

# Examination of Loss of Work Force in Patients Suffered From Hand Injuries

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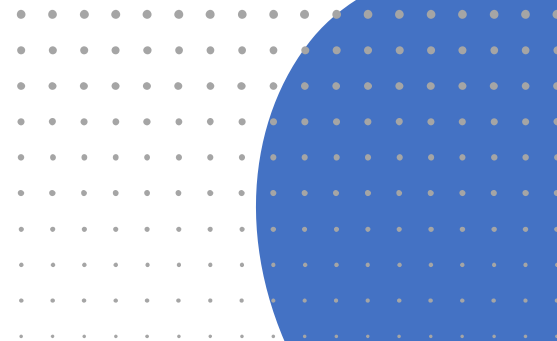
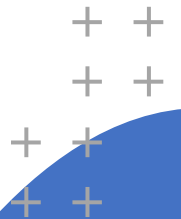
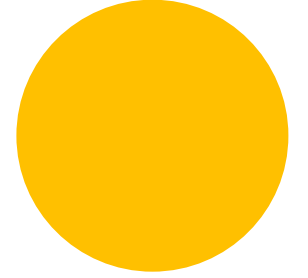
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# Introduction

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Hands are one of the organs we use most in our daily and business life. The most frequent use causes the most frequent injury and these hand injuries cause loss of workforce



Complications of these hand injuries increase permanent damage and loss of work force and increase the need for physical therapy.

# Introduction

O'sullivan et al. also tried to calculate the cost to show the effect of hand injuries on professional life. In the study conducted on 156 patients, they found the total cost of the patients to the health system is 73,919 pounds.



These numbers show us that each injury costs an average of 474 pounds. For this reason, loss of workforce due to hand injury in all work groups, especially craftsmen, can cause serious financial losses both for the health sector and the business sector of the injured person.



Sanal et al. Military Hospital Research



This research includes only men and soldiers. For this reason, we can not obtain sufficient information from this research.

# Aim

- Even if the hypotheses of researches in the literature were satisfactory but the results were insufficient.
- For this reason, we planned our study in order to eliminate these deficiencies in the literature and to conduct a research based on more objective bases and to obtain quantitative results.



# Methods

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- This retrospective and non-invasive study was conducted by telephone questionnaire to the patient who applied to our hospital with the complaint of hand injury (2012-2022).
- Our survey consists of 13 open-ended questions.

# Method

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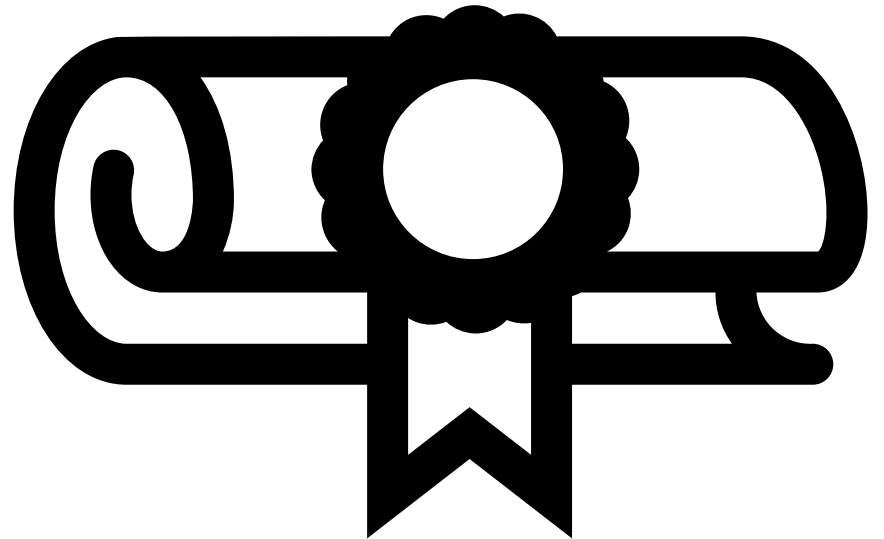
- Distribution of the data were examined with the Shapiro Wilk Test.
- Comparisons of categorical variables were made by chi-square test.
- All statistical analyzes were examined and reported at the  $\alpha=0.05$  significance level in the IBM SPSS Statistics 26.0 program.



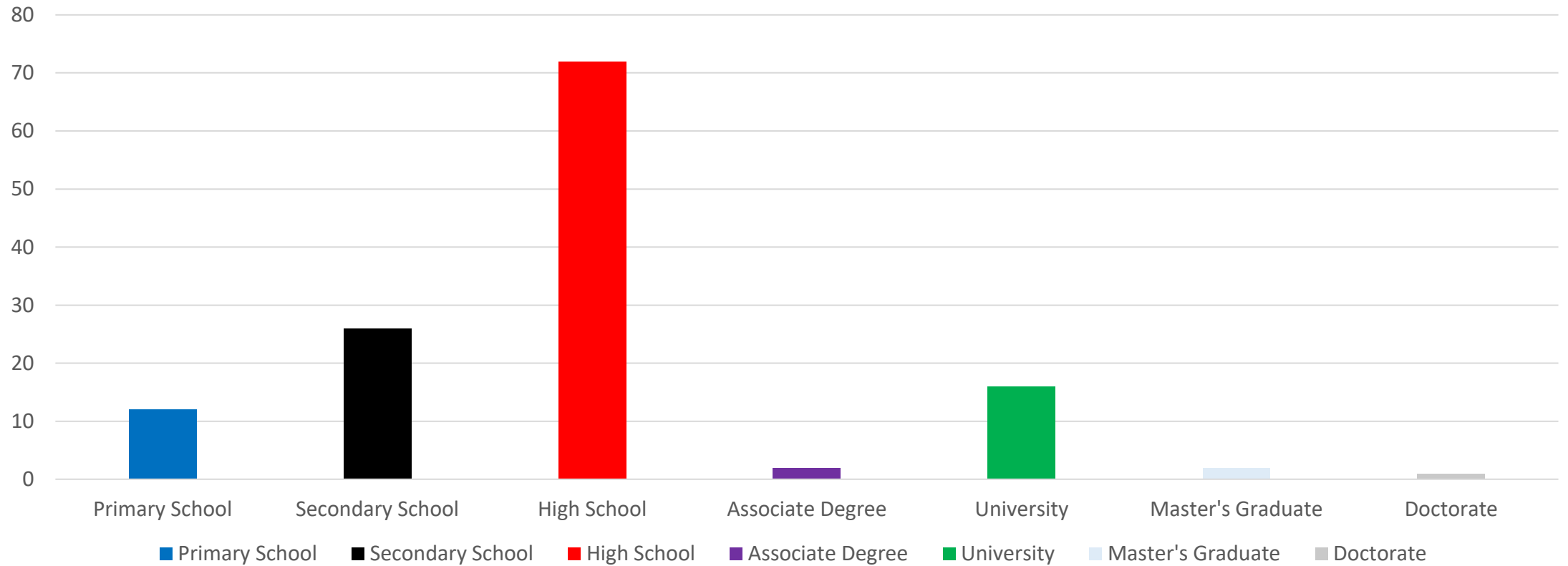


# Education

- Educational status, which is an important factor in hand injuries, is questioned, we came across 71 high school, 26 secondary school, 16 university, 12 primary school, 2 associate degree, 1 doctorate, 2 master's graduates.
- In other words, 85.15% of our subordinates are not university graduates.



## Education Level



## Results - Gender



- Our survey was conducted by contacting 130 patients with telephone questionnaire.
- 97 (74.6%) of our patients were men. It was also statistically significant ( $p < 0.05$ ) that men were away from work, longer than women.

# Results



Our survey was completed by contacting 130 patients with telephone questionnaire. 97 of 130 patients are male patients. It was also statistically significant that men stayed away from work longer than women.



85.15% of our patients are not university graduates. As the education level increases, the shortening of the time to return to work is statistically significant.

# Results – Occupational Accidents

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- Thirty-one of the 130 patients included in this study were admitted to our hospital after having a work accident.
- 29 were male patients and 2 were female patients. In other words, 93.5% of the patients who had an occupational accident were male patients.

# Results- Occupational Accidents

Patients with all hand injuries were away from work for an average of 52 days. On the other hand, our patients who had a work accident were away from work for an average of 92.33 days and stayed away from work for 77.5% longer.

In addition, statistically, the loss of productivity and function of patients injured due to work accidents was found to be significantly higher than those of normal injured patients.

# Results– Physiotherapy

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- When the patients participating in our study were examined, Statistically significant ( $p < 0.05$ ) early return to work and higher productivity were found in our patients who received physical therapy (PT) compared to patients who didn't receive PT





# Results - Smoking

There was no significant relationship between smoking and return to work and loss of productivity

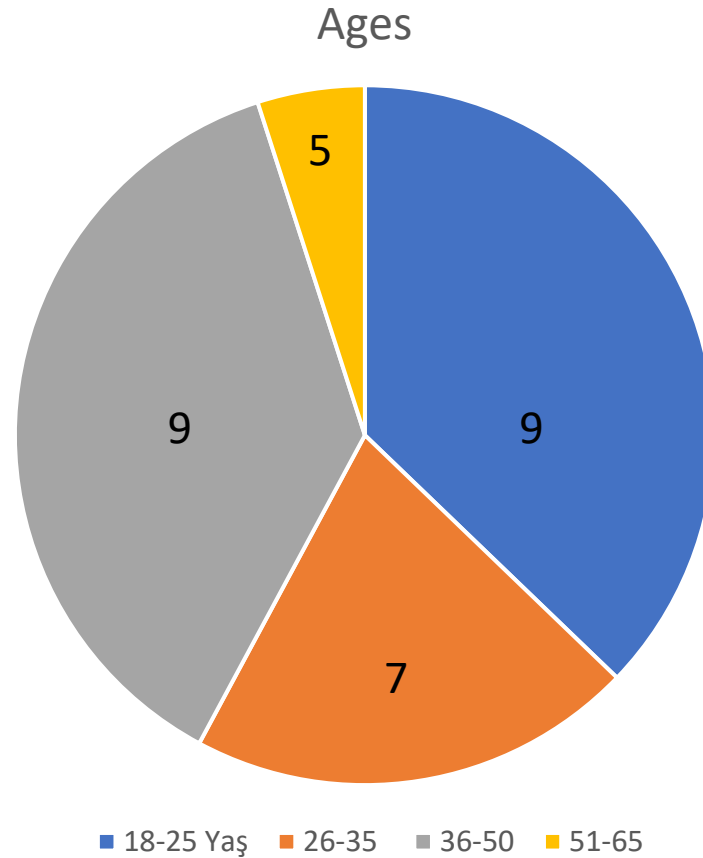




## Results- Sport

- There was no statistically significant result in terms of duration of return to work and productivity between patients who do sports and those who do not

# Age Distribution of Patients with Hand Injury



In the light of these data, educated and middle-aged patients have fewer occupational accidents on the other hand poorer educated young (due to lack of experience) and old patients have more occupational accidents.

# Conclusion

- Occupational accidents, lack of PT and low education had a negative impact on return-to-work durations and productivity. There were no significant results on the negative effects of smoking and non-sports life.
- Prophylaxis



# Limitations

- Takes a long time to get information
- Reliability of the information.
- Social Life



## Examination of Loss of Work Force in Patients Suffered From Hand Injuries

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**Introduction:** Hands are one of the organs we use most in our Daily and business life. The most frequent use causes the most frequent injury and these hand injuries cause loss of workforce. **Methods:** This retrospective and non-invasive study was conducted by telephone questionnaire to the patient who applied to our hospital with the complaint of hand injury. **Results:** 130 patients participated in our study. %74.6 of our patients are male patients and duration of return to work of male patients was significantly longer than female patients. When we look at the education levels %84.6 of our patients did not have a university education and each decrease in education levels was found to be statistically significant in prolonging duration at return to work. 31 of our patients were admitted to our hospital due to

work accident and duration of being away from work was %77.5 longer than those normal injuries, and loss of productivity when they returned to work was found to be significantly higher than in normal patients. Significant early return to work and higher productivity were found in our patients who received physical therapy (PT) compared to patients who didn't receive PT. There was no significant result in terms of return to work and productivity between patients who do sports and those who do not. According to the statements of our patients, there was no significant relationship between smoking and return to work and loss of productivity. **Conclusion:** Occupational accidents, lack of PT and low education had a negative impact on return-to-work durations and productivity. There were no significant results on the negative effects of smoking and non-sports life. **Keywords:** Hand Injuries, Occupational accidents, loss of workforce



Thank You for  
Listening !