



# AWARENESS ON CYBER SECURITY AMONG STUDENTS IN WOMEN COLLEGES WITH SPECIAL REFERENCE TO COIMBATORE CITY

<sup>1</sup>Ms. Chelsea Angelina Simon, <sup>2</sup>Dr. J. Sagaya Anglien Mary

<sup>1</sup>II M. Com, <sup>2</sup>Assistant Professor

<sup>1</sup>PG Department of Commerce

<sup>1</sup>Nirmala College for Women, Coimbatore, India

**Abstract:** Cyber security is an important issue in today's world as the number of digital devices and online activities are rapidly increasing. The study's aims to examine the level of awareness on cyber security and to understand the level of basic knowledge about cyber security among female college students in in Coimbatore city. The data were gathered through questionnaire and the sample size of 106 female students. The descriptive research design was used for this study and the sample was collected using a simple random sampling method. The chi-square test and Spearman's rank correlation coefficient were used in the study. The study concludes that, there is a growing awareness of cyber security among female college students, but still there is lack of knowledge when it comes to implementing the necessary security measures to ensure their online safety and security.

**Keywords - Cyber Security Awareness, Women College, Female Students**

## I. INTRODUCTION

As the use of digital technology has grown exponentially in recent years, so cyberattacks and data breaches have increased more in number as well. Cyber criminals are constantly finding new ways to exploit vulnerabilities in digital systems, compromising the privacy and security of users. Cyber security is an increasingly important issue in today's world, as the variety of electronic devices and online activities expands. Cyber security is a growing concern for individuals and organizations in the digital age. With the increasing use of technology and the internet, the security and privacy of digital data is more important than ever. Cyber security is essential for individuals, businesses, and governments to protect their data and networks from malicious attacks. Awareness of cyber security among students is critical to ensure they understand the importance of protecting their data and keeping their online activities secure. This awareness can help them understand the risks associated with using the internet, recognize potential threats, and develop the skills to protect themselves from cyber threats and it is important to stay up to date on the latest cyber security news and trends in order to remain informed on new threats and techniques.

## II. STATEMENT OF THE PROBLEM

The problem of awareness on cyber security among female college students is a pressing issue that should be addressed. Despite the fact that technology has become a part of everyday life, many female students still lack the basic knowledge and understanding of cyber security. As a result, female college students are more vulnerable to cyber-attacks, which can have serious financial, legal, and reputational consequences. Furthermore, female college students are more likely to fall victim to cybercrime due to their limited knowledge of cyber security and the lack of awareness of the potential risks and threats. The purpose of this study is to investigate the current level of cyber security awareness among female college students and to identify possibility strategies for increasing their understanding the risks associated with online activities.

**III. OBJECTIVE OF THE STUDY**

- To identify the awareness on cyber security among female college students.
- To examine the level of basic knowledge about cyber security among female college students.

**IV. RESEARCH METHODOLOGY**

**1. Research Design:** Descriptive research design.

**2. Source of Data:**

- Primary data: Structured questionnaire in Google form.
- Secondary data: Books, magazines, websites and articles.

**3. Sampling Technique:** Simple Random sampling.

**4. Sampling Size:** 106 respondents.

**5. Area of the Study:** Coimbatore city.

**6. Tools used for the Study:** The SPSS package used for the study are Rank Analysis, Chi-square Test and ANOVA.

**V. ANALYSIS AND INTERPRETATION****(i) Chi-Square Test****Comparison Between Education and the knowledge of Preventing Viruses from Infecting the Device**

Ho: There is no significant relationship between education and the knowledge of preventing viruses from infecting the device.

Ha: There is a significant relationship between education and the knowledge of preventing viruses from infecting the device.

FACTORS	CALCULATED VALUE	D.F	P.VALUE
I am aware of how to prevent viruses from infecting my machine.	80.792 <sup>b</sup>	3	.000
I know how to recognize a phishing attack	47.396 <sup>a</sup>	4	.000
I know the types of malwares that can affect my computer	50.415 <sup>a</sup>	4	.000
I understand the importance of creating strong passwords	40.698 <sup>a</sup>	4	.000
I know how to identify suspicious websites	25.509 <sup>a</sup>	4	.000
I am familiar with internet privacy safeguards.	27.868 <sup>a</sup>	4	.000
I know how to protect myself from phishing and other online scams	31.453 <sup>a</sup>	4	.000
I am conscious of the risks and hazards that could arise from using the internet.	37.208 <sup>a</sup>	4	.000

**Source: Author's Computation**

The P- Value is less than 5% significance level, hence the null hypothesis is accepted.

## (ii) One -Way Anova

**Comparison Between Educational Qualification and the Primary Purpose of Cyber Security**

Ho: There is no significant difference between educational qualification and in the primary purpose of cyber security.

Ha: There is significant difference between educational qualification and in the primary purpose of cyber security.

EDUCATIONAL QUALIFICATION		SUM OF SQUARES	D.F	MEAN SQUARE	F	SIG.	S/NS
Primary Purpose of Cyber Security	Between Groups	.735	4	.184	.177	.950	NS
	Within Groups	104.661	101	1.036			
	Total	105.396	105				

Source: Author's Computation

The P- Value is greater than 5% significance level, hence the null hypothesis is accepted.

## (iii) Rank Analysis

**Rank Correlation for the Precautions factors in the Cyber Security**

Ho: There is no correlation between the factors.

Ha: There is correlation between the factors.

Spearman's Rank Correlation Coefficient		Use of strong passwords and two-factor authentication	Installation of anti-virus/anti-malware software	Regularly updating software and operating system	Refrain from clicking suspicious links or attachments in emails	Awareness of social engineering tactics	Backing up important data
Spearman's Rank Correlation Coefficient	Use of strong passwords and two-factor authentication	1.000	.022	.083	.108	.104	.333**
		.	.822	.397	.271	.287	.000
		106	106	106	106	106	106
	Installation of anti-virus/anti-malware software	.022	1.000	.129	.085	.256**	.233*
		.822	.	.188	.387	.008	.016
		106	106	106	106	106	106
	Regularly updating software and operating system	.083	.129	1.000	.153	.071	.235*
		.397	.188	.	.116	.468	.015
		106	106	106	106	106	106

	Refrain from clicking suspicious links or attachments in emails	.108	.085	.153	1.000	.070	.381**
		.271	.387	.116	.	.473	.000
		106	106	106	106	106	106
	Awareness of social engineering tactics	.104	.256**	.071	.070	1.000	.397**
		.287	.008	.468	.473	.	.000
		106	106	106	106	106	106
	Backing up important data	.333**	.233*	.235*	.381**	.397**	1.000
		.000	.016	.015	.000	.000	.
		106	106	106	106	106	106

**Source: Author's Computation**

Spearman's Rank Correlation Coefficient,  $r_s$  is -0.235 rank first with the factors such regularly updating software and operating system and refrain from clicking suspicious links as precaution factors in the cyber security.

## VI. FINDINGS

- There is a significant relationship between education and the knowledge of preventing viruses from infecting the device.
- There is a no significant difference between qualification and the primary purpose of cyber security.
- The value 0.235 has been given first rank regularly updating software and operating system and refrain from clicking suspicious links are precaution factors in cyber security.

## VII. CONCLUSION

The female students at women's colleges in Coimbatore City are becoming more aware of cyber security issues. The risks of cybercrime are well understood by the students, as is the significance of taking precautions to safeguard themselves. Additionally, they have embraced a number of ethical behaviors, including the use of strong passwords, avoiding emails that seem suspicious, and setting up antivirus software on their devices. They also demonstrated a desire to keep up with the most recent threats and learn more about cyber security. Students at women's colleges are becoming more aware of the importance of cyber security, but they still lack the knowledge necessary to put the necessary security measures in place to ensure their online safety and security. According to this study, female college students in Coimbatore City are aware of potential cyber threats and are taking the appropriate precautions to protect themselves. This is a positive development, and it is hoped that the students will carry on acting proactively to protect themselves from cybercrime going forward.

**References**

- Mohammed A. Alqahtani (2022), “Factors Affecting Cybersecurity Awareness among University Students”. Science proceeding series, Volume 2, Issue 1, Page no.82-86.
- Talal Alharbi, Asifa Tassaddiq (2021), “Assessment of Cybersecurity Awareness among students of Majmaah University”. Big Data Cognitive computing, Volume. 5, Issue 2, Page no. 23.
- Wejdan Aljohani, Nazar Elfadil (2020), “Measuring Cyber Security Awareness of students: A Case Study at Fahad Bin Sultan University”. International Journal of Computer Science and Mobile Computing. IJCSMC, Vol. 9, Issue. Pg.141 – 155
- Rakhee Chhibber, Radhika Thapar (2018), “A Survey on “Cyber Security Awareness among College Going Students in Delhi”. Vivekananda Journal of Research, Volume 7.1, ISSN 2456-7574
- K. Senthilkumar and S. Easwaramoorthy (2017), “A Survey on Cyber Security awareness among college students in Tamil Nadu,” IOP Conference Series: Materials Science and Engineering, Volume 263, Issue. 4.
- Research Methodology: Methods and Techniques, C. R. Kothari and Gaurav
- Cyber Security, 1st Edition, Dr. O.N. Pandey, S.K. Kataria & Sons, 2015
- <https://www.vaultes.com/cyber-security-awareness/>
- <https://www.embroker.com/blog/top-cybersecurity-threats/>

