



WORK STRAIN ANALYSIS OF TAILORS IN HYDERABAD

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ABSTRACT

Tailoring is one of the small-scale industries where both male and female, mostly from the low-income group are employed highly. Tailors work in a monotonous job from morning to late night. Tailoring involves high repetitive movements and tailors have to sit in one place for prolonged time with head bent and upper back curved postures. This work is visually demanding and requires higher concentration and accuracy. For the present study, fifteen male tailors from Hyderabad were randomly selected as sample. The interview schedule was prepared by including questions pertaining to health i.e. head, respiratory, vision, skin and other problems, job satisfaction about the work environment were asked to study the tailor's workplace discomforts. Frequency and percentage were used to analyze the data. Majority of the respondents had experienced neck pain, visual strains and they were least stratified with their physical and physiological factors. Prolonged physical and psychological stress leads to work-related musculoskeletal disorders, immune deficiency disorders and gastrointestinal disorders among respondents.

KEYWORDS : Tailors, monotonous, job satisfaction, visually demanding and work environment

INTRODUCTION

According to WHO (1948), Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. An occupational health hazard is a concern with health hazards in relation to the work environment. If the work and tools are not ergonomically designed, they cause physical stress, strain, overexertion, forceful exertion, awkward postures, repetitive motions and heavy lifting. Identifying these risk factors is essential to correct and improve the worker perception (Harrington and Gill, 1989).

Tailoring is one of the small scale industries where both male and female, mostly from the low-income group are employed highly. Tailors work in a monotonous job from morning to late night. Tailoring involves high repetitive movements and tailors have to sit in one place for prolonged time with head bent and upper back curved postures. This work is visually demanding and requires higher concentration and accuracy. If a mismatch occurred between the worker and work environment means it will lead to workplace stress among the tailors.

Review of literature

Nagori (2017) reported that 40 per cent of tailors constrained by the eyes for visual control of the work and 35 per cent of tailors experienced pain due to repetitive hand and arm moments and continues operation of foot pedals. However, 15 per cent tailors adopted static sitting forward inclined posture of neck and trunk and uncomfortable ankle and knee angles. Ten per cent of tailors faced problems due to the congested and limited workspace.

Joseph (2017) conducted a study on ergonomic concerns of women in tailors units. The common health problems found among tailors were Asthma, Varicose Vain and diabetes. Majority of the respondents felt headache due to the long duration of work, static sitting posture leads to body distortion and prolonged bending caused backache. Piercing of the fingers was most common accidents. Vibrations lead to fatigue, pain, numbness, tingling of fingers and arms due to ill-maintenance of machines.

Job strain and health problems among home and shop based tailors was studied by Dwivedi and Kiran (2015). Shop based tailors have job strain when compared to home-based tailors because home-based tailors adjust their time and place

based on their comfort level, which is not possible for shop based tailors who work in a weird situation. Both home and shop based tailors faced health problems like headache, vision-related problems, tension, stomach, ulcer, knee and joint pain and wheezing problem. Majority of the tailors were exposed to health problems due to continuous work and inadequate rest period.

Chavada (2010) observed the health status of the people engaged in the tailoring occupation in India. There is a significant association between work experience and injury to fingers, nail deformity and callosity of fingers. Hence stitching needs demands the fabric be pressured manually close to the stitching needle and requires proper guidance because there is a higher chance of finger injury. Finger injury was seen highly among tailors who have experience less than 20 years and those more than 20 years of experience were trained to avoid the accidents.

So the present study was aimed at studying tailors' perception about the work environment, satisfaction related to work and physical health problems.

METHODOLOGY

For the present study, fifteen male tailors from Hyderabad were randomly selected as sample. An interview schedule was prepared by including questions pertaining to health i.e. head, respiratory, vision, skin and other problems, perception about work environment were asked to study the tailor's workplace discomforts. Frequency and percentage were used to analyze the data.

RESULTS AND DISCUSSION

The respondents belonged to the age group of 30 – 48 years and the number of years of working experience was between 5 and 20 years.

Perception about work environment

Majority of the respondents found it difficult to sit on hard or hard surface stool; and experienced irritation and redness in the eye during work. Most of the respondents were comfortable with height (66%), the slope of sewing machine (73%) and spacing under workstation (86%). Eighty per cent of the respondents were comfortable with the neck angle while working. Due to excessive workload, 60 per cent of the respondents have to manage with inadequate human and

non human resources. Thus due to more workload with lack of workers, respondents have to work more. Three-fourth of the respondents reported that their workplace is very congested and their skin and nails remain hard and unsmooth during the work period. About 80 per cent of the respondents felt acute pain in lower limbs due to work and backache due to lack of backrest. Only 34 per cent of the respondents were satisfied with the reaching heights of cupboards and shelves.

Table 1: Work environment perception of the respondents

S. NO	Attributes	Frequency	Percentage
1.	The height of the chair is comfortable	4	17.0
2.	The height of my sewing machine is comfortable.	11	66.0
3.	The slop of machine is comfortable to work.	11	73.0
4.	Become very difficult sitting on a hard a hard surface stool.	12	80.0
5.	There is no proper lighting at my workplace.	8	54.0
6.	Feel irritation and redness in the eyes during working condition.	12	80.0
7.	Comfortable with neck angle while working.	12	80.0
8.	Owing to the excessive workload I have to manage with the insufficient number of employees and resources	9	60.0
9.	Proper space under workstation.	13	86.0
10.	Shelves and cupboards are within reach.	5	34.0
11.	Workplace is congested.	11	73.0
12.	Get hurt while cutting the clothes.	7	46.0
13.	Skin and nails remain hard and unsmooth during the work period.	11	73.0
14.	Feel acute pain in lower limbs due to work.	12	80.0
15.	Backs ache due to lack of backrest	13	86.0

*total exceeds 100 per cent due to multiple responses.

Perception related to work strain

Tailoring is a monotonous repetitive work and requires sitting continuously which puts strain and stress on selected muscles and bones like hand, wrist, neck shoulder and leg. Inadequate rest and repetitive work lead to musculoskeletal disorders among tailors.

Tailoring is a livelihood occupation for 73 per cent of the respondents. Most of the respondents (80%) were satisfied with the work environment and sixty per cent of the respondents were satisfied with their working conditions. Half of the respondents reported that they were feeling tired while working for long hours and also didn't get proper rest during working hours (60%). Nearly 46 per cent of the respondents reported that job is quite risky and complicated. More than 80 per cent of the respondents were working under the tensed circumstance and they felt, work is monotonous in nature. Forty per cent of the respondents felt depressed due to work and not able to sleep well after work. Three fourth of the respondents were uncomfortable to work during the summer. Majority of the respondents revealed that they have to dispose of their work hurriedly owing to excessive workload.

Table 2: Distribution of respondents based on satisfaction related to work

S. NO	Attributes	Frequency	Percentage (%)
1.	Enjoy the work I am doing.	14	93.0
2.	Do tailoring as it is my livelihood.	11	73.0
3.	My working environment is good	12	80.0
4.	Working conditions are satisfactory here from the point of our health condition.	9	60.0
5.	Get tired of working for a long hour.	8	54.0
6.	Don't get proper rest due to my work.	9	60.0
7.	Am satisfied with the work I am doing.	10	66.0
8.	Some of my work quite risky and complicated.	7	46.0
9.	Do my work under tense circumstances.	12	80.0
10.	My works are of monotonous nature.	13	86.0
11.	Feel depressed due to my work.	6	40.0
12.	Am unable to carry out my satisfaction on account of an excessive load of work and lack of time.	10	66.0
13.	Summer season is not comfortable to work.	13	86.0
14.	Not able to sleep well after work.	6	40.0
15.	I have to dispose of my work hurriedly owing to excessive to workload.	9	60.0

*total exceeds 100 per cent due to multiple responses.

Health problems

Respondents were questioned about the health problems faced related to various systems like respiratory, head related, eye related, skin related and health-related problems.

Table 3: Distribution of respondents based on health problems

S.No	Health problems	Frequency	Percentage
1.	(a) Respiratory problem		
	Wheezing	3	20.0
	Wheezing and breathlessness	3	20.0
	Tightness in chest	2	13.0
	Asthma	1	7.0
2.	(b) Head-related problems		
	Headache	11	73.0
	Migraine	3	20.0
	Tension	12	80.0
3.	(c) Eye related problems		
	Problem in Concentrating	9	60.0
	Problem in seeing nearer objects	8	54.0
	Problem in seeing far objects	10	66.0
	Blurred vision	11	73.0
	Running eyes	8	54.0
	Irritation in eyes	7	46.0
4.	(d) Skin related problems		
	Rashes	4	27.0
	Lesions	-	-
5.	(e) Other health related problems		

Nausea and vomiting	12	80.0
Pain in joints	2	13.0
Stomach ache/ulcers	2	13.0

*total exceeds 100 per cent due to multiple responses.

Respiratory problems: Nearly one-fifth of the respondents had faced wheezing, wheezing and breathlessness respectively might be due to the continuous exposure to lint dust. Tightness in the chest was experienced by 13 per cent of the respondents.

Head related problems: Tension and headache were experienced by 80 per cent and 73 per cent of the respondents respectively. Migraine was experienced by 20 per cent of respondents.

Eye related problems

Since tailoring involves cutting and stitching of fabric, causes more visual strain. Most of the respondents had experienced problems like blurred vision (73%), problem in seeing far objects (66%), and problem in concentrating (60%), problem in seeing nearer objects and running eyes (54%); and irritation in eyes (46%).

Skin and other health related problems

Rashes were experienced by 27 per cent of the respondents. However, none of them had experienced lesions. Regarding other health-related problems, it was found that nausea and vomiting were experienced by 80 per cent of the respondents followed by pain in joints and ulcers by 13 per cent of the respondents.

Suggestions to design better work station for tailors

Employees encounter several risk factors at sewing workstations, such as awkward positioning of arm, neck, trunk, and leg postures. These postures are influenced by the size of the worker and the design of the workstation. Hence certain modifications are suggested to improve their health status like

- Workers often maintain awkward shoulder, elbow and wrist posture while sewing because of improper chair height or position. And they also sit or stand for long periods in the same position, resulting in soreness of the back and neck, and/or buttocks, and reduced circulation to the legs. These problems can be reduced by introducing a chair with adjustable height, seat tilt, and backrest position.
- Motor placement should be proper so as not to interfere with proper chair distance.
- Anti fatigue mats can be provided for the tailor who stands for a long time to cut the fabric. Similarly table on which they cut the fabric should have adjustable height as per the anthropometric dimensions of the worker. Rounded edges have to be provided for all tables.
- Educate them to take short breaks in between the work.
- Adequate natural/artificial lighting has to be provided in the tailoring unit with ample ventilation.

CONCLUSION

Majority of the respondents had experienced neck pain, visual strain and they were least satisfied with their physical environment. Prolonged physical and psychological stress lead to work-related musculoskeletal disorders, immune deficiency disorders and gastrointestinal disorders among respondents. Workplace stress is linked with contrary effect on the organization such as increased absenteeism and presenteeism (decreased on the job performance). Ergonomically designed workstation would be helpful to overcome the backache and neck pain among respondents; also reduce the repetitive movements; which further helps to overcome the physical stress and reduce the absenteeism.

REFERENCES

1. Chavada V.K. 2010. A Cross-Sectional and Observational Study to Assess the Health Status of People Engaged In the Tailoring Occupation In an Urban Slum of Mumbai, India. *Journal of Clinical and Diagnostic Research.* 7 ;(4):2495-2503
2. Nagori, N A. 2017. A study on the functioning and problems of tailors of Gandhidham and Adipur region of KUTCH, *International Journal of Current Research*, 9, (06), 51682-51684.
3. Dwivedi, P and Kiran, UV. 2015. Job strain and health problems among tailors. *International Journal of Science and research.* 4 (8): 315-318.
4. Joseph AM, 2017. A report of mini research project on ergonomic concerns of women in tailoring units. Pp39-40.
5. Harrington JM, Gill FS (1989) *Occupational Health (Pocket Consultants)*. Blackwell Scientific Publications, London, UK.