

Cyber Security Awareness among College Students in Chennai City

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Abstract:

This study tries to find out the awareness of Cyber security among the college students. Cyber security awareness has become increasingly important among the college students due to the rapid growth of digital technology and internet usage in academic and personal activities. This study aims to assess the level of cybersecurity awareness among college students and examine their knowledge attitudes and practices related to online safety. The research highlights the importance of understanding common cyber risks, adopting secure password practices, recognizing fraudulent activities, and protecting personal information in the digital environment. The primary data collected through survey and questionnaire method and circulated among the college students from various disciplines. The findings are expected to reveal the current awareness level and identify gaps in cyber security knowledge and safe online behaviour. Based in the result, recommendations will be provided to enhance cybersecurity education and promote responsible digital citizenship among students. This study emphasizes that improving cybersecurity awareness is essential for creating a safer digital ecosystem and reducing the risks associated with cybercrime in higher educational institutions.

Keywords: Cyber Security Awareness, College Students, Cyber Threats, Online Safety, Phishing, Data protection, Cyber Crime, Digital Security.

1. INTRODUCTION

In the digital era, the widespread use of the internet, smartphones, social media platforms, and online learning systems has significantly transformed the lives of college students. While these technological advancements provide numerous educational and communication benefits, they also expose students to various cyber security threats such as phishing attacks, identity theft, malware infections, cyber bullying, online scams, and data breaches. As students increasingly rely on digital platforms for academic, social, and financial activities, the need for cyber security awareness has become more critical than ever.

Cyber security awareness refers to the knowledge and understanding of potential cyber threats and the adoption of safe online practices to protect personal and institutional information. College students are often considered a vulnerable group due to their extensive online presence and limited awareness of cyber risks. A lack of knowledge regarding password security, privacy settings, suspicious links, and safe internet practices can make them to easily overcome from cybercriminals.

Educational institutions play a vital role in promoting cyber security awareness among the students by providing training programs, workshops, and awareness campaigns. To enhancing cyber security knowledge can help students recognize potential threats, adopt preventive measures, and contribute to creating a safer digital environment.

1.1. AWARENESS OF THE CYBER SECURITY

This study aims to examine the level of cyber security awareness among college students, identify common cyber threats faced by them, and suggest measures to improve their cyber security practices.

- To use strong passwords.
- To change passwords regularly.
- To know about phishing emails.
- To verify suspicious links before clicking.
- To use two-factor authentication.
- To update the mobile regularly.
- To install antivirus software.
- To know about Ransomware.
- To know about identity theft.
- To understand data privacy.
- To know how to report cybercrime.
- To avoid sharing OTPs.

- To use secure Wi-Fi.
- To attended cyber security training.
- Every college conducts cyber awareness program once in a year.

1.2. NEED OF THE STUDY

Students frequently use online platforms for learning communication, banking, and social networking, making them vulnerable to cyber threats, this study will help the students from online crimes and Understanding students' awareness levels can help educational institutions develop effective strategies to strengthen cyber security culture and reduce cyber risks within academic communities. Cyber security is protecting digital devices, networks, and personal information from cyber threats. As students increasingly depend on digital technologies, awareness of cyber security practices has become essential.

2. LITERATURE REVIEW

Kavith Senthilkumar and Sathishkumar (2017) conducted a survey on Cybersecurity awareness among college students in Tamil Nadu. The study found that while students were aware of common cyber threats, many lacked knowledge about preventive security measures and safe online practices.

Aastha Verma & Charu Shri (2022) focused in their study about the cybercrime threats such as phishing, malware, ransomware, DDoD attacks, SQL injection, IoT attacks, and cyber security challenges.

2.1. RESEARCH GAP

Most previous studies focused on university students at the national level. Limited research has specifically examined cyber security awareness among college students in Chennai City. So, the researcher decided to research in this topic.

2.2. STATEMENT OF THE PROBLEM

Students frequently use online platforms for learning communication, banking, and social networking, making them vulnerable to cyber threats such as phishing attacks, malware, identity theft, data breaches, and online scams. Many college students lack adequate

knowledge regarding password security, phishing attacks, data privacy, and safe online practices. This increases the risk of cybercrime.

2.3. OBJECTIVES OF THE STUDY

- To examine the relationship between demographic variables and cyber security awareness.
- To analyse the student attitudes and fraudulent activities regarding cybercrime.
- To investigate the role and impact of the cybercrime.
- To measure the level of cyber security awareness among the college students.
- To suggest measures for improving cyber security awareness.

2.4. HYPOTHESES

- **H0₁:** There is no significant association between gender and cyber security awareness.
- **H0₂:** There is no significant relationship between cyber security training and awareness level.
- **H0₃:** There is no significant difference in awareness among students of different age groups.

3. RESEARCH METHODOLOGY

3.1. RESEARCH DESIGN

Analytical Research

3.2. AREA OF STUDY

Used Colleges in Chennai City

3.3. DATA SOURCE

Used Both Primary Data and secondary Data.

3.4. SAMPLE SIZE

300 students

3.5. SAMPLING TECHNIQUE

Convenience Sampling

3.6. DATA COLLECTION TOOL

Structured Questionnaire

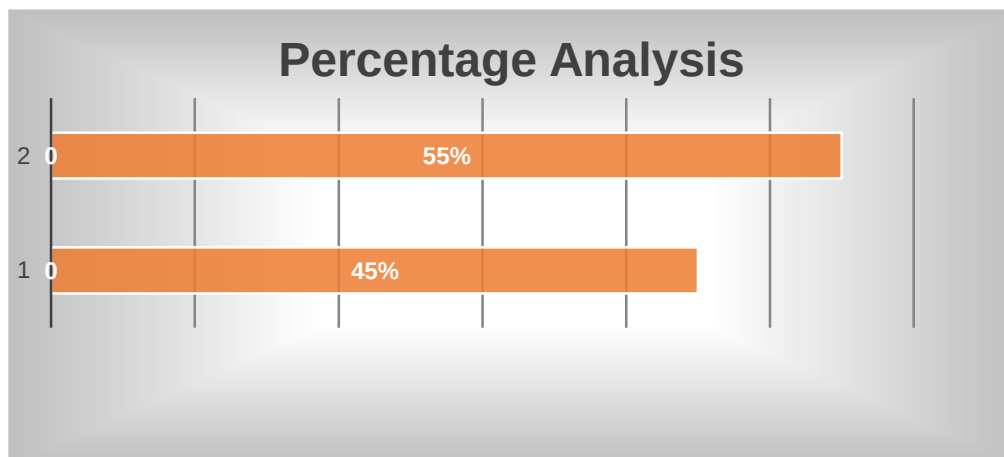
3.7. STATISTICAL TOOLS USED IN THIS STUDY

- Percentage Analysis, Mean Score, Weighted Average, Chi-square Test, Independent t-test, One-way ANOVA, Correlation Analysis, Multiple Regression Analysis, Reliability Test (Cronbach's Alpha).

4. DATA ANALYSIS

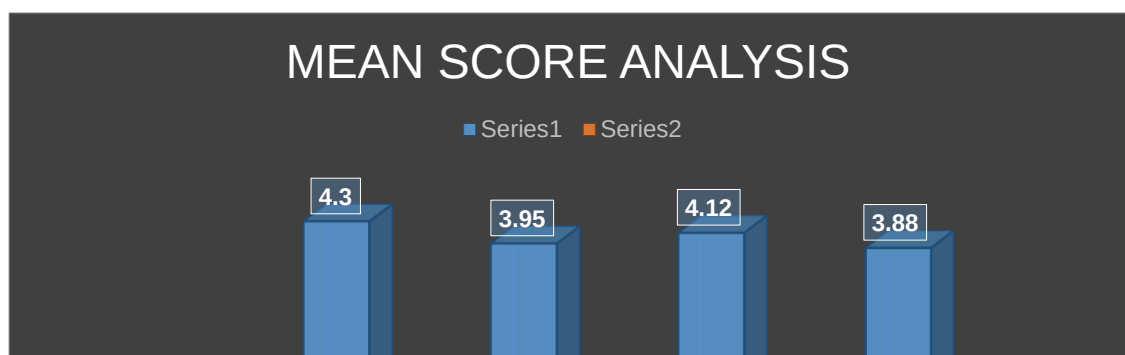
4.1. Percentage Analysis

Male	45%
Female	55%



4.2. Mean Score Analysis

Variable	Mean
Password Security	4.30
Phishing Awareness	3.95
Data Privacy	4.12
Online Banking Safety	3.88



4.3. Chi-Square Test

Relationship between Gender and Awareness Level

Result

$p < 0.05$

Therefore,

Reject H_0 .

There is a significant association between gender and awareness.

4.4. INDEPENDENT T-TEST

Compare awareness between Students who attended training and Students who did not.

Result

Training group Mean = 4.35

Non-training Mean = 3.68

$p < 0.05$

Training significantly improves awareness.

4.5. ONE-WAY ANOVA

Compare awareness among:

- Arts
- Science
- Commerce

- Engineering

Result:

$$p < 0.05$$

Awareness differs significantly across academic disciplines.

4.6. CORRELATION ANALYSIS

Variables:

Training vs Awareness

$$r = 0.72$$

Strong positive relationship.

4.7. MULTIPLE REGRESSIONS

Dependent Variables

Cyber Security Awareness

Independent Variables:

- Age
- Gender
- Internet Usage
- Training
- Education Level

Result:

$$R^2 = 0.61$$

This means 61% of awareness is explained by the selected variables.

Training has the strongest positive impact.

4.8. FINDINGS & SUGGESTIONS

- Around 70% know about phishing attacks.
- Awareness of ransomware is comparatively low.
- Students who attended cyber security workshops have significantly higher awareness.
- Engineering students show higher awareness than other streams.

- Female students exhibit slightly higher awareness regarding privacy practices
- Conduct cyber security awareness workshops every semester.
- Include cyber security as a value-added course.
- Organize phishing simulation exercises.
- Encourage two-factor authentication.
- Promote strong password practices.
- Display cyber safety awareness posters across campus.
- Collaborate with cybercrime experts for guest lectures.
- Establish a cybersecurity awareness club in colleges.

5. LIMITATION OF THE STUDY

- ❖ This study is limited to selected colleges in Chennai city.
- ❖ Responses are based on students' perceptions.
- ❖ The sample size may not represent all college students in India

5.1. CONCLUSION

The study concludes that college students in Chennai city possess a moderate to good level of cyber security awareness. However, awareness varies based on training, academic discipline, and exposure to cyber security education. Regular awareness campaigns, practical training sessions, and integration of cyber security concepts in to the curriculum can significantly improve students' preparedness against cyber threats. This study will help the students to identify the cyber-crimes and give the suggestion to overcome such problems.

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