

OCCUPATIONAL HEALTH PROBLEMS OF PHULKARI ARTISANS

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Abstract

Phulkari embroidery is a popular form of embroidered craft of Punjab. This craft is practiced not only for creating personal textiles but is also a medium of income generation for numerous women of the state. The present study looks into the status of occupational health problems of Phulkari artisans in Mohali district of Punjab. The data revealed many health problems faced by the workers: headache, acidity, dizziness, hand and foot numbness and pain in different parts of the body: eyes, neck, back, legs, knees, arms, hand joints and finger tips. Though artisans are aware of their health problems, but they neglect their routine medical checkups, regular exercise and precautionary measures.

Keywords: Health, Phulkari, Artisans, Continuous work

Introduction

Good health, one's real wealth, enhances individual's efficiency for doing work which increases productivity and brings economic prosperity. A healthy person is always cheerful, active, energetic and a willing worker. Health of a person is dependent on many factors like employment, occupation and social status. Being employed gives a sense of being worthy, required in an organization and reflects one's ability to perform and contribute- this also

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influences the self-esteem, economic well-being of a person. On one side occupation is important for meeting health needs of a person and on the other side it can be harmful too. Occupation and health are inseparably linked and hence both factors require appropriate attention for the betterment of society and for individuals (Buijs, Gunnyeon,&Weel, 2012). Health is a vital part of the work ability. Hence loss in health can lead to productivity loss at work and work-related disability (Alavinia&Molenaar,2008).

Occupational health deals with all aspects of health and safety in the workplace and has a strong focus on primary prevention of hazards. According to World health Organisation (WHO) there are many risk factors at workplace that can lead not only to accidents but also to many diseases like cancer, musculoskeletal disorders, hearing impairment, stress related diseases, circulatory, respiratory and many communicable diseases. Occupational health care can help in preventing these and has a positive economic impact on both national and enterprise level, and thus may be regarded as a productive factor, rather than an economic burden (Joshi &Dahal, 2006).

The risks at workplace are higher in informal sector. The unorganized sector and small-scale industries are subjected to numerous occupational health hazards. A large number of women are working in this sector. These workers are usually from a low socioeconomic class and along with maintaining their household responsibilities, these women work rigorously to earn and contribute in family income too. Though they become independent but face many health issues. Being subjected to dual demands of home and workplace they are liable to face a crisis of adjustments which may cause strain and stress. Generally, 1 out of 300 female workers suffer from some work-related diseases (Srivastava & Bihari, 2000).

India is a land of crafts and Indian textiles are relished for the superior craftsmanship globally. Various techniques are used in the production or ornamentation of Indian textiles: embroidery, printing, painting, dyeing etc. Women working in the handicraft sector form an important part of informal workforce in India. The conditions of women worker in production of handicrafts are relatively complex. Such activities are considered as leisure activities but end up in paying very less money to women with low economic status and they workday and night to supplement

household income. Phulkari is one such traditional craft of Punjab that involve time and energy of the women embroiderers for the financial gains.



Plate 1: Phulkari embroidery

Phulkari is a fine handicraft made with floss silk thread usually on cotton fabric (Plate 1). The women artisans work hard on this embroidered textile which has a global appeal and market. In order to understand the entire range of problems that these crafts women face a study was undertaken with the following objectives:

- To study the health awareness of Phulkari artisans.
- To study the health problems faced by the Phulkari artisans.

Review of literature

In order to understand occupational health problems various researches were reviewed. Researches on handicraft sector reveal many health problems of the workers. Women involved in Pattiwork handicraft from Aligarh city of Uttar Pradesh, India work for long hours in conditions like poor lighting and ventilation and static sitting. Because of less awareness and lack of consideration of worker about their working environment and their own health, they have become more vulnerable to many health problems that they face: headache, sunken eyes, gastric problem, fatigue, numbness in the tips of pointing fingers, bloating body and pain in back, eyes,

neck, shoulder, palms, wrists, knees(Khan & Singh,2015). Similar case is observed in carpet factories in Bhaktapur district, Nepal. Majority of the women workers work for 8-12 hours and condition in which these women work is miserable as these workplaces lack in the facilities like dust control, ventilation, fire management preparedness. Backache/joint ache, eye irritations, prolonged headache, chest pain, and skin irritation were commonly reported by the workers (Subedi&Banamala, 2015). Chikankari workers from Lucknow also faced many occupation health issues like tingling in hands and arthritis (Singh & Sharma, 2016). Gangopadhyay, Chakrabarty, Sarkar, Dev and Das (2014) found low back pain to be the most experienced among the Chikan embroidery workers from West Bengal. Rigidity in work methods, prolonged working time, dissatisfaction regarding earning, monotonous job pattern and static sitting posture were found to be some of the reasons for these occupational health problems.

Textile industry workers also face many health hazards depending upon the workplace environment. It can be exposure to cotton dust, harmful chemicals, noise and ergonomics issues etc. Some other factors like job strain, improper use of personal protective equipment, stress, unhealthy working environment and poor working conditions etc. can also aggravate health problems. Illiteracy and unawareness about the protective measures by the workers can be one of the reasons. To prevent the health issues of workers in industries it is essential that the workers should be aware of the various occupational hazards in the industry. It is also important that the management should take the necessary steps to protect workers from potential hazardous situation (Singh, 2016). Health problems among garment factory workers were studied by Lillypet, Jain and Joseph (2017). Majority of workers were women and those involved in tasks like sewing, cutting and delivering faced musculoskeletal problem in back and shoulder region because of long hours of continuous sitting, bending and twisting at the waist, abnormal posture and movements during work and continuous standing. Other problems like anxiety, depression and somatic illness were associated with the musculoskeletal problem. It was revealed that nutrition also plays an important role, improper diet leads to health related problems. Jahan et al. (2015) found that garment workers especially sewing machine operators showed high prevalence of musculoskeletal disorders. These workers had pain in different body parts like neck, lower back, shoulder joint, elbow, upper back and in hip joint.

A high level of occupational health problems was found in small scale industry in Dar esSalaam, Tanzania. Workers stated their needs of permanent workplaces, information on work related hazards, water and sanitation and legislation for Small Scale Industry (Rongo, Barten, Msamanga, Heederik,&Dolmans, 2004). Another study highlighted that occupational health hazards faced by healthcare workers in Kampala, Uganda were because of not wearing all the necessary personal protective equipment, working overtime and job related pressures and working in multiple facilities (Ndejjo et al., 2015). Many workers in other industries face fatal occupational illnesses may be because of poor compliance of the industry towards the occupational health regulations (Atsumbe, Maigida, Abutu, Amine,& Enoch, 2013). Health problems can also force the sufferers to withdraw from daily activities. Noroozi, Hajibabaei, Saki and Memari (2015) stressed the importance on individual's knowledge improvement with regard to ergonomics risk factors and correction of work posture and following management and technical practices in the organization.

Methodology

Survey method was used to study the health problems of Phulkari artisans. Though this craft is practiced in many parts of Punjab, three villages of the Derabassi block in district Mohali were chosen for the study: Mubarikpur, Trivedi camp and Pandwala. The researchers have seen women from Mubarikpur village working on Phulkari wraps since more than one decade. It is one of the prominent areas of Punjab from where vendors source or give further orders of Phulkari to the women. Women from the nearby villages are also involved in this work. Trivedi camp and Pandwala villages are next to Mubarikpurwherealso women work on Phulkari wraps.

150 artisans of Phulkari embroidery from the above three villages in Derabassi block of Mohali district: 50 artisans from each village were randomly chosen as a sample for the present research. Interview schedule was used to generate data. The study was subjected to statistical analysis according to the objectives of the study. Percentages were calculated, tables and charts were generated in Microsoft excel sheet. Data was also examined using the statistical multiple regression test to find a relation between health issues and age of the workers.

Results and Discussion

Profile of Phulkari Artisans

Majority of the artisans who pursue Phulkari embroidery are in the age group of 20-40 years. The survey revealed that with increase in the age, the number of artisans working on Phulkari also decreases. Artisans reasoned that with increase in age the stress on eyes increases because of the intricacy of the embroidery and they have to focus more on embroidery, hence they tend to leave embroidery work after 40 to 50 years of age.

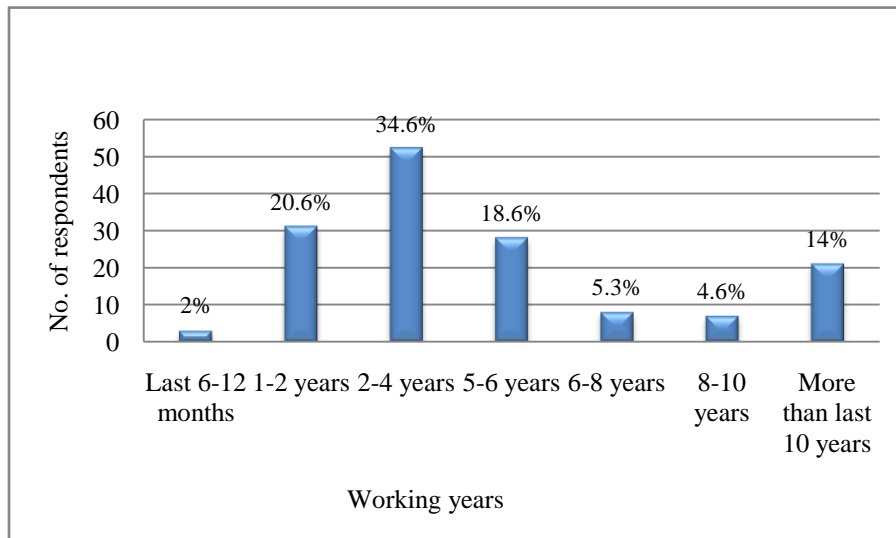


Figure 1: Distribution of respondents on the basis of working years

The above figure shows that majority of the artisans i.e. 34.6% are embroidering Phulkari since last 2-4 years; 20.6% of the artisans are pursuing this craft since last 1-2 years 18.6% are embroidering Phulkari since 5-6 years. There are artisans though less in number (14%), who are pursuing Phulkari embroidery for more than 10 years. The survey showed that low family income is one of the main reasons for these artisans to pursue Phulkari embroidery as a medium of earning.

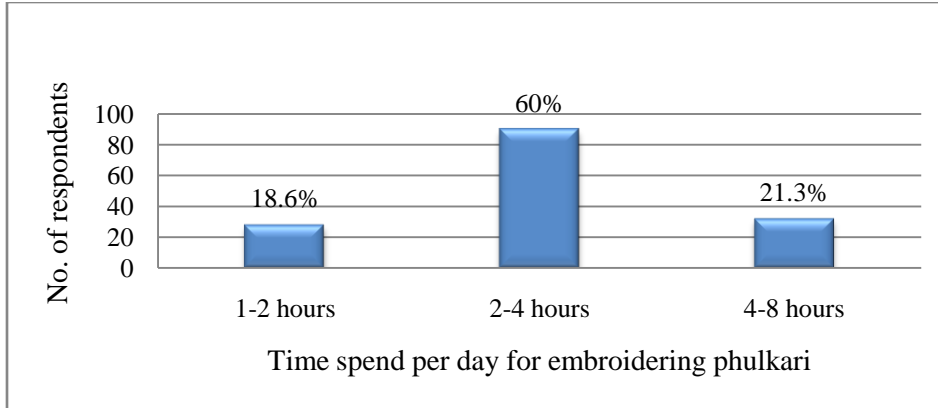


Figure 2: Distribution of respondents on the basis of time spend on embroidering Phulkari

Maximum number of artisans (60%) work for 2-4 hours in a day doing embroidery (Figure 2). These artisans are not able to spare more than 2-4 hours in a day for embroidery as they have a lot of household responsibilities to fulfill. 21.3% of workers embroider for 4-8 hours. These artisans disclosed that they get a lot of extra time other than the household chores. Many of them either have no children or have grown-up children or many were unmarried girls, so they get ample time to embroider Phulkari. There were artisans (18.6%) who also had to take care of livestock and farming activities over and above their household responsibilities, so they are able to give 1-2 hours for embroidery.

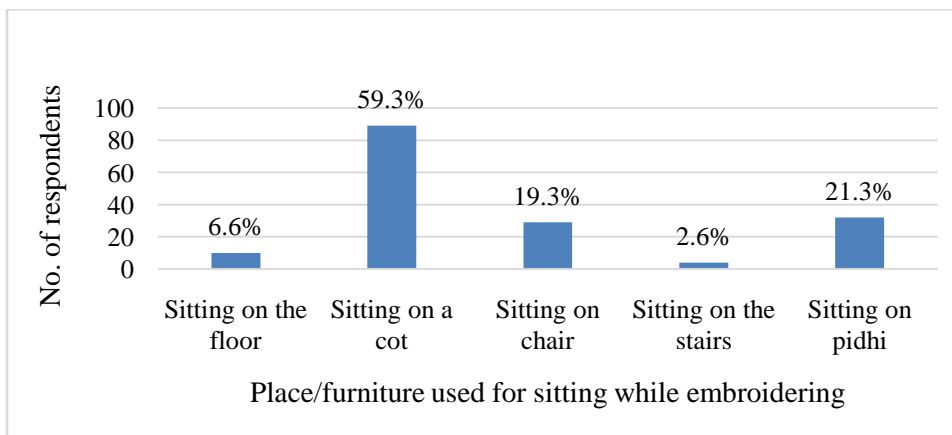


Figure 3: Distribution of respondents on the basis of place/furniture used for sitting while embroidering

Maximum number of the artisans i.e. 59.3% embroider Phulkari while sitting on a cot, 21.3% sit on a very low stool called as Pidhi while they embroider (Figure 3). These artisans usually place Pidhi in the streets or in the verandah and sit together and embroider. Many of these women do not give support to their back while embroidering (Plate 2). This can be one of the reasons for lower back pain of the artisans which is discussed in later part of the paper. 19.3% of the artisans use chair with a back rest while embroidering, whereas 6.6% of the artisans sit on the floor and embroider.



Plate 2: Artisan sitting in a bent posture on a cot and embroidering Phulkari

42% of the artisans do take rest in the afternoon for two hours and 26% take one-hour rest. Either they go off to sleep or lie down so that their body relaxes and they get energized to again embroider in the evening. These artisans also watch television serials to relax from the tedious work of embroidery. Rest 32% of the artisans does not take rest at all.

Health problems of the artisans

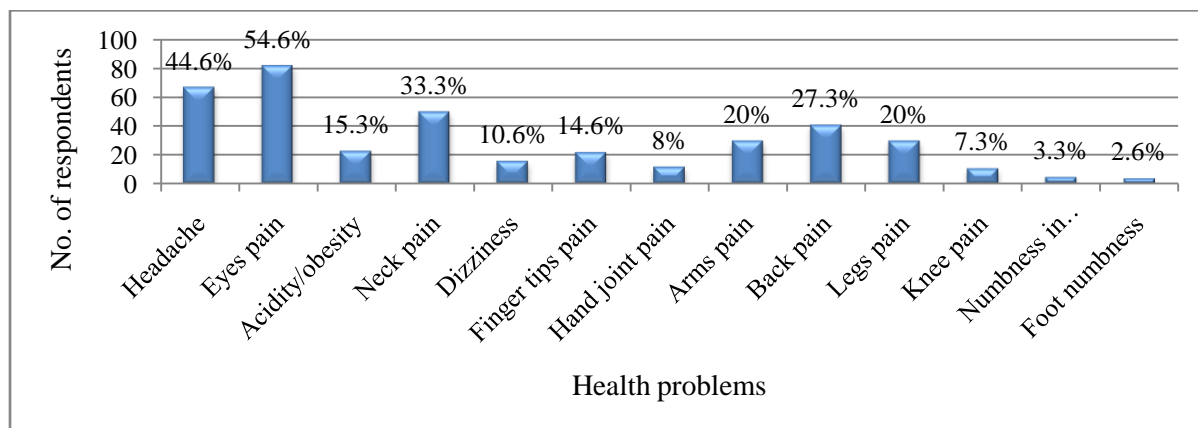


Figure 4: Distribution of respondents on the basis of health problems

Multiple response*

Phulkari artisans are facing different types of health problems as shown in Figure 4. The problems faced by the workers included eyes pain (54.6%), headache (44.6%), neck pain (33.3%), back pain (27.3%), legs pain (20%), arms pain (20%), acidity/obesity(15.3%), finger tips pain (14.6%), dizziness (10%), hand joint pains (8%), knee pain (7.3%), hand numbness (3.3%) and foot numbness (2.6 %).

Artisans were asked for the reasons for their health problems. They gave multiple reasons for each problem which are discussed as follows:

Reasons for pain in eyes: There were 82 artisans who reported pain in eyes as one of the problem faced because of embroidering. Maximum of these artisans (46.3%) complain of pain as they have to continuously look at bright and dark colored yarn and 31.7% artisans said that as they have to focus on embroidery that leads to pain in eyes.

Reasons for headache: Data shows that there were 68 artisans who reported headache as one of the problems faced because of embroidering. Majority of these artisans (57.3%) revealed that as the color of yarn with which they embroider is bright and has a sheen in it, 29.4% said that continuous working and looking/focusing on the yarn and embroidery leads to headache. 10.2% artisans have been recommended spectacles but they don't wear these, so strain of work without glasses lead to headache. 7.3% artisans also embroider in a dim/less light in the evening or night time which is another reason for the health problem.

Reasons for neck pain: Data discloses that out of 48 artisans who reported neck pain, 54% artisans mentioned bending neck continuously for long hours, 27% artisans reported of sitting in an incorrect posture and 21% artisans reported of lack of rest period in between embroidery time as the reason for the neck pain.

Reasons for pain in fingers: Out of the 24 artisans who disclosed that they feel pain in fingers, maximum of these (54 %) said that needle used for embroidery has sharp point that leads to pain.

29% artisans' said that long hours of working with needle and 17% artisans' mentioned lack of rest as the reason for developing pain in fingers.

Reasons for pain in hand joints: 55.5% of the artisans who reported pain in hand joints said that they do not give rest to their hands in between embroidery and do not do exercise in between, 44.4% of the respondents said that excessive movement of hands and fingers, 33.3% of the artisans mentioned continuous embroidery for long hours results in strain on hand joints and lead to the pain.

Reasons for pain in arms: Data reveals that continuously embroidering for long hours and raising the arm regularly at each stitch taken (45.1%), holding and keeping frame in one position constantly (41.9%) and no rest in between (12.9%) can lead to strain and pain in arms.

Reasons for back pain: Data shows that there were 45 artisans who reported backache as one of the problem faced because of embroidering. 42.2% of these artisans embroider without a back support, 26.6% artisans also reported of sitting in an incorrect posture while embroidering, 20% of the artisans do not stretch their body parts in between work which leads to stiffness, 13.3% artisans do not take rest after or in between the work: all these reasons were reported by the artisans for pain in their back.

Reasons for the acidity / obesity: 22 artisans reported that because of Phulkari work they have developed acidity and have protruding abdomen and have become obese. Maximum of these artisans reasoned that working for long hours in a bending position there is a continuous pressure on the abdomen area and some of them mentioned that they do not exercise, they have a regime of eating, sitting and working which can be reason for developing acidity and protruding abdomen.

Reasons for leg pain: 23 artisans complained about pain in their legs because of undertaking embroidery work. There were many reasons given by these artisans for the pain: 82.6% of these artisans sit cross-legged or with bent knees for long hours while doing embroidery, 30.4% do not relax or take rest in between and 26% do not stop their work and walk for a while intermittently

when they feel a pain in legs and 21.7% artisans do not do any exercise to strengthen their muscles.

Reasons for numbness in fingers of hand: 80% artisans reported that long working hours and stress on the hands and arms can lead to the numbness.

Reasons for dizziness: Data reveals that keeping neck in a bent position for long working hours(86.6%) and requirement of concentration and focus on the stitch taken (13.3%) while embroidery leads to dizziness.

Reasons for foot numbness: Data reveals that 75% artisans mentioned long working hours, sitting in an incorrect posture with stress on the folded legs and feet can lead to foot numbness.

It was reported by 80.6% of the artisans that they either visit a local chemist only when they have pain or feel problem in their body or visit a doctor (private practitioner or government hospitals or dispensaries available near to their area) and take medicine for it. Artisans revealed that they don't visit local health camps organized in their areas as they have no confidence in the diagnosis, solutions provided in these camps and moreover these camps are not regularly organized. 15.6% of the artisans take self-medication.

Majority of the artisans (56%) are not doing exercise to maintain good health where as 44% of artisans replied that they do exercise. Out of the artisans who do exercise: 13.6% do yoga and rest 86.3% women go for regular walk in the morning and sometimes in the evening either daily or on alternate days depending upon the Phulkari work that they have to finish in a day. If these artisans start with a regular exercise regime their dosage of medicine can be reduced easily and they will feel relaxed and energetic to do the embroidery work.

Working hours, age and working years of the artisans were correlated with the health problems

(Figure 5).

Variables	Model	R	R2	S.E.E
Working hours	1.510 + 0.266 (working hours)*	0.317	0.101	1.552
Working years	1.947 + 0.140 (working years)*	0.265	0.070	1.578
Age	0.640 + 0.057 (age)*	0.346	0.120	1.535
Working hours Working years Age	-0.281 + 0.226 (working hours) + .054 (working years)+ .047 (age)*	0.459	0.211	1.463

(R = .3 and .2 represents weak correlation, R = .459 represents good correlation)

Figure 5:Regression and Correlation of different aspects related to health problems

The above data shows that working hours, working years and age separately do correlate with the health problems of the Phulkari artisan but if all these factors are considered together and related with the health problems, it shows a good correlation i.e. more number of working hours and years spent in embroidery and increase in age all lead to more health problems.

Conclusion

The study reveals that women engaged in Phulkari embroidery face many health problems: pain in different parts of the body i.e.eyes, neck,back, legs, knees, arms,finger tips, handjoints,headache, acidity, dizziness hand and foot numbness. These workers sit on a cot or on a floor keeping their neck, back, knees bent in an awkward position for long hours. This position also stresses the stomach as reported by different artisans. The silken floss thread used for embroidery has sheen and with bright hue and a focused continuous work using such yarn many a times irritate artisan's eyes. As the movement of arm is repetitive from inserting the needle into the fabric and then taking it away from the fabric, stresses the arm too- these are some of the reasons for the health issues faced by the artisans. They do embroidery dedicatedly without

taking their pains seriously. Artisans are aware about the importance of health and their own health problems. They visit doctor or chemist when they have excessive or regular pain in different body parts. Maximum women do not exercise but some of the women do exercise or yoga to maintain their health but they do not follow this regime very seriously. State do organize various health camps but these artisans have no trust in such camps. If these artisans are regularly engaged in daily exercise schedule or exercise in between their work and if they are trained to keep their posture correct, they will be able to overcome many of their health issues leading to better productivity and enhanced income.

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