

“Musculoskeletal Discomfort among Tailors”

Priya Dwivedi * & U.V. Kiran.**

Student & Assistant professor***

*Department of Human Development & Family Studies, School for Home Sciences
Babasaheb Bhimrao Ambedkar University, Lucknow-226025*

Abstract: - Musculoskeletal discomfort are injuries and disorders that affects the human body's movement or disorder that affects the human body's movement or musculoskeletal system (i.e muscles, tendons, ligaments, nerves, discs, blood vessels etc.). The Present study aimed to assess the musculoskeletal discomfort among tailors. The present study aimed to assess the musculoskeletal discomfort among tailors. the study sample comprised 160 tailors in Lucknow District. Nordic musculoskeletal questionnaire by Kuorinka et.al (1987) assess was used to the pain and discomfort of the body parts. The results shows that the tailors feel musculoskeletal discomfort nothing equally. Majority of the home based and shop based tailors had pain in upper arms and lower arms pain as they were exposed to high level of repetitive task and stitching. It was concluded that majority of the tailors reported high musculoskeletal discomfort. Musculoskeletal discomfort faced by them may be reduced through proper training programmes, well designed stitching equipment and electronic sewing machine.

Keywords: musculoskeletal discomfort, tailors

I. INTRODUCTION

Musculoskeletal discomfort encompass a wide range of physical health problems involving muscles, ligaments, tendons, joint, blood vessels and nerves, pain may occur in any location in the workplace, through the lower back, neck, shoulder, and wrist are among the most frequently reported sites (**World Health Organization, 2003**).

The musculoskeletal discomfort across mainly due to two reasons, i.e the harmful working condition and posture demands of the work place leading to musculoskeletal problems. The musculoskeletal problem of a concern of the ergonomists. The risk of developing musculoskeletal problems is mainly due to the inconvenient work posture. Various studies have identified relatively high frequencies of musculoskeletal discomfort among sewing machine operators. Poorly designed and maladjusted workstations contributed to such reported problems.

II. REVIEW OF LITERATURE

Swati and Kiran(2013) conducted a study on students using laptops will performing academic activities usually adopt neck neutral posture ($\mu = 1.35$ & 1.0) followed by neck flexion ($\mu = 0.92$ & 1.16) and slouching forward ($\mu = 0.83$ & 0.86). The academic activities are done by students almost in an exert posture. Almost some in case with the work related activity. Where in maximum followed ($\mu = 1.31$ girls & 1.16 boys) followed by neck flexion and neck neutral postures.

The study also supports the present study which indicates that musculoskeletal discomfort occurs due to improper work station design.

Gangopadhyay and Das (2010) found that the suffered from occupation related discomfort mostly affecting the lower back (98%), knees (85%) and shoulders (77%). The questionnaire study also showed that in the experimental group, 67% of the subjects experienced discomfort in the wrist. The extreme part of the upper extremities; i.e. the hand were found to be the affected the experimental group. Forty seven percent of the subjects felt discomfort in the upper back and forty three percent of the experimental group felt discomfort in the legs.

Pooja and Kiran (2013) conducted a study on farm womens found that the body body discomfort in farm work mild pain was reported in neck (20.80%), shoulders (25%), upper arms (20.80) and upper back(14.20%), equal percent (11.7%) of respondents reported mild pain in buttocks was reported by (85.50%), of respondent followed by lower arms (75%), lower back (72%) and upper back(68%).

III. METHODOLOGY

Subjects: - Lucknow district was purposively selected for the study. The sample was selected using multistage random sampling technique totalling to 160 tailors from various areas of study.

Objective:-

(1)To the analyses of musculoskeletal discomfort among tailors in different places of work.

(2)To determine musculoskeletal discomfort among tailors in different places of work across gender.

Evaluation of body discomfort (MSD):- The body discomfort was evaluated by NORDIC musculoskeletal questionnaire developed using **Kuorinka (1987)**. Questionnaire method was used to collect information from respondents.

IV. RESULTS AND DISCUSSION

Table 1-Analysis of Musculoskeletal discomfort among tailors in different place of work.

Body	Level of comfort							
	Home based				Shop based			
	Severe	Moderate	Mild	No pain	Severe	Moderate	Mild	No pain
Neck	16(20.0)	23(28.8)	16(20.0)	25(31.3)	23(28.8)	9(11.3)	16(20.0)	32(40.0)
Shoulder	6(7.5)	34(42.5)	19(23.8)	21(26.3)	28(35.0)	11(13.8)	22(27.5)	19(23.8)
Upper back	7(8.8)	21(26.3)	19(23.8)	33(41.3)	25(31.3)	9(11.3)	7(8.8)	39(48.8)
Upper arms	8(10.0)	20(25.0)	20(25.0)	32(40.0)	21(26.3)	9(11.3)	17(21.3)	33(41.3)
Mid back	6(7.5)	18(22.5)	15(18.8)	41(51.3)	12(15.0)	22(27.5)	12(15.0)	34(42.5)
Lower arm	13(16.3)	24(30.0)	14(17.5)	29(36.3)	7(8.8)	18(22.5)	22(27.5)	33(41.3)
Lower back	13(16.3)	39(48.8)	14(17.5)	14(17.5)	32(40.0)	13(16.3)	13(16.3)	22(27.5)
Buttocks	7(8.8)	23(28.8)	14(17.5)	36(45.0)	23(28.8)	9(11.3)	10(12.5)	38(47.5)
Thighs	18(22.5)	22(27.5)	18(22.5)	22(27.5)	31(38.8)	16(20.0)	16(20.0)	17(21.3)
Legs	26(32.5)	38(47.5)	8(10.0)	8(10.0)	38(47.5)	25(31.3)	10(12.5)	7(8.8)

The above table explains the musculoskeletal discomfort among tailors across different work places, Differences were found in home based and shop based tailors in reporting of shoulder, mid back, lower back, thighs and legs, where the pain in home based tailors is less in comparison to shop based tailors. Pain was observed that the reporting of pain in all the body parts among home based and shop based tailors.

Majority of the respondents reported pain in neck followed by shoulders, legs, upper arm and mid back. Very few respondents reported pain in lower arm in both the categories of tailors. The above table clearly showed that tailors were suffering from different body discomfort problems because they work continuously, They keep their sewing machines any where in home, work in cramped places, where they don't have place to sit properly, They usually work continuously with very minimum breaks. They sit on stools with hard surface, without any back or lumbar support.

Table 2-Analyses of musculoskeletal discomfort among tailors in different places of work across gender.

Musculoskeletal pain	Level of comfort											
	Home based						Shop based					
	Male		Female		t value	P value	Male		Female		t value	P-value
Mean	SD	Mean	SD	Mean			SD	Mean	SD			
Neck	2.38	1.19	2.38	1.07	1.00	1.00	2.10	1.00	2.13	1.13	0.10	0.91
Shoulder	2.03	1.00	2.60	0.81	2.68**	0.00	2.25	0.95	2.53	1.03	1.23*	0.2
Upper back	1.95	1.03	2.10	1.00	0.65*	0.5	1.98	1.12	2.13	1.13	0.59*	0.5
Upper arm	2.08	1.04	2.03	1.02	.216	0.83	2.08	1.09	2.08	1.04	0.00	1.00
Mid back	1.78	1.02	1.95	1.01	0.76*	0.4	1.98	1.05	2.33	1.20	1.38	0.17
Lower arm	2.45	1.15	2.08	1.07	1.50	0.13	1.90	1.00	2.08	.99	0.78*	0.4
Lower back	2.75	1.03	2.53	.87	1.05*	0.2	2.40	0.98	2.50	1.15	0.41	0.67
Buttocks	2.23	1.16	1.80	.83	1.83	0.07	1.93	1.04	2.15	1.16	0.90*	0.3
Thighs	2.78	1.25	2.13	.83	2.68*	0.0	2.48	0.90	2.68	1.16	0.85	0.39
Legs	3.07	1.09	2.97	.69	0.48*	0.6	3.03	0.73	3.00	1.03	0.12	0.90

The above table explains the musculoskeletal discomfort among tailors across gender. Among home based tailors, significant difference were found in male and female tailors in reporting of shoulder pain, where the pain in female tailors is less in comparison to males. It also be observed that the reporting of pain in all the body parts among home based tailors is more in female tailors in comparison to male tailors.

Majority of the respondents reported pain in neck followed by shoulders, legs, upper arm upper back and mid back. Very few respondents reported pain in lower arm in both the categories of tailors.

V. CONCLUSION

From the findings of the study it can be concluded that the tailors feel highly musculoskeletal that the tailors face severe musculoskeletal pain during work. Majority of the tailors felt pain in neck, shoulders, thighs and legs as they are exposed to high level of repetitive task and work pressure. All these situation ultimately work pressure , and musculoskeletal pain/ discomfort in different body parts. It was concluded that majority of the tailors reported high incidence of problem and to make their life more comfortable and happier, the discomfort has to be reduced through proper training, well designed stitching tools and government and non-government intervention.

REFERENCES

- [1]. Kuorinka (1987) NORDIC musculoskeletal scale.
- [2]. Berberoglu.U,Tokuc.B(2012) “work related musculoskeletal Disorder at Two Textile factories in Edirne,Turkey”,*Journal of Balken Medical*, pp. 23-27
- [3]. http://reference.sabinet.co.za/sa_epublication_article/ergosa_v22_n2_a3