



AN OVERVIEW ON HEALTH PROBLEMS FACED BY POWERLOOM WEAVERS

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ABSTRACT

The power loom industry as a tool of Small and Medium Enterprises (SME) has a great possibility to contribute a lot in the cloth production. In Indian economics, the power loom has a significant impact. Weavers in the handloom sector are exposed to numerous occupational hazards, and research highlights the dangers in the textile industry, which include manual handling, operating hazardous machinery, and being around noise and hazardous materials. These risks have been categorized as physiological, ergonomic, chemical, mechanical, and physical risks. This paper analysed the health issues being faced by the weavers and suggests measures to uplift them socially- more specifically from the health front. This review demonstrates the health problems that weavers face, including low back pain, vision impairment, and injury, as well as the anxiety that they experience. Anxiety, Lower back pain, and impaired vision were associated with the workplace environment.

Index terms: Power loom industry, Weavers, Hazardous material, Ergonomic, Health problem.

INTRODUCTION

The textile sector in India plays an important role in the country's economy and provides employment to many people in urban and rural areas. The textile sector has wide spectrum of industries ranging from small-scale units that use traditional manufacturing process, to large integrated mills using modern machineries and equipment. (G.Mugilan, K.Muthukumar Jan2021). It can be broadly classified into two categories, the organized mill and the unorganized decentralized sector. The organized sector of the textile industry having, the spinning, weaving and processing facilities are carried out in one roof. The yarn is mostly produced in the spinning mills, fabrics are produced in three major segments the power loom, handloom and hosiery., Out of three segments, the power loom plays a vital role in Indian textile industry and providing the employment opportunities to 4.86 million people of the country in 2009. (Somnath Kolgiri, Hiremath May2018)

Operation of weaving in a textile mill is undertaken by a specially trained operator known as a weaver. Weavers are expected to uphold high industry standards and are tasked with monitoring anywhere from ten, to as many as thirty separate looms at any one time. They are trained that, ideally, no machine should stop working for more than one minute, with faster turns around times being preferred. The power loom industry is one of the important industries in India with massive raw material and textile manufacturing base. The structure of Indian textile sector is extremely complex with modern, sophisticated and highly mechanized sector on one hand and the Handloom industry on the other and in between falls the decentralized small scale power loom industry.

The power loom industry mainly depends on weavers but they are always facing problems on finance, electricity, health etc. The workers were subjected to health problems like skeletal deformities, ergonomic, eyesight and several others. They also receive no government assistance. This result in low productivity and their economic conditions is very pathetic. (G.Mugilan, K.Muthukumar Jan2021)

POWER LOOM

- The power loom industry plays an important role in meeting the clothing needs of the country. There are approximately 13 lakhs power looms in different regions of Maharashtra like Solapur, Icha IKaranji, Malegaon etc., and they are also concentrated in Gujarat and Uttar Pradesh states.
- Unlike other major textile producing countries, Indian power loom industry is comprised mostly of small scale, non-integrated spinning, weaving, finishing and apparel making enterprises. (G.Mugilan , K.Muthukumar Jan2021)

HEALTH PROBLEMS FACED BY WEAVERS

LEG PAIN

- In power loom most of the works are standing there full working hours of 10 to 12 hours. So most of the workers in the power loom as affect by the leg pain.
- The most commonly reported symptoms from extended periods of standing are discomfort, fatigue and swelling in the legs.
- Workers required to spend too much time on their feet are at greatly increased risk of pain and discomfort affecting feet, shins and calves, knees, thighs, hips and lower back. (G.Mugilan , K.Muthukumar Jan2021)

RESPIRATORY ISSUES (Breath of Dust)

- Weaving environments, especially in small workshops, are often poorly ventilated and dusty. Fibers, dyes, and other airborne particles can lead to respiratory illnesses such as asthma, bronchitis, and allergic reactions.
- This risk is amplified in situations where natural ventilation is scarce or synthetic fibres are used. Weavers inhale dust, fibres, and other particulate matter, leading to respiratory problems. (Arati S. Hattiholi , Sadanand B. Sugandhi July2024)

LUNG DISEASE

- In power looms cotton dust which produce is more and it affect lungs and cause disease like byssinosis. Byssinosis is a lung disease caused by job-related exposure to dust from cotton, hemp, or flax.
- These dusts cause lung disease by obstructing the small air tubes (called bronchioles). Byssinosis can cause symptoms like asthma or more permanent lung damage similar to chronic obstructive pulmonary disease (COPD).
- Other names for byssinosis include Monday fever, brown lung disease, mill fever, and cotton workers' lung.
- To manage your symptoms, change how often you come into contact with textile products, like cotton. Your health care provider, a lung doctor (pulmonologist), and possibly an occupational medicine expert will help you create a treatment or management plan. (G.Mugilan , K.Muthukumar Jan2021)

Muscular Pains and Body Pains

- Additionally, many of the workers also reported muscular pains in the back, at the joints and the lower abdomen.
- Results revealed that there were some complaints of pain in the chest and the right arm and shoulder.
- These complaints are clearly related to the nature of work. Regular rest periods are recommended through this report. (Somnath Kolgiri , Dr. Rahul Hiremath 2017)

JOINT PAIN

- This problem is common among weavers due to poor ergonomics, extended sitting, manual manipulation of heavy materials, repeated actions, and inactivity, weavers frequently experience this issue.
- Painful joints, stiff joints, and injuries from repetitive strain are all caused by these things. Among weavers we can even find other health problems like obesity problem, blood pressure, and sugar (Arati S. Hattiholi , Sadanand B. Sugandhi July2024)

HEALTH AND SAFETY STANDARDS IN THE INDUSTRY

HAND GRIP METER

The test measures the maximum isometric strength of the hand and forearm muscles. This test is often used as a general test of strength. Strength also depends upon various activities like daily food intake, working hours, and pattern of work. (Duggal R. et al 2005)

PEAK FLOW METE

A peak flow meter is a handy, cheap, handheld device used to measure how air flows from the lungs in one "fast blast". The peak flow measurement of 350 l/min is considered to be normal for adults, while 200 l/min indicates a condition of chronic bronchitis and, therefore, major lung damage. (Samiya A. et al 2007)

EYE TESTING

The Snellen chart is used by eye care professionals and others to measure visual acuity. There are several lines of block letters printed on the chart. The first line consists of very large letters or symbols, and subsequent rows have increasing letters or symbols decreasing in size. If the smallest row can be read accurately, it indicates that the person has good eyesight. (Hethorn J. et al 2008)

CONCLUSION

The power loom sector has grown up from handloom sector traditionally with inherent technical knowhow passed on from forefather and is being continuing in many of the clusters. This sector plays a pivotal role in meeting the clothing needs of the country. The power loom owners faced some problems in their business such as raw material unavailability, GST problem and other problems. The government should take some initiatives and measures to help them to save the sector in future. Though current growth of this sector has been restricted by technology obsolescence, fragmented structure, low productivity, and low-end quality products, in future technology would play a lead role in this sector and will improve quality and productivity levels. Innovations are also happening in this sector. The study strongly recommends the health and safety standards to the industry to recure the worker from the health issues.

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