



iJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 2 Issue: VII Month of publication: July 2014

DOI:

www.ijraset.com

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A Study on Level of Knowledge Regarding Cybercrime Among Elderly Residing in Homes and Old Age HOMES

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Abstract: As the Internet, mobile phones, and other computer technologies have flourished, criminals have found ways to use them for old-fashioned goals such as theft, fraud, intimidation, and harassment. 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 Internet (Chat rooms, emails, notice boards and groups) and mobile phones (SMS/MMS) Cybercrime is a term for any illegal activity that uses a computer as its primary means of commission. Cybercrime includes any type of illegal scheme that uses one or more components of the Internet (chat rooms, email, message boards, websites, and auctions) to conduct fraudulent transactions or transmit the proceeds of fraud to financial institutions or to others connected with the scheme. The more and more use of internet by elderly has enabled them to make active role especially in health care, while the internet has contributed to the societal change and provided opportunities to revolutionized health care. For elderly, use of internet is more of an evolution than revolution. Elderly are found to be disproportionately affected by the cyber crime, and as they have more free time to spend on internet they are likely to have more chances of falling victims to cyber crime. The finding of the study indicates that level of knowledge of cybercrime is medium among elderly residing in their homes whereas there is low level of knowledge among elderly residing in Old Age homes because of lack of availability of internet facilities. The aim of the study was to assess the level of knowledge of cyber crime among elderly residing in their homes and old age homes. A cross sectional study was used for data collection. 60 elderly residing in their homes and 60 elderly residing in old age homes were selected from different areas of Lucknow city. Total sample size was 120. The purposive random sampling technique was used to collect the data. After the collection of data, it was analyzed with SPSS (version 20) for Mean, Standard Deviation, and chi-square test. The study revealed that there is highly significant difference between level of knowledge and place of residence of respondents (the chi-square value for elderly residing in homes is 38.400 and Elderly residing in Old Age homes is 6.667) and $df=1$ at 5% level of significance.

Keywords: Cybercrime, Internet, Knowledge, Elderly.

I. INTRODUCTION

Cybercrime is a term for any illegal activity that uses a computer as its primary means of commission. Cybercrime includes any type of illegal scheme that uses one or more components of the Internet (chat rooms, email, message boards, websites, and auctions) to conduct fraudulent transactions or

transmit the proceeds of fraud to financial institutions or to others connected with the scheme. Cyber crime also applies to generating spam emails, downloading viruses or spyware to computer, harassing another through the Internet, child pornography, and solicitation of prostitution online.).Such crimes may threaten a nation's security and financial health.

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Issues surrounding these types of crimes have become high-profile, particularly those surrounding cracking, copyright infringement, child pornography, and child grooming.

The more and more use of internet by elderly has enabled them to make active role especially in health care, while the internet has contributed to the societal change and provided opportunities to revolutionized health care. Elderly are found to be disproportionately affected by the cyber crime, and as they have more free time to spend on internet they are likely to have more chances of falling victims to cyber crime. Elderly residing in their own homes have more level of knowledge about cyber crime as they use the internet and computers frequently.

II. METHODOLOGY

Aims and Objectives

The aim of the study was to assess the level of knowledge of cyber crime among elderly residing in their homes and old age homes.

Research design

A research design is the specification of methods and procedure for acquiring the information needed. The research design for

the present study was cross-sectional research design. Cross-sectional method was used because this method is extensive and can be used to collect data from a large sample at a particular point of time.

Sampling Design

The sample for the present study consisted of 120 respondents (60 elderly residing in the homes and 60 elderly residing in old age homes). The purposive random sampling technique used to select the sample from the selected area.

Methods of Data Collection

As the study is Cross- Sectional in nature, survey method was adopted to collect the information from the target population. A well structured and pre tested interview schedule was given to the subjects to their response. Interview schedule was used with great care so as to have minimum possible biasness. "English" version of the interview schedule was used.

To study the level of Knowledge of respondents regarding cybercrime, a questionnaire (correct, partially correct and incorrect) was developed to get the response of the respondents.

S.No	STATEMENTS
1	Any criminal offense committed against or with the use of a computer or computer network is cybercrime.
2	Unlawful acts wherein the computer is either a tool or target results in cyber crime.
3	A cybercrime can lead to loss of business.
4	Cyber criminals can operate from anywhere in the world targeting large number of people across international boundaries too.
5	A cybercrime can lead to financial loss.
6	A cyber criminal take advantage of lacunas of computer operating system and penetrate into the computer system to commit cybercrime.
7	A cybercrime can lead to loss of intellectual property.
8	Hacking is defined as unauthorized access to computer system.
9	A cybercrime can lead to productivity loss.
10	A cybercrime can lead to loss of consumer confidence
11	Control over the websites of another is web jacking or hi-jacking.
12	Cyber stalking involves use of internet to harass someone.
13	Spamming is sending of unsolicited bulk and commercial messages over the internet.

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14	Cyber pornography is committed when women and children are victims of sexual exploitation through internet and is part of cybercrime.
15	Phishing is a cybercrime criminally fraudulent process of acquiring sensitive information such as username and password is done.
16	Financial gain is one of the common reasons of cybercrime by cyber criminals.
17	Computers are vulnerable so different provision of cyber laws are made to safeguard them against cybercrime.
18	In India the Information Technology (IT) Act, 2000 was passed to provide legal recognition for transaction carried out by means of electronic communication.
19	The Information Technology Act, 2000 to deal with the law relating to digital contracts, digital property and violation of these laws constitutes a crime.
20	Life imprisonment and fine up to rupees ten lakhs may be given to certain classes of cybercrime under IT Act (2008).
21	Punishment for cyber terrorism may extend to imprisonment for life under section 66 F of IT Act,(2008).
22	Online charity contributions, life insurance are some financial crime against elderly.
23	Underreporting and victim vulnerabilities are most usual factors contributing to financial crimes against elderly.
24	Seniors who have active social lives and experience a broad array of consumer situations may be vulnerable to fraud because of increased exposure.
25	According to McAfee, older people have much more implicit trust and therefore they are much more likely to be a victim of cyber fraud.
26	Senior citizens are disproportionately affected by internet crime and our current law do not able to protect them.
27	Elderly are often subjected to four types of cybercrime that is fraud, illegal access to computer networks, vandalism and identity theft.
28	In 1984, computer fraud and abuse act created seven computers specific offenses for unauthorized access to computers, rarely applies to cybercrime against elderly.
29	Online fraud and cheating is one of the most lucrative business that are growing today in cyber space.
30	Avoid disclosing any information pertaining to one self is the best for preventing cyber stalking.
31	Always use latest and update antivirus software to guard against virus attacks.
32	Never use to send your credit card number to any site that is not secured to guard against fraud.
33	Cyber law is the term used to describe legal issue related to the use of communication technology, particularly cyberspace.
34	Malware is software designed to damage a computer system without the owner's informed consent.
35	The global anti- malware market is driven by cyber criminal threats.
36	Lack of awareness towards cybercrime makes the elderly an even more attractive victim of cybercrime.
37	Cyber- piracy is the illegal copying and trading of software through internet.
38	Elderly dependency on others increases their vulnerability to certain schemes involving identity theft.
39	Information Technology Act, 2008 punishes various cyber crimes including cyber terrorism.
40	Cyber squatting is an issue that has not been tackled in IT Act, 2000.
41	Centre for cyber victim counseling in India provides counseling for the trauma one has gone through by becoming a target of cybercrime.

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Data Analysis

For the analysis of data the following steps were followed:

(A) Coding- A coding plan was developed in which code numbers were given to every question and its responses and then tabulated on the coding sheet.

(B) Tabulation- The coded data was transferred from the coding sheet to comprehensive tables to give a clear picture of the findings.

(C) Statistical Analysis- The descriptive statistic applied was chi-square test.

Based on scoring pattern, questionnaire is divided into these category that is low, medium and high level of knowledge of the respondents. The range of these categories were as given below-

CATEGORIES	SCORE
1.) Low	0-41
2.) Medium	42-82
3.) High	83-12

III. RESULT & DISCUSSION

1. Distribution of respondents on the basis of level of knowledge (N=120).

S.No.	Level of knowledge	Elderly residing in own Home (N=60)	Elderly residing in Old Age Home (N=60)
		F (%)	F (%)
1	Low (0-41)	6 (10.0)	40 (66.7)
2	Medium (42-82)	54 (90.0)	20 (33.3)
3	High (83-123)	0 (0)	0 (0)

Data in the table showed that 10 percent respondents and 66.6 percent respondents were having low level of knowledge who were residing in own homes and old age homes. Majority of respondents 90 percent were found to have medium level of knowledge who were residing in homes whereas 33.3 percent respondents found to have medium level of knowledge who were residing in old age homes. None respondents were found to have high level of knowledge either residing in homes or residing in old age homes. The reason of having low knowledge about cybercrime in respondents residing in old age homes might be that they use less technology.

2. Chi-square value between independent variable Residence and level of Knowledge (N=120).

S.No.	LEVEL OF KNOWLEDGE	Chi-Square	df	Sig.
1.	Elderly residing in Homes	38.400	1	0.000**
2.	Elderly residing in Old Age Homes	6.667	1	0.010*

Significant at 0.05 level.

The above table revealed that calculated value of chi-square (elderly residing in homes is 38.400 and Elderly residing in Old Age homes is 6.667) was less than table value which indicates that the null hypothesis was rejected. Therefore, having highly significant differences between level of knowledge and place of residence. Hence, the level of knowledge of respondents may vary according to residence of respondents. The elderly residing in own homes have high chi-square value than elderly residing in old age homes. The reason could be that elderly residing in own homes uses more technology/ cyber facilities.

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