Attitude and beliefs regarding lower back pain among senior medical students; are they common?

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Abstract

Background: Around the world, lower back pain (LBP) ranks as the primary source of disability. Since misperceptions about the prognosis and management of LBP and disability foster negative coping mechanisms, negative attitudes and beliefs are thought to play a crucial role in their development.

Objectives: The purpose of this study was to evaluate medical students' attitudes and views toward lower back pain.

Methods: At the King Abdulaziz University Hospital in Jeddah, Saudi Arabia, 201 medical students in their last year were the subjects of a cross-sectional study. In order to gather information regarding the curriculum outside of extra courses and back pain history, the Deyo's questionnaire was used.

Results: A total of 201/500 final year medical students completed the questionnaire. Responders who had a course outside the curriculum were 163 (81.1%) and those who hadn't were 38(18.9%). The mean number of correct answers was (4.1) and (3.8) for those who had a course and those who hadn't, respectively, representing an insignificant difference.

Conclusion: Most senior medical students debunked common misconceptions about lower back pain. This result shows how effective the curriculum is. Myths two and four had a high percentage of inaccurate responses. Seminars on myths two and four are also advised for the general public as well as medical students in order to improve the quality of the outcomes.

Keywords: attitude, beliefs, LBP, medical, students, Saudi

Introduction

Lower back pain (LBP) is a pain in the back between the last rib and the gluteal fold regardless of the presence of radiation to the legs (1). The most common cause of disability worldwide, the pain is typically intense and lasts 4 to 8 weeks (2,3). After upper respiratory symptoms, it is the most typical presenting symptom in primary care (4). Similar to the common cold, it affects practically everyone at some point in their lives; up to 85% of people have LBP at least once in their lifetime (5).

Numerous repetitive movements and extended standing or sitting are thought to affect the start of LBP. Stressors, pain phobia, and inactivity are the main elements that contribute to LBP incidence and its progression to chronicity (6). Misconceptions have been proven to have a key role in the relationship between LBP and disability (7,8,9).

Since misperceptions about the prognosis and management of LBP encourage poor coping mechanisms, negative attitudes and beliefs are thought to play a crucial role in the development of LBP and disability. Consequently, the healing process would take longer and would cost money (4). Richard A. Deyo, who found prevalent misconceptions about LBP, introduced these false beliefs. These include the unrealistic expectations of surgical treatment options, unrealistic expectations of imaging modalities and when to use them, taking off work and bed rest is going to relieve pain and treat it, disability of their condition and lifting heavy is what causes the pain (10,11,12,13). Systemic reviews and guidelines have contradicted these misconceptions (14).

According to a 2019 American study, lower back pain is not a topic that healthcare students are adequately taught about (2). In contrast, an Irish cross-sectional study that was released in 2019 discovered that medical students were better than untrained people at debunking the "Myths of Back Pain." Additionally, they discovered that a year of medical school seems to be linked to better awareness (4).

Instead of receiving a focused course that could dispel these fallacies and raise the management level, lower back pain is typically included with other rotations in the medical teaching area. Given the lack of literature, we aimed to assess the attitudes and beliefs regarding lower back pain myths among final year medical students at King Abdulaziz University Hospital (KAUH) in Jeddah, Saudi Arabia.

Methofology

Study design, setting, time, and aim: In December 2021, a cross-sectional observational study was carried out at KAUH in Jeddah, Kingdom of Saudi Arabia. Our main goal was to evaluate attitudes and beliefs related to common myths about lower back pain.

Study participants: The sample size required for this study was calculated as 208 medical students, for 95% confidence level and a margin of error of 5%. The calculation was made using the Raosoft sample size calculator (15). The Inclusion criteria were final year medical students, both sexes. The exclusion criteria were students from other medical schools.

Data Collection: A standardized, anonymous questionnaire was used and distributed through phone numbers using an electronic form (Google form); it consisted of 2 parts: The first part included factors that may have a relationship with back pain myths beliefs; it included gender, age, if medical students had an extra course outside the curriculum and whether if they ever had a history of back pain or not.

The second part contained Deyo's questionnaire, which includes the most common back pain myths encountered in the medical field (16). It has been used in many studies as a quick assessment tool of attitudes and beliefs regarding lower back pain myths (4,1617,18). Responses were scored on a three-point scale (Agree, Disagree, Unsure). Since all statements are myths (Table 1), responders received full marks if they disagreed with all statements.

Ethical approval: This study was approved by the biomedical ethical committee at KAUH (Reference No576-21). All participants were notified about the study objectives and response confidentiality, and we took their consent.

Data analysis: Data were analyzed using (SPSS) version 26. Qualitative data was expressed as numbers and percentages, and Chi- squared test ($\chi 2$) was applied to test the relationship between variables. A p-value of <0.05 was considered as statistically significant.

Table 1: Deyo's Seven Myths of Back Pain

Deyo's Seven Myths of Back Pain
1. If you have a slipped disc (also known as herniated disc), you must have surgery.
2. Radiographs and newer imaging tests (computed tomography [CT] and magnetic resonance imaging scans) can always identify the cause of back pain
3. If your back hurts, you should take it easy until the pain goes away.
4. Most back pain is caused by injuries or heavy lifting.
5. Back pain is usually disabling.
6. Everyone with back pain should have a spine radiograph.
7. Bed rest is the mainstay of therapy.

Results

Our study aimed to assess the attitudes and beliefs regarding lower back pain myths among final year medical students at King Abdulaziz University Hospital in Jeddah, Saudi Arabia. A total of 201/500 final-year medical students completed the questionnaire in its entirety. The mean age of participants was 23.01±0.962, SD ranged 21-29. 56% were females, and 44% were males.

Table 2. Number and frequencies of participants responses to all myths

Frequencies	Agree	Unsure	Disagree
Myth 1	49(24.4%)	33(16.4%)	119(59.2%)
Myth 2	58(28.9%)	30(14.9%)	113)56.2%)
Myth 3	72(35.8%)	40(19.9%)	89(44.3%)
Myth 4	119(59.2%)	28(13.9%)	54(26.9%)
Myth 5	65(32.3%)	44(21.9%)	92(45.8%)
Myth 6	34(16.9%)	38(18.9%)	126(64.2%)
Myth 7	79(39.3%)	42(20.9%)	80(39.8%)

The mean number of correct answers was 7.8 and 8 for females and males, respectively, representing an insignificant difference (P=0.743). A total number of 163 (81%) had a course outside the curriculum, and a mean number of correct answers was 4.0 and 3.8 for those who had a course and those who had not, respectively, representing an insignificant difference (P=0.332). The percentage of correct and incorrect answers for both groups is shown in “Figure 1”. A total number of 132 (65.7%) answered “No” and 69 (34.4%) answered “Yes” to the question “Have you ever had a history of back pain?”. The mean number of correct answers was 3.9 and 4 for those who answered “Yes” and “No” respectively, representing a non significant difference (P=0.683). The percentage of correct and incorrect answers is shown in “Figure 2”.

Figure 1: Gender differences according to correct answers

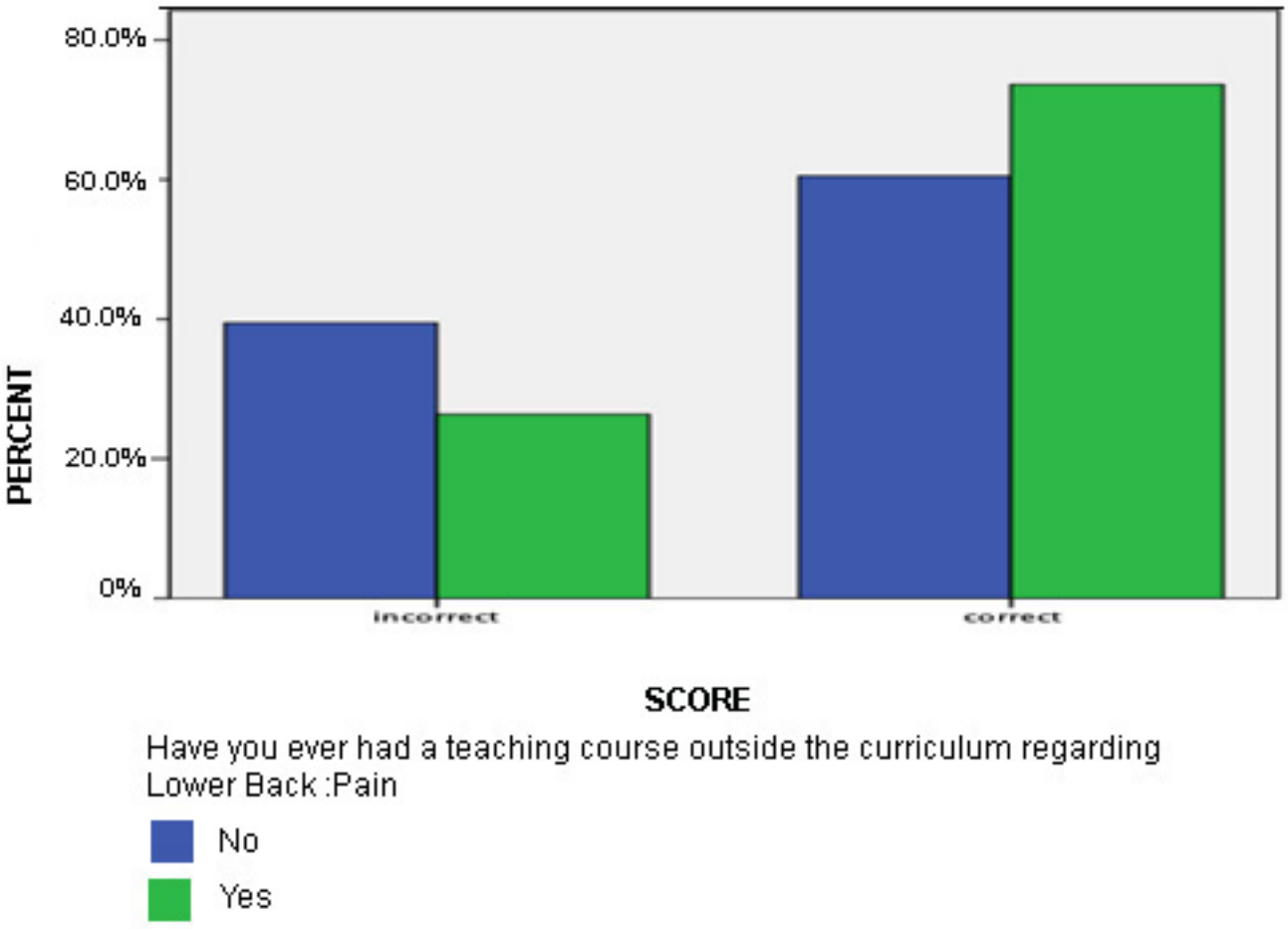
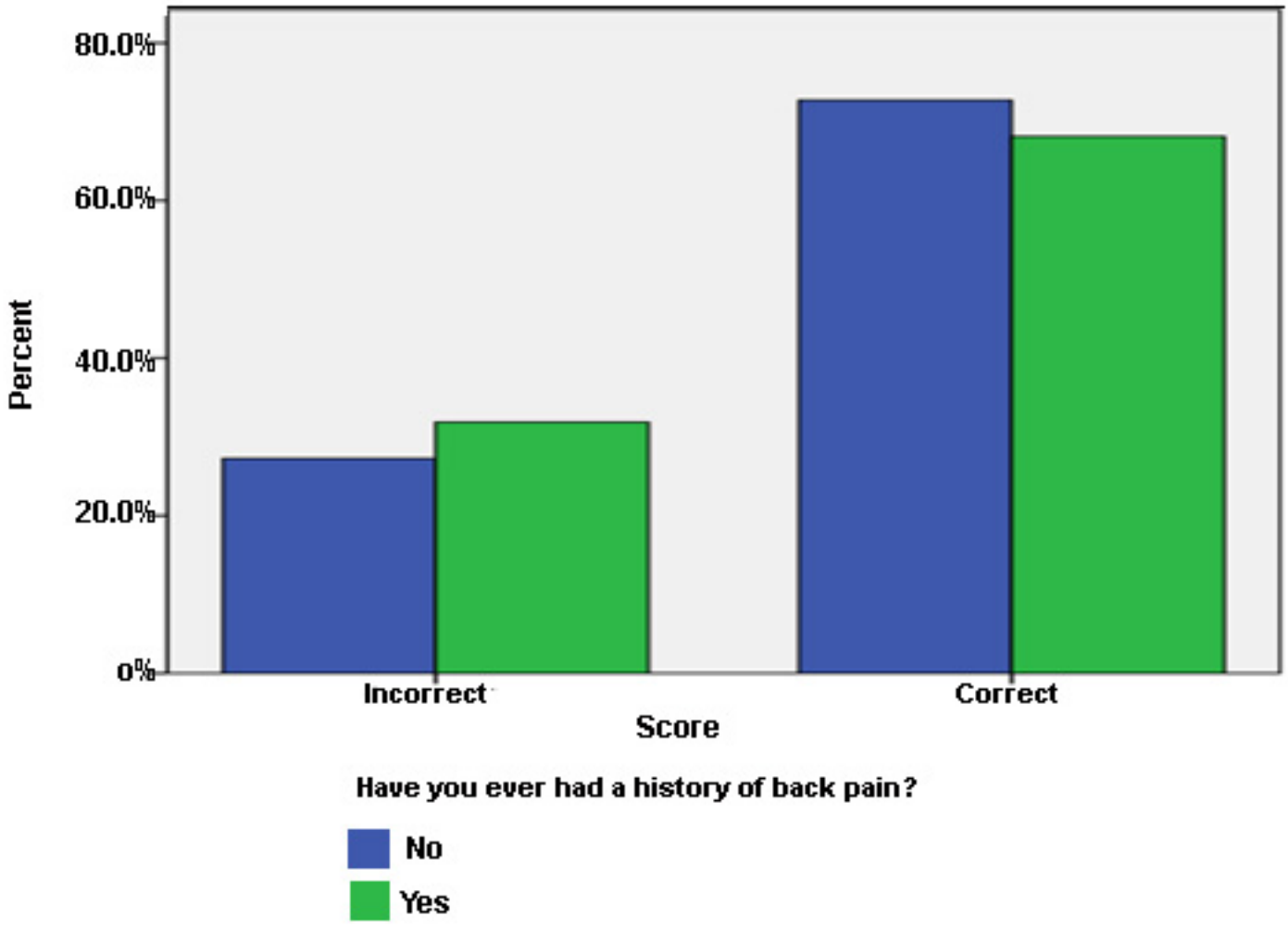
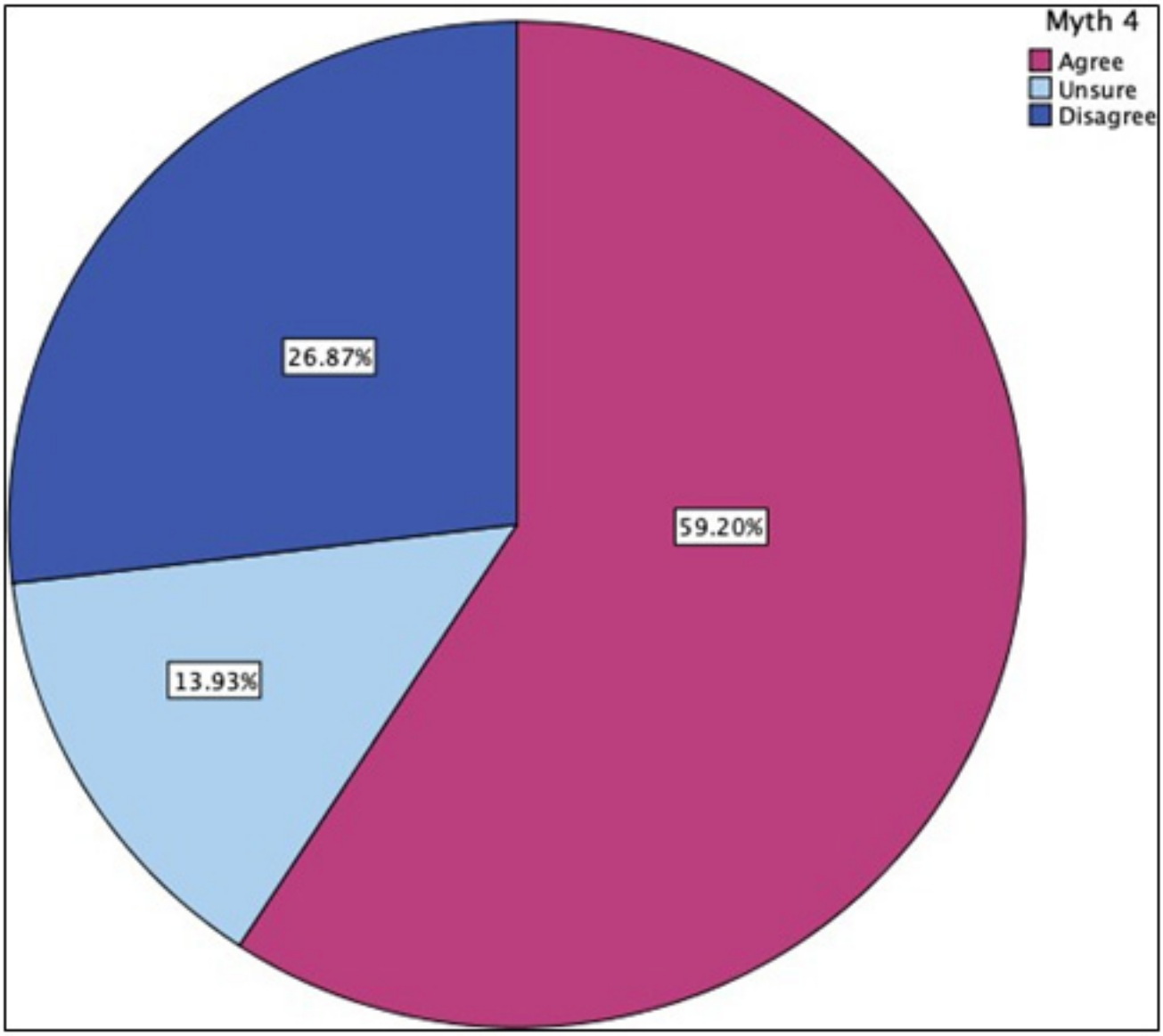


Figure 2: Relationship between having a history of back pain and correct answers



For all myths, the differences in the frequencies of agreeing, disagreeing, and being unsure were insignificant (P>0.05) except for myth number 2 (Radiographs and newer imaging tests such as computed tomography [CT] and magnetic resonance imaging [MRI] scans can always identify the cause of the pain) and myth number 4 (Most back pain is caused by injuries or heavy lifting) whose P values were (0.001, 0.029) respectively "Figure 3".

Figure 3: Relationship between all myths and frequencies of agreeing, disagreeing, and being unsure



Discussion

This study intends to evaluate final-year medical students' attitudes and opinions surrounding common myths about lower back pain. Our findings showed that senior medical students refuted the majority of common misconceptions about back pain. In contrast to our main conclusion, a previous discovery revealed that the majority of medical students from various academic years held to a number of back pain myths and had a general misunderstanding of the evaluation and treatment of lower back pain (4).

Additionally, variables that had been hypothesized earlier in the study, such as taking an extra course outside of the curriculum and having a history of back discomfort, were not linked to better overall grades. These results demonstrate how successful the education is. However, our findings also suggested that nearly 60% of senior medical students agreed with myths 2, "Radiographs and newer imaging tests like CT and MRI can always identify the cause of the pain," and 4, "Most back pain is caused by injuries or heavy lifting." These findings were consistent with a previous cross-sectional study that found myth 4, "Most back pain is caused by injuries or heavy lifting," to be the myth most frequently believed by medical students, with a 60% agreement rate (4).

Furthermore, Ihlebaek and Eriksen did research in Norway, sampling the general community at random using phone numbers and having them complete Deyo's questionnaire. They discovered that 50% of the general public accepted Myths 2 and 4 (14). These recurring results show that some misconceptions are heavily influenced by societies, and that the task of debunking such beliefs may begin with societies as well as medical students rather than just them.

In fact, a junior student in medical school is different from a senior student in terms of knowledge and experiences. Therefore, their academic year and their experience over the years may have been the differentiator that made our sample more effective at debunking back pain misconceptions than earlier studies.

We encountered various restrictions in this study. First off, the study was completed quickly. A long-term follow-up is crucial to get a better perspective of the situation and prevent recollection bias because cross-sectional research only provides us with a snapshot of the issue. Second, a number of respondents provided documentation of their unwillingness to do the survey, which helped us to determine the ideal sample size. Finally, our results at KAUH may not apply to other medical schools that may have different experiences and understanding of the subject. We recommend conducting long-term studies in the future to improve the quality of the results. Seminars are recommended for both medical students and the public regarding myths two and four.

Conclusion

The majority of senior medical students dispelled most lower back pain myths. This finding indicates the effectiveness of the curriculum. Myths two and four were implicated in high incorrect answers. We recommend conducting a long-term study to improve the quality of the results, and seminars are also recommended for both medical students and the public regarding myths two and four.

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