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# Musculoskeletal symptoms and associated risk factors among Shipping Lines office employees, Tehran, Iran

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**ABSTRACT:** *Office jobs, including jobs that musculoskeletal disorders are high. Prolonged sitting, computer work, repetitive movements, static postures and unfavorable environmental conditions can cause these disorders. The high prevalence of musculoskeletal disorders, ergonomic assessment of the workplace and improve the conditions for this occupational group is necessary. The aim of this study was to evaluate the prevalence of these disorders among office workers in Islamic Republic of Iran Shipping Lines(IRISL). The studies conducted 60 administrative staff, 48 were male and 12 were female was observed that most musculoskeletal disorders were in the neck (% 46.66), knee (% 43.33), shoulders (% 36.66) and the lowest disorders hip (13.33%), lower arm (13.33%) and upper back (13.33%). The highest prevalence in men is in the neck (47.91%) and in women is in the knee (50%). 25% of men and 16.66% of women are without this disorders.*

*Keywords: musculoskeletal symptoms, IRISL, staff*

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## I. INTRODUCTION

Musculoskeletal Disorders are one of the most common and most costly work-relatedproblems in all countries of the world[1]. Economic losses caused by these disorders are not only individuals, but also organizations and society in which they live are affected [2]. So that these disorders can be personal effects, enormous economic and social impose on any society. On the other hand, due to the high incidence of these disorders, as a major cause of death and disability among adults in developed countries and industries will be considered[1]. It is estimated that the total direct and indirect costs of MSDs may be about 1% of the GDP of industrialized countries to allocate. In addition , about 60 to % 90 adult people during the course of his life for a while and pain problems are also about 15 % 20 received compensation by workers due to these problems [3]. In the year of 2009, InternationalLabour Organization estimates indicate that about 1.2 million workers disability due to have been fired about % 28 with the deportations - muscular disorders associated with the related work [4].Conservative estimates suggest that the economic burden on society in United States compiled by the damage between 45 to 54 billion dollars per year. In 1999, nearly one million Americans to treat and improve work-related musculoskeletal pain, were absent from their work.In addition, with a view to increasing the rate of population and forecast demographic changes it is estimated that about 59 million (18.4%) to years 2020 s in the United States to be infected with the disorders[5].It seems that the high prevalence and severity of musculoskeletal injuries, with current methods of work organization, mainly with new technology, specialization and intensification of work tasks described, are related. In developing countries, the negative effects of these methods, by precarious working conditions, wages and inadequate medical coverage intensified[6]. Among the risk factors associated with these disorders can be 1- physical conditions which include: Environmental (workplace) and biomechanics (risk movements and postures), 2- organizational conditions (lack of adequate equipment colleague) and 3- conditions psychological and social (more than can individual work, time pressure, low autonomy and competition ...) are noted[7]. Therefore, in this study, the prevalence of musculoskeletal disorders among employees of IRISL administrative system were discussed.

## II. METHODOLOGY

The present cross-sectional study was conducted on 60 employees of IRISL administrative system in 2016 have at least one year experience of administrative work was done. The data was collected through a questionnaire. This questionnaire has three parts, the first part demographic information such as age, gender, work experience, hours of work and etc. was recorded and for responding with greater confidence an anonymous questionnaire was used. Since our goal was to evaluate musculoskeletal disorders during the past year, a standard questionnaire was used for this purpose[8]. In the second part, respondents should specify in which of the eight episodes that your body (neck, shoulders, upper back, lower back, Lower arm, wrist, hip, knee) during the past 12 months been experiencing discomfort or problem . Then respondents should determine whether or not the problem causing the inability to work or leave work. Also, the presence of pain or discomfort for either of these areas were questioned. If the answer was positive for the third part of the questionnaire so there were 11 questions related to discomfort in the limb were completed. This type of questionnaire (Scandinavian Institute of Occupational Health by Korhan and his colleagues 1987) aimed to determine the prevalence of musculoskeletal disorders caused by work. The questionnaire can be used for screening in the field of musculoskeletal disorders. Validity and reliability of the Persian version has already been investigated[9]. Also, the more questions were asked about job satisfaction and work experience. In the end, the data collected from questionnaires, analyzed by statistical software SPSS version 24 was. Finally, quantitative and qualitative data as mean $\pm$ standard deviation for the number (percent) were reported. The association for two-sample t-test question and musculoskeletal disorders for data analysis and musculoskeletal disorders, Chi-square test was used. Level of 0.05 was considered statistically significant.

## III. Results

According to Table 1, those who completed the questionnaire, 48 (80%) men and 12 (20%) were female. Of the 60 employees were 6 (10%) people between 20 - 27 years, 12 (20%) between 28 - 34, 23 (38.33%) people between 35 - 45 years and 19 (31.66%) people over 46 years old. 6 (10%) were under 5 years of work experience, 8 (13.33%) people were between 6 - 8 years of experience, 16 (26.66%) were between 9 and 12 years of experience, 30 (50%) people were over 12 years of experience. 9 (15%) are left-handed and 51 (85%) are right-handed.

**Table 1.** Demographic characteristics of the subjects (n = 60)

| Variable | Category | The number (percentage) |
|---|---|---|
| **Gender** | Female | (20%)12 |
| | Male | (80%)48 |
| **Age** | 20-27 | (10%)6 |
| | 28-34 | (20%)12 |
| | 35-45 | (38.33%)23 |
| | Up to 46 | (31.66%)19 |
| **Work Experience** | 0-5 | (10%)6 |
| | 6-8 | (13.33%)8 |
| | 9-12 | (26.66%)16 |
| | Up to 12 | (50%)30 |
| **Left or Right handed** | right handed | (85%)51 |
| | left handed | (15%)9 |

According to the information obtained from the questionnaires, the average age= 39.87 years, SD of average age = 8.38, average work experience 13.9 years, SD of average work experience= 6.4 , average hours worked 8 hours and standard deviation of that was 1.98 hours.

**Table 2.** Some demographic characteristics of the study population (n = 60)

| Demographic characteristics | Average | Standard deviation | Minimum | Maximum |
|---|---|---|---|---|
| Age (year) | 39.87 | 8.38 | 40 | 60 |
| Work experience (year) | 13.9 | 6.4 | 3 | 30 |
| Working hours per day (hour) | 8 | 1.98 | 6 | 12 |

Skeletal disorder symptoms in different organs of the subjects are presented in Table 3. Based on the results of the data collected, a total of 46 (76.66%) of the study population during the last 12 months in one of the  8 body areas experiencing pain and discomfort. The highest incidence of the disorders was in the neck (46.66%), knee (43.33%), shoulder (36.66%), wrist (25%) and the lowest of the low back (16.66%), upper back (13.33%), lower arm (13.33%) and hip (8.33%), respectively. Then, it was observed that musculoskeletal disorders were 83.33% in women and were 75% in men and the overall suffering musculoskeletal disorders in women was 1.11 times more than men.

**Table 3.** The prevalence of musculoskeletal injuries of the extremities of eight in the last 12 months studied staff

| Symptoms | Number | Percentage |
|---|---|---|
| Neck | 28 Positive<br>32 Negative | 46.66%<br>53.33% |
| Shoulder | 22 Positive<br>38 Negative | 36.66%<br>63.33% |
| Upper back | 8 Positive<br>52 Negative | 13.33%<br>86.66% |
| Lower back | 10 Positive<br>50 Negative | 16.66%<br>83.33% |
| Lower arm | 8 Positive<br>52 Negative | 13.33%<br>86.66% |
| Wrist | 15 Positive<br>45 Negative | 25%<br>75% |
| Hip | 5 Positive<br>55 Negative | 8.33%<br>91.66% |
| Knee | 26 Positive<br>34 Negative | 43.33%<br>56.66% |

Positive=having disorders                    Negative=not having disorders
According to information obtained from the questionnaire, highest and lowest musculoskeletal in the subjects listed in Table 4.

**Table 4.** Maximum and minimum musculoskeletal disorders in women and men

| | male n=48<br>( Number Percentage ) ، Member Name | female n=12<br>(Percentage) Number ، Member Name |
|---|---|---|
| Most of the  symptoms | (47.91%)23 ،Neck | (50%)6 ،Knee |
| Least of the  symptoms | (10.41%)5 ، &hipUpper back | (0%)0 ،hip |

The data shows that the prevalence of musculoskeletal disorders in the lower extremities (hip, knee) is lower than the upper limbs (neck, shoulder, wrist, lower arm). Later it was found that 4 (33.33%) females and 9 (18.75%) of males are affected upper extremity musculoskeletal disorders and the difference was statistically significant (P = 0.03). Also, three (25%) women and four (8.33%) men had lower extremity musculoskeletal disorders and this difference was statistically significant (P =

0.001). These values showed that the prevalence of musculoskeletal disorders of the upper limb and lower, were significantly higher in men. Then, it was observed that three (25%) women and 23 (47.92%) men simultaneously suffer from upper extremity and lower extremity disorders. These results indicate that the prevalence of musculoskeletal disorders - upper limb and lower limb muscle were significantly (P = 0.022) higher in men. Information is given in Table 5.

**Table 5.** Prevalence of musculoskeletal disorders of the upper and lower limbs studied by gender Employees

|  | Female (Percentage) Number | male ( Percentage) Number | Total ( Percentage)Number |
|---|---|---|---|
| No symptom | (16.66%) 2 | (25%) 12 | (23.33%) 14 |
| Upper limb | (33.33%) 4 | (18.75%) 9 | (21.66%) 13 |
| Lower limb | (25%) 3 | (8.33%) 4 | (11.66%) 7 |
| Upper limb& Lower limb | (25%) 3 | (47.92%) 23 | (43.33%) 26 |
| Total | (100%) 12 | (100%) 48 | (100%) 60 |

The prevalence of musculoskeletal disorders in terms of work experience is presented in Table 6. As you can see, the highest prevalence of musculoskeletal disorders in the Lower arm and knee are related to people with 6 to 8 years of work experience, in the neck, shoulders, upper back and Lower arms of people with 9 to 12 years work experience and in the neck, shoulder, wrist, knee and upper back to people with work 12 years work experience. In this table for analyzing, the t-test is used.

**Table 6.** Distribution of musculoskeletal symptoms in various body organs during the past 12 months on the basis of experience of the participants

| Organ | work experience | | | | |
|---|---|---|---|---|---|
|  | 0-5 (Percentage) Number | 6-8 (Percentage) Number | 9-12 (Percentage) Number | Up to 12 (Percentage) Number | P-value(t-test) |
| Neck | (3.57%)1 | (7.14%)2 | (28.57%)8 | (60.71%)17 | 0.154 |
| Shoulder | (4.54%)1 | (0%)0 | (27.27%)6 | (68.18%)15 | 0.412 |
| Upper Back | (0%)0 | (12.5%)1 | (37.5%)3 | (50%)4 | 0.123 |
| Lower Back | (0.1%)1 | (0%)0 | (0.2%)2 | (0.7%)7 | 0.77 |
| Lower arm | (0%)0 | (25%)2 | (37.5%)3 | (37.5%)3 | 0.54 |
| Wrist | (6.66%)1 | (13.33%)2 | (13.33%)2 | (66.66%)10 | 0.67 |
| Hip | (0.2%)1 | (0%)0 | (0.4%)2 | (0.4%)2 | 0.044 |
| Knee | (0%)0 | (19.23%)5 | (23.07%)6 | (57.7%)15 | 0.002 |

In Table 7 the prevalence of musculoskeletal disorders shows in women age range that this information is analyzed by Chi-square test. The highest prevalence of musculoskeletal disorders in the upper back and knee areas was related to people in the age range of 28 to 34, and in the neck and shoulders and upper back was related to people in the age range of 35 to 45.

**Table 7.** Distribution of skeletal disorder symptoms - muscle in various body organs during the past 12 months according to age range (women) studied

| Organ | Women age range | | | | |
|---|---|---|---|---|---|
|  | 20-27 (Percentage) Number | 28-34 (Percentage) Number | 35-45 (Percentage) Number | Up to 46 (Percentage) Number | P-value(Chi-square) |
| Neck | (0%)0 | (20%)1 | (80%)4 | (0%)0 | 0.001 |
| shoulder | (0%)0 | (25%)1 | (75%)3 | (0%)0 | 0.0004 |
| Upper back | (0%)0 | (66.66%)2 | (33.33%)1 | (0%)0 | 0.194 |
| Lower back | (0%)0 | (0%)0 | (100%)1 | (0%)0 | 0.0087 |
| Lower arm | (0%)0 | (33.33%)1 | (66.66%)2 | (0%)0 | 0.03 |
| Wrist | (0%)0 | (33.33%)1 | (66.66%)2 | (0%)0 | 0.12 |
| Hip | (0%)0 | (0%)0 | (0%)0 | (0%)0 | 0 |
| Knee | (16.66%)1 | (50%)3 | (33.33%)2 | (0%)0 | 0.003 |

In Table 8 the prevalence of musculoskeletal disorders shows men in the age range that this information is analyzed by Chi-square test. The highest prevalence of musculoskeletal disorders in the people in the age range of 20 to 27 was related to the hip, in the People between ages 28 to 34 was related to Lower arm and the and in the people in the age range 35 to 45 was related to Lower arm, hip and knee and the patients suffered from lower back and upper back are between ages 46 and older. It was also observed as increasing age in men the prevalence of dyslipidemia increases in these areas.

**Table 8.** Distribution of skeletal disorder symptoms in various body organs during the past 12 months according to age range (men) studied

| | Age range in men | | | | |
| Organ | 20-27 (Percentage) Number | 28-34 (Percentage) Number | 35-45 (Percentage) Number | Up to 46 (Percentage) Number | P-value(Chi-square) |
|---|---|---|---|---|---|
| Neck | (4.34%)1 | (8.69%)2 | (39.13%)9 | (47.89%)11 | 0.005 |
| Shoulder | (5.55%)1 | (5.55%)1 | (33.33%)6 | (55.55%)10 | 0.0084 |
| Upper back | (0%)0 | (20%)1 | (20%)1 | (60%)3 | 0.24 |
| Lower back | (11.11%)1 | (0%)0 | (22.22%)2 | (66.66%)6 | 0.009 |

| | OR | | | | Chi-square (95% CI) | | | |
| | Neck | Knee | Upper back | Wrist | Neck | Knee | Upper back | Wrist |
|---|---|---|---|---|---|---|---|---|
| **Status** | | | | | | | | |
| Using stairs | 0.19 | 3.21 | 1.08 | 0 | 0.20 | 5.5 | 2.76 | 0 |
| Fixing posture | 9.87 | 1.63 | 2.44 | 0.2 | 19.09 | 3.04 | 2.94 | 0.3 |
| Bad sitting posture | 0.32 | 2.09 | 4.56 | 0 | 0.33 | 4.98 | 7.8 | 0 |
| Using computer mouse | 0 | 0 | 0 | 5.98 | 0 | 0 | 0 | 8.6 |
| **Gender** | | | | | | | | |
| Male | 1 | 1 | 1 | 1 | - | - | - | - |
| Female | 1 | 1 | 1 | 1 | - | - | - | - |
| Lower arm | (0%)0 | (20%)1 | (60%)3 | (20%)1 | | 0.78 | | |
| Wrist | (8.33%)1 | (8.33%)1 | (33.33%)4 | (50%)6 | | 0.003 | | |
| Hip | (20%)1 | (0%)0 | (40%)2 | (40%)2 | | 0.04 | | |
| Knee | (5%)1 | (5%)1 | (40%)8 | (50%)10 | | 0.032 | | |

**Table 9.** Risk Factors Associate with Neck, Knee, Upper back and Wrist One year prevalence. (p< 0:05, all risk exposure)

Multiple logistic regression analysis indicated that the risk factors were significantly associated with the 1 year of the Neck, Knee, Upper back and Wrist. Table 9 summarizes the occurrence of the Neck, Knee, Upper back and Wrist at work status, Using stairs, Fixing posture, Bad sitting posture and using computer mouse.

**Table 10.** Table Rapid Upper Limb Assessment (RULA) by typing studied staff

| Staff | Points organs of the Group A | Points organs of the Group B | Rated force | Rating muscle | final score posture | level of activity | Ergonomic intervention necessary |
|---|---|---|---|---|---|---|---|
| 1 | 6 | 5 | 0 | 1 | 7 | 4 | Instantly |
| 2 | 4 | 2 | 0 | 0 | 3 | 2 | Necessary |
| 3 | 7 | 7 | 0 | 1 | 7 | 4 | Instantly |
| 4 | 4 | 3 | 0 | 0 | 4 | 2 | Necessary |
| 5 | 4 | 5 | 0 | 0 | 5 | 3 | Very necessary |

**Table 11.** Table Rapid Entire Body Assessment (REBA) by typing studied staff

| Staff | Points organs of the Group A | Points organs of the Group B | Points Group C | Rating activity | final score posture | level of activity | The need for and timing of |
|---|---|---|---|---|---|---|---|
| 1 | 6 | 8 | 9 | 1 | 10 | 3 | Essential (sooner) |
| 2 | 8 | 9 | 10 | 1 | 11 | 4 | Immediate |
| 3 | 4 | 5 | 5 | 1 | 6 | 2 | Essential |
| 4 | 4 | 7 | 7 | 1 | 8 | 3 | Essential (sooner) |
| 5 | 6 | 6 | 8 | 1 | 9 | 3 | Essential (sooner) |

RULA tables and REBA by typing studied staff was conducted. 5 patients were randomly selected from 60 employees and 30 minutes on each of these 5 patients were tested. The results of the final points of posture and level of activity was recorded in the tables. Using these two table, musculoskeletal disorders are known in each particular area and we can take necessary actions to prevent the disorder.

## IV.  Discussion

A total of the 60 employees who musculoskeletal disorders were assessed, 36 patients suffering from these disorders over the past year with the highest prevalence of the disorder, related to the neck, knees and shoulders and the lowest rate in the hip, Lower arm and upper back. Also, the study showed that the prevalence of ADHD is higher in women. The researchers found that the prevalence of neck, shoulder and knee is commonly higher in women. The data showed that by increasing the amount of work significantly increases musculoskeletal disorders, such as disorders of the neck, shoulder and knee in individuals with high work experience, are more common. The findings of this study emphasize that the chances of suffering from these disorders in people with very low job satisfaction, significantly is higher. In this regard, it was observed that most members were involved in the disturbances in the neck, lower back and wrist and lower arm and hip have been the least affected limb that is consistent with the results of this study. The following was observed (76.66%) of the studied people have complained of musculoskeletal disorders in 8 body areas[9]. Also, studies on the staff of Sabzevar University of Medical Sciences showed that the back, knee, back, wrist are more susceptible and hip and elbow are more resistant[11]. However, unlike Sabzevar study, our present study had a higher prevalence of neck disorders that can be resulted from non-compliance with ergonomic principles in the workplace when using a computer. In the present study, disorders of the neck as the most important factor was resulted from the absence of work ergonomic rules that is consistent with previous studies[12, 13].In addition to these Mansouri et all. as well as in their study pointed out that factors such as gender , the length of time subjected to physical condition, and working with a computer have a main role in an outbreak of pain in the neck between employees [14]. Also, Mesbah and his colleagues revealed in their study, unease in white - collar jobs and administrative staff are mainly related to the neck and shoulders areas and high abnormalities in these areas were related to static and repetitive work [15]. In the present study, the neck as the most important element in the absence of the work that is consistent with the previous studies[11].In the present study showed that the prevalence of neck, shoulders and knees was higher among women. Furthermore, our results indicate that the chances of developing musculoskeletal disorders was significantly higher among women. This results is in complete agreement with the findings of other studies[9, 10, 16, and 17].Since the design of many workplaces, mainly used anthropometric data related to the men, hence these places are ergonomically inappropriate for women [18]. on the other hand, in comparison with men, women in a similar tasks are more mentally subjected to various job stress that this issue can count on different aspects of their health, including musculoskeletal disorders[10,18].These results are corresponded with previous findings [9,19]. One possible explanation for higher prevalence of upper limb disorders in women could be due to the fact that women are often doing repetitive tasks and job stress levels in women are higher [19].This study showed that the prevalence of upper and lower extremity disorders was significantly higher in men. Also, this study shows that the prevalence of upper limb disorders is more common in women. Of course it is likely that the prevalence of these disorders in women can be resulted of hormonal factors, pregnancy and delivery and more researches is needed in this case. There are conflicting results in the field of communication between the musculoskeletal disorders outbreak and work experience [9,11,20] so that the findings of some studies show that people with a history of more work,have less musculoskeletal disorders, which can because of reducing job stress[10].Job stress is decreased with work experience. It was while in agreement with the results of this study, it was observed that with increasing service record significantly increases the prevalence of the disorders [9, 11, and 20]. Moreover, the results of this study showed that the average work experience who have disorders of the neck, shoulder and knee were significantly higher than the other subjects. As respects there are relation between the prevalence of musculoskeletal disorders and workplace ergonomic factors (such as poor postures) [22], so it is likely that the increased prevalence of disorders is in patients with a history of more work, due to these factors. In such a way this study was observed that ergonomic interventions such as correcting improper posture, can be in different areas of musculoskeletal disorders such as knee and hip significantly reduced[12,21]. In the present study population was observed that the risk of musculoskeletal disorders in people with very low job satisfaction is greater. In the study of Bastani and Lahmi, most of disorders are reported in neck,waist and shoulders respectively, 53%, 48% and 12% [23].The study of work related musculoskeletal disorders in poultry slauther workers has revealed that among the 11 stations, packaging had the highest prevalence of hands/wrists (23%), shoulder (22.2%) and elbow (18.4%) and neck (17.5%), in last 12 months. The results indicate that hands/wrists, shoulder, elbow and neck symptoms are the major health problems in female workers. They reported higher incidences of pain in hands/wrists, shoulder, elbow and neck in comparison to males in this study[24]. this study showed that work related musculoskeletal disorders(WMSDs) in bank office workers in Iran are high. The prevalence of neck, upper back, lower back and hip/buttocks complaints in this study was higher than other part ofthe body regions[25]. Individual Musculoskeletal symptoms compared in various organizations is presented in table 12.

**Table 12.** Comparison individual Musculoskeletal symptoms in different organizations

| Number | Organization | Number of employees | Neck | Wrist | Shoulder | Upper back | Lower back | Knee | Elbow | Hip | Lumbar |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Symptoms | | | | | |
| 1 | Tehran shipping staff | 60 | 46.66% | 25% | 36.60% | 13.33% | 16.66% | 43.33% | - | 8.33% | - |
| 2 | Hamedan general dentists | 71 | 49.70% | 47.80% | 29.60% | 23.90% | 16.90% | 14.10% | 1.40% | - | - |
| 3 | Iranian carpet weavers | 1439 | 35.20% | 38.20% | 47.80% | - | - | 34.60% | 19.20% | 16% | 45.20% |
| 4 | Camputer users of Yazd University of medical sciences | 217 | 46.50% | 12.40% | 20.30% | - | - | - | 5.10% | - | 57.60% |
| 5 | Administrative staff Tehran University of Medical Sciences | 420 | 38% | 30.50% | 35.40% | 38.30% | 48.50% | 40.10% | 13.50% | 12.40% | - |
| 6 | Nurses in the operating room | 54 | 37.10% | 59.30% | 53.70% | - | 70.40% | 59.30% | 37.10% | 38.90% | 72.20% |
| 7 | Green space laborers in Isfahan | 108 | 35.20% | 42.20% | 51.90% | 39.90% | 52.80% | 59.30% | 36.10% | 42.60% | - |
| 8 | Workers in automotive parts | 1383 | 45.70% | 59.2% | 48% | 43.80% | - | 30.60% | 48.70% | 24% | 61.80% |

The calculations in Table 12 shows most symptomsare related to lumbar (59.2%), neck (% 41.75), lower back (% 41.05), shoulder (% 40.4), knee (% 40.19) and wrist (% 39.22 ) that these problems have to be considered in correct way. Figure 1 has compared organizations musculoskeletal symptoms.
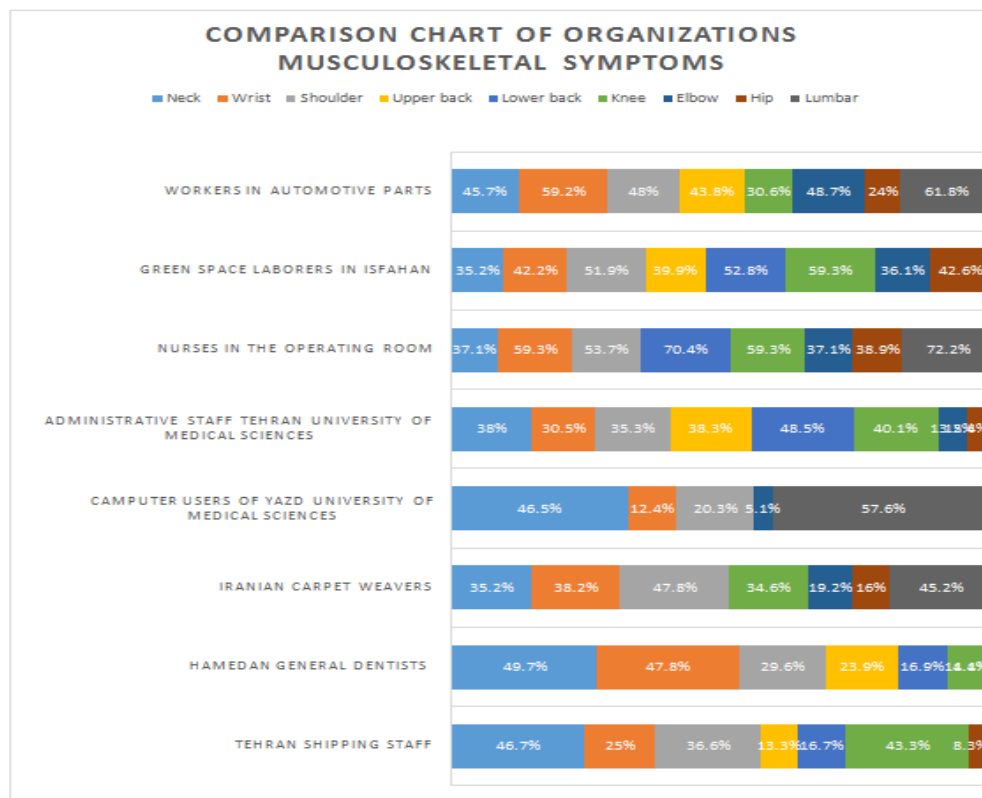


**Figure 1.** Comparison of organizations    musculoskeletal symptoms

According to the results of this study recommended the proper training to prevent these abnormalities in women and people with a history of more than the 5 years .So it is necessary to enhance job satisfaction of employees, especially those with low job satisfaction.

## V. CONCLUSION

In summary, the present study shows that the prevalence of neck, shoulders and knees disorders among staff members of shipping is more common than others. Also, the prevalence of the disorders among women, people with more working experience of 5 years and people with lower job satisfaction is more common. Because of the neck pain, 2 people (7.14%) referred to the physical therapist and 5 (17.85%) patients referred to private doctors. Because of the problem of pain in the shoulder area, 1 (4.54%) people referred to the physical therapist, 3 (13.63%) patients referred to private doctors and 1 (4.54%) people were taken to hospital. Because of the problem of pain in the upper back 1(12.5%) patient went to the hospital and 1(12.5%) patient referred to private doctors. Because of the problem of pain in the lower back and 1 (10%) were referred to private doctors. Because of the problem of pain in the lower arm 1 (12.5%) people referred to physical therapist, 1 (12.5%) referred to the hospital and 3 (37.5%) patients referred to private doctors. Because of the problem of pain in the ankle 3(20%) patients referred to private doctors. Because of the pain in the hip 1 (20%) people referrd to physiotherapy and 1 (20%) patients referred to private doctors. Because of the problem of pain in the knee 7 (26.92%) patients referred to private doctors, 3 (11.53%) referred to the Physicaltherapist and 2 (7.69%) people were taken to hospital.

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