Knowledge around back pain and spinal disorders among Aseer patients: A cross sectional study

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Abstract

Introduction: Low Back Pain (LBP) is one of the most common health problems and is considered the second highest reason for seeking medical advice. In most cases, LBP is not an indication of serious disorder, however, it can be considered the leading cause of disability and work absence around the world. In Saudi Arabia, it was found that the prevalence of LBP and pattern of its symptoms ranges from 53.2 % to 79.17 %. Aims: to assess the level of knowledge related to their disease, among patients with LBP..

Methods: A cross-sectional study was conducted in the region of Asser, Saudi Arabia and comprised patients presenting with lower back pain. In this study, we had used the Arabic version of validated questionnaire called (LBP knowledge questionnaire "LKQ") which was prepared and validated by Maciel et al. The questionnaire was distributed online using social media such as Facebook and WhatsApp between patients with non – specific LBP from both genders.

Results: We received 183 responses from patients with LBP. Among this sample, males represented 60.7 % of the sample. Furthermore, almost two thirds of the sample were married (57.9 %) and 39.9 % of them were single. Finally, we found that 49.7 % of the sample had monthly income of less than 5000. Considering level of knowledge about LBP in this sample, we found that almost all of the sample (97.8 %) had partial knowledgeable about their disease. Demographic factors such as gender, age, marital status and monthly income had no effect on this level of knowledge (P-value =0.103, 0.467, 0.661, 0.347 respectively)

Conclusion: We found in this study, that the level of knowledge among patients toward LBP was inadequate where most patients had partial level of knowledge about their condition. Age, gender, marital status and monthly income had no effect on this level of knowledge. More investigations should be conducted using another design such as prospective design in order to indicate the exact reasons for this low level of knowledge among patients toward LBP.

Key words: back pain, spinal disorders,

Introduction

Low Back Pain (LBP) is one of the most common health problems [1] where it s considered the second highest reason for seeking medical advice [2]. LBP is defined as pain which is localized between the costal margin and inferior gluteal folds which may be accompanied with leg pain [3]. In most cases, LBP is not an indication of serious disorder [4] however, it can be considered the leading cause of disability and work absence around the world [1] causing destructive economic load on individuals and communities [1]. LBP is common where some studies showed that almost 8 per 10 individuals would experience LBP once in their life [2]. The acute symptoms of LBP in general occur around the age of 30 [5] and peaking in occurrence between ages of 45 and 60 years old which means that this condition is more common in people over 60 years old by a percentage of 25.1 % in males and 35.1 % in the female population [6,7]. In a systematic review conducted to estimate the global prevalence of LBP in 2014, they found that the LBP prevalence was 9.4 % in 2010 where men were more affected than females (10.1 % compared to 8.7 % respectively) [1]. In the same study, when they fixed the age, they found the prevalence of LBP is higher in western Europe than the Middle East and central Latin America and a lower prevalence was noticed in the Caribbean (15 %, 14.8 %, 6.6 and 6.5) [1]. In a systematic review conducted to assess the prevalence of LBP in Saudi Arabia, it was found that the prevalence of LBP and pattern of its symptoms ranged from 53.2 % to 79.17 % [8].

There are many things that can affect the musculoskeletal system of our body and can lead in some cases to LBP while other factors and activities can cause an increase and beginning of these problems especially activities related to work, such as lifting heavy objects, and dealing with sharp objects besides some individual factors including older age, obesity, and stress [9]. In Saudi Arabia, LBP is more related to vitamin D deficiency and obesity [10,11] besides carrying heavy objects, wrong posture when carrying heavy objects such as lifting while twisting and sudden movement of the torso which has an effect on increased prevalence of LBP In Saudi Arabia [12,13].

However, LBP is not serious in most cases. It can however represent an indication of serious conditions such as malignancy, spinal fractures, infections, cauda equina syndrome and aortic aneurisms [14]. Although, malignancy of the spinal cord and fracture are the most common conditions of the spine [9, 14], malignancy is not accompanied by back pain in all cases [15], therefore, more tests such as history of cancer, elevated ESR and clinical judgment are needed [15].

For these reasons, it was important to us to assess the level of knowledge among patients with LBP related to their disease to ensure that patients had the proper level of knowledge about their disease and do not underestimate or overestimate their condition. Many studies have been conducted to assess the same variable, however none of them have been conducted in the region of Asser and most of these studies had found that patients knowledge of the spine and its disorders was low and inadequate [16] as in the study of Tavafian et al., who found that 74 % of his patients had low level of knowledge about their condition and related risk factors [17].

Subjects and Methodology

This cross-sectional study was conducted in the region of Asser, Saudi Arabia and comprised patients presenting with lower back pain. In this study, we used the Arabic version of validated questionnaire called (LBP knowledge questionnaire "LKQ") which was prepared and validated by Maciel et. al [18], in order to assess the level of knowledge of patients about LBP including general aspects, concepts and treatments. The questionnaire also contained questions about basic anatomy, back pain, definition of different causes, diagnosis and treatments. Moreover, demographic factors such as age, gender, monthly income and education were included in this questionnaire.

The questionnaire was online-distributed using social media such as Facebook and WhatsApp between patients with non–specific LBP from both genders. Each participant was told about the objectives of the study and informed consent was obtained before starting the questionnaire and each participant had the ability to withdraw from the study at any time, however incomplete answers of the questionnaire were excluded from this study.

Microsoft Excel 2019 was used for data entry. Statistical analysis was performed using Statistical Package for Social Sciences (SPSS) version 25. Frequencies and percentages were used for the qualitative variables, while measures of central tendency would calculate continuous variables. The data relations between qualitative variables were tested using the chi-square test. To visualize the results, bar and pie charts were used. Statistical significance was defined as p-values of less than 0.05.

Results

In response to our questionnaire, we received 183 responses from patients with LBP. Among this sample, males represented 60.7 % of the sample; most of them were aged between 36-45 years (38.8 %), while 24.6 % of them were 46-55 years old, 19.1 % were between 18 -25 years old, 14.8 % were older than 55 years old and the rest of them were between 26-35 years old. Moreover, 48.1 % of the sample had educational level of university or above while 51.9 % of them had secondary education or below. Furthermore, almost two thirds of the sample were married (57.9 %) and 39.9 % of them were single. Finally, we found that 49.7 % of the sample had monthly income of less than 5000 Saudi Riyal (SR), while 26.2 % had monthly income of 5000-10000SR, 13.7 % had monthly income of 10,000-15,000 SR and only 1.1 % had a monthly income of more than 20,000SR. (Table 1).

Variable		Frequency	Percent
Gender	Male	111	60.7
	Female	72	39.3
Age	18-25	35	19.1
	26-35	5	2.7
	36-45	71	38.8
	46-55	45	24.6
	Older than 55	27	14.8
Education	University education or above	88	48.1
	Secondary education or below	95	51.9
Marital status	Married	106	57.9
	Divorce	4	2.2
	Single	73	39.9
Income SR	Less 5000	91	49.7
	5000-10000	48	26.2
	10000-15000	25	13.7
	15000-20000	17	9.3
	More than 20000	2	1.1
	Total	183	100.0

Table 1: Demographic factors of participants

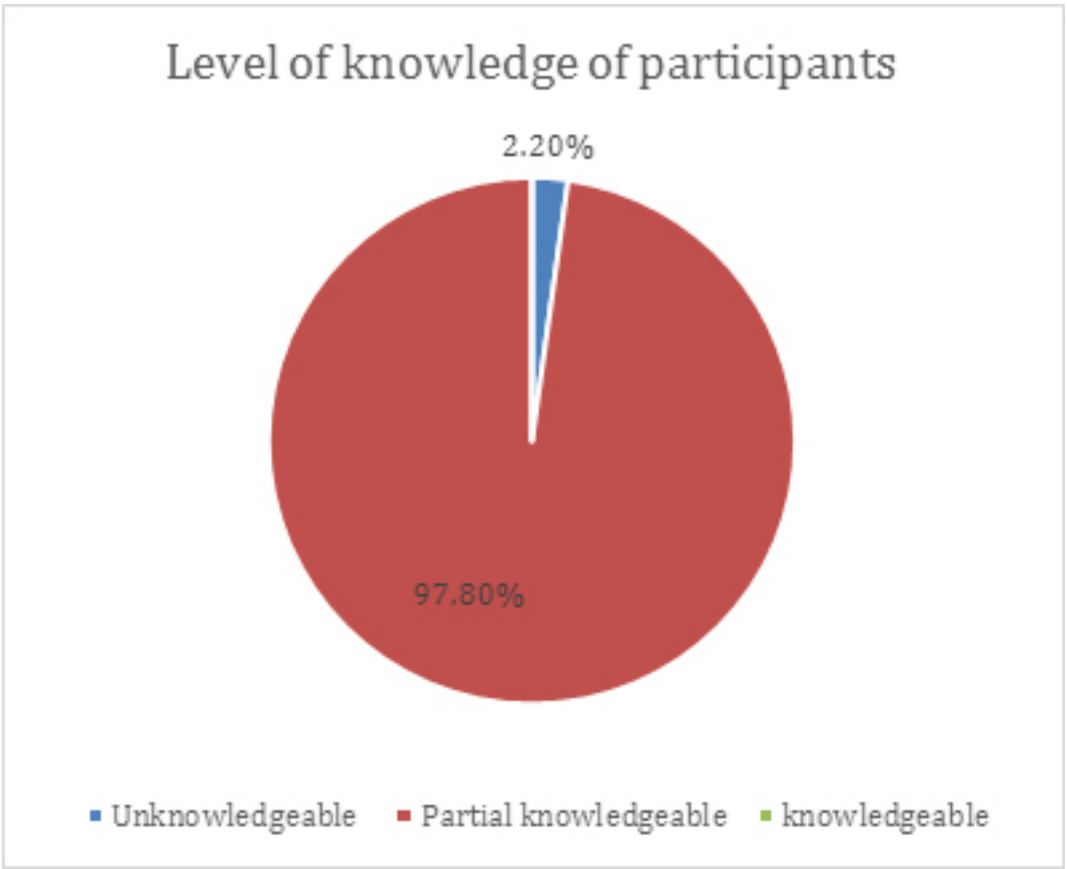

Figure 1

Table2: Relation between level of knowledge and different demographic factors		level of knowledge						
		unknowledgeable		partial knowledgeable		knowledgeable		
		Count	%	Count	N %	Count	N %	p-value
Gender	Male	4	3.6%	107	96.4%	0	0.0%	0.103
	Female	0	0.0%	72	100.0%	0	0.0%	
Year	18-25	0	0.0%	35	100.0%	0	0.0%	0.467
	26-35	0	0.0%	5	100.0%	0	0.0%	
	36-45	3	4.2%	68	95.8%	0	0.0%	
	46-55	0	0.0%	45	100.0%	0	0.0%	
	Older than 55	1	3.7%	26	96.3%	0	0.0%	
State	Married	1	0.9%	105	99.1%	0	0.0%	0.347
	Divorce	0	0.0%	4	100.0%	0	0.0%	
	Single	3	4.1%	70	95.9%	0	0.0%	
	Widow	0	0.0%	0	0.0%	0	0.0%	
Income SR	Less 5000	3	3.3%	88	96.7%	0	0.0%	0.661
	5000-10000	0	0.0%	48	100.0%	0	0.0%	
	10000-15000	1	4.0%	24	96.0%	0	0.0%	
	15000-20000	0	0.0%	17	100.0%	0	0.0%	
	More than 20000	0	0.0%	2	100.0%	0	0.0%	

Considering level of knowledge about LBP in this sample, we found that almost all of the sample (97.8 %) had partial knowledge about their disease, while 2.2 % were unknowledgeable and no one had complete knowledge about PBI (Figure 1).

In Table 2, we compared the level of knowledge among patients according to their demographic factors where gender had no significant effect on this knowledge (p-value= 0.103). Moreover, the age of the patients also had no effect on level of knowledge about LBP however, it seems that older patients had higher level of knowledge (p-value =0.467). Furthermore, neither monthly income nor marital status of patients had an effect on their level of knowledge about LBP.

Discussion

LBP is a common condition that is related with many misconceptions. In this study, we aimed to assess the level of knowledge among patients with LBP in Asser region in Saudi Arabia about their disease using a validated questionnaire. The results in this study revealed inadequate partial level of knowledge among patients where no participants were able to answers all questions correctly. Moreover, we found that age, gender, marital status or monthly income had a significant effect on this level of knowledge.

Similar results had been found in another study conducted in Riyadh, Saudi Arabia in which level of knowledge of patients about their conditions and other problems related to the spine was limited, as no individual in this study had been able to answer more than 37.5 % of the questions correctly however, patients with higher education showed better results [19]. In the study of Machiel et al, among Brazilian patients with LBP, they found the level of knowledge of patients about LBP was low [18]. Moreover, the study of S Ganiyu, Nigeria, found that most of the sample had partial knowledge about LBP (more than 90 %) with less than 10 % who had complete or were not knowledgeable [20]. In another study conducted by Tarimo et, al who used another tool in order to assess the level of knowledge among patients with LBP about their condition they found that most of participants (91.2 %) did not manage to answer all six questions included in their questionnaire and most of the subjects had a partial level of knowledge about the course and causes of LBP [21]. Similar results of low level of knowledge about LBP were also found in the study of Ng'uurah and Frantz conducted in Kenya where most of the patients lacked knowledge about the causes of LBP [22], and study of Allock et al. [23] and study of Mwilila [24] who found in their studies that most patients did not understand the cause of their pain and the main reasons for visiting healthcare providers was to gather more information about their pain.

Many studies found a relation between level of knowledge and attitude and beliefs among patients with LBP where patients with low levels of knowledge had a negative attitude and wrong misconception toward LBP [21]. Therefore, in order to improve the attitude of patients toward correct treatment of LBP, it is important to increase their knowledge about this condition, which can be achieved through preparation of awareness campaigns through TV and social media such as Facebook and WhatsApp, which play a critical role in developing our knowledge nowadays. Moreover, it is important to increase

level of knowledge among medical students as the results of this study revealed inadequate level of knowledge about LBP among them.

This study had un-avoided limitations including depending on a cross-sectional design of which was unable to provide strong evidence of the association between measured variables and level of knowledge. Moreover, this type of questionnaire had many medical terms which may not be known to all patients, however the study was conducted among patients of medical students. Furthermore, the study depended on a self-reported questionnaire which may lead to measurement and recall bias. Finally, the depending on online tools for distribution of the study, decreased the number of the real population who could not use online applications from participating in the questionnaire. On the other hand, this study gives a picture of level of knowledge among patients in Asser region in Saudi Arabia and up to our knowledge, there is no study that has been conducted to assess this variable in Asser region before.

In conclusion we found in this study, that the level of knowledge among patients toward LBP was inadequate where most of patients had partial level of knowledge about their condition. Age, gender, marital status and monthly income had no effect on this level of knowledge. More investigations should be conducted using another design such as prospective design in order to indicate the acute reasons for this low level of knowledge among patients regarding LBP.

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