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Knowledge Regarding Occupational Health Hazards and Safety Measures among the Computer Users of Banks in Banepa Municipality

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Abstract

Occupational safety and health is one of the key issues today, with growing industrialization and labor market. Contemporary technology revolution has made our lives with so much convenient that people would hardly imagine life without computer, internet, cable TV, cellular phone various tool and gadgets. These technologies including computer have made life so much easy but they have created many risks to human health like computer health hazards. The objective of study was to assess Knowledge regarding Ooccupational Health Hazards and Safety Measures among the Computer Users of Banks in Banepa Municipality. A descriptive, cross-sectional study was done among 100 adults between 20-60 years of age of Banepa Municipality by random sampling technique with the use of structured and semi-structured questionnaire. Pre-test was done on 10% (10) of the respondents.

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This study show that majority 64% had moderate knowledge, 29% had adequate knowledge and only 7% had inadequate knowledge regarding occupational health hazards and safety measures that is computers health hazards. There was no statistically significant difference in mean knowledge score with selected variables. This study shows that most of the respondents had moderate knowledge on computer health hazards. Further study can be done to identify the prevalence of computer health hazards and effect of long term.

Key words: computer health hazards; computer users; knowledge.

1. Introduction

The invention of computers has transformed and modernized both the work place and the home environment. They have changed the face of society.

It has been estimated that the number of computer users globally was 670 million in 2007, and rising to 1 billion in 2010. With the rate at which the Google computing system has grown, the total number of computer users is currently likely to be much higher than 1 billion [3].

The computer workstations were not ergonomically designed and users were not aware that they were not adhering to ergonomic requirements for computer use.

This suggests the need for awareness campaigns on ergonomic factors that can prevent computer vision syndrome among computer users and early intervention programs for computer users that experience computer vision syndrome. The study done by Mashige K. P found that Eye strain and visual fatigue (89%), headaches (81%), neck and back pains (77%) were the most severe and frequently reported symptoms among the participants [3].

Nearly 60 million people suffer from CVS globally and a million new cases occur each year [1].While computers have revolutionized our lives, they have also brought in some job-related complaints and symptoms [4].

A study done in Malaysia showed that among 136 computer users around 55% had some burning sensation in their eyes while 61% reported some headache. About less than half (46%) complained of some redness in their eyes. Majority (87%) complained of some problems of eye fatigue [1].

Since computer hazards is being one of common problem among the computers users. This study was done to assess the knowledge on computer users about it hazards and awareness about the preventive measures is crucial. The null hypothesis was made was tested in the study.

2. Materials and methods

This is descriptive cross sectional study was conducted among 100 computers users from 20 different banks. Staff using computer for at least 3 hours per day were selected from non-probability sampling technique. Data were collected from self-administration questionnaire from March to July 2014.The collected data were

reviewed daily for completeness and accuracy. Edited data were entered into the Statistical Package for Social Science Software (SPSS) version 16.0 for analysis using descriptive statistics.

3. Results

Table 1: Socio-demographic information

Variables	Frequency/Percentage
Age in years	
20-29	42
30-39	35
40-49	16
50-59	7
Mean 33.26 years, **Standard deviation** 8.75 years	
Sex	
Male	59
Female	41
Education	
SLC	19
Bachelor	41
Masters	40
Work experience	
6month-5years	43
6years -10years	32
11years-15years	4
16years-20years	3
21years-25years	7
26years-30years	11

n=100

Above table illustrate that 42 % of the respondents were 20-29 years likewise 59% of the respondents were male. Regarding education level 40% of the respondents was completed master's degree 43% respondents had experiences of 6 months to 5 years.

Table 2: Respondents overall knowledge Scores

Knowledge	Score	Frequency	Percentage	Mean±SD
Adequate	>75%	29	29	
Moderate	50-75%	64	64	
Inadequate	< 50%	7	7	21.25±3.65

n=100

Table no. 2 illustrate that 64% of the respondents have adequate knowledge whereas only 7% of the respondents had inadequate knowledge of computer health hazards and safety measures. The mean knowledge score was 21.25±3.65.

Table 3: Comparison of mean difference of knowledge with age

Variables	Frequency		Mean	Mean difference	St. deviations	t value	p value
Age in years	≤ 30years	56	21.12		3.12		
	> 30years	44	21.40	0.28	4.26	-0.38	0.702

n=100

Table 3 shows that mean knowledge score of age below or equal to 30 years was 21.12 and that of above was 21.40 which was statically not significant since p value is 0.702.

Table 4: Comparison of mean knowledge with gender

Variables	Frequency		Mean	Mean difference	St. deviations	t value	p value
Gender	Male	59	21.06		0.30		
				0.56		-0.76	0.447
	Female	41	21.58		0.15		

n=100

Table 4 shows that mean knowledge score of male was 21.06 and female 21.58 which was slightly different but it is statically not significant since p value is 0.447.

Table 5: Comparison of mean knowledge with education level.

Variables	Frequency		Mean	Mean difference	St. deviations	t value	p value
Education level	SLC	19	20.05		4.56		
				-0.108		-1.59	0.113
	Above SLC	81	21.53		3.38		

n=100

Table 5 shows that the mean knowledge score of the respondents above SLC level was 21.53 and SLC level was 20.05 which was statically insignificant since p value is 0.113

Table 6: Comparison of mean knowledge with work experiences

Variables	**Frequency**		**Mean**	**Mean difference**	**St. deviations**	**t value**	**p value**
Working experiences in years	≤10years	75	21.20		3.64		
				0.20		-0.23	0.814
	> 10years	25	21.40		3.75		

n=100

Table 6 shows that the mean knowledge score of respondents with work experience above 10 years was 21.40 and that of respondents with work experience less or equal to 10 years was 21.20. The mean knowledge score was slightly higher among respondents with experience of more than 10 years but it was not statistically significant as p value was 0.814($p>0.05$). Hence, there was no significant difference in mean knowledge according to experience.

4. Discussion

The authors in [2] showed that only 41% of respondents had knowledge about Compter vision syndrome. In the present study showed that 80% of respondent had knowledge that prolonged working at computer screen is the cause of computer health hazards which is higher than the study done by A.T. Raymond on Nigeria where only 41% of respondents had knowledge about it [2].

In the present study revealed that 68% of respondent had knowledge that the signs and symptom of computer

vision syndrome are combination of headache, eyestrain and blurred vision which is similar with the study done by T. R. Akinibinu in Nigeria where 67% had knowledge about this [6].

Similarly, this study shown that 89% of respondents had knowledge that taking regular break, blinking eye frequently is the preventive measures of computer vision syndrome which is significantly higher than the done by T. R. Akinibinu in Nigeria where 32% of respondent had known that taking regular break and 50% of them had knew that blinking eye frequently is preventive measure of computer vision syndrome [6].

The result of the present study revealed that 29% of respondents had adequate knowledge 64% had moderate knowledge and 7% had inadequate knowledge on computer health hazards. This study is quiet similar with the study done by [5] where 60 % of staff have inadequate knowledge, 20% have moderately adequate knowledge and 20% have adequate knowledge in the pre-test .This implies that computer users of Banepa Municipality is more knowledgeable computer health hazards [5].

In the present study the findings showed that there was no statically significant difference between mean knowledge and age this contrast with the study done by Raymond A.T. in Nigeria where significant difference in mean knowledge was present according age [2].

This study concluded that there was no statistically significant difference in mean knowledge according to gender, level of education and work experiences. This is similar with the study done by Raymond A.T. in Nigeria where no statically significant difference in mean knowledge was present according to gender, level of education and working experiences [2].

5. Conclusion

The objectives of the study were to assess the Knowledge on Occupational Health Hazards and Safety Measures among Computer Users in Banks of Banepa Municipality.

Among 100 respondents 29% of the respondents had adequate knowledge, 64% of the respondents them had moderate knowledge and 7% of the respondents had inadequate knowledge. There was no statically significant difference in mean knowledge was found according to gender, age, education level and work experiences.

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