

Effectiveness of an Information Booklet in Enhancing Knowledge on Protection Against Cyberbullying and Online Harassment Among Nursing Students at Selected Nursing Colleges

Prof. Jacinth Dhaya C.H.¹, Nirbhay Mohod², Swati Gadegone³,
Divayana Pawar⁴, Ashlesha Moon⁵, Ritesh Padghan⁶

¹Associate Professor, Godavari College of Nursing Jalgaon

²Associate Professor, Godavari College of Nursing Jalgaon

³Assistant Professor, Godavari College of Nursing Jalgaon

⁴Lecturer Godavari, College of Nursing Jalgaon

⁵Lecturer Godavari, College of Nursing Jalgaon

⁶Lecturer Godavari, College of Nursing Jalgaon

Department of Community Health Nursing, Maharashtra University of Health Sciences, Nashik

Corresponding Author: Swati Gadegone

DOI: <https://doi.org/10.52403/gijash.20250218>

ABSTRACT

With the rise of digital connectivity, cyber bullying and online harassment have become pressing concerns, particularly among nursing students who depend on online platforms for education and social interaction. This study evaluates the effectiveness of an information booklet in improving nursing students' knowledge of digital safety. By analysing pre-existing knowledge, demographic correlations, and post-intervention outcomes, the research aims to highlight the impact of structured educational materials in equipping nursing students with essential protective strategies.

Keywords: cyber-bulling, online harassment, digital connectivity, nursing students.

INTRODUCTION

Cyber bullying is the act of using digital communication tools to harass, threaten, or harm individuals. With the increased reliance on technology in education and

communication, nursing students are exposed to online threats that may negatively affect their academic and psychological well-being. This study aims to assess their awareness, identify patterns of cyber bullying incidents, and determine the measures taken to prevent and address such challenges.

Objectives:

Primary Objective:

1. To evaluate the effectiveness of information booklet in enhancing knowledge on protection against cyber bullying and online harassment among nursing students at selected nursing colleges.

Secondary Objectives:

1. To assess the pre-existing level of knowledge about cyber bullying and online harassment among nursing students.
2. To analyze the relationship between demographic variables and knowledge of cyber bullying and online harassment.

- To provide recommendations for future educational programs on digital safety for nursing students.

Hypotheses:

H₁: There is significance association +between demographic variables and knowledge of cyber bullying and online harassment.

H₂: There is a significant difference in the knowledge of nursing students about protection against cyber bullying and online harassment before and after the intervention with an information booklet.

MATERIALS & METHODS

Research Approach:

Quantitative - Research approach

Research Design:

Pre-experimental - One Group pretest-posttest design.

Setting of the Study: selected nursing colleges

Population: nursing students

Sample:

Nursing students from selected nursing colleges who meet the inclusion criteria.

Sample Size: 60 nursing students

Sample Technique: Convenience sampling

STATISTICAL ANALYSIS

DATA INTERPRETATION,

ORGANIZATION OF DATA: TABLES, FIGURES AND GRAPHS

The data collected of the study was classified, organized and analyzed under following sections:

SECTION I

Deals with analysis of demographic data of the nursing students at selected nursing colleges in terms of frequency and percentage.

SECTION II

Deals with analysis of data related to assessment of the knowledge on protection against cyber bullying and online harassment among nursing students at selected nursing colleges in terms of frequency and percentage.

SECTION III

Deals with analysis of data related to the effectiveness of information booklet in enhancing knowledge on protection against cyber bullying and online harassment among nursing students at selected nursing colleges.

SECTION IV

Deals with analysis of data related to the association between pretest knowledge on protection against cyber bullying and online harassment among nursing students at selected nursing colleges with selected demographic variables.

SECTION I

Deals with analysis of demographic data of the nursing students at selected nursing colleges in terms of frequency and percentage.

Table 1: Frequency & percentage distribution of the nursing students at selected nursing colleges

Sr. No.	Variable	Groups	Frequency	Percentage
1	Age (in years)	20-24	10	16.67
		25-28	30	50.00
		29-31	12	20.00
		32 & above	8	13.33
2	Gender	Male	22	36.67
		Female	38	63.33
		Transgender	0	0.00
3	Religion	Hindu	29	48.33
		Muslim	16	26.67
		Christian	12	20.00
		Other	3	5.00

4	Nursing program	Bachelor of science in nursing	29	48.33
		Associate degree in nursing	6	10.00
		Diploma in nursing	16	26.67
		Master of Science in nursing	9	15.00
5	Social media usage	Daily	6	10.00
		Weekly	25	41.67
		Occasionally	20	33.33
		Rarely / Never	9	15.00
6	Device ownership	Smart phone only	32	53.33
		Laptop / desktop only	18	30.00
		Both Smart phone Laptop/desktop only	9	15.00
		Tablet/other devices	1	1.67

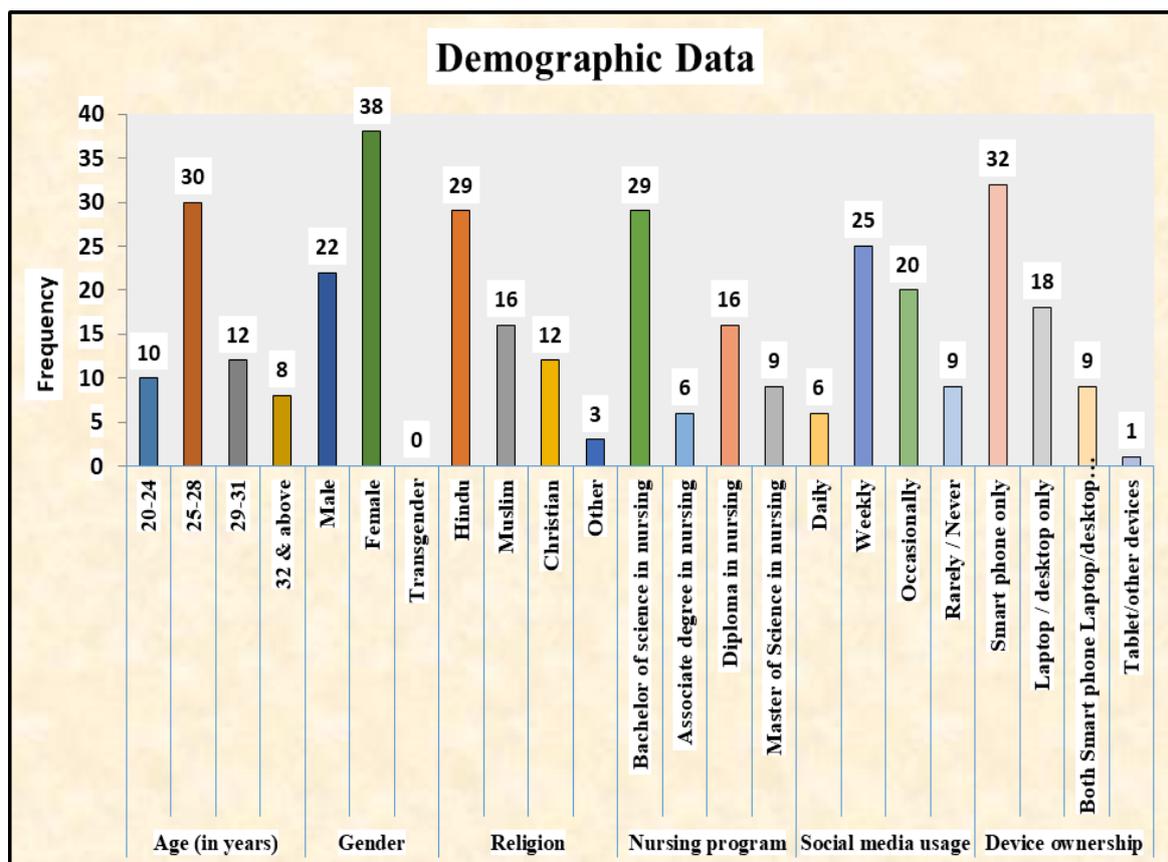


Figure No-1: Distribution of the nursing students at selected nursing colleges

SECTION II

Deals with analysis of data related to assessment of the knowledge on protection against cyber bullying and online

harassment among nursing students at selected nursing colleges in terms of frequency and percentage.

Table 2: General assessments of Knowledge- PRE & POST test

Variable	Groups	Score	Pre Test		Post Test	
			Frequency	Percentage	Frequency	Percentage
Knowledge	Poor	0-5	32	53.33	8	13.33
	Average	6-10	22	36.67	35	58.33
	Good	11-15	6	10.00	17	28.33
Knowledge	Minimum		2		2	
	Maximum		13		14	
	Average (SD)		5.71 (2.86)		8.58 (2.92)	

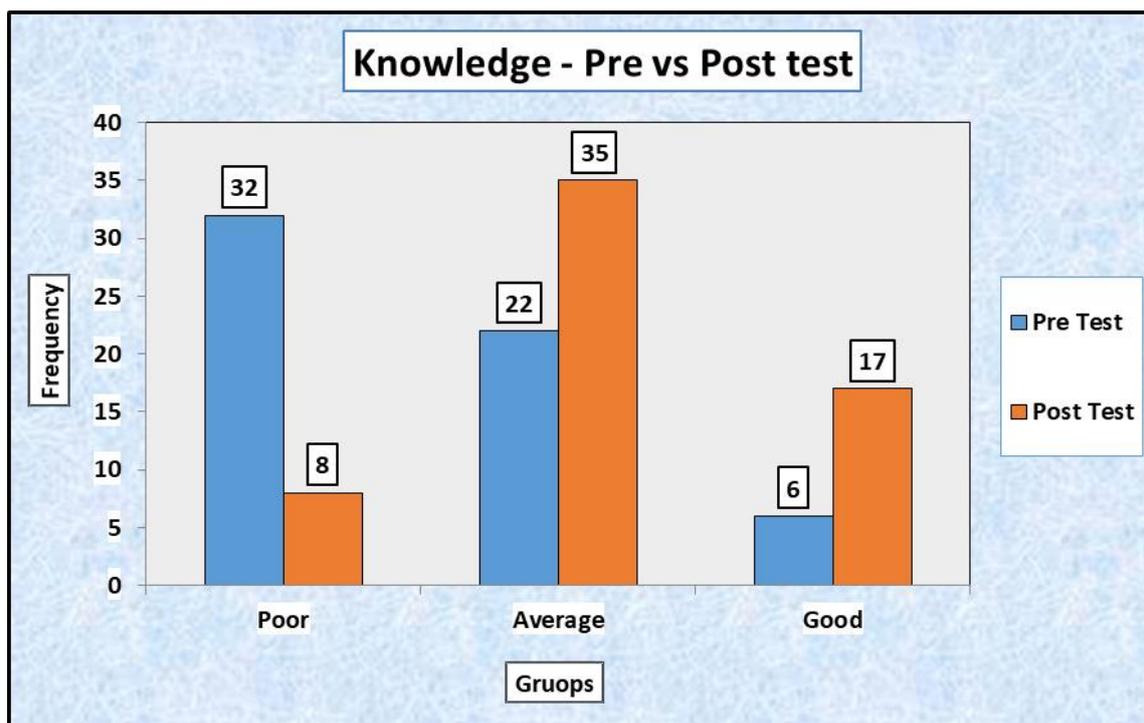


Figure No-2: General assessments of Knowledge - PRE & POST test

General assessments of Knowledge - on protection against cyber bullying and online harassment

For the assessment purpose total score of knowledge on protection against cyber bullying and online harassment among nursing students was divided in to three groups like poor (0-5 score), average (6-10 score) and good (11-15 score).

Pre Test:

At the time of pretest, assessment of the knowledge on protection against cyber bullying and online harassment among nursing students, 53.33% of students had poor knowledge, 36.67% had average knowledge and 10% of nursing students had good knowledge.

Average knowledge score at the time of pretest was 5.71 with standard deviation of 2.86. The minimum score of knowledge was 2 with maximum score of 13.

Post Test:

At the time of posttest, assessment of the knowledge on protection against cyber bullying and online harassment among nursing students, 13.33% of students had poor knowledge, 58.33% had average knowledge and 28.33% of nursing students had good knowledge.

Average knowledge score at the time of posttest was 8.58 with standard deviation of 2.92. The minimum score of knowledge was 2 with maximum score of 14.

SECTION III

Deals with analysis of data related to the effectiveness of information booklet in enhancing knowledge on protection against cyber bullying and online harassment among nursing students at selected nursing colleges.

Table 5: Comparison of the pre and posttest Knowledge (paired t test)

Group	Frequency	Mean	S.D.	t value	P value
Pre Test	60	5.71	2.86	7.29	0.000
Post Test	60	8.58	2.92		

The comparisons of pretest and posttest mean of knowledge on protection against cyber bullying and online harassment among nursing students were done by paired t test.

The pretest average score was 5.71 with standard deviation of 2.86. The posttest average score was 8.58 with standard deviation of 2.92. The test statistics value of the paired t test was 7.29 with p value 0.00.

The p value less than 0.05, hence reject the null hypothesis. That means there is significant difference in pre and posttest knowledge.

Shows that, information booklet in enhancing knowledge on protection against cyber bullying and online harassment among nursing students was effective.

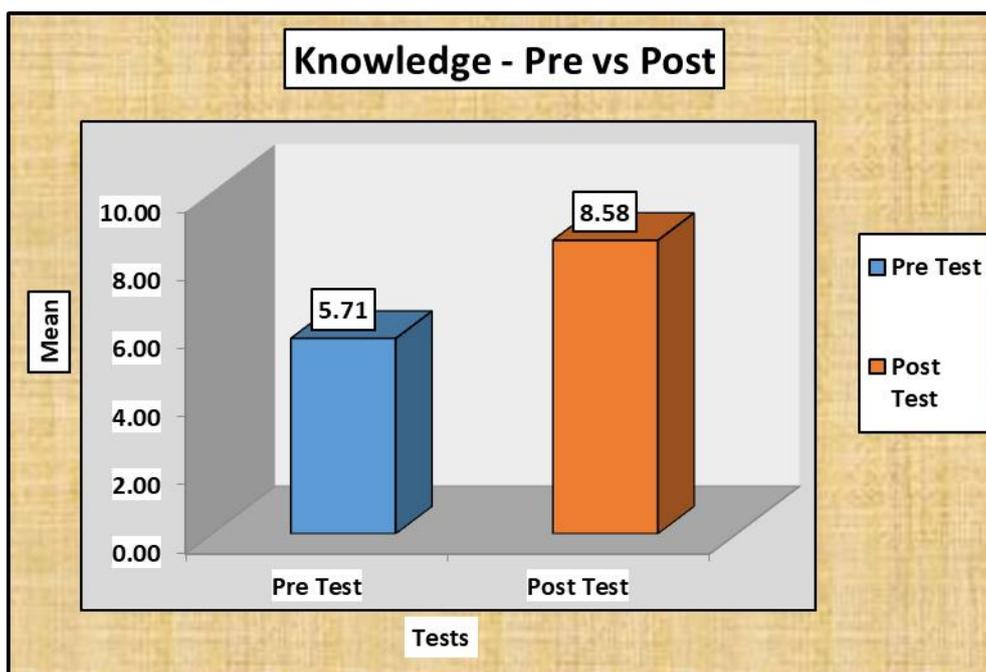


Figure 5: Comparison of the average pre and posttest Knowledge score

SECTION IV

Deals with analysis of data related to the association between pretest knowledge on protection against cyber bullying and online harassment among nursing students at

selected nursing colleges with selected demographic variables.

ASSOCIATION OF KNOWLEDGE IN RELATION TO DEMOGRAPHIC VARIABLES - PRE TEST

Table 8: Association of Knowledge with demographic variables – Pre Test

Variable	Groups	Knowledge - PRE Test		Chi Square	d. f.	p value	Significance
		below Md	above Md				
Age (in years)	20-24	6	4	11.51	3	0.009	Significant
	25-28	20	10				
	29-31	6	6				
	32 & above	0	8				
Gender	Male	11	11	0.155	1	0.69	Not Significant
	Female	21	17				
	Transgender	0	0				
Religion	Hindu	15	14	0.436	3	0.93	Not Significant
	Muslim	8	8				
	Christian	7	5				
	Other	2	1				

Nursing program	Bachelor of science in nursing	17	12	0.71	3	0.87	Not Significant
	Associate degree in nursing	3	3				
	Diploma in nursing	8	8				
	Master of Science in nursing	4	5				
Social media usage	Daily	6	0	11.32	3	0.010	Significant
	Weekly	16	9				
	Occasionally	8	12				
	Rarely / Never	2	7				
Device ownership	Smart phone only	17	15	0.974	3	0.81	Not Significant
	Laptop / desktop only	9	9				
	Both Smart phone Laptop/desktop only	5	4				
	Tablet/other devices	1	0				

ASSOCIATION OF KNOWLEDGE SCORE IN RELATION TO DEMOGRAPHIC VARIABLES – PRE TEST

The chi square test was used to see the association between pretest knowledge on protection against cyber bullying and online harassment among nursing students at selected nursing colleges with selected demographic variables.

The test was conducted at 5% level of significance.

Significant Association:

For the demographic variables age and social media usage, p value of the association test with pretest knowledge was less than 0.05. That means, knowledge of nursing students at selected nursing colleges regarding protection against cyber bullying and online harassment was associated with these demographic variables.

Concludes that, there was significant association of these demographic variables with the pretest knowledge.

No Significant Association:

For the demographic variables gender, religion, nursing program and device ownership, p value of the association test with pretest knowledge was more than 0.05. That means, knowledge of nursing students at selected nursing colleges regarding

protection against cyber bullying and online harassment was not associated with these demographic variables. Concludes that, there was no significant association of these demographic variables with the pretest knowledge.

RESULT

This study assessed how effective an information booklet was in improving knowledge about cyber bullying and online harassment among 60 nursing students.

Demographic Profile of Participants:

Most participants (50%) were between 25 and 28 years old, while 20% were aged 29 to 31. The majority were female (63.33%), and the most commonly followed religion was Hinduism (48.33%), followed by Islam (26.67%).

Nearly half of the students (48.33%) were enrolled in a BSc Nursing program. Social media usage was fairly regular—about 42% used it weekly, and around 33% used it occasionally. More than half (53.33%) primarily accessed the internet through their smartphones.

Knowledge Level – Before and After the Booklet:

Before the Intervention:

A large portion of students (53.33%) had poor knowledge (scores between 0–5).

36.67% had average knowledge (6–10), while only 10% demonstrated good knowledge (11–15).

The average score was 5.71, with a standard deviation of 2.86.

After the Intervention:

Only 13.33% still had poor knowledge.

58.33% reached an average level.

Notably, the number of students with good knowledge jumped to 28.33%.

The average score increased to 8.58 (SD = 2.92).

A paired t-test confirmed that this improvement was statistically significant ($t = 7.29$, $p < 0.001$), suggesting that the booklet made a meaningful difference.

Demographic Factors and Knowledge:

Analysis showed that students' age and how often they used social media were significantly linked to their knowledge levels. However, factors like gender, religion, program of study, or device used didn't show any notable impact.

DISCUSSION

Before the intervention, over half the students struggled with poor awareness. After reading the booklet, this dropped sharply, and the percentage of students with good knowledge nearly tripled. The mean score improvement from 5.71 to 8.58, backed by strong statistical evidence, reinforces how impactful even small educational tools can be.

These findings echo past studies—like those by Mishna et al. (2010) and Slonje et al. (2013)—that show how structured, age-appropriate awareness materials can empower young people to recognize and respond to cyber threats. Similarly, Elsaesser et al. (2017) emphasized how such education supports youth in navigating the digital world more confidently.

Interestingly, older students and those who didn't use social media frequently seemed to have more knowledge, aligning with prior research suggesting that life experience and

cautious online behavior may play a role in cyber safety awareness.

It's also worth noting that, unlike some studies, this one did not find differences based on gender, religion, or device usage—indicating that online safety education is universally needed, regardless of background.

CONCLUSION

Effectiveness of an Information Booklet in Enhancing Knowledge on Protection Against Cyberbullying and Online Harassment Among Nursing Students at Selected Nursing Colleges," found that the educational intervention—an information booklet—had a significant positive impact on students' knowledge. Following the intervention, there was a clear and statistically significant improvement in knowledge scores, with average scores increasing from 5.71 (SD = 2.86) in the pre-test to 8.58 (SD = 2.92) in the post-test. This improvement was supported by a paired t-test result of 7.29 ($p < 0.000$), indicating the effectiveness of the booklet in raising awareness and understanding.

Before the intervention, over half of the participants (53.33%) demonstrated poor knowledge about cyberbullying and online harassment. Post-intervention, this dropped markedly to 13.33%, with corresponding increases in both average and good knowledge levels—rising to 58.33% and 28.33%, respectively. These results highlight the booklet's success in not only disseminating information but in shifting students into higher knowledge categories.

The study also found that factors such as age and social media usage were significantly associated with baseline knowledge levels, suggesting these may influence students' initial awareness. Interestingly, no significant associations were observed with gender, religion, course of study, or device ownership.

Declaration by Authors

Ethical Approval: Approved

Acknowledgement: None

Source of Funding: None

Conflict of Interest: The authors declare no conflict of interest.

REFERENCES

1. Giumetti, G. W., & Kowalski, R. M. (2022). Cyberbullying via social media and well-being. Retrieved from [PubMed](https://pubmed.ncbi.nlm.nih.gov/35313180/).
2. Aboujaoude, E., Savage, M. W., Starcevic, V., & Salame, W. O. (2015). Cyberbullying: Review of an old problem gone viral. *Journal of Adolescent Health, 57*(1), 10–18. [https://doi.org/10.1016/j.jadohealth.2015.04.011]
3. Mishna, F., Cook, C., Gadalla, T., Daciuk, J., & Solomon, S. (2010). Cyberbullying behaviors among middle and high school students. *American Journal of Orthopsychiatry, 80*(3), 362–374. [https://doi.org/10.1111/j.1939-0025.2010.01040.x]
4. Mishna, F., Cook, C., Gadalla, T., Daciuk, J., & Solomon, S. (2010). Cyberbullying behaviors among middle and high school students. *American Journal of Orthopsychiatry, 80*(3), 362–374. [https://doi.org/10.1111/j.1939-0025.2010.01040.x]
5. Elsaesser, C., Russell, B., Ohannessian, C. M., & Patton, D. (2017). Parenting in a digital age: A review of parent and adolescent engagement with online risk. *Journal of Child and Family Studies, 26*(6), 1676–1689.
6. Slonje, R., Smith, P. K., & Frisén, A. (2013). The nature of cyberbullying, and strategies for prevention. *Computers in Human Behavior, 29*(1), 26–32. [https://doi.org/10.1016/j.chb.2012.05.024]
7. Barlett, C. P., & Coyne, S. M. (2014). A meta-analysis of sex differences in cyberbullying behavior: The moderating role of age. *Aggressive Behavior, 40*(5), 474–488. [https://doi.org/10.1002/ab.21555]
8. Tokunaga, R. S. (2010). Following you home from school: A critical review and synthesis of research on cyberbullying victimization. *Computers in Human Behavior, 26*(3), 277–287. [https://doi.org/10.1016/j.chb.2009.11.014]
9. Berson, I. R., Berson, M. J., & Ferron, J. M. (2002). Emerging risks of violence in the digital age: Lessons for educators from an online study of adolescent girls in the United States. *Journal of School Violence, 1*(2), 51–71. [https://doi.org/10.1300/J202v01n02_04]

How to cite this article: Jacinth Dhaya C.H., Nirbhay Mohod, Swati Gadegone, Divayana Pawar, Ashlesha Moon, Ritesh Padghan. Effectiveness of an information booklet in enhancing knowledge on protection against cyberbullying and online harassment among nursing students at selected nursing colleges. *Galore International Journal of Applied Sciences & Humanities*. 2025; 9(2): 141-148. DOI: <https://doi.org/10.52403/gijash.20250218>
