

# A Study on Awareness among Women in Educational Institutions towards Cybercrime

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## Abstract

*The present research paper was undertaken to study the awareness among women in educational institutions towards cybercrime. The researcher compared the awareness by their location, designation, family structure and stream of study. The sample comprised a total of 123 women of different educational institutions of different designation including graduate, post-graduate, research scholar students and school teachers from both rural and urban area selected randomly. Samples were selected from nuclear and joint family, language, social science and science stream. The Cybercrime Awareness Scale by Rajasekar (2011) was administered to assess the levels of cybercrime awareness among women in educational institutions. To analyze the data Mean, Percentage, Standard deviation (S.D.), 't' test and One-way ANOVA were used. Result revealed that all respondent had positive awareness towards cybercrime but 39% of the total respondent had shown low positive awareness and 61% of the total respondent had shown high positive awareness towards cybercrime.*

**Keywords:** Awareness, Cybercrime, Educational Institutions, Nuclear Family.

## 1. Introduction:

Technology has huge usage for students and teachers. Students can get information from relevant websites about any field of study from anywhere and anytime. The Internet has various positive potentialities towards modernity but the wrong usage of the internet always seems to be dangerous for the young generation. Most of the time, women are the real victims of cybercrime. They need to be more conscious about the cybercrime types and activities. Cybercrime is any crime that performs unlawful acts through computer and mobile phones. "The Oxford reference Online defines 'cyber-crime' as a crime committed over the Internet. Jaishankar and Haider (2011) define Cybercrimes as offences that are committed against individuals or groups of individuals with a criminal motive to intentionally harm the reputation of the victim or cause physical or mental harm to the victim directly or indirectly, using modern telecommunication networks such as the Internet (Chat rooms, emails, notice boards and groups) and mobile phones (SMS/MMS)"<sup>1</sup>.

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<sup>1</sup>Bansal, P. (2018). Cybercrime awareness among prospective teachers in relation to institutional management and behavioural pattern types. *Online international interdisciplinary research journal*, {Bi-Monthly}, , Volume-08, Issue-03, May-June 2018 issue, ISSN 2249-9598.

The main purpose of the present study is to know the awareness of the women of different educational institutions towards cybercrime.

## 2. Review of Related Literature:

Goel,U.(2014)<sup>2</sup> studied on awareness among B.Ed. teacher trainees towards cybercrime from Sonapat district, Haryana. The study revealed that there was no significant difference towards cybercrime by gender, but there were significant differences found towards cybercrime awareness by location and the stream of study of the B.Ed. teacher trainees. Malhotra, T. & Malhotra,M.(2017)<sup>3</sup> studied on cybercrime awareness among teacher trainees. The result indicated that most of the prospective teachers have a comparatively moderate awareness level of cybercrime. According to Bansal,P.(2018)<sup>4</sup>, the types of management of teacher education institutions and behavioural patterns of prospective teachers have a significant influence on their cybercrime awareness level. Sreehari,A.-et-al.(2018)<sup>5</sup> showed the awareness of cybercrime among college students with special reference to Kochi. The study revealed that most of the users are aware of cybercrime but still download various content which falls under cybercrime. They failed to report it in cybercrime police to prevent it. Sundar,P.-(2018)<sup>6</sup> did a comparative study of the awareness of teachers (Education Colleges, Engineering and Degree Colleges, School Teachers, Teachers of Social studies) towards cybercrime. The study found that there was a significant difference in each category except in terms of gender about the awareness towards cybercrime. Singh, R. & Sharma,A.(2019)<sup>7</sup> studied on cyber law awareness in higher secondary level students of rural and urban areas of Jaipur district. The study found that there was no major significant difference in each category. Babu, J. & Jayakumar,P.(2020)<sup>8</sup> studied on the attitude and awareness of women about cyber sexual offences in the area of social work intervention. It was found from the research that women feel fear to raise their voice against their harassment and abuses because women lack knowledge about the usage of technologies and they sometimes don't know the proper rules of the authority.

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<sup>2</sup>Goel, U. (2014). Awareness among b.ed teacher training towards cyber-crime-a study.*Learning community*: 5(2 and 3): August and December 2014: 107-117, DOI number: 10.5958/2231-458x.2014.00013.x

<sup>3</sup>Malhotra, T. & Malhotra, M. (2017). Cybercrime awareness among teacher trainees.*Scholarly Research Journal for Interdisciplinary Studies*, UGC approved SR. NO. 45269, ISSN 2278-8808.

<sup>4</sup>Bansal, P. (2018). Cybercrime awareness among prospective teachers in relation to institutional management and behavioural pattern types.*Online international interdisciplinary research journal*, {Bi-Monthly}, , Volume-08, Issue-03, May-June 2018 issue, ISSN 2249-9598.

<sup>5</sup>Sreehari, A. et al. (2018). A study of awareness of cybercrime among college students with special reference to Kochi.*International journal of pure and applied mathematics*, volume-119, No. 16, 1353-1360, ISSN: 1314-3395 (on-line version)

<sup>6</sup>Sunder, P. (2018). A comparative study of the awareness of teachers towards cybercrime.*International journal of advanced research and development*, Volume 3; Issue 1; January 2018; page no. 846-848, ISSN: 2455-4030

<sup>7</sup>Singh, R. & Sharma, A. (2019). A study of cyber law awareness in higher secondary level students of rural and urban areas of Jaipur district.*Review of research*, volume – 8, Issue - 8, May – 2019, ISSN: 2249-894x

<sup>8</sup>Babu, J. & Jayakumar P. (2020). Attitude and awareness of women about cyber sexual offences: an area of social work intervention. *International conference on current challenges in social work practice*, Vol-40, Issue-72, (March 2020), ISSN: 2394-3114.

Keeping in mind the above findings, the rationale of the study is the present researcher could not find any researches regarding awareness of cybercrime of the female students of the graduate, post-graduate, research scholar and female school teachers. The present study is going to discuss the awareness of female students and school teachers towards cybercrime irrespective of location, designation, family structure and stream of study.

### 3. Objectives of the Study:

The present study was conducted to achieve the following objectives:

- i) To study the overall awareness of the women of different educational institutions towards cybercrime.
- ii) To compare the awareness towards cybercrime among nuclear and joint family-oriented women respondents.
- iii) To compare the awareness towards cybercrime among rural and urban women respondents.
- iv) To compare the awareness towards cybercrime among female graduates, post-graduates, research scholars and school teachers respondents.
- v) To compare the awareness towards cybercrime among language, social science and science stream-based female respondents.

### 4. Statement of the Problem:

The present study is stated as "A study on awareness among women in Educational Institutions towards Cybercrime." This study intended to find out the level of awareness (high and low) among women from the standpoint of a different variable. In the present study, awareness towards cybercrime is the dependent variable and locality (Rural, Urban), Family structure (Nuclear, Joint), Designation (Graduate, Post-graduate, Research scholar, School teacher) and Stream of study (Language, Social science, Science) are the independent variable. The focal theme of the present study is awareness of the women of educational institutions towards cybercrime activity.

### 5. Hypothesis of the Study:

The hypotheses of the present study are as follows-

**Ho<sub>1</sub>:** There would be no significant difference in the overall awareness of the women of different educational institutions towards cybercrime.

**Ho<sub>2</sub>:** There would be no significant difference in the awareness towards cybercrime among nuclear and joint family-oriented women respondents.

**Ho<sub>3</sub>:** There would be no significant difference in the awareness towards cybercrime among rural and urban women respondents.

**Ho<sub>4</sub>:** There would be no significant difference in the awareness towards cybercrime among female graduates, post-graduates, research scholars and school teachers' respondents.

**Ho<sub>5</sub>:** There would be no significant difference in the awareness towards cybercrime among language, social science and science stream-based female respondents.

## 6. Methodology of the Study:

**6.1: Population:** All the females of educational institutions of the West Bengal are considered as a population of the study.

**6.2: Sample:** The sample of the study is comprised of 123 females of different educational institutions taken randomly based on location-wise, family structure-wise, designation wise and a stream of study wise.

**Table-1: Distribution of Samples**

Locality		Family Structure		Designation				Stream of Study		
Rural	Urban	Nuclear	Joint	Graduate	Post-Graduate	Research Scholar	School Teacher	Language	Social Science	Science
54	69	75	48	36	48	12	27	36	48	39
Total = 123		Total = 123		Total = 123				Total = 123		

**6.3 Tools:** The Cybercrime Awareness Scale by [Rajasekar\(2011\)<sup>9</sup>](#) is administered to assess the levels of cybercrime awareness among women in educational institutions. 36 questions are having 21 positives and 15 negative items along with the five-point Likert scale of strongly agree, agree, undecided, disagree, strongly disagree carry a weightage of 5,4,3,2,1 for the positive item and just the reverse in case of the negative item.

**6.4 Statistical Techniques and Research Approach:** The collected data has been analyzed through the application of SPSS statistical techniques i.e. Percentage, Mean, Standard Deviation (S.D.), 't' test and One-way ANOVA. The present research is a descriptive survey type study.

## 7. Data Analysis and Interpretation:

There is no negative awareness of cybercrime. The researcher has separated all the scores between two sections. The scores between 108 to144 are considered as low positive awareness scores and the scores between 144 to180 are considered as high positive awareness scores. The result has shown that overall 39% of the total respondent has shown low positive awareness and 61% of the total respondent has shown high positive awareness towards cybercrime.

To test the first hypothesis, the 't' test was used. The result has been shown in the following tables.

<sup>9</sup>Dr. S. Rajasekar, Professor of Education, Annamalai University, CYBERCRIME AWARENESS SCALE (CCAS-RS), MANASVI distributor, NATIONAL PSYCHOLOGICAL CORPORATION, 4/230, KacheriGhat, AGRA- 282 004: (0562) 2464926.

**Table-2 Mean and Standard deviation of low positive awareness and high positive awareness**

Awareness Score	Scores	Number of Samples	Mean	Standard Deviation
Low Positive Awareness Score	108 to 144	48	136.0625	8.36000
High Positive Awareness Score	145 to 180	75	163.5200	9.31920

**Table-2** shows that there is a high difference in mean between low positive and high positive awareness scores of the respondents. The high awareness scores have a higher standard deviation than the low positive awareness scores. It is seen that in a 95% confidence interval, the level of Significance in the Two-tailed test is 0.00. Thus, the difference between the means is significant. Hence, the Null Hypothesis  $H_{01}$  is rejected.

To test the second hypothesis, the 't' test was used. The result has been shown in the following table-3.

**Table-3 Family structure-wise mean and standard deviation of the scores**

Family Structure	Number of Samples	Mean Scores	Std. Deviation	Std. Error Mean
Nuclear	75	148.7600	17.54210	2.02559
Joint	48	159.1250	11.16725	1.61185

**Table-3** shows that cybercrime awareness of joint family has a high mean than the nuclear family. It has been found that in a 95% confidence interval, the level of Significance in the Two-tailed test is 0.00. Thus, the difference between the means is significant. Hence, the Null Hypothesis  $H_{02}$  is rejected.

To test the third hypothesis, the 't' test was used. The result has been shown in the following table-4.

**Table-4 Locality wise mean and standard deviation of the scores**

Locality	Number of Samples	Mean of the Scores	Std. Deviation	Std. Error Mean
Rural	54	146.1111	14.72729	2.00413
Urban	69	158.0435	15.32437	1.84484

**Table-4** shows that cybercrime awareness of urban has a high mean and standard deviation than the rural awareness scores. It has been found that in a 95% confidence interval, the level of

Significance in the Two-tailed test is 0.00. Thus, the difference between the means is significant. Hence, the Research Hypothesis is accepted and the Null Hypothesis  $H_{03}$  is rejected. One-way ANOVA was used to test the fourth hypothesis. The result has been shown in the following tables.

**Table-5 Designation wise mean and standard deviation of the scores**

	Number of Samples	Mean of Scores	Std. Deviation
Graduate Student	36	155.9167	12.14525
Post Graduate Student	48	148.6250	19.48445
Research Scholar	12	146.2500	9.49761
School Teacher	27	159.0000	13.92286
Total	123	152.8049	16.13908

**Table-6 Designation wise ANOVA table and level of significance of the scores**

ANOVA Table					
	Sum of Squares	df	Mean Square	F-Value	Significance value
Between Groups	2739.067	3	913.022	3.742	.013
Within Groups	29038.250	119	244.019		
Total	31777.317	122			

**Table-5** shows that schools teachers have high positive awareness than other respondents of different designation. The high awareness scores having a higher standard deviation tells that post-graduate student's awareness scores are more spread out or dispersed than the other respondent's awareness scores. From the ANOVA **Table-6**, It has been found that in a 95% confidence interval, the level of Significance in the Two-tailed test is 0.013 ( $P < 0.05$ ). The Null Hypothesis  $H_{04}$  is rejected.

One-way ANOVA was used to test the fifth hypothesis. The result has been shown in the following table.

**Table-7 Stream of study wise ANOVA table and level of significance of the scores**

ANOVA Table					
	Sum of Squares	df	Mean Square	F-Value	Significance value
Between Groups	10649.485	2	5324.743	30.243	.000
Within Groups	21127.832	120	176.065		
Total	31777.317	122			

From the ANOVA **Table-7**, It has been found that in a 95% confidence interval, the level of Significance in the Two-tailed test is 0.000 ( $P < 0.05$ ). That means, there is a significant difference in the awareness towards cybercrime among the women respondents of the different stream of study. Hence, the Null Hypothesis  $H_{05}$  is rejected.

### 8. Major Findings:

The major findings of the study are:

- i) There is no negative awareness among the respondents but it is seen that there are low positive awareness and high positive awareness towards cybercrime among the female respondents.
- ii) Respondents of a joint family show more awareness of cybercrime than the nuclear family.
- iii) Respondents of an urban location show more awareness of cybercrime than the rural respondent.
- iv) Results show that schools teachers and graduate students have high positive awareness towards cybercrime than other respondents of different designation.
- v) Results show that respondents of science and language streams respectively secure more high positive scores towards cybercrime awareness than the respondents of social science stream.

### 9. Delimitations of the Study:

The study is delimited to the following-

- i) The study is delimited to the women of different educational institutions.
- ii) Only randomly selected respondents of different districts in West Bengal are selected for the study.
- iii) The variable of the study is delimited to a demographic variable like the location of the respondents (rural and urban), the designation of the respondents (graduate, post-graduate, research scholar and school teacher), the family structure of the respondents (nuclear and joint), and the stream of study of the respondents (language, social science and science).
- iv) The study is delimited to 123 samples from the women of different educational institutions.

### 10. Conclusion:

Cybercrime is an unlawful act that harms the users who have less knowledge about technical systems on the computer as well as the mobile phone. Everyone need to more aware of its negative impacts. Especially women students and teachers should have sufficient knowledge

about the wrong effects of cybercrime. There should be separate courses in teacher education and student's curriculum about cyber activities; its positive and negative uses. From the present study, it has been seen that students are not fully aware of cybercrime activities. The educational administrators should take proper steps to aware of our future generation. Not only female students but also male students need to know about cybercrime activity and need to know the way of preventing the crime.

## References:

- Anisha. (2017). Awareness and strategy to prevent cybercrimes: an Indian perspective. *Indian journal of applied research*, volume – 7, Issue – 4, April-2017, ISSN - 2249-555x
- Babu, J. & Jayakumar P. (2020). Attitude and awareness of women about cyber sexual offences: an area of social work intervention. *International conference on current challenges in social work practice*, Vol-40, Issue-72, (March 2020), ISSN: 2394-3114.
- Bansal, P. (2018). Cybercrime awareness among prospective teachers in relation to institutional management and behavioural pattern types. *Online international interdisciplinary research journal*, {Bi-Monthly}, , Volume-08, Issue-03, May-June 2018 issue, ISSN 2249-9598.
- Goel, U. (2014). Awareness among b.ed teacher training towards cyber-crime-a study. *Learning community*: 5(2 and 3): August and December 2014: 107-117, DOI number: 10.5958/2231-458x.2014.00013.x
- Malhotra, T. & Malhotra, M. (2017). Cybercrime awareness among teacher trainees. *Scholarly Research Journal for Interdisciplinary Studies*, UGC approved SR. NO. 45269, ISSN 2278-8808.
- Saha, T. et al. (2014). Indian women at risk in the cyberspace: a conceptual model of reasons of victimization. *International journal of cyber criminology*, Vol 8, Issue-1, January - June 2014, Sage publications, New Delhi, India.
- Singh, R. & Sharma, A. (2019). A study of cyber law awareness in higher secondary level students of rural and urban areas of Jaipur district. *Review of research*, volume – 8, Issue - 8, May – 2019, ISSN: 2249-894x
- Sreehari, A. et al. (2018). A study of awareness of cybercrime among college students with special reference to Kochi. *International journal of pure and applied mathematics*, volume-119, No. 16, 1353-1360, ISSN: 1314-3395 (on-line version)
- Sunder, P. (2018). A comparative study of the awareness of teachers towards cybercrime. *International journal of advanced research and development*, Volume 3; Issue 1; January 2018; page no. 846-848, ISSN: 2455-4030