



Impact of work Environment on Health of IT and Non IT Workers

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ABSTRACT

The Current technological advancement has inspired many people to choose their career in the computer sectors. India is generating lot of employment opportunities in the field of IT and ITES. In a way this industry has paved the way for economic growth and development of an individual's as well. At the same time there is an alarming need to look after the health and safety of the employees. The nature of the work and lifestyle of these employees are quite different from other professions as they work under lot of pressure, prolonged working hours, usage of computer for long hours and lack of motion. The above reason has made the investigator to study the effect of work environment on the health of Women Computer Operators. The study was conducted in Chennai through a questionnaire which was collected randomly from 100 women computer operators sample comprised of 100 ranging from 20-40 years of age who were using computer at least for the last two year and for more than eight hours daily. Maximum numbers of the respondents were doing data entry operators. Majority of the respondents reported that they were using ordinary tables and chairs. Majority of the women reported musculoskeletal disorder such as shoulder pain, neck pain and back pain as they use computers for long hours and also due to improper work environment. The main reason for the problems were their Work environment such as work equipment, working Furnitures, working hours and static working position leads to their health problems. In conclusion providing good working environment for the workers is an important factor for maintaining Work health of the women computer workers

KEYWORDS

Musculoskeletal health problem, Work Environment

Introduction

In the present scenario computers are very often used in almost all the fields, such as education, administrations, health services etc. Research studies have found that workers come under stress when they have inadequate relationships with the authorities, become bored with their jobs, or when there is poor communication within the organization.(Garden and Kamneyer,2010) . Work conditions such as high temperature, poor lighting and excessive noise also induce stress (Mary Brophy, 2006). Directly or Indirectly, stress adds to the cost of doing business, and reduces the quality of working life for a very large number of workers in private and public sector organizations. Many studies have been done on the use of computers in the work place leads to Work health problems. Musculoskeletal health problems associated with computer use are widespread and account for more than 50% of occupational health problem. (Thompson, 2000). An increasing trend of using computer paved the way for the postural problems of computer workers. Chennai is a developing state where most of the offices and institutions use computers. Thus increased use of computer weakened many workers causing musculoskeletal problem. (Bullock, 2002). Employees of these industries enter in very young age and hence it is important for them to be aware of these problems and preventive steps. Even the organizations should take steps to prevent these hazards as their responsibility to provide them with proper occupational health and safety. The occupational health and safety should aim at promotion and maintenance of highest degree of Work, mental and social well being of workers in all occupation.(Kashiwar Path, 2004)

Methodology

A Survey was conducted in Chennai city. A sample of 100 respondents ranging from 21-50 years of age of using computer for 8 hours and more than 8 hours were selected from IT and Non IT organizations. A questionnaire was used to collect information on general profile of computer users, work environment and health problems of women computer workers.

Data on Work Environment was collected by using questions regarding working chairs, lighting, ventilation and noise. Percentage analysis was used to draw meaningful inferences.

Objectives

1. To study the demographic profile of the women computer operators- which includes the information on respondent's age, marital status, family type and educational qualification.
2. To study the work environment of the women computer operators
3. To study the impact of work environment on the health of women computer operators

Review of literature

A Study was conducted by Zahir Mohd Makhbul etal, (2011) on Ergonomic and Work stress Issues in Banking Sector. A self administered questionnaire was used to collect the information on body posture and health, chair, work area design ,work environment. The finding from the research are significant to the management and the organizations as whole to improve an ergonomic work station factors on health and other ergonomic policies.

Results and discussion

Table 1. General Details of the women computer operators (In Percent)

General Details		Occupation	
		IT=50	IT=50
		%	%
Age	21-30yrs	80	72
	31-40yrs	16	21
	41-50yrs	4	7
Marital status	Married	41	43
	Unmarried	59	57

Family Type	Nuclear family	32	40
	Extended Family	54	54
	Joint family	14	6
Educational Qualification	Higher Secondary	6	16
	Graduate	69	54
	Post Graduate	25	30

From the Table 1. It is clear that the General details of the respondents revealed that majority of the respondents were in the age group of 21-30 years among them 80% were IT and 72% were Non IT. Further the table states that 59% of the IT and 57% of the Non IT were unmarried.

Equal percentage (54%) of the respondents comes from extended nuclear family. As analyzed by occupational category a greater percentage of respondents were graduates among them 69%of IT and 54% of Non IT were graduates followed by post graduates.

Table 2. Work Details of the women computer Operators. (In Percent)

Work Details	Occupation	
	IT=50	Non IT=50
	%	%
Work Experience		
0-2yrs	50	44
3-5yrs	50	56
Monthly Income		
Below 10,000	24	34
10001-20,000	36	56
Above 20,000	40	10
Working Hours		
8 hours	42	42
More than 8 hours	58	58
Job Details		
Data Entry Operators	-	100
Computer programmers	100	-

The table 2 indicates the work details of the women computer operators. From the table it is clear that Majority (50%) of the IT and 56 % of the Non IT respondents had 3-5years of working followed by the 50% IT and 56% Non IT had 0-2 years of work experience. 40% of the IT respondents earned above Rs.20,000 while 56% of Non IT earned Rs.10001-20,000. Equal percentage (58%) of the women computer operators work for more than 8 hours. The selected respondents were data entry operators and computer programmers

Table 3. Features of working chair (In Percent)

S.No	Working Chair Features	Occupation			
		IT=50		Non IT=50	
		Yes	No	Yes	No
1	Does your chair have stable 5 star castor base	88	12	24	76
2	Can the arm rest be adjusted to a certain position to fit the user	80	20	24	86
3	Does the chair have back rest	86	14	78	22
4	Can the height of the chair be adjusted according to the requirement	90	10	36	64
5	Does the seat pan has soft cushion with a water fall front	82	18	70	30
6	Ability to swivel	80	20	36	64

The table 3 shows the features of the working chair. From the table it is clear that majority (80-90%) of the IT workers reported that they have 5 star castor base chair, the arm rest and the height of the chair can be adjusted according to the use and also it possess back rest. The seat pan has soft cushion with a water fall front and also ability to swivel. Least percentage(24%)of the Non IT stated that they have comfortable chair. It is inferred from the table that most of the Non IT does not have good featured chairs.

Table 4. Work Environment of the Computer Workers (In Percent)

S.NO	Work Environment	Occupation			
		IT=50		Non IT=50	
		Yes	No	Yes	No
1	Do you have enough light in your work space	100	-	70	30
2	Does the air feel comfortable	100	-	60	40
3	Does the level of noise comfortable	100	-	60	40
4	Does your work space temperature comfortable	90	10	50	50

Table 4 indicates the work environment of the women computer operators. Cent percent of the IT respondents stated that they have comfortable working environment such as having enough lighting while working, good ventilation and lack of noise. 90% of them reported that the temperature in the work space temperature is comfortable when compared to that of the Non IT workers.

Table 5. Musculoskeletal Disorders of the women computer operators (In Percent)

S.No	Musculoskeletal disorder	Occupation			
		IT=50		Non IT=50	
		Yes	No	Yes	No
1	Shoulder Pain	46	54	64	36
2	Neck Pain	40	60	68	32
3	Back Pain	58	42	60	40
4	Wrist pain	28	72	54	46
5	Joint pain	26	74	54	46

From the above table 5 it is clear that majority of women computer workers belonging to Non IT reported that they have shoulder pain(70%), neck pain(68%) and back pain(60%) followed by equal percentage(54%) of the wrist pain and joint pain.

Conclusion

The present study was aimed to study the Impact of Work Environment on health of computer operators. It is evident from the study that Majority of the Non IT workers have more health problems when compared to that of the IT workers. Further from the results it is evident that improper work environment and work equipment has an impact on the health of the women computer operators It necessitates the need for increased ergonomic efforts to improve work places so as to improve the occupational health of the computer users.

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