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Short Communication

Health Concerns among Workers in Weaving Industry: A Case Study of Tehsil Faialabad, Pakistan

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ABSTRACT

Textile processing sector is one of the most important sectors of textile industry of Pakistan. Objective of this study was to examine the health concern and their contributing factors among workers in weaving industry. The data were collected from four union councils of Faisalabad. Majority of respondents (30%) were suffering from eyesight problems due to subdue light, 28% were suffering from continuous headache, 32% had complaints of remaining sick after joining weaving industry. These unhygienic conditions and poor facilities created frustration among majority (54%) of the workers under study.

Key Words: Weaving worker's health; Respiratory diseases; Cotton dust

INTRODUCTION

Textile processing sector is one of the most important sectors of textile industry of Pakistan with regard to production, export and labor force employment. The number of industries working in this sector is estimated to be around 670. Out of 670 units, about 400 are member of the all Pakistan Textile Mills Association (APTMA) (Anonymous, 2002). The textile industry in Faisalabad comprises over 10,000 units (248 textile mills, 110 hosiery mills, 23 textile machinery units & various small cottage scale units) (Anonymous, 2003-2004). Spinning and weaving sector in Pakistan is growing in two avenues. Pakistan contributes about 20% of the European textile production (Faheem, 2006).

In local weaving industry the instrastructure is highly un-highgenic. The rooms are not constructed according to the health point of view and have no appropriate ventilation system. Usually these communities have crowded, poor ventilated and bad lighted rooms. Workers have to do work under these un-hygienic conditions causing health problems. Secondly the working time in this poorly managed environment is 12 h. They have to work in shifts i.e., morning and evening. Sometimes, it takes 14-16 h and they continuously have to sit on carpet without any rest (AIM, 1991).

Occupational health problems to children involved in hand made carpets are subjected to skeletal deformities, ergonomic, eyesight and health problems due to exposure of toxic chemicals. The squatting working position causes deformed or serious crippling arthritis of the knee and permanent deformities of fingers. Eyesight disorders occur due to constant close attention to the point of weaving or knotting under inadequate lightning and vitamin A deficiency (Anonymous, 2003-2004). Exposure to cotton dust, acids, caustics, or by working in dyeing and printing area in the textile industry have risk of nasopharyngel cancer (NPC) in this cohort (Anonymous, 2006).

Cotton dust leads to many health hazards in majority of textile workers like byssinosis, cough and bronchial asthma. These are highly prevalent in mills of developing countries such as Ethiopia, Sudan, Egypt, Central Africa and to a lesser extent, in South Africa, India and China (Anonymous, 1995). In these countries sickness absence due to respiratory problems has also been reported to be high. In developed countries, however modern mill engineering and dust control measures have kept respiratory problems significantly low. Even, where the dust concentration is low, the well being of workers can be affected by other contaminants of cotton. For example, ocular and nasal irritations in workers in spinning mills of cotton have been reported. Other disease conditions related to working in textile mills are muscular-skeletal pain, headache, easy fatigue and changes in blood pressure (Anonymous, 1995).

To study the extent the bad effects of un-healthy working environment and their allied problems associated with the socio-economic condition of the workers, existing working environment and health concerns of the workers working in weaving industry of Faisalabad, Pakistan are the main objectives of the present study.

MATERIALS AND METHODS

The universe for the present study consisted of the weaving workers. A sample of 100 respondents was evaluated by using simple random sampling technique. Four union councils were randomly selected from the Faisalabad

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city district, Pakistan. 25 respondents were selected from every union council. Multistage sampling techniques were used for sample selection. At first and second stage district Faisalabad Lyallpur Town were selected. At third stage four union councils namely UC-187, UC-188, UC-190, UC-270 were selected randomly. Data were collected with the help of a well designed interview schedule.

RESULTS AND DISCUSSION

The data presented in the Table I reveal that majority of the respondents were in financial stress due to low monthly income i.e., 4000-6000. Workers above 44 years (3.1%) were struggling hard to combat with this situation. Normally, population segment of 18-23 years (23%) and 31-37 years (20%) were a reasonable population engaged in weaving industry as regular or contract basis. 34% population in district Faisalabad have per capita income below Rs. 750/month as compared to Lahore (20%), Sailkot (15%) and Rawalpindi (2.6%). Due to high economic pressure and old age factor unfit for any other work, they comprise to work at very low salary (Anonymous, 2003-2004).

There was a high proportion of the illiterate workers engaged in weaving industry and a variation in the level of education among the 4 union councils (Table I). There was 60% adult literacy rate in Faisalabad, and ranked at eighth position among all 34 Districts of Punjab. Data show that above primary education level proportion of the population of the district Faisalabad was found to be 54%.

In total 70% respondents adopted the job of workers, 16% were cloth mender, 12% were winder man and only 2% were working as master (highly skilled labor force) (Table I). Most of the work force engaged in the weaving industry was non-technical and un-skilled due to which most of the respondents were working to take this profession as simple worker rather to get skill and work as master or cloth mender. The second reason of this trend is low literacy rate, low-income group and lake of vocational/ training institutes of weaving industry. Consequently, the demand for qualified and trained textile graduates and diploma holders remained slack during the fiscal period from 1995-1996 to 1998-1999. Only viable, applicable and workable policies can change this trend (Sheikh, 2000).

Majority of workers (56%) earn income from Rs. 4001-6000/month from the profession of weaving industry, which was not sufficient for their needs (Table I). But according to poverty profile prepared by Anjuman Samaji Behbood (ASB) team in December, 2000 the household average monthly income in slums was Rs. 2500-3000. So according to recent survey covering household monthly income distribution in Faisalabad, it was evident that one third of the household fall in low-income groups (below Rs. 3000/month). Similarly the data collected from this study was not at par with the survey conducted by Govt. of Punjab that in Faisalabad average per capita income per month was Rs. 1296 and Faisalabad ranked at 34 out of 39 in terms of percent income below Rs. 750 per month.

Table II indicates that the most of the workers (36%) have been engaged in weaving industry for the last 25 years or above and workers, who adopted this profession for the last 5-10 years is 34%. There were also a very reasonable number of workers (20%), whereas this profession was joined by only 10% during the last 10-15 years. There are certain factors to stick this profession over the years. Heavy economic stress, low literacy rate, large family, higher inflation rate over the years and unavailability of alternate profession are some of the other factor, which force the workers to do the same job under the same set of environment at very low wages. Hence, weaving sector becomes the generation after generation occupation mostly in carpet and spinning sector (AIM, 1991).

The facilities provided to the workers are not sufficient to make a comfortable working atmosphere. Not a single face mask was found (Table III). Face masks can provide the protection to workers from cotton dust, which can cause tuberculosis, as is clear from the current study that 6% workers were suffering from tuberculosis (Table IV). This is because of cotton dust, which may contain a mixture of many substances including ground-up plant matter, fiber, bacteria, fungi, soil, pesticides, non-cotton matter and other contaminants. Exposure to cotton dust can result in serious health problems like eye sight problems (AIM, 1991).

Table IV indicates that 30% of workers in weaving industry have eyesight problem due to improper lightning system. It might be due to the reason that they work with very thin threads under bad lighting system (AIM, 1991). 28% workers have the problem of continuous headache. There are two basic types of headaches; tension and vascular. Many patients feel their migraines are the result of allergy though the scientific community has not been able to clearly verify this theory. Common working materials, such as bleach, dust, noise and ammonia trigger headaches for many people (Tracee, 1997) and 26% are loud hearers. It means that noisy environment is the cause of loud hearing and continuous fever. Noise pollution is a serious and major topic covered under Industrial Hygiene and safety to ensure noise free or permissible noise as per standards established to ensure safe environment for the working staff in any industry (Ilyas, 2008). 76% of workers have to work for 8 to 12 h in standing position that is why 18% of respondents got joint pain. Long hours of static work with awkward posture at traditionally designed looms can cause high prevalence of musculoskeletal disorders (MSDs) among weavers (Anonymous, 2006). 97% workers have no facemask during working hours, which directly effect on their health in the form of tuberculosis 6%, cough 6% and asthma 6%. Heart attack respondents are 6%, 4% respondents suffered from liver disease, 6% from blood pressure and 16% from continuous fever. So, 36% respondents are working from 25 or above years and having the age of 44 or above. So they got risky diseases like heart attack, T.B., Asthma, Liver disease etc. Moreover, those working from 5 to 10 years are

Table I. Distribution of the respondents according to their socio-economic characteristics

Age categories (in years)	Percentage
18-23	22.0
24-30	11.0
31-37	20.0
38-43	16.0
44 and above	31.0
Total	100.0
Education	**Percentage**
Illiterate	46.0
Primary	30.0
Middle	16.0
Matric or above	8.0
Total	100.0
Occupation	**Percentage**
Cloth mender	16.0
Wander man	12.0
Worker	70.0
Master	2.0
Total	100.0
Monthly Income (Rs.)	**Percentage**
2000-4000	28.0
4001-6000	56.0
6001-8000	16.0
Total	100.0

Table II. Distribution of the respondents according to the working years in weaving industry

Working years	Percentage
5-10	34.0
10-15	10.0
15-20	20.0
25 or above	36.0
Total	100.0

34% and suffer from cough, joint pain, eye sight problem, loud hearing, continuous headache and fever.

Table V indicates that there was almost no provision of protecting equipment for workers. In weaving industry, protecting equipment means the facemasks, earplugs and first aid facility during injury etc. But in Pakistan there is no trend to facilitate the workers neither from the Pakistani Government nor from the owners of any textile industry. But now textile industry in USA invested more than $ 35.9 billion during 1980-2000 with 2/3 in last 10 years (Ilyas, 2008).

Suggestions/recommendations. There must be established policies binding the owner of the weaving industry to keep one favorable for the weaving workers. Information regarding cotton dust, noise pollution exposure adversely impact on workers and its control strategies are missing among textile employers, management and employees. Most of these diseases and health problems found in weaving industry can be avoided by proper precautions and care. There must be some provision of protecting equipments for example ear plugs, face masks, first aid facility, gloves and proper uniform, for the protection of workers from the effective environment. There must also be the provision of health insurance by the mill owners with the co-operation of Government.

Table III. Distribution of the respondents according to the facilities providing them in weaving industry

Facilities providing	Yes	No	Total
Ventilation system	97	3	100
Fans	96	4	100
Proper lighting	90	10	100
First aid facility	0	100	100
Clean drinking water	87	13	100
Face masks	0	100	100
Sitting chairs/stools	82	18	100
Heater in winter's	0	100	100
Advance loan	92	8	100

Table IV. Distribution of the respondents according to the diseases because of weaving environment hazardous

Any disease	Yes	No	Total
Continuous headache	28	72	100.0
Continuous fever	16	84	100.0
Loud hearing	26	74	100.0
T.B.	6	94	100.0
Cough	6	94	100.0
Blood pressure	6	94	100.0
Asthma	6	94	100.0
Nasopharyngeal cancer	0	100	100.0
Joint pain	18	82	100.0
Eyesight problem	30	70	100.0
Heart attack	6	94	100.0
Liver disease	4	96	100.0

Table V. Distribution of the respondents according to the provision of protecting equipment to respondents/ workers in weaving industry

Protecting equipment	Frequency	Percent
Yes	2	2.0
No	98	98.0
Total	100	100.0

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