ORIGINAL ARTICLE

A Study to Evaluate the Effectiveness of Educational Interventions Regarding Protection against Digital Abuse on Knowledge, Attitude, and Practice among Adolescents in Puducherry

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Abstract

Background: Digital abuse happens when children and adolescents use mobile phones, networking, social, and other communication media to threaten or aggressively abuse someone. Digital abuse starts with few text messages per day, which can turn into hundreds. The abusers look for things like the passwords of other person and intimate photos. Abusers may spread rumors, pretend to be someone else, or even blackmail. In most cases, the abuse is very sensitive and emotional.

Materials and methods: A quasi-experimental research design with quantitative approach was used for the study. The systematic random sampling was used to select 100 adolescents for the study. The pretest data were conducted by using a structured questionnaire for knowledge, a rating scale for attitude, and a checklist for practice. On the same day, educational interventions were given to 25 students from the list of students put in an alphabetical order. Each session consists of 1-hour structured teaching session, which includes PowerPoint presentation, videos, and pamphlet distribution regarding digital abuse and its protective measures. After 1 week, the knowledge, attitude, and practice regarding protection against digital abuse were assessed by using the same structured questionnaire for knowledge, rating scale for attitude, checklist for practice, and the posttest was conducted.

Results: The study findings revealed that mean knowledge was 7.72 and 16.73, respectively, with standard deviation 2.948 and 4.778 in pre- and posttest, which was found highly statistically significant at the $p < 0.001$*** level. In attitude, mean was 47.26 and 57.29 in pre- and posttest, respectively, with standard deviation 4.627 and 7.616, which was found highly statistically significant at the $p < 0.001$*** level. In practice, mean was 6.28 and 7.44 in pre- and posttest, respectively, with standard deviation 1.944 and 1.766, which was found highly statistically significant at the $p < 0.001$*** level. Also, there is a strong relationship between knowledge, attitude, and practice among adolescents.

Conclusion: Educational interventions were effective in improving the knowledge, attitude, and good practice of adolescents on protection against digital abuse.

Keywords: Adolescents, Attitude, Digital abuse, Educational intervention, Knowledge, Practice.

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Introduction

Digital abuse means through the social network the assailant intentionally harms the victim either physically or emotionally with a cunning mind to create damage for the individual and family also.[1–6]

Digital abuses have a various ill effects that make a person to change his or her behavior and attitude in day-to-day life.[7–12]

There are several types of digital abuse that occur everywhere, which include cyberstalking, harassment, bullying, digital dating abuse, digital domestic violence, morphing, pornography, and pop-up.[13–20]

Digital dating abuse means forcing the opposite gender to send private or nude pictures. Digital dating abuse is prevalent among teens.[21–24]

American multinational nonprofit news agency headquarters in New York, United States, conducted survey in 2011 AP-MTV Digital Abuse study reveals that digital abuse is a serious problem.[25–30]

In 2013 according to the survey done by Center for Disease Control and Prevention, 10% of high school students reported that they are harassed by their boyfriends. Physical and sexual abuse are the most common forms of dating violence; however, digital abuse is also recognized as a form of dating violence.[37–42]

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A study was conducted by Center for Public Affairs Research on digital abuse: experience of teens and adolescents in Chicago, United States. This study reveals about half of all young people think they would intervene if they witness digital meanness; significantly fewer said they would respond if they see it happening in person. There are so many digital abuses that occur in the adolescent age group. In order to overcome such problems, it is very important to teach the adolescents how to protect them from digital abuse.[43–45]

Statement of the Problem

A study was conducted to evaluate the effectiveness of educational interventions regarding protection against digital abuse on knowledge, attitude, and practice among adolescents in Puducherry.

Objectives

- To assess the pretest level of knowledge, attitude, and practice on protection against digital abuse among adolescents.
- To evaluate the effectiveness of educational interventions on protection against digital abuse.
- To determine the correlation between knowledge, attitude, and practice among adolescents.

Hypotheses

H-1: Knowledge, attitude, and practice of adolescents differ before and after administration of educational interventions regarding protection against digital abuse.
H-2: Relationship exists between knowledge, attitude, and practice.

Materials and Methods

- A quasi-experimental research design with quantitative approach was adopted for the study; 100 adolescents were selected by using systematic random sampling for the study. The pretest data were conducted by using a structured questionnaire for knowledge, a rating scale for attitude, and a checklist for practice. On the same day, educational interventions were given to 25 students from the list of students put in an alphabetical order. Each session consists of 1-hour structured teaching session that includes PowerPoint presentation, videos, and pamphlet distribution regarding digital abuse and its protective measures. After 1 week, the knowledge, attitude, and practice regarding protection against digital abuse were assessed by using the same structured questionnaire for knowledge, rating scale for attitude, and checklist for practice, and the posttest was conducted. Data collected were analyzed using descriptive and inferential statistics.

Results

Table 1 indicates the mean, median, and standard deviation of pre- and posttest level of knowledge. The pre- and posttest level of knowledge mean was 7.72 and 16.73, respectively, the median was 7 and 18, respectively, and the standard deviation was 2.948 and 4.778, respectively. The obtained Wilcoxon signed-rank value was −8.223. It was highly statistically significant at the $p < 0.001$*** level. There is a significant of difference between pre and posttest values of the knowledge level. The result shows that the educational interventions regarding protection against digital abuse effectively improved the knowledge among adolescents.

Table 2 indicates the mean, median, and standard deviation of the pre- and posttest level of attitude. The pre- and posttest level of attitude mean was 47.26 and 57.29, respectively, the median was 47 and 57, respectively, and the standard deviation was 4.627 and 7.616, respectively. The obtained Wilcoxon signed-rank value was −12.221. It was highly statistically significant at the $p < 0.001$*** level. There is significant difference between pre and posttest values of the attitude level. The result shows that the educational interventions regarding protection against digital abuse were highly statistically significant. Thus, stated hypothesis (H_1) is accepted.

Table 3 depicts the comparison of mean median and standard deviation of pre- and posttest level of practice. The pre- and posttest level of practice mean was 6.28 and 7.44, respectively, the median was 6 and 8, respectively, and the standard deviation was 1.944 and 1.766, respectively. The obtained Wilcoxon signed-rank value was −4.372. It was highly statistically significant at the $p < 0.001$*** level. There is a significant difference between pre- and posttest values of the practice level. The result shows that the educational interventions regarding protection against digital abuse effectively improved the practice among adolescents.

Table 4 indicates the posttest level of the Pearson correlation and the significant (two-tailed) level. The posttest level of knowledge Pearson correlation was 1, attitude Pearson correlation was 0.548, and practice was 0.374; and the significant (two-tailed) level for knowledge, attitude, and practice was 0.000. It is well provided that there is statistically strong relationship between knowledge, attitude, and practice at $p < 0.01$**. Hence, the stated hypothesis (H2) is accepted.

Recommendations

Based on findings of the present study, the following recommendations have been made:

- The study can be replicated with a large sample for better generalization.
- A similar study can be conducted among adolescents affected with digital abuse.
- A similar study can be conducted with the protection aspect to reduce cybercrime.

Table 1: Comparison of mean, median, standard deviation of the pre- and posttest level of knowledge regarding protection against digital abuse among adolescents

Level of knowledge	*Mean*	*Median*	*Std. deviation*	*p value*
Pretest	7.72	7	2.948	<0.001*** HSS
Posttest	16.73	18	4.778	

HSS, highly statistically significant < 0.001***

Table 2: Comparison of the pre- and posttest mean, median, standard deviation level of attitude on protection against digital abuse among adolescents

Level of attitude	*Mean*	*Median*	*Std. deviation*	*p value*
Pretest	47.26	47	4.627	<0.001*** HSS
Posttest	57.29	57	7.616	

HSS, highly statistically significant < 0.001***

Table 3: Comparison of mean, median, standard deviation of the pre- and posttest level of practice regarding protection against digital abuse among adolescents

Level of practice	*Mean*	*Median*	*Std. deviation*	*p value*
Pretest	6.28	6	1.944	<0.001*** HSS
Posttest	7.44	8	1.766	

HSS, highly statistically significant < 0.001***

Table 4: Correlation between knowledge, attitude, and practice among adolescents during posttest

Correlations				
		Post-knowledge	*Post-attitude*	*Post-practice*
Post-knowledge	Pearson correlation	1	0.548**	0.374**
	Significant (two-tailed)		0.000	0.000
Post-attitude	Pearson correlation	0.548**	1	0.496**
	Significant (two-tailed)	0.000		0.000
Post-practice	Pearson correlation	0.374**	0.496**	1
	Significant (two-tailed)	0.000	0.000	

**Correlation is significant at the 0.01 level (two-tailed)

Conclusion

The study findings concluded that 22 (22%) had excellent knowledge, 19 (19%) had good knowledge, 17 (17%) had average knowledge, 25 (25%) had satisfactory knowledge, and 17 (17%) had poor knowledge. Regarding the attitude level, 68 (68%) had positive attitude and 32 (32%) had negative attitude. Regarding the practice level, 94 (94%) had positive practice and 6 (6%) had negative practice. The study reveals that educational interventions will improve the knowledge, attitude, and practice of the adolescents.

In future, educational interventions and other similar programs are needed to improve the level of knowledge, attitude, and practice regarding protection against digital abuse among adolescents and thereby we'll be able to make a healthy environment.

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