

# Epidemiology of work-related lower back pain among rehabilitation professionals in Saudi Arabia

Mostafa Abolfotouh,<sup>1,2</sup> Fay Alomair,<sup>3</sup> Dalal Alangari,<sup>2</sup> Ibraheem Bushnak,<sup>1,2</sup> Bader Aldebasi<sup>1,2</sup> and Afaf Almansoof<sup>4</sup>

<sup>1</sup>King Abdullah International Medical Research Center, Ministry of National Guard – Health Affairs, Riyadh, Saudi Arabia (Correspondence to: M. Abolfotouh: mabolfotouh@gmail.com). <sup>2</sup>King Saud bin-Abdulaziz University for Health Science, Ministry of National Guard – Health Affairs, Riyadh, Saudi Arabia. <sup>3</sup>College of Medical Rehabilitation, Qassim University, Qassim, Saudi Arabia. <sup>4</sup>King Abdulaziz Medical City, Ministry of National Guard – Health Affairs, Riyadh, Saudi Arabia.

## Abstract

**Background:** Occupational and physical therapists are at risk of musculoskeletal pain and injuries possibly due to their work-related activities, posture and affected body mechanics.

**Aims:** To investigate the epidemiology of lower back pain among rehabilitation professionals.

**Methods:** A cross-sectional survey of 259 physical and occupational therapists in rehabilitation centres in Saudi Arabia was conducted during July–August 2019, using the Modified Nordic Questionnaire. Data on different measures of lower back pain, and its consequences and risk factors were collected. Logistic regression analysis was done to identify significant predictors of lower back pain.

**Results:** Rehabilitation professionals experienced 73.7% 1-year lower back pain prevalence, 52.5% intense pain that lasted  $\geq$  1 day, 22.4% chronic lower back pain, 23.9% sick-leave-seeking lower back pain and 18.5% medical-care-seeking lower back pain. Difficult/impossible activities of daily living in standing up (45.5%), employment (44.0%), climbing stairs (33.9%), walking (33.0%), sitting (29.3%), sleeping and travel (29.8% each), awakening (23.0%), social life (26.2%), and personal care (15.7%) were reported. Lower back pain was responsible for stopping work in 32.5% of participants, with a mean 1.38 ( $\pm$ 2.96) days off work during the last year. One half of participants (50.3%) were treated by physiotherapy, 25.1% by medical care, and 39.3% requested rest days and/or sick leave. Physical stress and < 10 years' experience were significant predictors of lower back pain.

**Conclusion:** Prevalence of lower back pain was high among rehabilitation professionals, with a high impact on activities of daily living. Physiotherapy was the main management adopted. Educational programmes are necessary to teach proper use of body mechanics, and sports activity programmes to reduce the risk of lower back pain and arrange for proper rest periods.

Keywords: physical therapy, prevalence, ergonomics, consequences, occupational lower back pain.

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## Introduction

The World Health Organization defines work-related diseases as any disease that occurs as a consequence of exposure to multiple work-related risk factors and causes (1). Low back pain (LBP) is the most frequently reported work-related musculoskeletal disorder associated with physical demands of various professions (2). LBP is characterized by 1 or more of the following measures: pain that lasts for 1 year; daily pain for  $\geq$  3 months; intense pain that lasts for 1 day; and pain that results in seeking medical care and/or sick leave (3,4). Throughout the typical work day, patient care staff may find themselves ascending or descending stairs, bending, twisting, lifting heavy objects or transferring patients; all of which can contribute to the onset of LBP, especially if optimal body mechanics are not utilized. Physical work that requires poor posture and frequent lifting, bending or twisting is a risk factor for LBP (5). Work-related LBP often leads to

disability and affects the activities of daily living (ADLs) such as mobility, dressing, sitting and standing (6).

Rehabilitation professionals, including physical therapists (PTs), occupational therapists (OTs), physical therapy assistants and certified OT assistants all may encounter some type of patient care that involves manual lifting or manoeuvring at some point throughout the typical work day. OTs and PTs both receive training in their respected professional courses in proper body mechanics and self-protection while handling and transferring patients (7). However, despite this training, these professionals are still at risk for musculoskeletal injuries associated with patient handling. PTs and OTs are responsible for treating patients who have various types of pain. Higher levels of work-related LBP could be due to extreme loads in the work setting or faulty musculoskeletal techniques used in treating patients. Therapists may overload their muscles and joints during treatment sessions, which increases the risk of LBP (7,8). These injuries are due to patient transferring, ambulation,

repositioning, and related repetitive tasks that are often done in an irregular body position, unconsciously, and can lead to LBP (9).

In a recent systematic review and meta-analysis in Saudi Arabia, pooled prevalence rates of LBP of 40.8%, 65.0% and 81.4% were obtained for week, year and career, respectively, across all professional groups (10). Nurses and PTs were more susceptible to LBP than the other professions were; age, body mass index, and female gender were the most commonly reported individual risk factors; and work-related activities requiring back bending and twisting, lifting and pulling objects, and manual patient handling were the main occupational risk factors.

However, evidence of LBP in rehabilitation staff is limited, and even conflicting in the current literature (1). Therefore, further research is needed to expand research on the prevalence and severity of LBP and its impact on ADLs among rehabilitation staff. The aim of this study was to investigate work-related LBP among PTs and OTs in Saudi Arabia by estimation of the prevalence of work-related LBP, determination of its predictors, its personal and occupational consequences, and the different management methods adopted for it.

## Methods

### Study population

All registered members of the Saudi Physical Therapy Association (SPTA) and Saudi Occupational Therapy Association (SOTA) were invited to complete an online electronic questionnaire. Pregnant women and individuals with LBP caused by injuries or birth defects were excluded.

### Sample size and sampling techniques

Based on a prevalence of 68% of LBP among rehabilitation professionals in a previous study (8), and by using Raosoft sample size calculator, with a confidence level of 95% and a margin of error of 5%, the estimated sample size was 274 rehabilitation professionals. The sample size required was 329 participants after accounting for nonresponses or incomplete data. A convenience sampling technique was used to select the participants. All potential participants (~1200) were invited to participate via SOTA and SPTA social media channels (Email, Twitter, Instagram and Facebook), with a link to the data collection tool. They were reminded to participate within 2 weeks from the first invitation date. A total of 259 completed questionnaires were analysed (response rate 22%).

### Data collection

The previously validated Modified Nordic Questionnaire was constructed in a survey monkey that limits 1-time participation per unique IP address, and distributed via social media to the potential participants (3,4,11,12). It was structured into 4 sections. (1) Demographic characteristics: age, sex, height, weight and comorbidity such as diabetes, hypertension and arthritis. (2) Lifestyle informa-

tion: rehabilitation professionals' lifestyle and behaviour such as exercise (walking and running, for 15 minutes/day) and smoking habits. (3) Occupational characteristics: nature of the participants' rehabilitation tasks, such as lifting of heavy objects and/or patients, work load and, sick leave due to LBP. (4) Work-related LBP: LBP within the last year, using the modified Nordic Questionnaire (3), LBP impact on work and ADLs, sick leave because of LBP, and manageability of pain. Definitions of LBP were according to different measures/characteristics adopted from previous studies (3,4,11,12). Reliability of the questionnaire was assessed in terms of internal consistency. Cronbach's was calculated, and a coefficient of 0.81 was considered adequate.

### Ethics approval and consent to participate

This research was approved by the Institutional Review Board (IRB) of The Ministry of National Guard-Health Affairs, Riyadh, Saudi Arabia (Ref. RSS19/040/R). Each participant was provided a research information/consent form. The researchers invited the rehabilitation professionals, via their corresponding societies, to take part in the study. The purpose of the study and how to fill in the questionnaire were explained, and all issues regarding confidentiality and privacy were assured and protected at all times. No written consent was sought, as there were no personal identifiers on the questionnaires, and this was approved by the IRB. Submission of responses to the questionnaire was considered to constitute implied consent. The voluntary nature of participating in the survey was made explicit and unambiguous in the cover letter.

### Data analysis

SPSS version 25 was used for data entry and analysis. Descriptive statistics such as frequency and percentages, mean score and standard deviation of all independent variables were used. Statistical analysis was used to test associations of the LBP prevalence and rehabilitation professionals' personal and work-related characteristics. The  $\chi^2$  test and Fisher's exact test were used for qualitative variables and Student's *t* test for quantitative variables. Bivariate analysis was used to examine relationships between LBP and possible risk factors. Multiple logistic regression analysis was applied to identify the significant predictors of LBP, with the following variables as independent variables; gender, age group (< 30 and  $\geq$  30 years), running practice (yes or no), direct patient contact (yes or no), duration of experience in current work (<10 and  $\geq$  10 years), duration of shift (6–9 or 10–12 h) and physical stress (yes or no).  $P \leq 0.05$  was considered statistically significant.

## Results

### Demographic characteristics

The personal characteristics of 196 PTs and 63 OTs are shown in Table 1. Most of them were single (61.4%), with a mean age of 29.27 (7.04) years and mean work duration

**Table 1 Rehabilitation professionals’ personal characteristics**

Characteristics	n = 259	%/ratio
Male/female ratio	109/150	1:1.4
Marital status (single/married ratio)	159/100	1:1.6
Diabetes	10	3.9%
Arthritis	1	0.4%
Trauma/fracture of spine, pelvis, legs	17	6.6%
Spinal problems (e.g., scoliosis)	19	7.3%
Back surgery	3	1.2%
	<b>Mean</b>	<b>SD</b>
Age (21–63 yr)	29.27	7.04
Duration of employment in current job (1–32 yr)	5.79	5.27
Working days in 1 week	2.39	0.71
Weight (37–128 kg)	70.42	16.47
Height (136–188 cm)	164.77	10.33
BMI (14.82–44.06 kg/m <sup>2</sup> )	25.66	4.98
<b>Lifestyle behaviour</b>	<b>n</b>	<b>%</b>
Walking > 15 min/d	185	71.4
Running > 15 min/d	41	15.8
Others > 15 min/d	98	37.8
Smoking	40	15.4

BMI = body mass index; SD = standard deviation.

of 5.8 (5.3) years. Their mean body mass index was 25.7 (5.0) kg/m<sup>2</sup>. Most participants (71.4%) practiced walking for > 15 minutes/day but only 15.8% practiced running for > 15 minutes/day, and 15.4% were smokers.

### Work-related characteristics

Most participants (92.3%) were in direct contact with patients, and office work was the nature of the work for only 7.7% of participants (Table 2). Only 14.3% of participants undertook shift work, while the majority undertook day work (85.7%). Shifts of 6–9 hours were reported by 96.1% of participants, with only 3.9% reporting shifts of 10–12 hours duration shift.

### Prevalence of lower back pain

LBP during the past year that lasted at least 1 day was prevalent among 73.7% of participants and intense pain that lasted at least 1 day (score > 6) was prevalent among 52.5% (Table 3). Chronic LBP pain (22.4%), sick-leave-seeking LBP (23.9%) and treatment-seeking pain (18.5%) were also reported. Days of sick leave due to LBP ranged from 0 to 30 days per participant during the past year, with an average of 1.38 (2.96) days, and the average number of days/month with LBP was 4.89 (6.32).

### Consequences of lower back pain

Among the 191 participants with LBP in the past year, the following ADLs were reported as difficult or impossible: climbing stairs (33.9%), sitting (29.3%), walking (33.0%), standing up (45.5%), sleeping (29.8%), getting out of bed

(23.0%), social life (26.2%), travel (29.8%), employment (44.0%) and personal care (15.7%) (Table 3). Physiotherapy was the main management modality adopted (50.3%), followed by medical care (25.1%). Seeking sick leave and/or rest days was reported by 39.3% of participants with LBP. Nearly one third (32.5%) of participants reported stopping work in the past year because of LBP, with a mean of 1.38 (2.96) days.

### Factors associated with lower back pain

Table 4 shows that age > 30 years was significantly associated with LBP ( $P = 0.013$ ). The practice of running for > 15 minutes/day was a protective factor against LBP ( $P = 0.043$ ). Less than 10 years’ experience ( $P < 0.001$ ), direct contact with patients ( $P = 0.047$ ), enrolment in 6–9-hour shifts ( $P = 0.013$ ), and exposure to physical stress ( $P = 0.005$ ) were all significantly associated with LBP. However, after adjustment for all potential variables, < 10 years’ experience in the current job ( $P = 0.034$ ) and exposure to physical stress ( $P < 0.001$ ) were the only significant predictors of LBP (Table 5).

### Discussion

In the present study of rehabilitation professionals in Saudi Arabia, most participants (73.7%) reported having LBP for at least 1 day in the past year, which was similar to some previous studies (11,13–15), but higher than in others (16–18). These differences in LBP prevalence rates could be explained by the difference in methodology and definition of LBP adopted (3). In the present study, the preva-

**Table 2 Work characteristics**

Work nature	n	%
Direct contact with patients	239	92.3
Office work	20	7.7
<b>Shift nature</b>		
Day work	222	85.7
Shift work	37	14.3
<b>Shift hours</b>		
6–9/shift	249	96.1
10–12shift	10	3.9
Work days/week	5.2 (0.6)	
<b>Work experience</b>		
≤ 10 yr	215	83.0
> 10 yr	44	17.0
<b>Intensity of workload</b>		
Light/moderate	163	62.9
Heavy/overwhelming	96	37.1
<b>Type of workload<sup>a</sup></b>	<b>n</b>	<b>%</b>
Physical stress	179	69.1
Sitting > 4 h/shift	16	6.2
Standing/moving > 4 h/shift	140	54.1

<sup>a</sup>Categories are not mutually exclusive.

**Table 3 Prevalence and consequences of lower back pain among rehabilitation professionals in the past 12 months**

Measures of prevalence (n = 259) <sup>a</sup>	n	%
LBP in past 12 mo	191	73.7
Chronic LBP daily for ≥ 3 mo	58	22.4
Intense pain that lasted ≥ 1 d	136	52.5
Medical-care-seeking LBP	48	18.5
Sick-leave-seeking LBP	62	23.9
Intensity of LBP (n = 191) <sup>b</sup>	n	%
Mild	75	39.3
Moderate	95	49.7
Severe/intense	21	11.0
Sickness absence for LBP (n = 191)	n	%
None	129	67.5
1–6 d	50	26.2
1–2 wk	12	6.3
Mean (SD) (d)	1.38 (2.96)	
Difficult/impossible ADL (n = 191) <sup>a</sup>	n	%
Getting out of bed	44	23.0
Sleeping	57	29.8
Sitting	56	29.3
Standing up	87	45.5
Walking	63	33.0
Climbing stairs	61	33.9
Personal care	30	15.7
Social life	50	26.2
Travel	57	29.8
Employment	84	44.0
Overall	76	39.8
How was LBP managed (n = 191) <sup>a</sup>	n	%
Medication	48	25.1
Rest day/sick leave	75	39.3
Physiotherapy	96	50.3
Others	30	15.7

<sup>a</sup>Categories are not mutually exclusive.

<sup>b</sup>Based on respondent self-reports.

ADL = activity of daily living; LBP = lower back pain.

lence rates were: chronic LBP (22.4%), intense LBP (52.5%), medical-care-seeking LBP (18.5%), and sick-leave-seeking LBP (23.9%). LBP has a high prevalence among healthcare providers and has serious medical and professional consequences (19). Stopping work due to LBP is considered to be the main indicator for evaluation of the professional consequences of LBP. In the present study, LBP was not the main reason for seeking sick leave as most rehabilitation professionals were on leave for < 1 week because of it. The rate of sick leave of 32.5% due to LBP in our survey was similar to that in other studies (3,20). In our study, the mean duration of stopping work was 1.38 days/year, which is lower than 4.5 and 15 days reported by nurses (3,20,21). Disability due to chronic LBP varied between 11% and 76% (22,23). In our study, more than one third of all

rehabilitation professionals with LBP reported limitation in 1 or more of the following ADLs: sleeping, getting out of bed, standing up, walking, sitting, climbing stairs, travel, employment and personal care. Our study showed that the magnitude of the effect of LBP was profound while the level of experienced LBP was mostly minimal and moderate. One of the possible reasons for this was the fact that the questionnaire did not attach the clear/operational definition of a number of asked variables, so the response was subjected to response bias. Due to the potential bias, the outcomes of this study may give an impression that working in rehabilitation activities is hazardous. Variation in rates of disability in different studies could be attributed to the different methods used in the measurement of disability.

Heavy workload was reported by most of the rehabilitation professionals in our study in terms of heavy objects/physical assistance and physical stress. Physical stress was associated with higher prevalence of LBP, and participants with physical stress were nearly 4 times more likely to contract LBP than those with no physical stress. This finding was in agreement with other studies (3,20,24). Length of work experience was a significant protector against LBP, with participants with < 10 years' experience being 3 times more likely to contract LBP than those with ≥ 10 years. Previous studies have shown that with experience, healthcare workers learn how to protect their backs and become more familiar with how to deal with heavy objects without hurting their backs (25,26). Other work-related factors such as shift hours and shift nature, did not show significant associations with LBP prevalence. However, it is difficult to separate the staff's risk factors from the work-related risk factors (3).

In agreement with previous studies (3,24), we found that the practice of running for > 15 minutes/day by rehabilitation professionals was a protective factor against LBP. However, after adjusting for different confounders, this association was not seen. Association between LBP and some sociodemographic and personal characteristics of healthcare providers such as age (3), gender (3,25,26), marital status (3), obesity (3,12,24,27,28), smoking (3,25,29) and comorbidity, such as arthritis, diabetes or spinal problems, have been investigated. However, none of these factors was a predictor of LBP among rehabilitation professionals in our study.

Lower back pain is managed by medication, physiotherapy or surgical intervention (25). In the present study, physiotherapy was used in 50.3% of the cases, as compared to only 11.5% in a previous study on nurses (20). This finding might reflect the fact that rehabilitation professionals are more convinced of the effect of physiotherapy in relieving LBP than other treatment modalities, such as drug treatment, which was adopted by only 25.1% of LBP sufferers in our study. Rehabilitation professionals are supposed to have more easy access to physiotherapy than other healthcare workers have.

**Table 4 Prevalence of lower back pain and association with some characteristics among rehabilitation professionals**

<b>Sociodemographics</b>	<b>n</b>	<b>%</b>	<b><math>\chi^2</math></b>	<b>P</b>	<b>OR (95% CI)</b>
<b>Sex</b>					
Male	74	67.9	3.33	0.07	1.68 (0.97–2.93)
Female	117	78.0			
<b>Age</b>					
≤ 30 yr	53	63.9	6.17	0.013*	2.06 (1.16–3.65)
> 30 yr	138	78.4			
<b>Marital status</b>					
Single	119	74.8	0.26	0.61	1.16 (0.66–2.04)
Married	72	72.0			
<b>Comorbidity</b>	<b>n</b>	<b>%</b>	<b><math>\chi^2</math></b>	<b>P</b>	<b>OR (95% CI)</b>
<b>Obesity</b>					
Yes	97	78.2	1.76	0.19	1.47 (0.83–2.59)
No	93	71.0			
<b>Diabetes</b>					
Yes	8	80.0	2.10	0.65	1.44 (0.30–6.97)
No	183	73.5			
<b>Arthritis</b>					
Yes	1	100.0	FET	1.0	—
No	190	73.6			
<b>Spinal problem</b>					
Yes	32	84.2	2.52	0.11	2.08 (0.83–5.22)
No	159	71.9			
<b>Lifestyle</b>	<b>n</b>	<b>%</b>	<b><math>\chi^2</math></b>	<b>P</b>	<b>OR (95% CI)</b>
<b>Walking &gt; 15 min/d</b>					
Yes	133	71.9	1.15	0.28	1.42 (0.75–2.69)
No	58	78.4			
<b>Running &gt; 15 min/d</b>					
Yes	25	61.0	4.10	0.043*	0.49 (0.24–0.99)
No	166	76.1			
<b>Other sports &gt; 15 min/d</b>					
Yes	67	68.4	2.36	0.13	1.55 (0.88–2.72)
No	124	77.0			
<b>Smoking</b>					
Yes	30	75.0	0.04	0.84	0.93 (0.43–2.01)
No	161	73.5			
<b>Work-related characteristic</b>	<b>n</b>	<b>%</b>	<b><math>\chi^2</math></b>	<b>P</b>	<b>OR (95% CI)</b>
<b>Work nature</b>					
Direct contact	180	75.3	3.93	0.047*	2.50 (1.11–6.32)
Office	11	55.0			
<b>Shift duration</b>					
6–9 h	187	75.1	6.12	0.013*	4.52 (1.24–16.56)
10–12 h	4	40.0			
<b>Shift nature</b>					
Day work	165	74.3	0.27	0.60	0.82 (0.38–1.76)
Shift work	26	70.3			
<b>Heavy objects</b>					
Yes	106	57.6	2.891	0.089	1.61 (0.93–2.81)
No	32	45.7			

**Table 4 Prevalence of lower back pain and association with some characteristics among rehabilitation professionals (concluded)**

Work-related characteristic	n	%	$\chi^2$	P	OR (95% CI)
<b>Workload</b>					
Light/moderate	133	75.1	0.56	0.45	1.25 (0.70–2.25)
Heavy overwhelming	58	70.7			
<b>Sitting hours</b>					
> 4	12	75.0	0.014	0.91	1.07 (0.33–3.45)
< 4	179	73.7			
<b>Standing hours</b>					
> 4	108	77.1	1.82	0.18	1.46 (0.84–2.55)
< 4	83	69.7			
<b>Physical stress</b>					
Yes	147	82.1	21.01	0.005*	3.76 (2.10–6.74)
No	44	55.0			
<b>Working days/week</b>					
3–5	143	75.7	1.33	0.25	0.70 (0.38–1.28)
> 5	48	68.6			
<b>Experience</b>					
≥ 10 yr	23	52.3	12.62	< 0.001*	3.26 (1.66–6.41)
< 10 yr	168	78.1			

\*Statistically significant.  
CI = confidence interval; FET = Fisher's exact test; OR = odds ratio.

This study had some limitations. The study had a cross-sectional design; therefore, causal associations between LBP and individual/lifestyle and professional factors were not guaranteed. This was a retrospective study using a questionnaire, thus there may have been recall bias. The Modified Nordic Questionnaire used in this study did not attach operational or clear definitions for many available items or answers, so there could have been response bias. The study sample was not representative of all rehabilitation professionals in the study setting, thus the study might have been subject to selection bias. However, while the numbers are not representative, they provide baseline and important results that show that problems do occur in this population, which warrant further investigation. The fact that only 259 of 274 participants responded to the survey,

due to the limited time allocated for this study that was part of a prescheduled summer training for university students, may have affected the power of the study, with a shift of the predetermined level of precision of 0.05 to 0.06. Nevertheless, this was the first study in Saudi Arabia to investigate this group of rehabilitation professionals in a comprehensive survey about LBP and its individual and professional consequences.

### Conclusion

Lower back pain is prevalent among rehabilitation professionals. Both personal and professional risk factors found in our survey are in accordance with those in the literature. LBP was not the main reason for sick leave. Physiotherapy was the main management modality adopted. Physical stress and < 10 years' experience were

**Table 5 Significant predictors of low back pain among rehabilitation professionals**

Independent variables	$\beta$	SE	P	OR	95% CI
Age (< 30 yr = 1)	-0.11	0.44	0.81	0.90	0.38–2.12
Running (yes = 1)	-0.68	0.39	0.08	0.51	0.24–1.08
Direct patient contact (yes = 1)	0.24	0.55	0.66	1.27	0.43–3.72
Experience (< 10 yr = 1)	1.08	0.51	0.034*	2.94	1.08–7.95
Duration of shift (6–9 h = 1)	1.16	0.73	0.11	3.19	0.76–13.32
Physical stress (yes = 1)	1.31	0.31	<0.001*	3.72	2.02–6.86
Constant	-1.79	0.82	0.03	0.17	

\*Statistically significant.  
CI = confidence interval; OR = odds ratio; SE = standard error.

significant predictors that may be difficult to avoid. As a result, it may be beneficial for hospital administrators to adopt certain strategies, such as shorter shifts, sports programmes emphasizing physical activity practices and improved ergonomics and psychological health in their

workplace. Conducting periodic assessments on rehabilitation professionals may be necessary for early detection of LBP. Future studies are needed to evaluate the most effective methods for LBP prevention.

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## Épidémiologie des douleurs lombaires liées au travail parmi les professionnels de la réadaptation en Arabie saoudite

### Résumé

**Contexte :** Les ergothérapeutes et les physiothérapeutes sont à risque de douleurs et de traumatismes musculosquelettiques pouvant être liés à leurs activités professionnelles, à leur posture et à leur mécanique corporelle affectée.

**Objectifs :** Étudier l'épidémiologie de la lombalgie chez les professionnels de la réadaptation.

**Méthodes :** Une enquête transversale a été menée auprès de 259 physiothérapeutes et ergothérapeutes dans des centres de réadaptation en Arabie saoudite entre juillet et août 2019, à l'aide du questionnaire nordique modifié. Des données ont été recueillies sur différentes mesures de la lombalgie, ses conséquences et ses facteurs de risque. Une analyse de régression logistique a été réalisée pour identifier les facteurs prédictifs significatifs de la lombalgie.

**Résultats :** Les professionnels de la réadaptation ont souffert de lombalgie au moins une fois durant l'année précédant l'étude pour 73,7 % ; 52,5 % d'entre eux ont connu une douleur intense ayant duré un jour ou davantage, 22,4 % ont souffert de lombalgie chronique, 23,9 % de lombalgie ayant occasionné un congé de maladie et 18,5 % de lombalgie ayant nécessité le recours à des soins médicaux. Les activités difficiles/impossibles de la vie quotidienne en posture debout (45,5 %), durant l'emploi (44,0 %), la montée des escaliers (33,9 %), la marche (33,0 %), la position assise (29,3 %), le sommeil et les voyages (29,8 % chacun), le réveil (23,0 %), la vie sociale (26,2 %) et les soins personnels (15,7 %) ont été signalées. La lombalgie a occasionné un arrêt de travail chez 32,5 % des participants, pour 1,38 jour ( $\pm 2,96$ ) au cours de la dernière année. La moitié des participants (50,3 %) ont été traités par kinésithérapie, 25,1 % par soins médicaux et 39,3 % ont demandé des jours de repos et/ou des congés de maladie. Le stress physique et le fait d'avoir moins de 10 ans d'expérience étaient des facteurs prédictifs significatifs de la lombalgie.

**Conclusion :** La prévalence de la lombalgie était élevée chez les professionnels de la réadaptation, avec un impact important sur les activités de la vie quotidienne. La physiothérapie était la principale prise en charge adoptée. Des programmes éducatifs sont nécessaires pour enseigner la bonne utilisation de la mécanique corporelle et des programmes d'activités sportives pour réduire le risque de lombalgie et prévoir des périodes de pause appropriées.

### وبائيات ألم أسفل الظهر المتعلقة بالعمل بين العاملين في إعادة التأهيل في المملكة العربية السعودية

مصطفى أبو الفتوح، فاي العُمير، دلال العنقري، إبراهيم بوشناق، بدر الدباسي، عفاف المنصوف

### الخلاصة

الخلفية: اختصاصيو العلاج المهني والطبيعي مُعرَّضون للآلام والإصابات العضلية الهيكلية، وقد يرجع ذلك إلى الأنشطة المتعلقة بعملهم ووضعية الجسم وتضرر ميكانيكا الجسم.

الأهداف: هدفت هذه الدراسة إلى تقصي السمات الوبائية لآلام أسفل الظهر بين العاملين في إعادة التأهيل.

طرق البحث: أُجري مسح مقطعي لما مجموعه 259 من العاملين في العلاج الطبيعي والمهني في مراكز إعادة التأهيل في المملكة العربية السعودية خلال شهري يوليو / تموز و أغسطس / آب 2019، باستخدام استبيان «نوردك» المعدل. وُجمعت بيانات عن المقياس المختلفة لألم أسفل الظهر وعواقبه وعوامل الخطر المرتبطة به. وحُلل الانحدار اللوجستي لتحديد المنبئات المهمة بألم أسفل الظهر.

**النتائج:** عانى 73.7٪ من العاملين في إعادة التأهيل من ألم أسفل الظهر لمدة سنة، وعانى 52.5٪ من ألم شديد دام يوماً واحداً أو أكثر، وعانى 22.4٪ من ألم مزمن أسفل الظهر، وطلب 23.9٪ إجازات مرضية بسببه، وطلب 18.5٪ الرعاية الطبية. وذكر أن أنشطة الحياة اليومية الصعبة/المستحيلة التي تعرضوا لها كانت في أثناء الوقوف (45.5٪)، وفي العمل (44.0٪)، وصعود الدرج (33.9٪)، والمشي (33.0٪)، والجلوس (29.3٪)، والنوم والسفر (29.8٪ لكل منهما)، والاستيقاظ (23.0٪)، والحياة الاجتماعية (26.2٪)، والرعاية الشخصية (15.7٪). وتسبب ألم أسفل الظهر في توقف 32.5٪ من المشاركين عن العمل، بمعدل 2.96 (1.38) يوم خلال السنة الماضية. وحصل نصف المشاركين (50.3٪) على العلاج الطبيعي، وحصل 25.1٪ على الرعاية الطبية، وطلب 39.3٪ أيام راحة و/أو إجازة مرضية. وكان الإجهاد البدني مع أقل من 10 سنوات في العمل مبنياً مهماً بألم أسفل الظهر.

**الاستنتاجات:** كان معدل انتشار ألم أسفل الظهر مرتفعاً بين أوساط العاملين في إعادة التأهيل، وله تأثير كبير على أنشطة الحياة اليومية. وكان العلاج الطبيعي هو العلاج الرئيسي المعتمد. وتعد البرامج التعليمية ضرورية لتعليم الاستعمال السليم لميكانيكا الجسم، وبرامج الأنشطة الرياضية كذلك ضرورية للحد من خطر الإصابة بألم أسفل الظهر، وللترتيب للحصول على فترات راحة مناسبة.

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