

HEALTH HAZARDS IN ELECTROPLATING AND POLISHING: A SOCIOLOGICAL STUDY OF WORKERS IN ALIGARH LOCK INDUSTRY

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Abstract: *The present study is carried out especially with male workers are engaged in Aligarh lock industry and suffering from health hazards. This paper tries to understand the chances of accidents in lock manufacturing factory by highlighting its adverse impact on health while working on electroplating and polishing machine such as electric shock, skin diseases, allergy, breathing problems and tuberculosis; because they inhale directly dust particles come out from buff polishing machine. Health is the most serious problems of labors, therefore this study makes an attempt to investigate the existing conditions of worker by examining various dimensions of workers life in unorganized sectors such as health related problems, socio-economic condition, poor ventilation system, low wages, work for extra hour, unhygienic and overcrowded workplace, polluted drinking water and exploitation, these lack of resources create serious problems among workers. This paper is based upon primary and secondary sources of data, in primary data, the methodology is used here is the inductive logic of inquiry; it starts from the collection of data and then proceeds to derive generalizations. The respondents related to this study were identified and interviewed on the basis of the objective of the study by using case study as an approach for data collection. In secondary sources data is collected by the available literatures, books and governmental records etc. The study is descriptive and exploratory in nature; content analysis is also used as a method of data collection wherever necessary.*

Key Words: *Health hazards, socio-economic condition, wage, exploitation, nature of work.*

1. INTRODUCTION:

There is a very famous old saying “Health is wealth” but in the case of Aligarh lock industry where people choose to lose their health in pursued of wealth by knowing its adverse impact on health, despite they are compelled to work in lock industries resulted they start suffering from numerous serious diseases, Like- Tuberculosis, Asthma, Breathing problem, Skin disease and so on. Health is a level of functional or metabolic efficiency of a living organism. In human it is the ability of individuals or communities to adopt and self-manage when facing physical, mental or social challenges. According to WHO ‘health is a state of a complete physical, mental and social well-being and not merely the absence of disease’.

Locks are made in Aligarh by traditional and modern methods, the different lock making processes are carried out in different units, generally cutting, bending and grooves making works are done in relatively in big units with the help of power press and the processes, Like- Buffing, Electroplating and Spray painting etc., are carried out in a small work shop and house hold units. Different units specialize in different works, factories often get the parts manufactured outside on the contract basis, and the contractors get the works done with the help of sub-contractors.

Generally 1/3 of the work forces are female and a quarter of total work forces are children. The main reason of taken up this lock industry due to illiteracy and poverty, child labor get low wages, are subjected to mental and physical harassment and suffer from health related problems at work place (Parveen,2015). In lock industry women are more prawn to health hazardous, since they are physically fragile so they are the most affected while working in lock factories. Those who are affected and suffered with diseases a high number of them almost every nine out of ten diagnosed with Tuberculosis. Workers are vulnerable to Tuberculosis and other breathing problems, because they inhale directly dust particles come out from buff polishing machine. They have been suffering to a great degree of risk because of there is no provision of industrial safety gears at the work place.

Factory owners ignore safety measures just to earn more and more by cutting their cost and increasing their profit; they do not bother about the treatment of workers after an accident. Some of the workers are also exposing to some serious skin diseases. The surroundings atmospheres can influence our health in many ways, the lock industry is mainly a labor intensive coming under the category of unorganized sector, worked by man, women and children (Haque, 2019). The

working conditions of these factories are highly unhygienic, which also leads to diseases, Like- Malaria and Diarrhea. If safety measures and adequate precautions are not taken immediately in these factories, the workers will continue experience deadly diseases and health hazardous.

1.1 CAUSES OF HEALTH HAZARDOUS:

There are various causes of health hazardous by which most people are affected in the lock industry. However, there are many seen and unseen pictures which causes of health hazardous in lock industry have been discussing in a few points:

- Buff-polishing machine is one of the most important sources of risk by which the dust particles are in-haled by workers resulted they start suffering by dangerous diseases, namely T.B (Tuberculosis), Asthma and so on.
- At the time of work, the Mask, Gloves and other safety precaution are not provided by the factory owners and sometimes the workers indulge themselves in dangerous situation by not adopting safety guard measures which lead to major diseases, Like- Breathing problem, Itching and Skin diseases etc.
- There is not proper safety and social security, the working conditions are poor not suitable for the workers and work place is unhygienic. It is the biggest causes of health hazardous.
- Lack of proper ventilation facility at the work place.
- The Electroplating machines are very dangerous if not using Mask and Gloves by which some workers have been suffering from Asthma and electric shock.
- This is the biggest Causes of health hazardous in which industry workers are affected from skin diseases and burning hands, this is happen while working on chemicals and electric machines.

Some pictures shoot at the time of data collection in the Aligarh lock industry



Figure 1: workers working on buff-polishing



Figure 2: working on same machine.



Figure 3: workers pour the metal in to hot and cold water.



Figure 4 & 5 show electroplating and buff-polishing

2. PREVIOUS STUDIES ON THE LOCK INDUSTRY:

Though there have been several studies conducted by the various social scientists, academicians and NGOs on the health hazardous in electroplating and polishing and child labor in Aligarh particularly in the lock industries, each and every researcher want to know the condition of work place, socio-economic condition and health hazardous of workers. There have been a shortage of studies focusing on fallout of legislation on child labor and workers in Aligarh lock industries. Some of the previous studies conducted on lock factory workers focused on various aspect of electroplating and polishing worker issue. They looked into the socio-economic conditions of workers families, quality of the artisans, problems of capital intensity in the lock industry, income of family, hired labors, the nature of works and hazards faced by workers in lock industry.

Shandily and Khan (2010) highlighted major important facts about lock industry by pointing out, women are often illiterate, semi-skilled socially and culturally backward and their economic condition miserable which often hide their work participation. Women are often subjected to harassment due to Poverty, lack of access to education and resources and deprived of health facilities are their major causes of health threats. These women working in unorganized sectors are generally oppressed and taken more hours by giving fewer wage to them are not according to their work.

Iffat Faridi conducts her study on lock industry in Aligarh had been one of the earliest studies focusing on numerous lock manufacturing process and type of laborers employed in the manufacturing units. The study witnesses that the factory owners do not face shortage of labour because they can easily get required workers and children in minimum wage in the lock manufacturing units. This study also highlights that the workers and children are exploited due to illiteracy, poverty and lack of access of resources. The author states children covers 24% of the total work force by blaming that the predominance of primitive technology is the main reason for the presence of child labour (<http://www.vvgnli.org/sites/default>).

Burra (1989) in her report tried to highlight the fact that there are probability chances of hazards in, electroplating, polishing and spray painting if properly not using mask and gloves at the time of work and emphasized the need for shifting the home based unorganized sectors running the health hazards to an area like industrial estate where the working conditions can be improved and industrial laws can be implemented. The study stressed that the implementation of law without guaranteeing reasonable income of the parents, and proper health care facility to the workers would affect the working condition and reduced wages of the employees.

Hassan, Khan & Yunus (2002) identify that the lock industry of Aligarh are running on large scale where the workers do not get any formal training in fact they are trained informally and gain skill of lock making from their parents. The study explains if some persons are literate either they are engaged in Aligarh Muslim University or run their own business, while, the rest of the people who are illiterate mostly prefer to work in the lock industry although there are some other micro, small and medium industries available in district like agro-based industry, garments and embroidery industry, paper products, leather based, chemical based, brass and metal industry, repairing and servicing etc. But the large number of labourer class people is generally moved toward the lock industry because they get employment easily either on the daily wage or monthly.

3. STUDY AREA:

Aligarh is one of the important districts of Uttar Pradesh, Located at a distance of about 140 km from Delhi, It lies in the fertile area between the rivers Ganges and Yamuna known as the Doab. Aligarh is located in the western part of Uttar Pradesh (U.P). The district comprises the northern most part of Agra division. Aligarh district has its boundaries with the Bulandshahar district in the north; Mathura district in the south, Etah district in the south-east and the extreme north western boundary, formed by the river Yamuna, separates Aligarh from Gurgaon district of Haryana State. Aligarh town is the largest urban Centre and administrative headquarters of Aligarh district (Zilah). The district is further divided into six sub-districts (tehsils), each with its own divisional headquarter. Minor officials administer five tehsils, while government administrators in Aligarh town regulate any policies or activities affecting the Zilah as a whole. The city covers an area of 34.98 square kilometers. The total population of Aligarh City is 874,408 (Census of India, 2011).

According to census 2011 the literacy rate of Aligarh city is 67.52% in which male literacy rate is 77.97% the female literacy rate is 55.68% and the sex ratio is 882 female per 1000 male in Aligarh city of Uttar Pradesh.

The climate of Aligarh is harsh with cold winters and hot summers. It tends to suffer from inadequate rainfall and experiences serious water shortages. The surrounding countryside is dotted with villages depending on agriculture to produce crops for local consumption and for sale in local towns. Considerable cash cropping of indigo and cotton took place under the British, leading to the development of the town as an important commercial crossroads. Aligarh town has now become a notable center of lock industry and of commerce, best known for its manufacture of locks and building fittings. Aligarh is the nexus for delivery and distribution of goods manufactured locally, and is connected to

major cities via the Grand Trunk Road and through good rail links. Aligarh markets locally made industrial items to big cities such as Delhi, Bombay and Kanpur, as well as acts as a dispersal center for the inflow and outflow of foodstuffs and other consumer goods. Merchants living in Aligarh store incoming products in godowns (warehouses) and subcontract to petty traders who in turn travel throughout the district selling to the village shopkeepers.

The Aligarh city has two distinct nature-wise division i.e. old/walled city and Civil Lines. In Old City the houses are very much congested and of old type. Due to non-availability of open spaces, the housing is rather unplanned in nature. They lack proper ventilation, sewage etc. The housing pattern of Civil Lines is well planned and different from that of old walled city. The major factor, which influences the inequalities in different parts of the city, has been the occupational status of the people. The manufacturing units of Lock industry are scattered all over Aligarh. Though the households engaged in various processes of lock-making or assembling are found all over the city, they are concentrated in 48 mohallas located in 28 different wards. For the purpose of this study 18 mohallas, which are the child labour concentration pockets, were selected. They are: JeevanGarh, Bhojpura, Shahjamal, Rasalganj, Sarai Rehman, UsmanPara, Hathi Pul, Tantanpara, Chowk Bundu Khan, Sheik Khan, Atish Bazan, Delhi Gate, 14 Kailash Galli, Shastri Nagar, Parao Dube, Jaiganj and Sarai Lavaria. These Mohallas are located in 11 different wards of the city.

4. HEALTH HAZARDS OF WORKERS IN ALIGARH LOCK INDUSTRY: FIELD STUDY

The facts and information used in this part of the chapter has been gathered through the case studies for the workers involved in electroplating and polishing in Aligarh lock industry. This chapter is divided into eight case studies. In all the case studies collecting the general background of workers have been written. And the general characteristics of the workers under the study. It also examines the socio-economic profile of workers in terms of age, educational status, nature of work etc. by workers of age group 13-50 years.

CASE STUDY-1: Waseem in his age of forty, working in Aligarh lock industry. He lives in Srail Rahman near the upper court mosque. He works in lock factory as the daily wages worker. He is the only one bread winner of his family. He has four children three daughter and one son, and his wife is working in lock factory owner's house as a sweeper. She is suffering from Anemia due to lack of nutritional food because of poverty. As a daily wages worker Waseem earns some of amount 7000 to 8000 per month, it is very hard to sustain his family smoothly. He also spends an amount in his wife's treatment in Malkhan Singh Hospital, because his wife is in anemic condition, due to that she is suffering from a lot of disease like fever, body weakness, headache and so on. One of the very big miseries is also related to Waseem that he was suffering from Tuberculosis and Breathing problem due to work in lock industry, and taking regular treatment of Tuberculosis from J.N.M.C.H. of Aligarh Muslim University, and the Doctor advised him to take nutritional food and proper rest after that you will be ok. But the pressure of family and starvation Waseem used to go for regular work to sustain and support his family economically, **CASE STUDY-2:** Nadeem is thirty six year old working in lock industry in shah jamal. He lives near the working place. He works in lock industry as a polishing worker, he is on monthly wages and he has three sons and two daughters, his elder son also work with him in the same factory, his wife is house maker. He told me that he sent his daughter to the school for elementary education. One of the major problem in his in his family is that his one daughter is handicapped and she is always on bed due to illness. Nadeem earns 6000 per month; Nadeem's elder son also earns 5000 per month and this total income sufficient for survival of his family. He is working in lock industry for ten years, he said that at the time of working on polishing machine, he is suffering from asthma for not using properly mask to protect himself self from dust which is generated by machine. He further said that there is no safety and security is provided by the factory owner, workers are responsible for any accident.

CASE STUDY -3: Saleem is working in Srail Rahman lock industry; he is at the age of 25. He has two brothers and two sisters; his father is a Rickshaw puller and hardly earns 100 rupees per day, he could not work whole day because some years ago he used to work in lock industry and he worked on hand press machine that's why he is suffering from back pain. Saleem's mother does not work anywhere and she is house wife, he is working in lock industry since 2010 on that time his father also used to work in lock industry. He earns 7000 per month and his salary is not sufficient for the survival of his family because his total income spends on medicine and daily needs. He pointed out some major diseases which are affecting workers, like-Tuberculosis, Asthma, Breathing problem, Skin disease and so on. The environmental condition of the work place is very unhygienic and having no ventilation facility due that a lot of disease prevails and the communicable disease, Like- Tuberculosis easily transforms from one person to another. He is also suffering from breathing problem, and the problem is on the first stage and he got this problem due to work on polishing machine. He is compelled to work in lock factory because he is illiterate and did not get another employment easily.

CASE STUDY -4: Abrar in his age of 65 working in Aligarh lock industry lives in Jeevan Garh. According to Abrar he has no house to live and he has not a single person to share his feelings with him, so that for sustaining his life works in Aqdas lock industry Aligarh as a cleaner, because his health and age does not allow him to work hard. Abrar told about his life that he worked in many lock factories on the work of electroplating and buff polishing machine; he

had a good skill and familiar with the work related to electroplating and polishing but once a time come in his life he got ill and he lost his kidney due to the work. Working on electroplating and polishing is a very dangerous work which is done by different chemicals like- Acid and total electrified machine. He said that his salary is sufficient for him to pass his life, because his factory owner gave him to all the facilities related to food, medicine and so on.

CASE STUDY-5: Sunil in his age of 35, a daily wages worker working in HI FI lock factory at Shah Jamal in Aligarh city. Basically he belongs to nearby district of Aligarh called 'Hathras', he lives alone in Aligarh or some time he uses to travel daily Hathras to Aligarh to his work in lock industry. He is a totally unskilled worker; he is not familiar with the work which performed in lock industry. Before that Sunil was working in his agricultural field but day by day the family of Sunil increases and the children grown up. The amount which he earned from the agriculture is not sufficient to survive or to sustain his life and his family life. One of the misery is that his father is suffering from paralyze and he is unable to move or to walk. His mother is an old lady and she is a house wife, and she always has to need to medicine because her health condition is not well. He earns 300-400 rupees per day and seldom has he performed extra duty to collect more money, because he needs money to support his family, he was full of anger by saying that, the work place is not well and the safety or security is not provided by the factory owner to the worker, Like- Helmet, Gloves and so on. So in this way the chances of accident and sickening ill rate are high.

CASE STUDY –6: Majid Ali, in his age of 43 is working in Aligarh lock industry. He lives in Shah Jamal slum area and he has two sons and three daughters, one of his daughter is also working in lock industry on power press machine. She is on monthly wages and earns 4000 per month, and Majid's wife washes utensils in neighbor's house and she earns 1500. Some time she feels pain in her whole body and she is taking regular medicine. Majid works on buff polishing machine and earns 5000 per month. His total income was sufficient to sustain his family life, daily needs was fulfilled, he added that he invested some amount in Bank, and in a few month we are purchasing our own house. According to Majid the condition of work place is far better than the other factories because the owners of the factory always care about the condition of the factory and the workers, so that the place of work is not unhygienic, and there is a good ventilation facility. The factory owner is a very good and pious man, as much as possible, he provides all facility to the workers, and he provides security and financial aid when any type of accident happens at the time of work.

CASE STUDY-7: Shahrukh is thirteen years old lives in jeevangarh slum area, near to the factory where he use to work. According to shahrukh he has four younger brother and sister and his mother is working in Firoz hospital as a sweeper and earns 1500 per month, and his father is an e-rickshaw driver earns 3000 to 5000 per month suffering from asthma that's why, what he earns he spent on his medicine and treatment only, so that the economically his family were weak and it is very hard to sustain his family. He is working on buff-polishing machine instead of that, he knows that the condition of his father is very miserable only because of work in lock factory. Due to child labor he has not any difficulties or sicknesses related to his health

CASE STUDY-8: Rizwan is 50 years old lives in Rasal ganj, has a joint. Now a day he is pulling e-rickshaw and he also earns 4500-5000 per month. According to Rizwan the total income of his family is not well but sufficient to sustain his family life. He had worked on electroplating machine in lock factory and had a good skill about work, earned 5000 per month, but this amount was not sufficient for him, because some amount of his salary spent on his medicine. Once when he was working on electroplating machine he got electric shocked and his hands were not working properly for few days. It was the biggest reason for leaving this job. Rizwan shared some information regarding the lock industry, where he worked by saying that the factory was unorganized, working condition was unhygienic, and environmental condition was not good, that's why workers were suffering from a number of diseases and their body easily caught the diseases like- asthma, tuberculosis, breathing problems and skin disease. Despite all these problems the workers compelled to work in lock factory only for bread earning and the smooth functioning of their family.

5. OBJECTIVE OF THE STUDY:

Objectives of the study are as follows:

- To measure the health hazards of workers in electroplating and polishing in Aligarh lock industry.
- To examine the various problems related to the health workers in lock industry.
- To find out the socio-economic and educational condition of workers.
- To assess the linkage between workers, work place and safeguards.

6. RESEARCH DESIGN:

The present study based on health related problem of workers in electroplating and polishing in Aligarh lock industry: the methodology used here is the inductive logic of inquiry; it starts from the collection of data and then proceeds to derive generalizations. The data was collected from those workers, who work in the lock factories. The

respondents related to this study were identified and interviewed on the basis of the objective of the study by using case study as an approach for data collection, this study covers a large area of lock industries by collecting the data from the discussions with other people whom were bit aware about the lock manufacturing and worked in the lock industry of Aligarh. The primary information collected through case studies and tried to capture the areas where workers were residing in lock factories, actually the workers from the lock factory were not ready to give their information due to fear of owners. The present study is also descriptive and exploratory in nature. Content analysis would be used as a method of secondary sources like- governmental documents, books, general and etc. as per the requirement.

7. CONCLUSION:

It can be said that workers working in the lock industry are inhaled to a variety of hazards and dangers. Health problems set in at an early stage that persists throughout their lives, even child and old age peoples those who work in non-hazardous processes suffer from health issues because of the work environment. According to case studies most of the workers are working in lock factory only because of poverty they never wanted to do such type of works because the condition of work place is very bad and all the factories fall under the unorganized sector or semi organized sectors, the owner of the factory neither provide safety precautions to the workers nor accidental insurance at work place. The Present study illustrates that most of the workers working on electroplating and buff-polishing machine, earn some of amount to maintain and sustain their families. By using of many dangerous chemicals like acid, crinite, and the dust particles which came out from buff-polishing machine are very dangerous for the health of workers which directly impact on lungs, kidney, skin and breathing. The workers were also the victims of humiliation, torture and exploitation around 65 percent of the workers frustrated by the work and working condition despite there is no any other option of work in Aligarh.

The problems and difficulties got multiplied due to their peculiar social and psychological conditions and their illiteracy and ignorance. They may have to accept jobs which they do not like, work under unpleasant conditions and may have to accept wages which are not enough for their average way of living. They were taken on labor jobs carrying lesser wages and there was no avenue of promotion to them, nor protection or security of employment. The wages of workers are usually fixed at rates lower than those skill labors for the same or similar occupations. The working conditions of worker in organized sector are not good, they also deprived of most of the beneficial schemes. Besides lack of organization in terms of creating trade unions among workers, destructive impact of technological growth on labor, having less interest in social welfare policy on improving labors employability through training, ineffective legislation and inadequate implementation of safety measure to protect workers, particularly in terms of their working conditions etc. are few of the major causes leading to miserable condition of workers. Under these prevailing conditions it would not be out of context to say that the government should take strict actions by making efforts to improve their working conditions in terms of occupational safety, working hours, payment of adequate wages to them so that the workers engage in an unorganized sector may have required salaries and dignified work.

REFERENCES:

1. Haque, A. (2019). Assessing the role of housing environment and health status among the lock manufacturing workers: A case study of Aligarh city. *Women's Studies*. PP,1.
2. Parveen, S. (2015). Child labour in Aligarh lock industry. *International Journal of Interdisciplinary and multidisciplinary Studies (IJIMS)*. Vol. 2, PP, 59.
3. Shandily T. K. and Khan S. A. (2006), Retrieved from, http://shodhganga.inflibnet.ac.in/bitstream/10603/8069/6/06_chapter%201.pdf.
4. Burra, N. (1989). Child labour in the brass-ware industry of Moradabad, Uttar Pradesh, India. New Delhi, India: ILO/ARTEP, [1989].
5. Matin, A. (2013). Parents of child labour dynamics of exclusion. New Delhi: Manak publications.
6. Burra, N. (1995). Born to work: Child Labour in india. New Delhi: Oxford University Press.
7. Dave, V. (2012). Women worker in unorganised sector, Research Officer, Women's Studies Research Centre, Kurukshetra University, Kurukshetra.
8. Hassan, M & Khan, Z & Yunus, M. (2002). Health profile of lock factory workers in Aligarh. *Indian journal of public health*.
9. Mahapatra, S. (2002). Women participation in labour force. New Delhi: Rajat publication
10. Nasir, S. (2013). Child labour in brass industry of Moradabad (U.P.). New Delhi: Icon Publications Pvt.Ltd.
11. Matin, A. (2004). Research methods, Statistics, IT and E-methods. New Delhi: Icon publication.