27%
	a) Male	73	73%
	b) Female		
3	Academic Standard	64	64%
	a) 11th Standard	36	36%
	b) 12th Standard		
4	Type of Family	52	52%
	a) Joint Family	48	48%
	b) Nuclear Family		
5	Area of Residence	37	37%
	a) Urban Area	63	63%
	b) Rural Area		
6	Education of Father	30	30%
	a) Graduate / Post-Graduate	70	70%
	b) HSC / SSC / Primary School		
7	Education of Mother	27	27%
	a) Graduate / Post-Graduate	73	73%
	b) HSC / SSC / Primary School		
8	Paternal Occupation	74	74%
	a) Working	26	26%
	b) Non-Working		
9	Annual Household Income	25	25%
	a) < INR 25,000	37	37%
	b) INR 25,000 – 50,000	38	38%
10	c) INR 50,000 – 1,000,000+		
	Primary Digital Gadget	48	48%
	a) Mobile Phones	25	25%
11	b) Personal Computers	27	27%
	c) Laptops / Tablets		
	Source of Cyber Information	24	24%

	a) Family / Friends / Newspapers b) Social Media Platforms	76	76%
12	Daily Internet Engagement a) 1 – 2 Hours b) 2 – 3 Hours c) 4+ Hours	47 25 28	47% 25% 28%
13	Dominant Platform Used a) Google / YouTube b) WhatsApp c) Instagram / Facebook	49 22 29	49% 22% 29%
14	Initial Exposure to Term a) School / High School / College b) Family Environment	77 23	77% 23%
15	Response to Unknown Messages a) Yes / Only with Parental Permission b) I will think about it	51 49	51% 49%

Analysis of the knowledge questionnaire revealed that most students had limited awareness of cyber bullying. Nearly half of the participants (46%) demonstrated average knowledge, while 29% had poor knowledge and 17% had very poor knowledge.

Only 8% of students exhibited good knowledge of cyber bullying, including its prevention, reporting mechanisms, and safe online practices. The detailed distribution of knowledge levels is presented in Table 2.

Table 2: Percentage and frequency distribution of subjects based on overall cyber bullying knowledge categories (n=100).

Knowledge Score Category	Frequency (f)	Percentage (%)
Good (15 – 20)	8	8%
Average (10 – 14)	46	46%
Poor (5 – 9)	29	29%
Very Poor (0 – 4)	17	17%

Descriptive statistics were used to summarize the participants' knowledge scores. The mean score was 9.45 (out of 20), with a median of 10 and a mode of 12. The standard deviation of 4.34 indicates moderate variability in knowledge scores among the

participants, while the range of 18 reflects considerable differences between the highest and lowest scores. The descriptive statistics are presented in Table 3.

Table 3: Statistical summary mapping central tendency and overall variance parameters of participant knowledge scores (n=100).

Mean Score	Median Score	Mode Score	Standard Deviation (SD)	Score Range
9.45	10.00	12.00	4.34	18.00

The association between knowledge scores and selected socio-demographic variables was examined using the Chi-square test. A statistically significant association was observed with father's education ($\chi^2 = 8.0212, p < 0.05$), parental occupation ($\chi^2 = 8.5625, p < 0.05$), and the primary source of information regarding cyber bullying ($\chi^2 = 7.9101, p < 0.05$). No significant association was found between knowledge

scores and other variables, including age, gender, educational standard, family income, family type, area of residence, mother's education, gadget used, time spent online, social media platform used, first source of information, or response to unknown messages. The detailed results are presented in Table 4.

Table 4: Chi-square matrix assessing statistical association between knowledge levels and demographic variables (n=100). (* Indicates significance at $p < 0.05$).

Sr.	Demographic Variable	Very Poor	Poor	Average	Good	Calc. X^2	Tab. X^2	df
1	Age in Years a) 15–16 Years b) 17–18 Years	5 12	5 24	9 35	5 5	5.0086	0.1712	3
2	Gender a) Male b) Female	5 12	9 20	8 36	5 5	4.7095	0.1944	3
3	Academic Standard a) 11th Standard b) 12th Standard	12 5	18 11	28 15	6 5	0.0818	0.8454	3
4	Type of Family a) Joint Family b) Nuclear Family	10 7	17 12	20 24	5 5	1.5977	0.6599	3
5	Area of Residence a) Urban Area b) Rural Area	7 10	8 21	17 27	5 5	2.0053	0.5714	3
6	Education of Father a) Graduate / Post-Grad. b) School / HSC / SSC	6 10	13 17	6 35	5 8	8.0212*	0.0456	3
7	Education of Mother a) Graduate / Post-Grad. b) School / HSC / SSC	5 12	9 20	8 23	5 18	0.6350	0.8884	3
8	Parental Occupation a) Working Status b) Non-Working Status	10 7	21 8	38 6	5 5	8.5625*	0.0357	3
9	Annual Income a) < 25k b) 25k–50k c) 50k–1L+	6 6 8	6 10 10	7 15 14	6 6 6	1.8732	0.9309	6
10	Digital Gadget Used a) Mobile Phone b) Personal Computer c) Laptop / Tablet	6 5 6	14 5 10	14 6 6	14 9 5	4.2708	0.6401	6
11	Information Source a) Family / Press b) Social Media Platforms	6 12	6 20	6 38	6 6	7.9101*	0.0479	3
12	Daily Online Hours a) 1–2 Hours b) 2–3 Hours c) 4+ Hours	6 6 6	14 8 7	20 6 10	7 5 5	3.4687	0.7482	6
13	Dominant Platform a) Google / YouTube b) WhatsApp c) Instagram / Facebook	5 6 6	14 5 10	23 5 6	7 6 7	9.9075	0.1286	6
14	First Exposure Place	12	22	36	7	4.5778	0.2055	9

	a) Educational Inst. b) Family Core	5	7	6	5			
15	Unknown Message Policy a) Parental Permission b) Unregulated Action	7 10	15 14	22 19	7 6	0.8207	0.8445	9

III. DISCUSSION

Interpretation of Results

The findings indicate that higher secondary students possessed moderate knowledge regarding cyber bullying, with 46% demonstrating average knowledge, 29% poor knowledge, 17% very poor knowledge, and only 8% good knowledge. The mean knowledge score (9.45 ± 4.34) suggests that awareness of cyber bullying remains insufficient. Knowledge scores were significantly associated with father's education, parental occupation, and the primary source of information ($p < 0.05$), while no significant relationship was observed with the remaining socio-demographic variables.

Comparison with Existing Literature

The present findings are comparable with previous studies. Mubarak and Muthukrishnan (2022) reported that most adolescents frequently used smartphones, social media, and the internet and were aware of cyber bullying. Likewise, Savikumar (2016) found that students commonly spent one to two hours online each day. The observed level of knowledge is also consistent with the study by Jayesh et al. (2022), which reported predominantly average to poor baseline knowledge before the implementation of an educational programme.

Implications

Nursing Education: The findings support the inclusion of cyber safety and cyber bullying awareness in educational programmes, with nurses playing an active role in promoting digital safety among students and parents.

Nursing Practice: Nurses should assess adolescents' awareness of cyber bullying, provide counselling, and encourage safe online behaviour to reduce its psychological and social consequences.

Nursing Administration: Educational institutions should conduct regular awareness programmes, workshops, and training sessions to strengthen cyber bullying prevention and promote safe digital practices.

Nursing Research: Further studies are needed to evaluate interventions that improve cyber bullying awareness and prevention. Disseminating research findings through scientific publications and conferences can contribute to evidence-based nursing practice and policy development.

IV. CONCLUSION

This study evaluated the knowledge of cyber bullying among 100 higher secondary students at Selected College, Kolhapur, and examined its relationship with selected socio-demographic variables. The findings revealed that students generally had moderate knowledge of cyber bullying. A statistically significant association was observed between knowledge scores and father's education, parental occupation, and the primary source of information ($p < 0.05$). However, no significant association was found with other socio-demographic characteristics, including age, gender, educational level, family type, residence, mother's education, family income, gadget use, time spent online, social media platform used, or response to unknown messages. The study highlights the need for targeted educational interventions to improve cyber bullying awareness and promote safer online practices among adolescents.

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