

# Musculoskeletal Work-Related Disorders and Ergonomic Hazards among Bank – Employees in State of Kuwait

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**Abstract:-** This study investigates musculoskeletal disorders and the ergonomic hazards among bank-employees in the State of Kuwait. For the purposes of this study, a descriptive survey was customized. The population of the survey is 34 employees working in, Kuwait Finance House (KFH) Bitak Branch in Kuwait. 40 copies of the questionnaires were disseminated for data collection and 33 copies were received yielding the percentage of 82.5%. The title of the questionnaire was Work-related Musculoskeletal Disorders & Ergonomic Hazards. With using Pearson Product Moment Correlation, the reliability co-efficient of 0.84 was established for the questionnaire. The guide of this study is two research questions and six null hypotheses tested at significance of .05 level. In analyzing the questions and demographic data of the research, the descriptive statistics of standard deviation, mean and percentage were used. Inferential statistics of z-test, analysis of variance (ANOVA) and Chi-square were used to test the null hypotheses at .05 level of significance. The result revealed a significant difference in the ergonomic hazards among bank-employees in KFH Bitak Branch based on age ( $F \{2.998\} = 25.33; P < 0.05$ ), gender ( $z = 5.99; P < 0.05$ ) and years of experience ( $F \{2.998\} = 8.55; P < 0.05$ ). It also showed a significant difference in work-related musculoskeletal disorders

(WMSDs) among bank-employees in KFH Bitak Branch based on age ( $F \{2.998\} = 12.29; P < 0.05$ ), gender ( $z = 3.64; P < 0.05$ ) and years of experience ( $F \{2.998\} = 5.26; P < 0.05$ ). Among the findings were that most of the bank-employees had prolonged period of sitting ( $3.47 \pm 0.86$ ) and used the computer for a prolonged time ( $3.64 \pm 0.61$ ). 25.19% of the bank-employees suffered waist pain and 16.99% suffered back pain. It was therefore recommended that bank management should make concerted efforts to reduce rising prevalence of work-related musculoskeletal disorders among bankers and bank-employees by having ergonomics in mind when procuring office equipment, and by creating adequate breaks in the work schedules.

**Keywords:-** Bank-employees, Ergonomics, Hazards, Safety, Work-related musculoskeletal disorders.

## I. INTRODUCTION

It is widely believed that employees that work in a comfortable and conducive environment tend to be productive irrespective of the type of work. In public and occupational health, the collective process for this phenomenon is known as ergonomics. In simpler terms, ergonomics is defined as the science that deals with adjusting the work environment, task, tools as well as equipment to fit with the workers' efficiency among workers, improve their productivity and ultimately help organizations to achieve their set goals<sup>16</sup>. While this is true, the effective application of ergonomics principles in most workplaces has not been successful as a result of lack of occupational health professionals and legislative support in this regard. There is also an alarming global concern on improving worker productivity as well as worker's health and safety at workplaces<sup>15</sup>. This is because the trend of work related disorders is on the increase. The leading causes of most of these work-related disorders are often due to poor adherence and compliance to ergonomic and safety practices in these workplaces<sup>15</sup>.

The musculoskeletal system is an important system of the body because it is responsible for movement. Hence, a lot of physical stress is placed on the musculoskeletal system, leading to significant discomfort, injury, and pain. According to<sup>27</sup> are the second most common cause of disability worldwide, measured by years lived with disability (YLDs), with low back pain being the most frequent condition. They further noted that disability due to musculoskeletal disorder is estimated to have increased by forty-five percent from 1990 to 2010 and is expected to continue to rise with an increasingly obese, sedentary, and ageing population. According to the Institute for Health Metrics and Evaluation of University of Washington, USA, musculoskeletal disorders ranged from 9.6% of YLDs to 28.9% of YLDs between 188 countries. Low back pain was the leading cause of YLDs in eighty-six countries and the second or third leading cause in sixty-seven countries. The institute further revealed that musculoskeletal disorders combined with fractures and soft tissue injuries reached a total of 20.8% of global YLDs in 2013<sup>28</sup>.

It is established that disabilities could be arisen due to musculoskeletal disorders. Therefore, it is highly important to investigate the increasing concerns related to musculoskeletal disorders among employees in Kuwait banking industry. Many studies have concluded that improper design of the workplace or poor working environment may result in musculoskeletal disorders. Some authors have affirmed that some of the common problems of small-scale firms and larger corporations in developing countries include un-organized or improper workplace design, mismatch between workers' abilities and the demands of higher job, jobs of ill-structure, improper design of the workplace and bad postures during working hours<sup>1,18</sup>. the most prevalent ergonomic issues resulting from workplace hazards is work-related musculoskeletal disorders –WMSDs<sup>3,15,22</sup>.

Literatures regarding social demographic trends of MSDs suggests the nature of the works in many countries, especially in developing countries, is changing, with age, gender and education level among other variables play significant role in the workplace<sup>24</sup>. In a study<sup>26</sup>, Stendig-Lindberg (1998) found higher proportion of work-related MSD among women when compared to men with a 1:0.7, also the study reported that MSDs is most common those above the age of 50. It is reported by<sup>13</sup>, that the bankers in the age range of 20-29 years had the highest prevalence of MSDs accounting for about 87% while those in their 40's and above had the least of 37.50%. They further attributed the high prevalence of MSDs among the younger bank employees because of lower professional knowledge, experience, and skills. The groups are often faced with increased workload. That notwithstanding<sup>23</sup> posited that age correlates with the prevalence of MSD.

Study found<sup>14</sup> that respondents suffering from MSD during the last 12 months of their study reported problem in the low-back pain represents 40.4%, followed by upper back with 39.5%, and neck with 38.6%, and hand/wrist with 36.8% and shoulder with lowest percent of 15.2%. In the same vein<sup>9</sup> found that the most prevalent work-related musculoskeletal disorders were pains in the neck region with 37.4% and low back region 36.6%, while the elbows and thighs were 8.3%, and 12.3% respectively as the least prevalent rate. Furthermore<sup>11</sup> (found that among 186 female respondents, 46 reported lower back pain (24.7%) and 44 reported neck pain with (23.7%). Among 46 male respondents, 10 reported neck pain (21.7%) while 6 reported knee pain (13%).

The banking sector is one of the major sectors that contribute to the economic development of Kuwait. According to<sup>5</sup> there are eleven commercial Banks with 200 branches further to 12 branches of foreign banks, where approximately 6,000 employees are working in such banks. It is regarded to banking sector as the hub of growth for any country and its economic development. Banks are the channel of funds from the surplus sector to the deficit sector of the economy (Central Bank of Kuwait). To help drive the service delivery to their customers, banks employ the services of employees, who are seen as the frontline in the banking business because they are the first people customers

meet in the bank. Employees are mostly in charge of cash deposits and withdrawals. Their work activity involves stamping, writing, counting cash, stretching hands to give or receive cash, typing and cross-checking on the monitor screen the identity of customers. These work activities can predispose the employees to the risk of repetitive motion, mechanical stress, static loading, and awkward posture. Therefore, it is important to find out the prevalence of associated risk factors for occurring musculoskeletal disorders among bank-employees to develop and implement appropriate control measures. Study reported<sup>17</sup> that injuries can be avoided upon the appropriate steps related to the exposure to work-related risk factors of MSDs in the workplace are being eliminated or reduced.

Therefore, this study aimed at investigating the ergonomic hazards and work-related musculoskeletal disorders (WMSDs) among bank-employees in the State Kuwait. The study was expected to reveal the presence of ergonomic hazards and the prevalence of MSDs among bank- employees in the State Kuwait. It is also determined the prevalence of work-related musculoskeletal disorders (WMSDs) among the bank employees. The study further established the difference in ergonomic hazards and musculoskeletal disorders among the bank employees based on gender, age, and work experience.

## II. METHODOLOGY

A descriptive survey research design was adopted. The population for the study comprised all employees of the said branch of the bank. There is no record of the exact number of populations of commercial bank employees in the State of Kuwait. However, they are estimated to be about 6,000 across the State of Kuwait.

The sample size for the study was 33 bank employees, which was more than 50% of the estimated population. This will increase the confidence level and the generalizability of the findings of the study. The multi-stage sampling procedure was adopted to select the sample size for the study. It involves the combination of different sampling methods in the process of obtaining the desired sample

The instrument for the collection of data for the study was a self-structured questionnaire with a modified 4-point Likert type scale with response options of Strongly agree (SA) – 4 points, agree (A) – 3 points, disagree (D) – 2 points, Strongly Disagree (SD) – 1 point, titled "Ergonomic Hazards and Work-related Musculoskeletal Disorders among Employees in the selected Bank Branch (EHWRMD-AKS)". It was a multivariate instrument and has five sections with section A designed to elicit demographic data from the respondents, while other sections were to obtain ergonomic hazards (section B) and prevalence of work-related musculoskeletal disorders (section C). The reliability of the instrument was determined using the test-retest method to determine the level of reliability of items of the instrument. The reliability co-efficient of 0.82 was obtained using the Pearson Product Moment Correlation Co-efficient.

By administering and instrument retrieval, the data needed for the data has been obtained. The instrument was administered to the respondents by the researcher who carefully explained the nature of the study to the respondents. This was necessary to reduce fear, suspicion, and any reservation by the respondents or misunderstanding of the instructions regarding the filling of the instruments.

The data generated from the study was analyzed using descriptive statistics of mean, standard deviation, and percentage as well as inferential statistics of Z-test, one-way analysis of variance (ANOVA) and Chi-square set at .05 level of significance. The value of 2.50 was used as the criterion Mean. However, any item or grand mean that equals or greater than the criterion mean of 2.50 was considered accepted, while any item or grand mean that falls below the criterion mean of 2.50 was considered rejected.

### III. RESULTS

Table 1: Respondents distribution by gender, age, and work service

S/N	Variable	Category	F	Percentage
1	Gender	Female	20	60.61
		Male	13	39.39
		<b>Total</b>	<b>33</b>	<b>100</b>
2	Age	25-35	15	45.46
		36-45	12	36.36
		46 or above	6	18.18
		<b>Total</b>	<b>33</b>	<b>100</b>
3	Work Service	0-5	6	18.18
		6-10	10	30.30
		11-15	9	27.27
		16 or more	8	24.25
		<b>Total</b>	<b>33</b>	<b>100</b>

Table 2: Ergonomic Hazards mean and standard deviation of bank employees in Bitakbranch

S/N	Ergonomic Hazards	$\bar{x}$	SD
1	Using computer for prolonged hours	3.65	0.65
2	Feeling discomfotable because the furniture design	1.96	0.98
3	Sitting for prolonged hours without break	1.82	0.78
4	Counters are not well designed for receiving items from customers	2.91	1.15
5	Elbows, forearms or wrists rest on hard or sharp surfaces	2.74	1.03
6	The lighting in my workstation is unsuitable for work	1.84	0.81
<b>Grand mean and standard deviation</b>		2.61	0.90

From table 2, the obtained grand mean is 2.61 and grand standard deviation is 0.9. The value of the grand mean is greater than the criterion means implying that bank-

employees in Bitak are faced with ergonomic hazards while performing their duties, as majority used the computer for a prolonged period.

Table 3: Work related WMSDs among bank employees in Bitakbranch

S/N	Work related WMSDs	Yes	
		Nos.	Percentage
1	Leg pain		
2	Waist pain	4	12.12%
3	Neck stiffness	8	24.24%
4	Arms pain	2	6.06%
5	Legs pain	3	9.09%
6	Neck pain	1	3.03%
7	Back pain	4	12.12%
8	More than one of the above	6	18.18%
9	No pain in any of the above	5	15.15%
<b>Totals</b>		33	99.99%

Table 3 shows that majority (24.24%) of the sample suffers waist pain while the least of them(3.03%)

suffersneck stiffness. Only15.15% indicated that they do not feel pain in any part of their body.

Table 4: the results of Z-test regarding the significant difference of ergonomic hazards among bank employees in Bitak branch by gender

Gender	Nos.	$\bar{x}$	SD	df	Z	Sig	Dec
Female	20	2.81	0.55	31	5.83	0.00	Rej.
Male	13	2.33	0.59				

Table 4 shows that the mean for female respondents is  $2.84 \pm 0.54$ . The mean for male respondents is  $2.32 \pm 0.60$ .  $z = 5.83$ ;  $P < 0.05$ . As the z-value is significant at 0.05 alpha level, the null hypothesis was rejected, and the alternative

hypothesis accepted. This implies that there is a significant difference in the ergonomic hazards among bank-employees in KFH Bitak Branch based on gender.

Table 5: ANOVA results regarding the significant difference of ergonomic hazards among bank employees in Bitak branch by age

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	20.399	3	6.788	24.99	0.00
Within groups	44.782	28	0.265		
Totals	65.181	31			

Table 5 shows that  $F_{\{2,998\}} = 24.99$ ;  $P < 0.05$ . Since the calculated f-value is significant at 0.05 alpha level, the null hypothesis was rejected. This implies that there is a significant difference in the ergonomic hazards among bank-employees in KFH Bitak Branch based on age.

To determine where the significant differences lie, the data were subjected to post-hoc analysis using Scheffe method and the results are presented in table 6.

Table 6: Scheffe results regarding the significant difference of ergonomic hazards among bank employees in Bitak branch by age

(I) Age	(J) Age	Mean Difference (I-J)	Sig.
25-34	35-45	0.75361	0.000
	46 or above	1.19886	0.000
35-45	25-35	0.48992	0.000
	46 or above	1.00778	0.000
46 or above	25-35	0.75361	0.224
	36-45	1.19886	0.000
	46 or above	0.48112	0.224

Based on 0.05 alpha level, table 6 shows that differences in mean score existed between the bank employees aged 25-34yrs and 35-45; 25-34yrs and 46&

above; 35-45 yrs and 46yrs& above. This means that the ergonomic hazards experienced by the bank-employees differ according to their ages.

Table 7: ANOVA results regarding the significant difference of ergonomic hazards among bank employees in Bitak branch by work service

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	8.711	3	2.901	8.601	0.00
Within groups	57.608	28	0.339		
Totals	66.261	31			

From table 7, it can be seen that  $F_{\{2,998\}} = 8.601$ ;  $P < 0.05$ . Since the calculated f-value is significant at 0.05 alpha level, the null hypothesis was rejected. This implies that there is a significant difference in the ergonomic hazards among bank-employees in KFH Bitak Branch based on

years of experience. The positions of significant differences were determined by subjecting the data to post-hoc analysis using Scheffe method and the results are presented in table 8.

Table 8: Scheffe results regarding the significant difference of ergonomic hazards among bank employees in Bitak branch by work service

(I) (II) (III) (IV) (V)	(J) work service	Mean Difference (I-J)	Sig.
2-5	6-10	0.05223	0.973
	11 or above	0.38201	0.028
6-10	2-5	0.05223	0.973
	11 or above	0.43006	0.003
11 or above	2-5	0.61998	0.12
	6-10	0.68003	0.03

Based on 0.05 alpha level, table 8 shows that differences in mean score existed between bank employees of 2-5 and 6-10 years of experience; 2-5 and 11& above

years of experience; 6-10 and 11& above years of experience.

Table 9: The results of Z-test regarding WMSDs among bank employees in Bitak branch by gender

Gender	Nos.	$\bar{x}$	SD	df	Z	Sig	Dec
Female	20	3.07	0.55	173	3.69	0.00	Rej.
Male	13	2.77	0.69				

Table 9 shows that the mean for 20 female respondents is  $3.10 \pm 0.56$ . Similarly, 13 male respondents obtained  $2.75 \pm 0.68$ .  $z = 3.69$ ;  $P < 0.05$ . Since the calculated z-value is significant at 0.05 alpha level, the null hypothesis was

rejected. This implies that there is a significant difference in work-related musculoskeletal disorders (WMSDs) among bank-employees in KFH Bitak Branch based on gender.

Table 10: ANOVA results regarding WMSDs among bank employees in Bitak branch by age

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	12.145	3	4.011	12.421	0.00
Within groups	56.426	28	0.319		
Totals	68.571	31			

Table 10 shows that  $F \{2.998\} = 12.421$ ;  $P < 0.05$ . As the calculated f-value is significant at 0.05 alphalevel, the null hypothesis was rejected. This implies that there is a significant difference in workrelated musculoskeletal

disorders (WMSDs) among bank-employees in KFH Bitak Branch based on age. A post-hoc analysis of the data using Scheffe method shows where the differences in mean lie and the results are shown in table 11.

Table 11: Scheffe results regarding WMSDs among bank employees in Bitak branch by age

(I) Age	(J) Age	Mean Difference (I-J)	Sig.
25-34	35-45	0.21999	0.234
	46 or above	0.52113	0.000
35-45	25-35	0.22123	0.235
	46 or above	0.28111	0.205
46 or above	25-35	1.15003	0.000
	36-45	0.93002	0.004
	46 or above	0.65012	0.92

Table 11 shows that differences lie in bank-employees aged between 25-34 years and 35-45 years; between 25-34 and 46 years & above; 35-45 years and 46 years & above.

Table 12: ANOVA results regarding WMSDs among bank employees in Bitak branch by work service

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	5.802	3	1.945	5.311	0.003
Within groups	62.748	28	0.370		
Totals	68.550	31			

Table 12 shows that  $F \{2.998\} = 5.311$ ;  $P < 0.05$ . Since the calculated f-value is significant at 0.05 alpha level, the null hypothesis was rejected, and alternative hypothesis was accepted. This implies that there is a significant difference in work-related musculoskeletal disorders (WMSDs) among

bank-employees in KFH Bitak Branch based on years of work experience.

To determine where the significant differences lie, the data were subjected to post-hoc analysis using Scheffe method and the results are presented in table 13.

Table 13: Scheffe results regarding the significant difference of WMSDs among bank employees in Bitak branch by work service

(I) work service	(J) work service	Mean Difference (I-J)	Sig.
2-5	6-10	0.16898	0.531
	11 or above	0.15351	0.672
6-10	2-5	0.16898	0.531
	11 or above	0.32405	0.059
11 or above	2-5	0.15351	0.672
	6-10	0.64005	0.012

It can be seen from table 13 that based on the 0.05 alpha value, significant difference in mean exists between

bank-employees of 6-10 years of experience and those between 11 and above years of experience.

#### IV. DISCUSSION

The study aimed at investigating the ergonomic hazards and work-related musculoskeletal disorders among bank-employees in Kuwait. It is a common knowledge that ergonomic hazards can lead musculoskeletal disorders, as many researchers such as <sup>3,15,18,22</sup> have noted that one of the most prevalent ergonomic issues resulting from workplace hazards is work-related musculoskeletal disorders – WMSDs. Therefore, rather than checking the relationship between ergonomic hazards and work-related musculoskeletal disorders, the study focused on determining the differences among and within each of the variables – age, gender, and years of work experience in relation to the identified ergonomic hazards and work-related musculoskeletal disorders.

##### A. Ergonomic hazards among bank-employees

In this study, it was found that bank employees in Kuwait, while performing their duties, are faced with ergonomic hazards which include sitting for a prolonged period of time without a break, performing a particular task repeatedly at work, exposure to ultraviolet light, pressing onto the mouse, stamp, pen and keyboard for a prolonged period of time, use of the computer for a prolonged period of time, counters designed so high that employees have to stretch their arms to receive items from customers and resting elbows, forearms or wrists on hard surfaces or sharp edges. These findings are like the findings of <sup>3</sup> who investigated the pattern of ergonomic hazards against work-related musculoskeletal disorders among hospital workers in Osun State, Southwest, Kuwait. The results revealed that working in erect standing posture and in bending position for 3 to 4 hours performing a particular task repeatedly at work and using either too high or too low chairs and tables of heights are ergonomic mostly hazards common among the workers of the hospital. Also, the pattern of time spent working at a stretch and work break durations vary across different postures. The findings of this study are also in line with the findings of <sup>7</sup> who conducted a study on ergonomic consideration in the design of office facilities and associated issues among Kuwait bank workers and found common workplace health risks encountered by employees as they stay long hours in a static posture using the computer.

Also <sup>7</sup> found that ergonomic hazards workers suffered include prolonged exposure to ultraviolet light, prolonged use of computer and staring at the computer screen, stamping, writing, and punching of the keyboard for a prolonged period as well as the non-ergonomic chairs and counters which predisposed them to musculoskeletal disorders.

The findings that sitting for a prolonged period of time without a break, performing a particular task repeatedly at work, exposure to ultraviolet light, pressing onto the mouse, stamp, pen and keyboard for a prolonged period of time, use of the computer for a prolonged period of time, counters designed so high that employees have to stretch their arms to receive items from customers and resting elbows, forearms or wrists on hard surfaces or sharp edges are the ergonomic hazards faced by bank employees can be

explained from the fact that banks across the country appear to be understaffed with many customers to attend to. This makes the bank staff to work for a long period of time. Work usually commences early hours of the morning and closes late in the evening. The workers apparently do not enjoy breaks or work shift. Hence, they are subjected to difficult positions which tell on them in terms of comfort and work performance.

##### B. Work-related musculoskeletal disorders and the prevalence

It was found in this study that the work-related musculoskeletal disorders among bank employees in KFH Bitak Branch and their prevalence are as follows; leg pains (13.14%), waist pains (25.14%), stiffness in the neck (5.71%), pains in the arms (9.71%), numbness in the legs (0%), pains in the neck (11.43%), pains in the back (17.71%), pains in more than one part of the body (10.29%) and no pain in any part of the body (6.86%) showing that the most prevalent work-related musculoskeletal disorder among bank employees in KFH Bitak Branch is waist pains, pains in the back, pains in the leg, pains in Neck other parts of the body including the arms. Numbness in any part of the body was not recorded. These findings are similar to the findings of <sup>9,11,14</sup> found that respondents suffering from MSD during the last 12 months reported problem in the low-back pain represents 40.4%, followed by upper back with 39.5%, and neck with 38.6%, and hand/wrist with 36.8% and shoulder with lowest percent of 15.2%. <sup>9</sup> found that the most prevalent work-related musculoskeletal disorders were pains in the neck region with 37.4% and low back region 36.6%, while the elbows and thighs were 8.3%, and 12.3% respectively as the least prevalent rate <sup>11</sup> found that among 186 female respondents, 46 reported lower back pain (24.7%) and 44 reported neck pain with (23.7%). Among 46 male respondents, 10 reported neck pain (21.7%) while 6 reported knee pain (13%).

The findings made in this study with respect to the work-related musculoskeletal disorders and their prevalence can be explained from the fact that bank employees are usually sedentary in their duty posts. They sit down while performing their duties in most hours of the day. They mostly engage their bodies with their trunks bent forward. Working in that position for a prolonged period of creates pains on the waist, back, neck from where the pains spread to other parts of the body.

##### C. Ergonomic hazards and work-related musculoskeletal disorders against demographic variables

In this study, it was found that, for the dependent variables under consideration such as ergonomic hazards, perceived psychosocial effects of ergonomic hazards, work-related musculoskeletal disorders, and existing control measures for ergonomic hazards against work-related musculoskeletal disorders, significant difference was found for ergonomic hazards among bank employees based on gender, age, and years of experience. Significant difference was also found for work-related musculoskeletal disorders among bank employees based on gender, age, and years of experience. Furthermore, test of the hypothetical assumptions in this study showed that there is significant

difference in age distribution and work-related musculoskeletal disorders (WMSDs) among bank employees in Kuwait. Before<sup>13</sup> such fact has been confirmed<sup>13</sup>, reported that the bankers in the age range of 20-29 years had the highest prevalence of MSDs accounting for about 87% while those in their 40's and above had the least of 37.50%. Atributed<sup>13</sup> the high prevalence of MSDs among the younger bank employees because of lower professional knowledge, experience, and skills. The groups are often faced with increased workload.

Another glaring factor is that higher prevalence of MSDs among younger bank teller could be that the older age groups apart from higher professional experience, knowledge, and skills, could have benefits from rank. As their ranks increase, they move out of direct banking jobs into administrative positions, which are less physically demanding. Also, another hypothetical test for gender and MSDs showed that there is significant difference between gender and work-related musculoskeletal disorders (WMSDs) among bank employees in the study area. This point has been earlier observed in Maiduguri; found that MSD is more prevalence in females when compared to males. He reported the annual prevalence of MSDs in the female gender is at about 74%. However, contrary to this, Moom et al. (2015) reported males were more likely to suffer from MSDs as compared to women. The hypothetical test for work experience and MSDs showed that there is a significant difference between work experience and work-related musculoskeletal disorders (WMSDs) among bank employees in the study area. This supports the claim of<sup>13</sup> who noted that bank employees could experience higher prevalence of MSDs because of lower professional knowledge, experience, and skills, especially among the younger age group. It is suggestive that those with higher work experience must have devised means/strategies of managing the inherent ergonomic hazards to prevent MSDs which the employees with lower work experience are yet to discover. Besides, there are deliberate efforts among the bank management to provide good and competitive working conditions for senior and experienced staff so that they will not easily lose them to other banks.

## V. CONCLUSIONS

Based on the findings, it was concluded that ergonomic hazards and musculoskeletal disorders (MSDs) exist among bank-employees in Kuwait State. There is a high risk of increase in prevalence of work-related musculoskeletal disorders (MSDs) in the banking sector, hence, the urgent need for ergonomic and occupational health intervention.

## RECOMMENDATIONS

The following recommendations are based on findings and results of the study:

- Bank management should make concerted efforts to reduce rising prevalence of work-related musculoskeletal disorders among bankers and bank-employees by having ergonomics in mind when procuring office equipment, and by creating adequate breaks in the work schedules.

- The Ministry of Health and that of Labor, should develop policies that will promote and enhance the enforcement of the regulations pertaining to occupational health and safety in banking industry.

## AUTHORS DECLARATION

- Conflicts of Interest: None.
- I hereby confirm that all the tables in the manuscript are mine.
- Author sign on ethical considerations approval.

## AUTHORS CONTRIBUTIONS STATEMENT

Niran A. AlAdwani, contributed to the design and implementation of the research, to the analysis of the results and to the writing of the manuscript.

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