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OCCUPATIONAL HEALTH IN FOREST WORKER: A CASE STUDY

Erhan ÇALIŞKAN[1*+]

[1]Department of Forest Engineering, Faculty of Forestry, Karadeniz Technical University, 61080, Trabzon/Turkey
[*]Corresponding author: erhan_caliskan@yahoo.com
[+]Speaker: erhan_caliskan@yahoo.com
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Abstract- Forest workers generally work under severe conditions. Wood work; far from social spaces, weather conditions and rugged terrain. There is also no room for errors that are connected to a plan. Accident risk is high in forest workers. Accident risk must be high; occupational health and safety in forest workers. Forestry workers are at risk for some occupational diseases that have to work in the same position for a long time and develop in inappropriate ways due to the use of the musculoskeletal system.

The aim of this study was to investigate the musculoskeletal problems related to the working conditions and occupational characteristics of the forest workers working in the forest management directorate of the Karaisalı Forestry Directorate of Forestry of Adana in Turkey.

The results showed the dominant MSD symptoms during the last twelve months to be those of the lower back (54 %). and). A significant percentage of respondents also reported symptoms of the upper back (41%), shoulders (30% for each shoulder), hands/wrists (26%), and elbow14%). These results show that employees should be given seminars on occupational health and safety, and make people aware of them. Applicability and implementation of laws and regulations for employers and workers in this sector should be strictly controlled.

Keywords- *Forestry, Forestry Workers, Occupational Health, Turkey*

INTRODUCTION

Forests, one of the most important natural resources of our world, have many forms of work due to their characteristics. The studies in this area are generally gathered under the headings of forest rearing, cutting-logging, forest products transportation, storage, forest product harvesting, marketing and sales, forest protection.

In our country, 65% of forest workers work in cutting, skidding and transporting (wood raw material production)(Çağlar 1979; Erdaş ve Acar 1995).

The most severe and most risky works of forestry are production works. Production works are carried out in forest areas, which are generally taken in mountainous terrain.

The work required for these works is carried out with the use of manpower, tools and machines in today's conditions. Forestry activities require physical energy. In particular, production work with hand or chainsaws is quite tiring. In forestry, machines are used to cut trees and turn them into more standard sized products.

The productivity of forest workers is negatively affected by one of the most severe jobs under these negatives, improper equipment, low wages and insufficient social security.

Because of the existing legal arrangements in forestry works, the employment contracts include only the quality, quantity and time constraints of the work, and the exclusion of the trade union and social security laws. (Engür 1995).

Erdaş and Acar (1995) in the study of collecting surveys and data on the forest workers in the Eastern Black Sea Region, forest workers have increased health problems in the elderly, nervousness in workers, especially the disease, fatigue, fatigue, psychological disorders, heart disease and body injuries have concluded that there are diseases.

Tunay and Melemez (2003) conducted a survey study in order to reveal the health and safety status of forest workers working in forestry production works in Bartın region.As a result of the research, 62% of forestry workers, 30-45 years old, found fatigue weakness, 28% had headaches, 52% had hands and feet cold and 48% had back pain. As a result of the research, they stated that health workers should be inspected at least once a year in order to increase the efficiency of the workers and that first aid materials and personal protective equipment should be provided.

Acar and Eroglu (2016), forest workers in the work they perform, other occupational groups than workers in the workplace is subject to accidents. In Germany, an average of 300 people are injured by 1000 workers.

Musculoskeletal disorders are the most common occupational health problems. Approximately 25% of workers in EU countries (EU-27) complain of back pain and 23% of them suffer from muscle pains. In these countries, 62% of employees are involved in repetitive movements of hands and weapons for at least one quarter of their working time; 46% are subject to painful and irritating positions and 35% are subject to heavy loads or movements. (EU-OSHA 2007).

Forestry workers are at risk for some occupational diseases that have to work in the same position for a long time and develop in inappropriate ways due to the use of the musculoskeletal system.

The aim of this study was to investigate the musculoskeletal problems related to the working conditions and occupational characteristics of the forest workers working in the

forest management directorate of the Karaisalı Forestry Directorate of Forestry of Adana in Turkey.

MATERIAL AND METHODS

Study Area

General area of Karaisalı Forest Management Directorate 144,896,3 Ha. where this area is 86.307.4 Ha. Forest Area, 58.588.9 Ha. If there is an open space, the forest area is 60% in the General area and 82% of it is efficient and 18% of it consists of the defective forest area. All of our business chiefs are in the district center. Forests in Karaisalı Forest Management Directorate are generally located in the Mediterranean climate zone. Since the production time is summer, no specific date is specified. When we look at the shape of the business, the stitched tree stamp and insect control come to the fore. In the summer season, the average annual temperature is around 36 degrees.

Methods

In this study, the relationships between the health status and physical performances of the forest workers were investigated. In the scope of the research, necessary data related to the land measurements were collected by going to the production areas.

The study was a descriptive study and a questionnaire was used to collect data about the socio-demographic characteristics, working life, and musculoskeletal complaints.

A Health and Safety Assessment Questionnaire for Forestry Workers was conducted by face-to-face interviews with 70 workers working within the boundaries of the Karaisalı Forest Management Directorate. The survey conducted in this study consists of 2 chapters. In the first part, contact details; gender, date of birth, weight, height, etc. features such as are discussed.In the second part, musculoskeletal discomfort; neck pain, shoulder pain, back pain, low back pain, etc. The issues discussed in the forestry business workers are addressed.

The Extended Nordic Musculosceletal Questionnare NMQ-E was applied to assess the prevalence of musculoskeletal symptoms based on a person's declaration. The Nordic Musculoskeletal Questionnaire (NMQ), first developed by Kuorinka et al. In 1987, was later developed by Dawson et al.(Kuorinka et al., 1987)

RESULT AND DISCUSSION

In this study, the age range of forest villagers among fire and production workers is between 41-50 A livelihood of the forest villager comes out with the forest sector.

Considering the geographical location of the region, forest workers work in the pine, cedar and fir stands as the main tree species.

When we look at the weight ratio of the employees, it was found that 33% of them were between 71-80 and 24% of them were 81-90. When the length of the forest workers is examined, it is understood that 54% are between 171-180. They reported that they used the right hand of 83% to the question of which hand you were using. When the health problems in forest workers are examined, due to the labor-intensive and labor-power of the forest work, according to my work in the field, musculoskeletal disorders are seen. Wrong postures and movements can be shown as a cause of pain

Some authors pointed to the relationship between musculoskeletal symptoms prevalence and age (Hildebrandt, 1995; Malchair et al., 2001; Naidoo et al., 2009; Heiden et

al., 2013). Usually tension increases as age and work experience increase, and therefore the percentage of individuals with musculoskeletal symptoms is higher in older workers (De Zwart et al., 1997; Nordin et al., 2007).

When the health problems in forest workers are examined, due to the labor-intensive and labor-power of the forest work, according to my work in the field, musculoskeletal disorders are seen.

The question of whether neck, shoulders, back, elbows, pain, pain, etc. are often the cause of pain. Some of the workers have back and shoulder pains due to the advanced age of the workers and the heavy work done. Wrong postures and movements can be shown as a cause of pain.

Table 1. MSD symptoms

Did you have pain, pain, numbness in at least 12 months?	**Did you have any discomfort every 7 days?**	**For at least 12 months because of your discomfort, work, housework, hobby, such as doing your normal activities to stay away from?**
1. Neck Yes =%41 No =%59	2. Neck Yes =%17 No =%83	3. Neck Yes =%3 No =%97
4. Shoulders Yes =%30 No =%70	5. Shoulders Yes =%10 No =%90	6. Shoulders Yes =0 No =70
7. Elbows Yes =%14 No =%86	8. Elbows Yes =%7 No =%93	9. Elbows Yes =0 No =70
10. Wrists / Hands Yes =%26 No =%74	11. Wrists / Hands Yes =%9 No =%91	12. Wrists / Hands Yes=%11 No=%89
13. Waist area Yes =%54 No =%46	14. Waist area Yes =%21 No =%79	15. Waist area Yes =%7 No =%93

The most common musculoskeletal disorders among forestry workers are associated with the ridge, hands and wrists and knees (Ashby et al., 2001; Gallis, 2006; Hagen et al., 1998; ILO, 1991; Pontén, 1988; Sairanen et al., 1981). 77 The pilot study of the Polish logger (Grzywins on et al., 2010) confirmed that the symptoms of low back pain, hand, shoulder and knee were dominant among the reported individuals. The operating frequency of MSDs increases especially for hands, back, shoulders and knees. The highest rates were recorded before and after work for back pain: 40.0% and 56.0% respectively.

CONCLUSION

In this study, health problems were examined with the forest workers working in the conductor of the Directorate of Forestry Directorate of Forestry Directorate of Adana Forestry Directorate. Security and safety problems were not found much.

Since forestry works in a difficult and dangerous work group that requires power, it is generally concluded that male workers are working. It was observed that 83% of the workers used the right hand during the operation, 10% used their left hand and 7% used both their hands comfortably.

As a result of the analysis, more than half (69% 41-60) of the forestry workers of the age group can be understood from our speeches in the village. Again, these forest workers are literate and have been working in forestry business for many years.

For a minimum of 12 months, the results of the survey revealed 54% of the lumbar region, 41% of the neck area, 30% of the shoulder area, 26% of the wrist and hand area and 14% of the elbow area.

At least 7 days, the results of the survey, 21% in the waist region, 17% in the neck region, 10% in the shoulder region, 9% in the wrist and hand area, 7% in the elbow region are seen in the disturbance. Did you stay away from your activities because of your discomfort for at least 12 months? As a result of the study, 7% in the lumbar region, 3% in the neck region and 4% in the wrist and hand area were obtained. The reason for these disturbances is due to improper land conditions, lack of knowledge of a good posture position, and inability to relax.

The experience and experience of the forest workers depending on their age, 54% of the worker could concentrate better and 42% of the employees were more skilled in the decision-making process. In the research, 47% of them have been found to play an important role in the forest works, and 96% of the employees are determined to overcome the difficulties by relying on their experiences.

It is considered useful to arrange in-service training of the forest workers on issues such as work, working position, working conditions, lifestyle and habits in order to change behavior that will reduce occupational risks.

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