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# A Study On Health And Safety Measures Among Home-Based Tailors

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**ABSTRACT:**

A Tailor is a professional who creates, alters and repairs clothing and other textiles, typically using a combination of manual and machine-based techniques. Tailors are witnessing a steady declined in business as most people are now opting readymade garments. But, the home-based tailors and garment industry tailors are facing many health issues because of continuous work and working posture. In this study the data was collected from 80 home -based tailors. The detailed information was obtained by online interview. The exposure was assessed by a questionnaire regarding age, gender, mode of employment, experience in sewing, working hours, resting time, physical health issues, musculoskeletal strains, safety measures done and give suggestion for improvement. The main focus on this study is to identify work related health issues among home-based tailors.

***INDEX TERMS:*** Home-based tailors, health and safety, physical health issues, musculoskeletal strain, safety measures.

## 1. INTRODUCTION

Tailoring is a professional craft practiced all over the world, combining traditional and modern techniques to create tailored garments. Tailoring is specifically meant for custom made to fit each and every curve accurately. Specifically in India the tailoring practices are higher, the approximate amount of tailor that was calculated about 32.4 million. The unorganized tailoring market in India is estimated to be worth approximately 27,000 crores However, despite their artistic abilities, tailors confront various health risks as a result of long hours, repetitive operations, and exposure to fabric dust and chemicals. Musculoskeletal diseases, eye strain, respiratory problems, and stress-related conditions are all common challenges. Understanding these health hazards and using preventive steps can help tailors enhance their well-being while retaining their productivity. The home-based tailors are prone to physical health issues and musculoskeletal strains.

## 2. LITERATURE REVIEW

The index areas that will be considered under the literature review are sewing/tailoring, basic tailoring operation, home based tailoring, occupational health and safety.

### 2.1 Sewing/tailoring

The art of sewing is usually known as tailoring. The creation and personalization of clothing either by hand or with the help of sewing machine is tailoring it consist of stitching, hemming and seam construction are some of the procedures used to make, modify or fix garments and other textile items.

### 2.2 Basic tailoring operation

- **Cutting**

  Cutting the fabric according to the pattern and adjusting the cut according to the customer's measurement to make sure the garment fits them perfectly.

- **Stitching**
  Stitching is done both manually and with the help of sewing machine which may be semi-automatic and fully automatic**.** The two piece of fabrics are placed under the presser foot and the stich is made with the help of footer and the fabric is stitched.
- **Reinforcing**
  The seams are reinforced by double stitching or overlocking to add durability. Through which the base seam will not ravel and give a finished feel to the garment.

### 2.3 Occupational health and safety

Tailors are prone to a lot of issues while and before stitching one of that is cutting and the other will be stitching. Tailors face physical health issues and are prone to musculoskeletal strain regardless of the working hours. While stitching they are supposed to take relevant breaks and adjust lighting and seating to keep themselves at shape and avoid such physical health issues and musculoskeletal strains.

## 3. RESEARCH METHODOLOGY

### 3.1 Primary data

The primary source of the data was collected from the home-based tailors through proper questionnaire

### 3.2 Secondary data

The secondary source of the data was collected by using published research paper, book and articles relevant to the study

## 4. DATA ANALYSIS AND INTERPRETATION

In this study the data was collected from 80 home -based tailors. The detailed information was obtained by online interview. The exposure was assessed by a questionnaire regarding age, gender, mode of employment, experience in sewing, working hours, resting time, physical health issues, musculoskeletal strains, safety measures done and give suggestion for improvement. The main focus on this study is to identify work related health issues among home-based tailors.

**Table 4.1:** Gender-wise distribution of respondents

| Gender | Frequency | Percentage |
|---|---|---|
| Male | 28 | 35 |
| Female | 52 | 65 |
| Total | 80 | 100 |

Source: online survey

The above table shows the gender-wise distribution of respondents.35%of respondents are male and 65%of respondents were female.

**Table 4.2:** Age-wise distribution of respondent

| Age group | Frequency | Percentage |
|---|---|---|
| Below 20 years | 5 | 6.25 |
| 20-30 years | 30 | 37.5 |
| 30-40 years | 27 | 33.75 |
| Above 40 years | 18 | 22.5 |
| Total | 80 | 100 |

Source: online survey

The above table shows the age-wise distribution of respondents. 6.5% of respondents are below 20 years old, 37.5% of respondents are 20-30 years old, 33.75% of respondents are 30-40 years old and 22.5% of respondents are above 40 years old.

**Table 4.3:** Education-wise distribution of respondent

| Education | Frequency | Percentage |
|---|---|---|
| Primary | 4 | 5 |
| SSLC | 12 | 15 |
| HSC | 15 | 18.75 |
| UG | 24 | 30 |
| PG | 8 | 10 |
| Others | 17 | 21.25 |
| Total | 80 | 100 |

Source: online survey

The above table shows the education-wise distribution of respondents. 5% of respondents have primary education, 15% of respondents have secondary level of education, 18.75% of respondents have higher

secondary education, 30% of respondents has UG level of education,10% of respondents have PG level of education and 21.25% of respondents are other educational degrees or diplomas.

**Table 4.4:** Marital status-wise distribution of respondents

| Marital status | Frequency | Percentage |
|---|---|---|
| Married | 29 | 36.25 |
| Unmarried | 51 | 63.75 |
| Total | 80 | 100 |

Source: online survey

The above table shows the marital status-wise distribution of respondents.36.25% of the respondents are married and 63.75% of respondents are unmarried.

**Table 4.5:** Mode of employment-wise distribution of respondents

| Mode of employment | Frequency | Percentage |
|---|---|---|
| Full time | 32 | 40 |
| Part time | 48 | 60 |
| Total | 80 | 100 |

Source: online survey

The above table shows the mode of employment-wise distribution of respondents. 40% of respondents are full time employee and 60% of respondents are part time employee.

**Table 4.6:** Monthly income-wise distribution of respondents

| Monthly income | Frequency | Percentage |
|---|---|---|
| Below 5000 | 12 | 15 |
| 5001-15000 | 42 | 52.5 |
| Above 15000 | 26 | 32.5 |
| Total | 80 | 100 |

Source: online survey

The above table shows the monthly income-wise distribution of respondents. 15% of respondents has earning below 5000 as monthly income, 52.5% of respondents has earning income between 5001-15000and 32.5%of respondents has earning monthly income above 15000.

**Table 4.7:** Type of occupation -wise distribution of respondents

| Type of occupation | Frequency | Percentage |
|---|---|---|
| Hereditary | 22 | 27.5 |
| Non hereditary | 58 | 72.5 |
| Total | 80 | 100 |

Source: online survey

The above table shows the type of occupation-wise distribution of respondents. 27.5% of respondents were hereditary tailors and 72.5% of respondents were non hereditary tailors.

**Table 4.8:** Experience-wise distribution of respondents

| Experience | Frequency | Percentage |
|---|---|---|
| Below 5 years | 16 | 20 |
| 5-10 years | 38 | 47.5 |
| 10-15 years | 18 | 22.5 |
| More than 15 years | 8 | 10 |
| Total | 80 | 100 |

Source: online survey

The above table shows the experience-wise distribution of respondents. 20% of respondents has below 5 years of experience in tailoring, 47.5% of respondents has 5-10 years of experience in tailoring,22.5%of respondents has10-15 years of experience in tailoring and 10% of respondents has more than 15 years of experience in tailoring.

**Table 4.9:** Working hours-wise distribution of respondents

| Working hours | Frequency | Percentage |
|---|---|---|
| Below 5 hours | 17 | 21.25 |
| 5-10 hours | 48 | 60 |
| More than 10 hours | 15 | 18.75 |
| Total | 80 | 100 |

Source: online survey

The above table shows the working hour-wise distribution of respondents. 21.25% of respondents were working below 5 hours per day, 60% of respondents were working about 5-10 hours per day, 18.75% of respondents were working more than 10 hours per day.

**Table 4.10:** Resting time-wise distribution of respondents

| Resting time | Frequency | Percentage |
|---|---|---|
| Below 5 hours | 7 | 8.75 |
| 5-10 hours | 28 | 35 |
| More than 10 hours | 45 | 56.25 |
| Total | 80 | 100 |

Source: online survey

The above table shows the working hour-wise distribution of respondents. 8.75% of respondents were resting below 5 hours during working, 35% of respondents were resting about 5-10 hours during working, 56.25% of respondents were resting more than 10 hours during working.

**Table 4.11:** Physical health issues-wise distribution of respondents

| Physical health issues | Frequency | | Percentage | |
|---|---|---|---|---|
| | Yes | No | Yes | No |
| Vision related issues | 58 | 22 | 58 | 22 |
| Cardiovascular issues | 2 | 78 | 4 | 78 |
| External wound | 70 | 10 | 70 | 10 |
| ENT | 2 | 78 | 2 | 78 |
| Skin related issues | - | - | - | - |
| Respiratory issues | 4 | 76 | 4 | 76 |

Source: online survey

The above table shows the physical health issue-wise distribution of respondents. The health complaint such as vision related issues, cardiovascular issues, external wound, ENT, respiratory issues were significantly seen among tailors.

**Table 4.12:** Musculoskeletal strain-wise distribution of respondents

| Musculoskeletal strain | Frequency | | Percentage | |
|---|---|---|---|---|
| | Yes | No | Yes | No |
| Neck pain | 72 | 8 | 72 | 8 |
| Shoulder pain | 12 | 68 | 12 | 68 |
| Back pain | 74 | 6 | 74 | 6 |
| Leg pain | 36 | 44 | 36 | 44 |
| Wrist pain | 48 | 32 | 48 | 32 |
| Muscle cramp | 28 | 52 | 28 | 52 |

Source: online survey

The above table shows the musculoskeletal strain-wise distribution of respondents. The musculoskeletal strain complaint such as neck pain, shoulder pain, back pain, leg pain, wrist pain, wrist pain, muscle cramp was significantly seen among tailors.

## 5. FINDINGS

### 5.1 Personal information:

- 65% of the respondent were female workers.
- 33.75% of the respondents were around 30-40 years old.
- 30% of the respondents had Under graduate degree.
- 63.75% of the respondents were unmarried.
- 52.5% of the respondents are earning 5001-15000 rupees per month.
- 72.5% of the respondents are non-hereditary workers.
- 47.5% of the respondents has 5-10 years of experience in tailoring.
- 60% of the respondents work around 5-10 hours per day.

- 56.25% of the respondents rest more than 10 hours per day.

**5.2 Physical health issues:**

- Vision related issues: Tailors may have to look closer and hold eye on the tailoring garment which leads to vision related problems such as eye strain, vision blurring etc..,
- External wounds: Most tailors are prone to external wounds that can happen while cutting and stitching.
- ENT: Tailors may exposed to the continuous sound of sewing machine which may cause hearing issues.
- Stress related issues: Not only to physical health issues the tailors may prone to psychological issues such as stress.

**5.3 Musculoskeletal strains:**

- Neck pain: Due to the posture to look at the sewing needle tailors are prone to constant neck pain.
- Back pain: The continuous hours of stitching while sitting in the chair that expose the tailors to back pain
- Leg pain: Constant pressure on leg to pedal the machine for a prolonged period of time causes leg pain
- Wrist pain: The movement of the wrist while stitching and the amount of pressure used in the wrist causes wrist pain.
- Muscle cramp: In particular times of sewing there may be sudden cramps that occurs due to position of working.

## 6. SOLUTIONS AND RECOMMENDATIONS

- Musculoskeletal strain adjustments: Better seating with cushion, adjustable chairs to define height, padded pedals to reduce strain, continuous change in position with constant intervals would help a lot with reducing the musculoskeletal strain.
- Vision related problems: Constant eye breaks, eye exercises, maybe glasses used for migration could be helpful in reducing visionary problems.
- Regular breaks: Regular breaks significantly improve physical demand can have good effect on your body.
- Exercise and stretching: Stretching and exercising in interval can give more flexibility to work and can have a drastic change in musculoskeletal strains that the workers may face.
- Hydration: Staying hydrated while working has a major effect on physical health and can improve the mobility of working.
- Better lighting: Working under good lighting can be help in improving the tailors eye problems and helps reducing eye strains.

## 7. CONCLUSION

The occupational health and safety among home-based tailors are captivating. As the need of garments and the innovation in fashion industry is compelling. A key factor that is responsible for the physical health issue and musculoskeletal strain is that the tailors are prone to work from a place for a prolonged time and holding the posture. The work space improvement can be a helpful arrangement on a tailors life by improving the health and quality of life.

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