Republic of Iraq

Ministry of Higher Education and Scientific Research

University of Kerbela

Department of Family and Community Medicine

The Prevalence of Low Back Pain and Risk Factors among Health Care Providers in Primary Health Care Centers in AL-Mussayiab District Babil, Iraq 2022.

A thesis submitted to the Scientific Council of College of Medicine in Kerbala University As a Partial fulfillment for the Degree of High Diploma in Family Medicine

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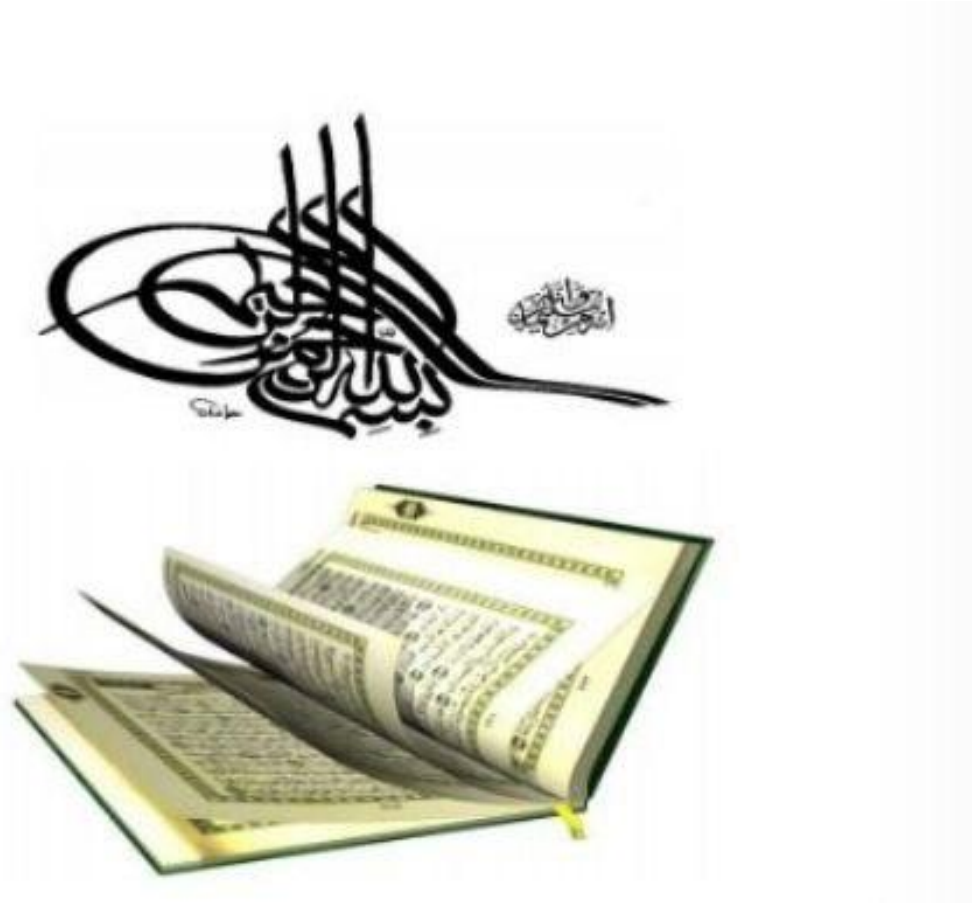
2022 A.D. **1444 A.H.**



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(٢٥) وَيَسِّرْ لِي أَمْرِي (٢٦))

سورة طه

Supervisors Certification

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"The prevalence of low Back pain and risk factors among health care providers in primary health care centers in AL-Mussayiab district Babil, Iraq 2022 "

Was prepared under our supervision as a partial requirement for the Degree of High Diploma in Family Medicine

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Acknowledgements

First of all, I would like to express my deepest gratitude to Dr. Basheer Akeel Al-Ali and Dr. Mustafa Walid for providing me with the opportunity to carry out this study. I also thank them for invaluable advice, patience and inspiring guidance throughout this work. I would like to thank Dr. Ali Abdul Ridha Abu Tiheen. I would like to extend my warmest thanks with my highest appreciation to my wife and family. Also, I would like to express my sincere thanks to all patients for their acceptance to be part of this work, last but not least, I would like to extend my thanks, gratitude and love to my friends for their help and support.

Thanks for all…

List of contents

List of Tables

List of abbreviations:

$	United State Dollar
BMI	Body Mass Index
CI	Confidence interval
CLBP	Chronic low back pain
DM	Diabetes Mellitus
SD	Stander division
GBP	British pound sterling
HCPs	Healthcare providers
HCWs	Health Care workers
HT	Hypertension
LBP	Low Back Pain
MSD	Musculoskeletal disorders
NSLBP	Non-specific low back pain
OA	Osteoarthritis
OR	Odd ratio
PHCCs	Primary health care centers
PHCPs	Primary health care providers
SD	Stander deviation
UK	United Kingdom
USA	United State of America

Abstract

Background: Healthcare providers are exposed to ergonomic hazards, musculoskeletal disorders, and other work-related injuries. Low back pain is the most common musculoskeletal disorder. The objective of present study is to determine the prevalence of back pain in health providers with emphasis on contributing risk factors and impact of LBP on health and life style habits.

Methods: The present study was a descriptive, cross-sectional study estimates the prevalence and risk factors for low back pain in health personnel. The study was conducted on healthcare providers which were selected by sampling technique (stratified random). Data were analyzed using Statistical Package for the Social Sciences software, version 28.0 (IBM, SPSS, Chicago, Illinois, USA) software.

Results: The results indicated that the riskiest occupational group consisted of nurses. The majority of participants 328 (81.8%) from the total of 401 reported that they were not doing any activity of running for > 15 minutes, while only 75 (18.5%) were doing Sport >15 min and 309 (77.1%) claimed that they were walking for > 15 min.

Among the 401 healthcare providers, about (304) had low back pain (LBP) in the last 12 months, giving a prevalence of (75.8%) among the studied group. On the other hand, low back pain at the time of interview (3 months prevalence) was found in 282 healthcare providers represented (70.3%) of the studied group. Most of the participants had non-diagnostic as LBP. Results indicated that most participants 192(76.5%) who had reported to have LBP were overweight. But unfortunately, this population-based study showed that there was not any association between LBP and the lifestyle factors. Job-related factors were the most important factors associated with low back pain in health care personnel. Occupational factors can increase the chances of low back pain in health care providers. Results indicated that there was a

significant relationship between low back pain and the profession of the medical staff. The Chi-Square was estimated to be 17.975 and p value was (0.021). Also, there was a statistically significant association between Co-morbid diseases and LBP, p value was =0.001.

Conclusion: Results suspected that Low back pain has a direct effect on healthcare providers in the PHCCs, and their job restrictions and attendance. Healthcare providers need to make a necessary regulation regarding working in a constant position for a long time, encouraging towards exercise among health centre provider employees will contribute to decreasing the low back pain incidence ratio.

Chapter One

Introduction and literature review

1. Introduction

Lower back pain (LBP) is a global problem of public health importance, affecting 70–85% of the world's population (1). It is a common cause of work-related disability (2). According to Hartvigsen et al. the annual prevalence of lower back pain ranges from 15 to 45%, with a point prevalence averaging 30%. In the United States (US), In addition, LBP is reported to be the second leading cause of work absenteeism and results in lost productivity more than any other medical condition (3) (4). According to Hartvigsen et al. (2), the direct and indirect costs attributable to LBP are enormous in terms of loss of quality of life, productivity and employee absenteeism. This condition is the single largest contributor to musculoskeletal disability worldwide.

In the Global Burden of Disease 2010, LBP was listed among the top ten high burden diseases and injuries (5). Similarly, in Taiwan, a study showed that 72% of health care workers (HCWs) had LBP (6). LBP is considered one of the most important causes of morbidity among health care workers (HCWs) that affects their work, and 18.7% of them with chronic LBP using analgesic and or pain-relief drugs (7).

Low back pain is a common global problem. The point prevalence of low back pain (LBP) in 2017 was estimated to be about 7.5% of the global population, or around 577.0 million people (8).

In the US, it is estimated that over 80 billion US dollars are spent on LBP annually, accounting for over 156 million lost working days and 5.2 million disabilities of which 2.6 million are permanent (2).

In a study done in Shijiazhuang in China, the prevalence of LBP in physicians was found to be 44%. (9). Among nurses, 71% reported LBP in a study conducted in Kurume in Japan (10).. In study conducted in the United Kingdom, 19% of ear, nose,

and throat consultants had back pain (11). Surgeons had a prevalence of 68% in a study done in China (12).

Another study conducted in the United Kingdom, it is estimated that 116 million productive days are lost due to LBP and the resulting economic cost is estimated at 12 billion (British pound sterling) annually (13), whereas in Europe, the direct costs related to LBP are estimated at 7,000 Euros per person per year in Germany (14), and 740 Euros annually in Sweden (15). There is a little of retrievable research evidence on economic cost of LBP in Africa. The financial impact of LBP is presumed enormous on the African continent due to its fragile health systems with limited human and infrastructural resource capacity, amidst a dual burden of infectious and noncommunicable diseases.

In Saudi Arabia, the prevalence of LBP among general population is estimated to be 18.8 % according to a single study conducted in Al-Qaseem (16).

In a study conducted in Tunisia, it was showed that the prevalence of LBP was 57% and the annual prevalence was 50% among all the hospital staff (17). One meta-analysis of 13 articles studied the annual prevalence of LBP in physicians, and there was discrepancy in prevalence between the articles: 44%, 63%, and 67% (18).

In Iraq, the prevalence of LBP was estimated to be 61.4%. The reported prevalence of LBP was in Kurdistan region (Iraq); it was slightly high compared to other study findings (19). Another study conducted in Mosul City Hospitals, the percent of lower back pain was (80.9%) (20).

The sick leaves related to LBP exert strain on services and staff coverage with absenteeism being identified as an essential indicator of LBP related disability (21).

In recent years, medical consultations due to LBP have increased significantly and LBP can be considered a “twentieth-century healthcare disaster” (2).

1.1 Risk factors

1.1.1 Individual risk factors

The analysis of individual risk factors of LBP in health workers revealed that as age and BMI increased, so did the likelihood of developing LBP (22). However, one study reported a higher prevalence of LBP among participants with lower BMI and younger age. A similar conflict was found for gender, as three studies (23) (24) (25) reported that female gender was associated with higher LBP prevalence, while another study (26) reported that male gender was a significant risk factor of LBP. Nevertheless, increasing age and weight, and female gender are well-documented risk factors of LBP in the literature (27). Other relatively common risk factors reported were smoking and nationality, with non-Saudi health workers being more vulnerable to developing LBP. A study hypothesized that this might be because the Saudi participants in their study were younger than non-Saudis (28). Another possible explanation could be that the contracts of non-Saudi staff are renewed every year based on their performance (29) and job insecurity was found to be significantly associated with LBP (30) which may also explain this finding.

1.1.2 Occupational risk factors

The majority of occupational risk factors were related to the type of activities performed at work with high physical demands, including those requiring bending and twisting, and lifting and pulling objects. Alsiddiky et al (31) reported that clinicians who performed back bending and pulling objects at work had a risk of LBP up to eight times higher. Back flexion, work activities involving patient manual-handling, mainly among nurses, were also identified as risk factors, such as transferring and carrying patients, supporting patients during movement, pushing wheelchairs, increased time spent handling patients, and number of patients handled.

The highest risk of LBP was found among nurses who often pushed wheelchairs (three times higher). (33). Some explanations of the relationship between these types of activities and LBP in nurses were reported, such as reduction in the ability to endure the physical load among those with weak muscle strength or lack of knowledge about ergonomically safe patient-handling techniques (34). Organizational factors may also play a role, as Al-Eisa and Al-Abbad (35) concluded that the absence of a workplace patient handling policy was a significant risk factor for LBP in nurses. One study (36) however, reported that the utilization of patient-lifting devices does not protect nurses against LBP, as it was found to be positively correlated with LBP occurrence. Nevertheless, it was previously reported that it might take up to 4 years of follow-up to detect the effect of these devices on reducing the LBP incidence (37). Moreover, the beneficial effect of implementing patient-lifting devices on LBP and musculoskeletal disorders among health workers is well documented in the literature among newly recruited staff and when combined with other preventive strategies (38).

Working department and workplace were also recognized as risk factors of LBP. Those who worked in hospitals were at higher risk of LBP than their counterparts who worked in small or primary health centers, (39). This is possibly due to extended working hours and higher patient loads associated with stressful working environments (40). Furthermore, nurses who worked in surgical departments were found to be twice more likely to suffer from LBP than those in other departments (41), (42). Similarly, inpatient and outpatients nurses, as compared with administrative nurses, were at a higher risk of LBP.

Certain subspecialties among physicians and dentists were also noticed to be more susceptible to LBP. Among dentists, pediatric dentists, orthodontists, restorative dentists, and endodontic dentists were found to be at a higher risk of LBP in comparison with general dentists and maxillofacial surgeons. A greater risk was

found for orthodontics and pediatrics dentist (five times higher), followed by endodontics and restorative dentists (approximately three times higher). Maintaining static posture for extended periods of time is the most commonly reported explanation for such high risk of LBP among different dental specialties (43). Similarly, among physicians, orthopedic and general surgeons, gynecologists, pediatricians, ophthalmologists, emergency and intensive care physicians, and anesthesiologists were at a greater risk of LBP development than other specialties, which can be explained by extended procedure times and high physical and mental demands in those specialties.

High stress level at work is a well-documented risk factor of LBP, and its negative impact on work performance among health workers have been established (44).

To date, several studies have revealed a number of more risk factors associated with LBP in the general population such as: advanced age, alcohol and drug abuse, family history, level of activity, obesity, poor posture and alignment, smoking; occupational factors such as prolonged standing and sitting, previous back injury plus psychological and social factors (1). Understanding the risk factors for LBP amongst specific population groups is a key to guide preventive polices which are tailored to one's occupation. The health sector workforce is one of such special groups that deserve utmost attention, being a core building block for a functional health system. As such, hospital workers have been shown to have higher rates of LBP compared to the general population due to the physical and emotional factors such as stress involved in their occupation (2).

The main occupational risk factors for LBP amongst health workers include: lifting and moving patients, frequent twisting and bending, sustained postures, improper ergonomics of work environment, anxiety, depression, stress, poor job satisfaction, shortage of staff and poor working conditions amongst others (45). However, there is a paucity of published data on the proportion and risks for LBP amongst health

workers in low-income countries despite resource constraints such as lack of assistive equipment for lifting patients, which requires manual inpatient transfers. Such heavy lifting could lead to physical injuries for instance, involving the vertebral discs, culminating in LBP and restricted movement.

The limited range of physical movements which results from LBP, can be associated with psychological distress that further intensify the pain, depending on one's coping strategy (46), for which cognitive behavioral therapy is being proposed as adjunct in its management (47).

According to Bogduk (48), when LBP persists, there is a tendency for the brain activity to switch away from pain circuits to emotional circuits, raising anxiety. Thus, the physical work challenges such as lifting patients manually in low-income countries could potentially aggravate the existing psychosocial stress already posed by COVID-19 infections amongst health workers (49), yet mindfulness-based stress reduction is an under-developed field of LBP control and less studied in low-income settings compared to higher income (50).

In a systematic review on prevalence of chronic LBP worldwide, only one of the 25 original population-based cross-sectional studies were from Africa (Nigeria), the rest of studies are largely from Europe, America, and Asia (51). This indicates how this subject matter is under-researched on the African continent. Inadequate attention on this topic in Africa may be attributed to the outsized impact of infectious diseases which has resulted in the shift of funding priorities within health research to this area (52). According to Morris et al. (52), the mean point prevalence of LBP amongst the adult population in Africa is estimated at 39% whereas chronic LBP ranges from 51 to 63%. In addition, hospital-based statistics shows that LBP accounts for 30–40% of visits to rheumatologists in Africa (53), much of this burden has been linked to poor back care ergonomics and unavailability of lifting equipment (54). However,

these studies have been disproportionately conducted in South Africa and West Africa (Nigeria) (52) while underrepresented in East Africa.

In Uganda, the point prevalence of LBP amongst health workers was last estimated more than a decade ago at 20% in a hospital-based study at the National Referral Hospital, Mulago (55), partly attributed to the high levels of perceived stress.

Such stress due to LBP is further aggravated by a significant reduction in activities of daily living such as recreation, sleep and sex (56). Ugandan public hospitals have shortages of health workers due to limited health care professionals training capacity and health workforce emigration to the private sector and overseas (57). This in turn, has resulted in increased workloads for staff in public health facilities, thus predisposing them to LBP. Consequently, the impact of absenteeism from duty due to LBP of the already understaffed health workforce in Uganda, underscores the need to better address this problem. This study is therefore aimed at generating current data on the frequency rate and the specific risk factors for LPB among health workers.

1.2 Relevance of the study

There are limited epidemiological data on the prevalence, disability and risk factors on LBP in Iraq. However, to minimize the burden of this problem, the co-morbid factors should be effectively studied by proper design. Considering the projected increase in the burden of LBP extensive research effort is needed to fill this knowledge gap.

1.3 Objectives of the study:

The objective of the present work is

1. To determine the prevalence of back pain in health providers
2. Emphasis on contributing risk factors
3. Find impact of LBP on health provider works and life style habits.

Chapter Two

Subject & Methods

2. Subjects

2.1 Study design

The present study was a descriptive, cross-sectional study using a self-administered questionnaire carried out for period from 15/2/2022 to 1/7/2022.

2.2 Sampling technique

The study targeted primary health care centers in the Al-Musayib District. The study was conducted on healthcare providers which were selected by sampling technique (stratified random) (each individual was chosen and entirely by chance, such that each individual had the same probability of being chosen during the sampling process).

2.2.1. Target population and study population

Most of professions of the healthcare providers (PHCCs) who working in primary health care centres in the Al-Musayib District were considered eligible. The total number of PHCCs worker was 401. The study included physicians, dentists, nurses, paramedics, and other medical practitioners.

Exclusion criteria

- Staff members who are not willing to participate in the study.
- Students at PHCCs of Al-Musayib Health District.
- Staff members who already being diagnosed of having severe medical and congenital back problem as spinal injury.
- Retired medical practitioners and those who were not practicing clinical work were excluded from the study.

2.2.2 Tools of study

Structured questionnaire (Appendix -B) was developed specially for this study.

An assessment tool was developed by the researcher based upon known risk indicators for low back pain. The questionnaire forms validated by a group of specialists in rheumatology and community medicine. Participants were interviewed by investigator's researcher, avoiding interpersonal communication on the study and preventing any influence on response from the respondent during the interview period.

The questionnaire included the followings:

A/ General socio-demographic characteristics and medical history (6 main items): Compile data about; age, gender, body mass index, previous disease, smoking and alcohol consumption.

B/ Physical activity of the participants included the daily types and frequency of physical activity and occupation related factors such as sitting time, standing time, sitting upright with support, standing upright, working hours, lifting objects, type of objects lifted, position.

C/ Prevalence of low back pain diagnosed at the time of interview and management.

D/ Sick leaves related to LBP.

Variables and Method of Measurement

The feasibility variables constitute the outcomes for the specific aims. The variables are defined and operationalized for the specific aim and purpose of this study.

2.3 Operational definitions

2.3.1 Primary health care providers (PHCCs):

Healthcare Professional means member of the medical, pharmacy or nursing professions or any other person who in the course of his or her professional activities may prescribe, administer or dispense to an end-user a medicinal product.

2.3.2 Low back pain (LBP):

Low back pain is defined as pain and discomfort, localized below the costal margin and above the inferior gluteal folds, with or without leg pain. It is one of the commonest causes of seeking physician office visits, second cause of sick leave, and because of high direct and indirect costs. It has great medical, social and economic impact for individual, family and society (35).

2.3.3 Age: His\her age in years

2.3.4 Marital status was categorized into four categories; unmarried was a healthy worker who had never married. Married was a health worker who had legally married. Divorced was a healthy worker who had obtained a legal divorce and had not married, widow: was a healthy worker who had lost his/or her legally-married spouse through death and who had not remarried.

2.3.5 Smoking:

Smoking history of the participants: non-smoker if the person never smoked. Ex-smoker if the person was not smoking at the time of interview but he was a smoker and quitted the smoking six months before the date of interview. Current smoker if the person was smoker at the time of interview irrespective of frequency of smoking.

Occasional smoker if the person was smoking at least one cigarette in the last months.

Body mass index (BMI): BMI was categorized as normal if BMI (kg/m2) was 18 – 24.9 , overweight if BM was 25–29.9, and obese if BMI was ≥30.

A direct calculation that describes relative body weight for height, is not gender specific, and is significantly correlated with total body fat content, calculated according to standard equation :(BMI =(kg)/(H(m)^2

2.3.6 Alcohol consumption: categorized into alcohol drinker or non-drinker.

2.3.7 Physical activity: WHO defines physical activity as any bodily movement produced by skeletal muscles that requires energy expenditure. Physical activity refers to all movements including during leisure time, for transport to get to and from places, or as part of a person's work. Both moderate- and vigorous-intensity physical activity improve health 121. Physical activity in present study was categorized into walking >15 minutes, running>15 minutes, sport >15 minutes, group exercise, other exercise and frequency of exercise.

2.4 Data Collection:

Data collection process was conducted for 2 days in a week from 8 am to 1pm for six months. The collected data kept in a secured place. At the end of each data collection session, a serial number was given for each questionnaire and checked for errors or inconsistency. Filling the questionnaire and measurements was done by the researcher himself during the interview which was done in an isolated room.

2.5 Rating and Scoring:

Categorical responses "Yes", "No", and "Do not know" were applied for the question items. One point awarded for each correct answer and zero for incorrect or

do not know. Total scores for each participant was calculated by summation of correct responses.

1= Correct answer

0= in correct answer

I don't know

2.6 Quality Control Measures:

Define recruitment strategies, Operational definitions of measurements, Standardized instruments and forms, Approach for managing and analyzing the data and monitoring of the study were done by the academic supervisor, step by step. A Pilot study was conducted to test where questionnaire was clear and easily understood and there is no change in the questionnaire.

2.7 Data Management and Statistical Analysis

Information from the questionnaire from all participants was entered a data sheet and was assigned a serial identifier number. Multiple entries were used to avoid errors. The data analysis for this work was generated using The Statistical Package for the Social Sciences software, version 28.0 (IBM, SPSS, Chicago, Illinois, USA) and the Real Statistics Resource Pack software for Mac (Release 7.2) of the resource pack for Excel 2016, Copyright (2013 – 2020) (1).

Descriptive statistics were performed on the participants' data of each group. Values were means±2SD for continuous and n (%) for categorical variables, respectively. The distribution of the data was checked for normality.

Inferential data analysis

Chi square was used to measure the association between categorical variables. Fisher's exact test was used as an alternative when the chi square was inapplicable

for the independent factors for LBP among PHCCs in the study. Results of all hypothesis tests with p-values <0.05 (two-side) were considered to be statistically significant.

2.8 Administrative Design

Communication: Communication was carried out with professions of the healthcare providers (PHCCs) and PHCCs managers.

Personnel: The field work was carried out entirely by the researcher under continuous supervision of the supervisor.

2.9 Ethical Consideration

The protocol of the study was approved by Ethical Committee of Kerbala medical College, and committee of Kerbala Heath director. Also, researchers were obtained an agreement form the participates themselves to engage voluntarily in this study and they could withdraw from the study even after having agreed to participate.

They were free to refuse to answer any question that is asked in the questionnaire. Data were totally confidential and not disclosed to anyone, and was only used for research purposes. A code was used to identifying the participant.

Chapter Three

Results

3. Results

3.1 Prevalence and risk factors of low back pain among healthcare providers in primary health care centers of Al-Mussayiab District 2022:

Table 1 showed the number of professions who were participated in this study. Radiographers, Pharmacists, and Pharmacist assistants represented the lowest proportion of participants; 10 (2.5%), 11 (2.74% and 24 (6%) respectively, while the highly proportion of the participants were for nurses 92 (22.9 %).

Table 3.1: Distribution of the study participant professions of the healthcare providers of the PHCCs, Al- Mussayiab District 2022

Professions (job title)	No. of cases	Percentage
physician	33	8.23
Dentist	37	9.22
Nurses	92	22.9
Laboratory assistants	31	7.7
Radiographers	10	2.5
Pharmacist assistants	24	6
doctor Assistant	76	19
Pharmacist	11	2.74
Other	87	21.71
Total	401	100

3.2 Study the Socio-demographic Characteristics and medical history:

The age of the healthcare providers were divided into four ranges using class interval table as shown in table 2. The highly participant range was 157 (39.2%) for ages (30- 39) years, while the lowest participation 52 (13%) was for those who were more than 48 years, the mean and SD of age (37.45±10.31).

On the other hand, gender distribution was more frequent for female than male. The frequency of female was 238 (59.4%) while for male was 163 (40.6%). Based on BMI category, mostly participants were overweight which about 251 (62.6%) were. History of diabetes mellitus (DM) was found in 22 participants (5.5%), hypertension in 51 (12.7%), arthritis in 124 (30.9%) and 185 participants (46.1%)

had no history of any disease. Results were also indicated that most participant were nonsmokers which were about 350 (87.3%) and only 6 (1.5%) were ex-smoker.

Table 3.2: Socio-demographic characteristics and medical history of the 401 healthcare providers of the PHCCs, of Al- Mussayiab District 2022

Variable	Groups	No. of cases	Percentage
Age(Years)	20-29 year	106	26.4
	30-39 year	157	39.2
	40 -49 year	86	21.4
	More than 50 year	52	13
	Total	401	100
Gender	Male	163	40.6
	Female	238	59.4
	Total	401	100
BMI Category	Normal weight	75	18.7
	Over weight	251	62.6
	Obese	73	18.7
	Total	401	100
Diseases	Diabetes	22	5.5
	Hypertension	51	12.7
	Arthritis	124	30.9
	Other:	19	4.7
	No Diseases	185	46.1
	Total	401	100
Smoking	Non-smoker	350	87.3
	Current	35	8.7
	Occasional	10	2.5
	Ex-smoker	6	1.5
	Total	401	100

3.3 Physical activity

In this study, the majority of participants 328 (81.8%) from the total of 401 reported that they were not doing any activity of running for > 15 minutes, while only 75 (18.5%) were doing sport >15 min and 309 (77.1%) claimed that they were walking for > 15 min.

Also, nearly two thirds (60.6%) of the participants reported that the frequency of exercise per week were to be about 1 – 2 times per week, and some participants did more than one type of physical activity.

Furthermore, table 3 was summarizing the distribution of occupation related factors; it had been found that about half (48.9%) of the participants were working in sitting position for 2 hours or less during the 7 working hours. On the other hand, mostly (62.3%) of the participants claimed that they sat upright with support. Participants were also reported regarding standing time that about 250 (62.3%) were working in standing position for 2 hours or less hours 7 hours, and only 13 (3.2%) for 4-6 hours, however, 211 participants (52.6%) claimed that they stand upright.

Several other factors have been identified to be contributing to the prevalence of LBP in this study such as involved in the walking. Majority of participants 321(80%) were being walking for ≤ 2, while only 5 of the participants walking for prolonged periods more than 6 hours.

The occupation related factors were also included in this study, more than half 238 about (59.4%) were reported to lift objects in the work, the objects were mostly files/books and the position of lifting of the objects generally were standing which reported in about 189(47.1%) participants.

Table 3.3: Distribution of types and frequency of physical activity of 401 healthcare providers of the PHCCs, of Al- Mussayiab District 2022

Variable	Groups	No. of cases	Percentage
Running > 15 min	Yes	73	18.2
	No	328	81.8

	Total	401	100
Sport >15 min (group exercise)	Yes	75	18.5
	No	327	81.5
	Total	401	100
Walking > 15 minutes	Yes	309	77.1
	No	92	22.9
	Total	401	100
Frequency of exercise per week	1 – 2 times per week	243	60.6
	3 – 4 times per week	47	11.7
	5 – 7 times per week	12	3
	More than 7 times per week	7	1.7
	No exercise	92	23
	Total	401	100
Sitting time hr./7hrs of work	< 2 hours	196	48.9
	2-4 hours	118	29.4
	4-6 hours	61	15.2
	More than 6 hours	26	6.5
	Total	401	100
Sit upright with support	Yes	176	62.3
	No	225	56.1
	Total	401	100
Standing time hr./7hr of work	< 2 hours	250	62.3
	2-4 hours	120	29.9
	4-6 hours	13	3.2
	More than 6 hours	18	4.5
	Total	401	100
Stand upright	Yes	211	52.6
	No	190	47.4
	Total	401	100
Walking Hours./7hr of work	< 2 hours	321	80
	2-4 hours	66	16.5
	4-6 hours	9	2.2
	More than 6 hours	5	1.2
	Total	401	100
Lift objects or people	Yes	238	59.4
	No	163	40.6
	Total	401	100

Type of object lifted	Files/books	102	25.4
	Tools	57	14.3
	Patients	24	6
	Other	55	13.7
	Total	401	100
Position of lifting an object	Standing	189	47.1
	Sitting	49	12.2
	Total	401	100

3.4 Prevalence of low back pain

Among the 401 healthcare providers, about (304) had low back pain (LBP) in the last 12 months, giving a prevalence of (75.8%) among the studied group. On the other hand, LBP at the time of interview (3 months prevalence) was found in 282 healthcare providers represented (70.3%) of the studied group. The participants had LBP diagnostic (160, 40%). Regarding the of disease management, about (136, 33.9%) were cconsulted a specialist while (95, 23.7%) were got pain medication, about (39, 9.7%) had physical therapy and only (5, 1.2%) was received spine surgery as illustrated in table 4.

Table 3.4: Prevalence of duration and management low back pain among 401 healthcare providers of the PHCCs, of al- Mussayiab district 2022

Variable	Groups	No. of cases	Percentage
Low back pain in the last 12 months	Yes	304	75.8
	No	97	24.3
	Total	401	100
Low back pain at the interview time (At this moment, do you have low back pain)	Yes	282	70.3
	No	119	29.7
	Total	401	100
Had the LBP diagnosed	Yes	160	40
	No	241	60
	Total	401	100
Management	Consulted a specialist	136	33.9
	Pain reliving medication	95	23.7

	Physical therapy	39	9.7
	Receive any spine surg	5	1.2
	Other	6	1.5
	Total	401	100

3.5 Sick leaves related to LBP

Out of the 401 participants who reported LBP in the last 12 months only 136 (33.9%) had sick leaves for LBP while about 265 (66.1%) had not any Sick leaves days from their work. Sick leaves days were sub-grouped, only (39, 9.7%) were left the work for more than 12 days. Table 5 was also demonstrated that mainstream of the participants (257, 64.1%) had perception and consequence of LBP after working and the characteristic of the LBP was localized and manifested in (193, 48.1% participants). The frequency of LBP was reported to be monthly in (104, 25.9%) case and only (87, 21.7%) were daily frequent.

Participants were also indicated that the rate of recovery of LBP were to be mostly in (236, 58.9%) case within less than three weeks.

Table 3.5: Sick leaves related to LBP of healthcare providers with LBP in PHCCs of al- Mussayiab district 2022

Variable	Groups	No. of cases	Percentage
Sick leaves for LBP	Yes	136	33.9
	No	265	66.1
Sick leaves days Due to LBP Inone11year	0 day	199	49.6
	1 -6 days	100	24.9
	7 – 12 days	63	15.7
	More than 12 days	39	9.7
Timing of LBP	After working	257	64.1
	Before working	47	11.7
	No Pain	97	24.2
Characteristic of LBP	Localized	193	48.1
	LBP with numbness or pain	111	27.7
	No Pain	97	24.2

Frequency of LBP	Daily	87	21.7
	Weekly	91	22.7
	Monthly	104	25.9
	Yearly	22	5.5
	Not regular LBP	97	24.2
Recovery of LBP (weeks)	< 3 weeks	236	58.9
	3 - 6 weeks	46	11.5
	6 – 12 weeks	12	3
	12 weeks	10	2.5
	Not recovery of LBP	97	24.2

3.6 Relationship of LBP with demographic factors of the participants

In order to investigate the effect of factors that might be associated with LBP, they were divided into demographic factors, lifestyle factors, profession type of job, type of the physical activity, and higher prevalence factors based on the nature of work. Demographic factors were age groups, gender and marital status. The prevalence of back pain associated with the gender of participants and marital status. This association was significantly different with P<0.05, as shown in table (3.6).

Table 3.6: Relationship of LBP with demographic of healthcare providers in the PHCCs of Al- Mussayiab District 2022

Variables		LBP				X^2 Chi-Square	P value
		Yes (%) (n =304)		No (%) (n=97)			
Age (Years)	**20 - 29**	76	71.7	30	28.3	$X^2 = 6.03$ df = 3	0.11
	30 - 39	114	72.6	43	27.4		
	40 - 49	69	80.2	17	19.8		
	> 50	45	86.5	7	13.5		
Gender	**Male**	115	70.6	48	29.4	$X^2 = 4.14$ df = 1	**0.042***
	Female	189	79.4	49	20.6		
Marital Status	**Married**	256	77.3	75	22.7	$X^2 = 9.04$ df = 3	**0.03***
	Unmarried	31	60.8	20	39.2		
	Divorced	5	100	0	0		
	Widow	12	85.7	2	14.3		

3.7 Relationship of LBP with lifestyle factors of the participants:

The association between lifestyle factors and LBP was shown in table 7, results were indicated that most participant (192, 76.5%) who had reported to have LBP were overweight. But unfortunately, this population-based study showed that there was not any association between LBP and the lifestyle factors, as presented in table 7.

Table 3.7: Relationship of LBP with lifestyle factors of 401 healthcare providers in the PHCCs of Al- Mussayiab District 2022.

Variables		LBP				X ² Chi-Square	P value
		Yes (%) (n =304)		No (%) (n=97)			
BMI	Normal	52	69.3	23	30.7	$X^2 = 2.49$ df = 2	0.287
	Overweight	192	76.5	59	23.5		
	Obese	60	80	15	20		
Smoking	Non-smoker	269	76.9	81	23.1	$X^2 = 4.16$ df = 3	0.245
	Current smoker	26	74.3	9	25.7		
	Occasional smoker	5	50	5	50		
	Ex-smoker	4	66.7	2	33.3		

3.8 Relationship of LBP with profession (type of job):

In the present study, job-related factors were the most important factors associated with low back pain in health care personnel. Occupational factors can increase the chances of low back pain in health care providers. Results indicated that there was a significant relationship between low back pain and the profession of the medical staff. The Chi-Square was estimated to be 17.975 and p value was (0.021) as shown in table 8.

Table 8: Relationship of LBP with profession of 401 healthcare providers of the PHCCs of Al- Mussayiab District 2022

Variables		LBP				X^2 Chi-Square	P value
		Yes (%) (n =304)		No (%) (n=97)			
Job	Physician Doctors	29	9.5	4	4.1	$X^2 = 17.97$ df = 8	0.021*
	Dentist	31	10.2	6	6.2		
	Nurses	74	24.3	18	18.6		
	Laboratory Assistants	25	8.2	6	6.1		
	Radiographers	7	2.3	3	3.1		
	Pharmacist Assistants	16	5.3	8	8.2		
	Assistants Doctor	52	17.1	24	24.7		
	Other	64	21.1	23	23.7		
	Pharmacist	7	2.3	4	4.1		

3.9 Relationship of LBP with physical activity

In this study, the main analysis was conducted to examine the association of total physical activity with LBP. Frequency of exercise per week was significant (p = 0.05). Other conducted subgroup analyses concerning domain-specific physical activity such as walking, running and sport (group exercise)of the level of physical activity was inasignificantly associated with LBP, p value were >0.05. That might be due to the large variation in methods of measuring each activity. This finding was consistent with several studies that showed a correlation between the prevalence of LBP and physical activity as shown in table 9.

Table 3.9: Relationship of LBP with physical activity of 401 healthcare providers of the PHCCs of Al- Mussayiab District 2022

Variables		LBP				X ² Chi-Square	P value
		Yes (%) (n =304)		No (%) (n=97)			
Walking > 15 minutes	**Yes**	235	76.1	74	23.9	$X^2 = 0.043$ df = 1	0.836
	No	69	75	23	25		
Running > 15 min	**Yes**	55	75.3	18	24.7	$X^2 = 0.11$ df = 1	0.432
	No	249	75.9	79	24.1		
Sport >15 min (group exercise)	**Yes**	57	77	17	23	$X^2 = 0.073$ df = 1	0.787
	No	247	75.5	80	24.5		
Frequency of exercise per week	**1 – 2 times per week**	188	77.4	55	22.6	$X^2 = 9.067$ df = 4	**0.05**
	3 – 4 times per week	32	68.1	15	31.9		
	5 – 7 times per week	7	58.3	5	41.7		
	More than 7 times per week	3	42.9	4	57.1		
	No exercise	74	80.4	18	19.6		

3.10 Relationship of LBP with activities and nature of work higher the prevalence of LBP

Association of LBP and occupational -related activities such as sitting/ standing time, walking or lifting objects during work was also studied. The analysis of the relationships between sitting/ standing behavior during 7hrs of work and LBP were indicated to be not statistically associated, p value was >0.05. On the other hand, neither walking nor lift objects were associated, as shown in table 10.

Table 3.10: Relationship of LBP with the occupational related factors of 401 healthcare providers of the PHCCs, of *Al-* Mussayiab *District* 2022

Variables		LBP				X^2 Chi-Square	P value
		Yes (%) (n =304)		No (%) (n=97)			
Sitting time hr./7hrs of work	< 2 hours	146	74.5	50	25.5	$X^2 = 1.305$ df = 3	0.728
	2-4 hours	90	76.3	28	23.7		
	4-6 hours	46	75.4	15	24.6		
	More than 6 hours	22	84.6	4	15.4		
Standing time hr./7hr of work	< 2 hours	194	77.6	56	22.4	$X^2 = 4.683$ df = 3	0.197
	2-4 hours	86	71.7	34	28.3		
	4-6 hours	8	61.5	5	38.5		
	More than 6 hours	16	88.9	2	11.1		
Walking Hours./7hr of work	< 2 hours	248	77.3	73	22.7	$X^2 = 2.528$ df = 3	0.470
	2-4 hours	45	682	21	31.8		
	4-6 hours	7	77.8	2	22.2		
	More than 6 hours	4	80	1	20		
Lift objects or people	Yes	182	76.5	56	23.5	$X^2 = 0.139$ df = 1	0.709
	No	122	74.8	41	25.2		

3.11 Relationship of LBP with Co-morbid diseases

Data from the participant's history were used to undertake the analysis on the association between common Co-morbid disease and LBP. The Co-morbid diseases was identified as one of the risk factors associated with low back pain, Information on hypertension, T2DM, Arthritis and other diseases were collected.

There was a statistically significant association between Co-morbid diseases and LBP, p value was =0.001 as shown in table 11.

Table 3.11: Relationship of LBP with Co-morbid diseases of 401 healthcare providers in the PHCCs, of Al- Mussayiab District 2022

Variables		LBP				X 2 Chi-Square	P value
		Yes (%) (n =304)		No (%) (n=97)			
Diabetes (sugar problems)	**Yes**	20	90.9	2	9.1	$X^2 = 2.893$ df = 1	0.088
	No	284	74.9	95	25.1		
Hypertension (high blood pressure)	**Yes**	40	78.4	11	21.6	$X^2 = 0.2188$ df = 1	0.639
	No	264	75.4	86	24.6		
Arthritis	**Yes**	114	91.9	10	8.1	$X^2 = 25.45$ df = 1	**|<0.001***
	No	190	68.6	87	31.4		
other	**Yes**	15	78.9	4	21.1	$X^2 = 0.107$ df = 1	0.743
	No	289	75.6	93	24.3		
No Diseases	**Yes**	115	62.2	70	37.8	$X^2 = 34.88$ df = 1	**<0.001***
	No	189	87.5	27	12.5		

Chapter Four
Discussion

4- Discussion

Occupational low back pain developed as a result of exposure to factors such as heavy weight lifting, working by bending forwards, and improper working conditions is a common cause of LBP (58). It is considered that the low back pain is more frequent today as a result of decreased body movements despite the spread of technology (59).

Because of this, a research on low backpain frequency and risk factors has an important place in preventing low back pain. Hospital employees encounter more occupational health problems than other professionals, and the most common of them is low back pain (60) (61)(62).

In the present study, the age of health care staff was identified as one of the risk factors associated with low back pain, although this relationship was not very strong. With age progress, the risk of musculoskeletal disorders and especially low back pain increases (63), of that men were predicted to have greater muscle strength and are thought to be able to cope better with hard work, however, the results of the present study showed that women health care personnel showed more frequency in the developing lower back pain.

Body mass index is another risk factor associated with low back pain in health care personnel. A normal body mass index is a measure of fitness, which reduces the load on the lower back and reduces pain in this area. But the BMI this study wasn't singe around composition is an important factor in health. In cases of over wight, putting extra abdominal weight on the vertebrae, can cause chronic spasms in the lower back, when the back muscles contract to hold the abdomen high. Abnormal forces on the vertebrae cause disc damage and arthritis in the spine (64).

Several other factors have been identified to be contributed to the prevalence of LBP in this study such as involved in the walking. Majority of participants 321(80%)

were walking for ≤ 2, while only 5 of the participants walking for prolonged periods more than 6 hours.

The occupation related factors were also included in this study, more than half 238 about (59.4%) reported to Lift objects in the work, the objects were mostly files/books and the position of lifting of the objects generally were standing which reported in about 189(47.1%) participants.

Sickness absence is an important indicator of morbidity, although it is not a simple function of ill health since it also includes psychological factors and coping behaviors. Coping strategies may depend on individual, social, organizational, and cultural factors, which negatively affect the prognosis of temporary disability and recovery. This underlines the need of ongoing research on factors affecting the worker's ability to cope with his/her musculoskeletal problem at work in different settings and cultures. More knowledge about the risk factors of sickness absence will be valuable in determining strategies for reducing sick leave and this underlines why its monitoring is an essential part of occupational health care (65).

This study considered various factors that may influence sickness absence due to LBP. A particular strength of this study was that the information about sickness absence was reliable, because the diagnosis was taken on return to work. Another strength was that all subjects worked in the same company were comparable for several factors.

The prevalence of back pain associated with the gender of participants and marital status. This association was significantly different with $P<0.05$.

The current study showed that the majority of participants were married. Additionally, the results revealed high prevalence of LBP among married participants as compared to single and divorced and widows. Because of cultural beliefs, women, especially married women, are exposed to strenuous activities and

household activities such as daily and nightly routine domestic tasks that involve taking care of their families besides doing their job-related activities.

These consequently increase their risk of suffering LBP. This is comparable with a study that reported that 69.1% of married women complained of LBP (66). There was a significant relation between prevalence of LBP and marital status in this study, which is in agreement with the literature.

Han et al. Found that overweight women have a significantly increased likelihood of LBP and no significant interaction between body mass index and low back pain symptoms was found (67). Similarly, this study supports that body weight and BMI should be accepted as weak risk signals for LBP due to lower relations.

Results indicated that there was a significant relationship between low back pain and the profession of the medical staff.

The highest prevalence rates of work-related lower back problems were demonstrated among nurses and LBP ranked third among musculoskeletal occupational health problems among nurses. This concern was linked to nurses' physical activity in the hospitals and to ergonomics risk factors (68).

Cultural differences might also influence respondents' willingness to report LBP and tolerance of pain. This is possibly linked with the higher physical workload and the amount of work pressure preoperative and postoperative patients create. They require more assistance with moving in bed and with transfers in the surgical department. The findings of the current study correspond with the results of previous study (69). As a result, it was suggested that nurses must be rotated in their workplace to provide a balance level (70).

The level of physical activity was not significantly associated with LBP, p value was > 0.05. That might be due to the large variation in methods of measuring each

activity. This finding was consistent with several studies that showed a correlation between the prevalence of LBP and physical activity.

These studies showed that sedentary lifestyle and strenuous levels of physical activity are more associated with LBP than moderately intense physical activity. Despite these citations and their widespread acceptance, there have been published articles (71) (72) (73) showing the relationship between LBP and daily physical activity levels in female desk- job workers. Scientific evidence of the role of daily physical activity in prevention and management of LBP was lacking in the case of young, female workers. It is hypothesized that maintaining moderate levels of daily physical activity would be associated with fewer LBP complaints.

The relationships between sitting/ standing behavior during 7hrs of work and LBP were indicated to be not statistically associated, p value was > 0.05.

In spite of that, this study doesn't show a significant association with occupational related factors, public health guidelines recommend regular physical activity to minimize the risk of chronic diseases. Previous studies have demonstrated that there is a U-shaped relationship between LBP and physical activity.

Other have found that sedentary workers who have to work in non-neutral positions are more at risk of LBP. Pataro and Fernandes (2014) state that LBP was associated with longer working hours, flexion and trunk rotation. Dynamic activity such as walking or running served as a protective factor (74).

There was a statistically significant association between Co-morbid diseases and LBP, p value was =0.001.

Comorbidity is the presence of one or more additional diseases or disorders co-occurring with (that is, concurrent with) a primary disease or disorder and the rate of comorbidity and the number of chronic diseases experienced increases with age (75).

In Australia, almost 1 in 3 (29%) people aged 65 and over reported having three or more chronic diseases, compared with just 2.4% of those under 45 (77). For a patient, comorbidities may have profound implications as the degree of physical and social disability rise with the number of co-existing conditions, which present several challenges in care (77).

Comorbidities are known to be associated with higher mortality and reduced quality of life and health providers need to take comorbid diseases into account when treating patients (78). It is also suggested that future studies on consequences of comorbidity should investigate specific disease combinations (79).

Hypertension, osteoarthritis were the two most prevalent conditions for LBP patients in the healthcare providers in the PHCCs. Both were also ranked top three in the other studies (80). A significant finding from this study confirmed that patients who had comorbid conditions were at greater risk of LBP.

Chapter Five

Conclusions and Recommendations

5. Conclusions and Recommendations

5.1 Conclusions

- The most effective factor of low back pain was occupational groups of healthcare providers in primary health care centres.
- Among the risk factors, the prevalence of gender were effected about 62% of the female health workers compared to male, also the prevalence of LBP in married of healthcare providers in the PHCCs were shown to be 84% while the prevalence with Co-morbid diseases were shown to be in about 28% of the total healthcare providers included in this study.

5.2 Recommendations

- It is recommended for the PHC administrations to design effective interventions and adopt certain strategies to improve the condition of LBP and its ensuing effects among healthcare providers such as, regular in-service training on back care and ergonomics that must be conducted in various wards to assist them in refreshing their handling technique knowledge.
- Further studies are required to evaluate the prevalence of LBP and more comprehensive risk factors are needed to identify ways of providing a healthy and safe working environment for other works population.
- Further studies should also examine continuity of care and patient satisfaction, important areas for patients with more than one disease who are likely to be treated by several healthcare providers simultaneously. Such studies can also focus on determining the nature of the relationship between LBP and other comorbidities – does LBP cause other diseases or vice versa; do these conditions simply co-exist or do they have a common cause or risk factors.
- Low back pain among working nurses may influence efficiency in the clinical field, because nurses play an important role in the health care system and represent about one-third of the workforce at any hospital.
- Results were suspected that LBP has a direct effect on healthcare providers in the PHCCs, and their job restrictions and attendance.
- Since the present study was designed to determine the prevalence of LBP and the associated risk factors among healthcare providers in the PHCCs, crucial information could help healthcare providers and hospital administrators prepare effective strategies to reduce occurrences of LBP.

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Appendix

Appendix - A

جمهورية العراق

وزارة التعليم العالي والبحث العلمي
جامعة كربلاء
كلية الطب
معاون العميد للشؤون العلمية
شعبة الدراسات العليا

العدد: 994 /١٥١٢

التاريخ: 2022/ /
3 27

الى/ مراكز الرعاية الصحية الاولية /قطاع المسيب
م/ تسهيل مهمة

تحية طيبة :

يرجى تفضلكم بتسهيل مهمة طالب الدراسات العليا/دبلوم عالي/طب اسرة (**سعدون محمد نايف**) في مشروع البحث الموسوم:

Prevalence of Low back pain and Risk Factors among Health Care Providers in Primary Health Care Centers in Al-Musayib District, 2022

لغرض اكمال متطلبات البحث، شاكرين تعاونكم معنا خدمة للحركة العلمية في بلدنا العزيز

أيام التفرغ/الاثنين الثلاثاء من كل أسبوع.

... مع التقدير ...

أ.م.د.علي عبد الرضا أبو طحين
معاون العميد للشؤون العلمية
2022/3/27

**نسخة منه:
- مكتب السيد العميد المحترم للتفضل بالاطلاع مع التقدير.
- مكتب معاون العميد للشؤون العلمية المحترم للتفضل بالاطلاع مع التقدير.
- دائرة صحة كربلاء المقدسة/مستشفى الامام الحسن المجتبى(ع) للتفضل بلاطلاع مع التقدير
- فرع طب الاسرة والمجتمع.. للتفضل بالاطلاع مع التقدير.
- شعبة الدراسات العليا/الحفظ.
- الصادرة.

Appendix – B

Questionnaire form:

PREVALENC AND RISK FACTORS OF LOW BACK PAIN AMONG HEALTHCARE PROVIDERS IN PRIMARY HEALTH CARE CENTERS OF Al-MUSAYIB DISTRICT 2022.

• General information and demographic risk factors:

1. gender :

(a) Male
(b) Female

2. Age : ----------years

3. Current marital status:

(a)Married
(b) Unmarried
(c) Divorced
(d) Widow

4. Professions (job title) :

(a)physician doctors
(b)dentist
(c)nurses
(d)laboratory assistants
(e)dentist assistants
(f) radiographers
(g)pharmacists
(h) pharmacist assistants

6. Smoking:

(a) non-smoker
(b) ex-smoker
(c) occasional smoker
(d) current smoker

7. Do you consume alcohol?

(a)Yes
(b) No

• Physical activity: Which of the following forms of exercise do you do?

8. Walking more than 15minutes at a time:
(a)Yes
(b) No

9. Running more than 15minutes at a time:
(a)Yes
(b) No

10. Group exercise/sport more than 15minutes at a time:
(a)Yes
(b) No

11. No exercise:
(a)Yes
(b) No

12. Other:
(a)Yes
(b) No
Specify----------

13. How often do you do exercise?
(a) 0 – 2 times per week
(b) 3 – 4 times per week
(c) 5 – 7 times per week
(d) More than 7 times per week.

• Occupation: Which of the following forms of Occupation do you do?

14. During a 7 hour working day, how many hours do you spend
sitting?
(a)< 2 hours
(b)2-4 hours
(c)4-6 hours
(d)More than 6 hours

15. Are you sit upright with support in the small of your back with your knees and hips at the same level and your feet flat on the floor?
(a)Yes
(b) No

16. During a 7 hour working day, how many hours do you spend standing?
(a) < 2 hours
(b) 2-4 hours
(c) 4-6 hours
(d) More than 6 hours

17. Are you stand upright, with your head facing forward and you're back straight with keeping your legs straight?
(a)Yes
(b) No

18. During a 7 hour working day, how many hours do you spend walking?
(a) < 2 hours
(b) 2-4 hours
(c) 4 -6 hours
(d) More than 6 hours

19. Do you often lift objects/people during your working day?
(a)Yes
(b) No

20. If yes, what?
(a)Files/books
(b)Tools
(c)Patients
(d)Other : Specify.....

21. When you were lifting by which position?
(a)Standing
(b) Sitting

23. Stressful job
(a) Low stress
(b) Neutral
(c) High stress

24. Working Experience:
(a) 0—5 years
(b) 6—11years
(c) 12---20 years
(d) >20 years

- **Co-Morbid Diseases and general health information:**

25. Do you suffer from any of the following diseases?
(a) Diabetes (sugar problems)
(b) Hypertension (high blood pressure)
(c) Arthritis
(d) Other: Specify.....

26. During the last 12 months, how much sick leaves have you
taken, if any?
(a)0 days
(b)1 – 6 days
(c)7 -12 days
(d)more than 12 days

27. If sick leave was taken, has any of it been for low back pain?

(a)Yes
(b) No

- **Low back pain information:**

28. At this moment, do you have low back pain?

(a) Yes
(b) No

29. If yes, how did you manage your low back pain?

(a) Consulted a specialist
(b) Pain medication
(c) Physiotherapy
(d) No treatment
(e) Receive any spine surgery
(f) Other: Specify.....

30. Did your LBP been diagnosed by professionals? Did you had

X-ray, MRI, CT.....etc. for this pain?
(a)Yes
(b)No If yes specify.....

31. Did you have low back pain in the last 12 months?

(a)Yes
(b)No

32. Perceptions and Consequences of LBP (LBP sufferer)

Develop LBP
(a) Before working
(b) After working

33. Characteristic of LBP

(a) Localized LBP
(b) LBP with numbness or pain of the leg/buttock

34. Frequency of LBP

(a) Daily
(b) Weekly
(c) Monthly
(d) Yearly

35. Recovery of LBP

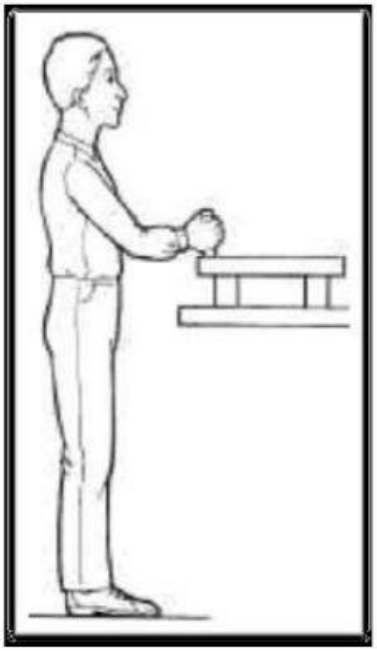
(a) < 3 weeks
(b) 3-6 weeks
(c) 6-12 weeks
(d) > 12 weeks

(Appendix F)

Two images illustrate the sitting and standing way of question (15) and question (17) in Questionnaire form.

Image 1 :Sitting upright with support in the small of your back with your knees and hips at the same level and your feet flat on the floor(Q-15)

Image 2 :Standing upright, with your head facing forward and you're back straight with keeping your legs straight(Q-17)



الملخص

الخلفية: يتعرض مقدمو الرعاية الصحية لمخاطر بيئة العمل والاضطرابات العضلية الهيكلية والإصابات الأخرى المتعلقة بالعمل. آلام أسفل الظهر هي أكثر الاضطرابات العضلية الهيكلية شيوعًا. الهدف من الدراسة الحالية هو تحديد مدى انتشار آلام الظهر عند مقدمي الخدمات الصحية مع التركيز على عوامل الاختطار المساهمة وتأثيره على الصحة ونمط الحياة.

الطريقة: الدراسة الحالية عبارة عن دراسة وصفية مقطعية لتقدير انتشار وعوامل الاختطار لآلام أسفل الظهر لدى العاملين الصحيين. أجريت الدراسة على مقدمي الرعاية الصحية الذين تم اختيارهم بتقنية أخذ العينات. تم تحليل البيانات باستخدام برنامج الحزمة الإحصائية لبرنامج العلوم الاجتماعية ، الإصدار(IBM ٢٨,٠ SPSS)، شيكاغو ، إلينوي ، الولايات المتحدة الأمريكية.

النتائج: أشارت النتائج إلى أن المجموعة المهنية الأكثر خطورة هي الممرضات. أفاد غالبية المشاركين ٣٢٨ (٨١,٨٪) من إجمالي ٤٠١ أنهم لم يمارسوا أي نشاط للركض لأكثر من ١٥ دقيقة ، بينما ٧٥ فقط (١٨,٥٪) كانوا يمارسون الرياضة> ١٥ دقيقة و ٣٠٩ (٧٧,١٪) قالوا انهم كانوا يمشون لمدة> ١٥ دقيقة.

من بين ٤٠١ مقدمي الرعاية صحية ، كان حوالي (٣٠٤) يعانون من آلام أسفل الظهر في الأشهر الـ ١٢ الماضية ، مما يعطي انتشارًا (٧٥,٨٪) بين المجموعة المدروسة. من ناحية أخرى ، تم العثور على نسبة انتشار آلام أسفل الظهر في وقت المقابلة (انتشار ٣ أشهر) في ٢٨٢ مقدم رعاية صحية يمثلون (٧٠,٣٪) من المجموعة المدروسة. معظم المشاركين لم يتم تشخيصهم على أنهم مصابين ب آلام أسفل الظهر. أشارت النتائج إلى أن معظم المشاركين (١٩٢ ، ٧٦,٥٪) الذين أبلغوا عن إصابتهم بـ آلام أسفل الظهر كانوا زائدي الوزن. لكن أظهرت هذه الدراسة أنه لا يوجد أي ارتباط بين آلام أسفل الظهر وعوامل نمط الحياة. كانت العوامل المتعلقة بالعمل هي أهم العوامل المرتبطة بآلام أسفل الظهر لدى موظفي الرعاية الصحية. يمكن أن تزيد العوامل المهنية من فرص الإصابة بآلام أسفل الظهر لدى مقدمي الرعاية الصحية. أشارت النتائج إلى وجود علاقة معنوية بين آلام أسفل الظهر ومهنة الكادر الطبي .(p= 0.021) أيضا ، كانت هناك علاقة ذات دلالة إحصائية بين الأمراض المزمنة وآلام أسفل الظهر ، كانت قيمة(p = 0.001).

الخلاصة: اثبتت النتائج في أن آلام أسفل الظهر له تأثير مباشر على مقدمي الرعاية الصحية في مراكز الرعاية الصحية الأولية، وقيودهم الوظيفية وحضورهم. يحتاج مقدمو الرعاية الصحية إلى وضع تنظيمات ضرورية فيما يتعلق بالعمل في وضع ثابت لفترة طويلة، والتشجيع على ممارسة الرياضة بين مقدمي الرعاية الصحية سيساهم في تقليل نسبة حدوث آلام أسفل الظهر.

جمهورية العراق
وزارة التعليم العالي والبحث العلمي
جامعة كربلاء
كلية الطب
فرع طب الاسرة والمجتمع

انتشار آلام أسفل الظهر وعوامل الاختطار بين مقدمي الرعاية الصحية في مراكز الرعاية الصحية الأولية بمنطقة المسيب(العراق ، بابل ٢٠٢٢)

رسالة الدبلوم العالي

إلى مجلس كلية الطب/ فرع طب الاسرة والمجتمع/ جامعة كربلاء كجزء من متطلبات نيل درجة دبلوم عالي في طب اسره

من قبل

سعدون محمد نايف

بكالوريوس طب وجراحة العامة

إشراف

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اختصائي طب المجتمع

الأستاذ المساعد الدكتور مصطفى وليد

اخصائي الكسور والمفاصل.

2022 **1444 هجـ**