



## **OCCUPATIONAL STRESS EXPERIENCED BY THE WORKERS WHILE PERFORMING THE POULTRY WORKS IN PANTNAGAR, UTTARAKHAND**

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### **ABSTRACT**

Poultry workers, who spend most of the time in buildings therefore, experience the greatest amount of exposure are at greatest risk. They perform different activities manually and mechanically. Besides this, poultry industry has not only been labor intensive but also a hand intensive industry. Poultry work involves considerable degree of manual efforts which are associated with body movements. If such movements are minimized by adopting motion economy and proper working postures, it would reduce fatigue to a considerable extent. While attempting such motion economy, one can take resource to biomechanical approaches and identify the wasteful movement or awkward body postures. If these are avoided through improvement in the work place layout, one can quantitatively evaluate the advantages gained by using appropriate physiological or psychological indicators. Therefore, the study was undertaken to find out the occupational stress faced by the workers engaged in organized poultry farm. For the present study 60 workers from the two poultry farm i.e. Instructional poultry farm and NGO poultry farm , Nagla were taken. Descriptive research design was used. Purposive sampling was used and the data was gathered by interview method. The data showed that existing condition of poultry farm worker were not satisfactory regarding the work environment. Besides this, a number of occupational stress were involved which can result in health hazards.

**Keywords:** Occupational Stress, Ergonomic hazards, musculoskeletal disorders, Poultry work.

### **INTRODUCTION**

#### **The Occupational Health and Safety Act of 2000 (OSH Act)**

clearly states that the general duty of all employers is to provide their employees with a work place free from recognized serious hazards.

This includes the prevention and control of these hazards. The incidents and severity of musculoskeletal disorders and other work place injuries and illnesses in the industry demand that effective programs be



implemented to protect workers from these hazards. The goal of any health and safety program is to prevent hazards and illnesses by removing their cause. For ergonomic hazards, this goal is achieved through taking steps to eliminate or materially reduce worker exposure to conditions related to musculoskeletal disorders, related injuries and illnesses. Because of the huge population of India, any slight ergonomic improvement at the individual level would yield very significant qualitative effect in total, especially in unorganized sectors such as agriculture and poultry.

A more recent report by the National Safety Council indicated that over exertion is the most common cause of occupational injury, accounting for 31 percent of all injuries. So it is clear that a tremendous number of workers are routinely exposed to physical hazard and many of them develop one or more serious work related musculoskeletal disorders during their working life time. Prevalence

of these has increased dramatically in developing countries and it is expected to be much worse due to inadequate safety system, lack of awareness, lack of training of occupational safety and health and lack of ergonomic standards and epidemiological studies.

Poultry workers, who spend most of the time in buildings therefore, experience the greatest amount of exposure are at greatest risk. They perform different activities manually and mechanically. Besides this, poultry industry has not only been labor intensive but also a hand intensive industry. Mainly the work includes sweeping/cleaning/washing of brooder, layer and grower houses, carrying or loading, feeding and watering, collection of eggs, medication, slaughtering, defeathering, packaging, hatchery management and operation. These are very tedious jobs at their work place. All these jobs are physically demanding and involve the main risk factors because of repetitive motion, heavy physical work load and excessive body motion which



can result in high risk for back injury, neck, shoulders, arms and upper limbs. The efficiency of any activity varies according to the type of activity and the manner in which it is performed. It may be as high as 30 per cent and as low as 3 per cent (**Grandjean, 1975**).

The work place is the setting in which people spend maximum time while working. It includes humidity, moisture, noise, temperature and various other factors. The production of commercial poultry can result in some undesirable environmental side effects such as elevated levels of odor and dust, which are often associated with poor management. The air quality within poultry buildings should and can be managed to protect the health of both the poultry workers and the poultry they care for. Humans working and birds living in poorly managed and inadequately ventilated poultry housing can have respiratory ailments aggravated by exposure to such environments.

Physical factors in the work place such as noise, vibration and microclimate condition can also affect health adversely. Between 10-30 percent work force in developed countries and up to 80 percent work force in developing and newly industrializing countries are exposed to such physical factors. The likelihood of injury from these hazards is increased because many tasks are performed in cold environments or at workstations which limit and isolate movement. These risk factors associated with the development of such disorders are present in work activities related to work place. Above all, other health hazards in poultry buildings are such as respiratory hazards, noise hazards, animal hazards, and mechanical hazards, electrical and chemical hazards. Besides these parameters, comfortable environment which includes many factors such as noise, temperature, humidity, light also affect the physiological cost of work. Hence, it is necessary to fit the job to the man which seeks to gain



maximum safety, efficiency and comfort. Keeping this in view, a need was felt to study the impact of environmental conditions on poultry farm workers and to observe their occupational health hazards.

This sector has significance for research because in addition to the presence of occupational risk factors, the workers also get affected by their job. Each and every activity requires physical effort, i.e. work is performed with the expenses of time and energy. Every activity affects the working efficiency of the workers and produce physiological and psychological hazards. Besides this the working environment influences the psychological and physiological development of individual as well as their functioning in family. Therefore, in this background, the present study was conducted to examine various improper working conditions and their effect on health status of the workers.

The present study is planned with the following objectives:-

1. To measure the psychological cost of work. (Job Satisfaction)

### **METHODOLOGY**

Two poultry farms were purposively selected for the present research study i.e. Instructional Poultry farm and NGO Poultry farm, Pantnagar, Udham Singh Nagar district, Uttarakhand. Simple random sample design without replacement was used to select the study area and workers. Sample size is a definite plan for obtaining a sample from a given population. Sample size is determined before the data collection. As a general rule one can say that the sample must be of a size that it should neither be excessively large nor too small. For descriptive data sample size of 60 was selected and 50 percent of the total sample was selected for the experimental data. The descriptive research design was used to gather the information from the poultry workers.

### **RESULT AND DISCUSSION**

#### **Psychological makeup during the activity**



An attempt was made to find out the psychological makeup of the respondents during the activity. The content validity and reliability testing assessed the statements. The mean score were computed for each statement. These statements were developed taking into consideration the various factors that could contribute towards the psychological makeup during the activity. It was seen from the responses that all the workers were strongly affected by the psychological factors while working. The data showed that only 27 percent of the respondents had positive attitude regarding their work being performed by them in poultry farm. They were agreeing to say that they felt comfortable while performing the poultry activities. On the other hand 65 percent did not feel comfortable while performing the poultry tasks. Nearly 65 percent respondents were agreed with the statement that they have to make continuous mental adjustments while handling the objects, twenty

one percent workers were undecided and nearly 13percent people said that they did not make mental adjustments while handling the objects. Except two respondents all the workers reported that they had to concentrate or keep themselves alert while performing the poultry tasks. The data revealed that approximately two third percent respondents were fed up by following the same routine day in and day out only 7 percent respondents were undecided on this statement and 30 percent respondents did not fed up by following same routine day in and day out. More than sixty six percent of the respondents reported that they agreed with the statement that working conditions were satisfactory in their organization from the point of view of worker's satisfaction and work output, 20 percent people were undecided with this statement and nearly13 percent people were against this statement. Approximately, one fifth of the respondents said that they are



notable to carry out their work to their satisfaction on account of deadline drawn but most of them i.e.77 percent respondents totally disagreed with this statement. More than 85 percent respondents managed to cope up well with the demands of their work, out of the total 6.7 percent respondents were undecided and 6.7 percent did not manage to cope up well with the demand from their work. More than 50 percent workers said that their job lacks opportunity to utilize their skills and abilities, 30 percent respondents were undecided and only 16.7 percent did not lack opportunity to utilize their skills and abilities.

Regarding concentration on their work more than half of the respondents reported that they could not concentrate on their work because of the mental disturbance caused by their officers. Only 13 percent respondents said that their relation with their superiors caused a great deal of anxiety, 13.3 percent were undecided and 73.3 percent respondents were

against this statement and said that they have good relations with their superiors and it did not cause anxiety to them. The data showed that more than sixty percent of the respondents agreed with the statement that they do like working in poultry farm but they always wait for the day to come when they can relax their mind. As many as 87 percent respondents said that they took advice from colleagues when faced with a problem in their life, 6.7 percent people were undecided and 6.7 percent people disagreed with this statement. Regarding being affectionate nearly 50 percent workers agreed with this statement and nearly 47 percent said that it did not affect their work and they totally disagreed with that statement, whereas, about 40 percent respondents said that they are unsatisfied with the support from their subordinate that cause them a great deal of stress, but on the other hand nearly 46 percent respondents disagreed with this statement. Thirty percent respondents enjoyed working long



hours at their work, and approximately one third part of the population were undecided and more than one third part of the respondents reported that they were not enjoying working long hours at their tasks only. More than half of the respondents were disagreed with the statement that they were not fed up by keeping themselves busy all the times to meet deadline. Nearly 38percent said that they are fed up by keeping themselves busy all the times to meet deadline, and 7 percent people were undecided.

About one third of the population i.e. 37 percent liked the situation when they were busy at their work, 43 percent respondents were undecided and only 20 percent disagreed with this statement. As many as 20 percent respondents said that the complex nature of their work does not baffle them and more than fifty percent respondents reported that complex nature of their work baffles them. Nearly 37 percent respondents needed to sacrifice their values in their role obligation, approximately

17 percent people were totally undecided and 47 percent people disagreed with the same statement. Approximately more than one third percent of the respondents said that the expectation of their organization to do certain works which were not to their likings were unbearable. Nearly 65 percent respondents reported that their point of view is ignored in their organization which caused a great obstruction for performing job with cool mind but more than one fifth respondents disagreed with this statement. Majority of the respondents i.e. 85 percent reported that they work under pressure, 12 percent respondents were undecided with the same statement and only few of them (3 percent) disagreed with this statement. About 43 percent respondents required close attention while doing their work, when performing the poultry activities and approximately three-fourth respondents felt heavy physical exertion while performing the poultry activities, nearly 12 percent respondents were



undecided for this statement and as many as 13 percent respondents did not feel heavy physical exertion while performing the poultry activities. Sixty eight percent respondents felt comfortable with their job without feeling mental pressure, 28 percent respondents were undecided and only 3 percent respondent disagreed with the statement. As many as 70 percent respondents were satisfied with their jobs and nearly 15 percent were undecided and equal number of respondents i.e.15 percent of respondents were not satisfied with their job.

More than half of the respondents that is 60 percent respondents reported that they were mentally fit to do the poultry activities, only 10 percent were undecided and approximately 30 percent respondents disagreed with the same statement. About three-fourth of the respondents agreed with the statement that their supervisor praised their job which gave them positive reinforcement. More than 86 percent respondents had the

freedom to do work, the way they wanted, 10 percent were undecided with this statement and only 3 percent reported not having the freedom to do work, the way they wanted. About 42 percent respondents felt relaxed after completing the task, 12 percent respondents were undecided but 47 percent did not feel relaxed after completing the task. At the same time 32 percent respondents had to put an extra effort to prove themselves in their role, 33 percent were undecided and 35 percent disagreed with this statement. Approximately 25 percent respondents agreed with the statement that repeated incidents where their contribution was taken very lightly put them off, 18 percent people were undecided with the statement and more than half of the respondents disagreed with the same statement. About 70 percent respondents reported that their employment responsibility interfered with their family responsibility, 10 percent respondents were undecided and nearly one fifth respondents



disagreed with the same statement. More than 60 percent reported that people in their organization could understand their priority and 28 percent disagreed with this statement. Half of the respondents were not clear as what kind of work and behavior their higher authorities and colleagues expected from them. As many as 67 percent respondents were exposed to opportunities to enhance their efficiency, and more than one fourth of the respondents were undecided with this statement. As many as 26 percent were not exposed to the opportunities to enhance their efficiency. 47 percent respondents reported that the goodwill and cooperation, they earn from their fellow beings in the organization made them strive forward to achieve greater things, one fourth were undecided with this statement and 28 percent disagreed with this statement. About 70 percent respondents enjoyed fulfilling their responsibility in employment organization and in family

organization, 12 percent were undecided with this statement and approximately 18 percent disagreed with this statement. More than 50 percent respondent wished to achieve a good position which gave them extra energy to work in the organization, nearly 13 percent were undecided with this statement and one third respondents did not wish to achieve a good position which gave them extra energy to work in the organization. About one third of the respondents reported that it was hard for them when they needed to sacrifice their professional ambitions in favor of their family ambitions, but as many as 43 percent of the respondents were against this statement. The data further showed that 65 percent respondents agreed that stability in their jobs makes them take up challenging tasks enthusiastically as failures were not dealt with drastically. About 78 percent respondents reported that they were fit enough to withstand the stress during the activity, 3



percent were undecided with this statement but nearly 18 percent disagreed and said that they were not enough to withstand the stress during the activity and they totally disagreed with this statement. Approximately 30 percent felt that the motivation from the superior encouraged them to work more efficiently, 13 were undecided and 53 percent disagreed with this statement. As many as 47 percent workers felt that poultry activities differ in different season, 15 percent were undecided and 38 percent did not feel that poultry activity differ in different season. About 48 percent respondents had problem with high intensity sound while working in poultry farm, 13 percent were undecided and 38 percent respondents had no problem with high intensity sound while working in poultry farm. As many as 47 percent respondents felt that their job was very tedious, 20 percent were undecided and 33 percent did not feel it. One third of the respondents felt uncomfortable by unnecessary presence of the people at work place, 10 percent

were undecided and 15 percent disagreed with this statement. More than 60 percent respondents felt that space was good enough for doing work in poultry farm, 7 percent were undecided and 30 percent were against this statement. About 47 percent workers had to make great efforts while performing the tasks, 13 percent were undecided and 40 percent workers had not to make great efforts while performing the tasks. More than half of the respondents felt that insufficient light in a work place could affect the performance, 7 percent were undecided and only 42 percent did not agree with this statement. Most of the respondents that is 80 percent felt their jobs monotonous by performing the repetitive work. About three-fourth of the population i.e. 77 percent respondents felt bored by doing the same work day in and day out. More than half of the population i.e. 53 percent felt very lethargic before starting their work, but nearly 43 percent did not feel lethargic before starting their work.



## CONCLUSION

On the basis of the findings of this investigation the following conclusions were drawn: -

- ❖ It was found that psychological factors such as motivation from superiors, work satisfaction, work pressure, freedom of work and concentration while working, perception of worker's strength and ability to withstand the stress play an important role and workers were strongly affected by such factors. **Hankers and Dieckmann (1982)** reported similar findings. In many respects heart rate is a better index of the overall physiological demands of work and can be used as a reliable indicator of stress. Grandjean (1989) and Thakur (1973) reported similar findings.
- ❖ Since poultry workers have a personality, but not everyone has a personality disorders,

these disorders are considered a variant form of normal, healthy personality. This group of disorders is characterized by problematic thinking patterns; problem with emotional regulation; and difficulty achieving a balance between spontaneity and impulse control. However, the most significant and defining feature of personality disorders is the negative effects. These disorders have interpersonal relationships. People with personality disorders tend to respond to differing situations and demands with a characteristically rigid constellation of thoughts, feelings and behaviour. This inflexibility and difficulty forming nuanced responses, represents the primary differences between healthy and disordered personalities.



**Table: Distribution of the satisfaction level of selected respondents  
(N=30)**

S.No.	Satisfaction Level	Frequency
1.	Highly Satisfied	5 (8.33)
2.	Satisfied	10 (16.67)
3.	Moderately Satisfied	30 (50.00)
4.	Dissatisfied	15 (25.00)

Value in parantheses indicated percentage.

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