

Patient's Knowledge, Perception and Belief about the Reasons of Low Back Pain

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Abstract

Patients with chronic low back pain (LBP) hold various knowledge, perceptions and beliefs about their pain which are based on prior learning and social conditions. Since LBP is a bio-psycho-social phenomenon and there are not any reports about awareness and attitude of Iranian patients' views regarding it, this descriptive study was employed to earn this information P to apply its results in health education planning. For data gathering, deeply interviewing with 24 patients were performed. Volunteer patients were from Rheumatology Research Center of Tehran University of Medical Science from July 1st to Sep 1st 2003 who had inclusive criteria such as: 18 years old or more, suffering from LBP more than 90 d and not having experience of surgical operation in last two years. Interviews were individually held at rheumatic disease center which was convenient to the participants and were being continued to earn data saturation regarding patient's knowledge, perception and belief about LBP. The findings showed that the most popular risky behavior for LBP was hard manual activities, also this study revealed that knowledge of the patients about LBP and its risk factors was little and LBP was not understood by the majority of patients (74%). Only a few people (11%) believed risk factors and risky behaviors could deteriorate it. From this study it can be concluded that health educators should emphasize on perception and attitude of the patients regarding LBP for changing behavior and complying of recommended body mechanics.

Keywords: *Low Back Pain, Health education Patient's Knowledge, Iran*

Introduction

When a patient suffers from chronic pain and disability, there are different ways of approaching the problem. One approach is to focus on the patient's environment and opportunities for overt behavior changes (1). Disability due to LBP affects approximately one quarter of adults annually (2). Patients with chronic LBP hold various beliefs about their pain which are based on prior learning and social influence, including health care provision. The degree to which the patients believe that they are disabled by their pain is a powerful factor in the extent of their functional impairment. Some beliefs about pain have been found in cross-sectional studies to be

associated with physical dysfunction (3) and patients' beliefs about the nature of their problem may influence their uptake of and responses of particular treatment modalities (2). patients' beliefs about the cause of their pain and anticipated effects of treatments will also influence whether they take up a particular treatment and the likely outcome of treatment (4). Belief that the pain is stable and unchangeable is associated with poor compliance with physical and psychological treatment (5). Conversely, patients who believe that they have greater control over their pain may be more likely to participate and benefit from rehabilitation programs (6). According to previous stud-

ies, cognitive-behavioral therapy and maintenance of exercises have emerged as important management tools aiming to reduce the impact of disability from LBP (7). According to Predisposing-Reinforcing-Enabling Causes Educational Diagnosis (PRECED) model, knowledge, perception and belief are predisposing factors necessary for changing behavior (8). So in going through the process of planning a health education program, we have to state the reasons of non-healthy behaviors (9). When questions are about human knowledge, belief and perception about the diseases, studies employed depth interviews for data collection have better sequences (10). In this study we sight to the degree of knowledge, belief and perception of patients about LBP.

Materials and Methods

This descriptive study was applied to explore patients' knowledge, perceptions and beliefs about LBP. Subjects included 24 volunteers who recruited from Rheumatology Research Center of Tehran University of Medical Science and they met the relevant criteria including 18 years old and over, suffering from LBP more than 90 d and not having experience of surgical operation on their vertebra in last two years. At first all the patients completed the consent form and then were brought to the interview. An open interviewing regarding knowledge about risky behaviors resulted in LBP, perceptions of patients about their vertebra column and risky behaviors as well as beliefs of them about risky behaviors was conducted by researcher through interview sheet. Interview sheet was designed by specialists who were expert and experienced about LBP risky behaviors. Interview was individually held at rheumatic disease center which was convenient to the participants. Through interview the researcher marked items were related in each category of knowledge, perception or beliefs. Then the data were analyzed through descriptive statistics and the findings extracted

in three categories such as knowledge, perceptions and beliefs.

Results

Twenty four chronic LBP women (mean age 43.8 ± 11.2 and mean weight 69.8 ± 10.7) participated in deeply interviews. They were underwent physician visits and taking medications at the time of the study. Demographic characteristic of the subjects was shown in Table 1. Of the 24 patients, 13 (54.1%) had mild pain and 11 (44.8%) suffering from severe pain. Table 2 shows the risky behaviors stated by subjects which had been resulted in LBP in their respective. The majority of the subjects (79.1%) stated they were not aware of recommended back saving body mechanics and proper postures while doing daily activities. According the findings none of the women had information about anatomy and physiology of their vertebra column and they did not perceive it. The minority of patients 7(29.1%) had some information regarding benefits of exercise on their pain. None of the patients perceived the effect of the risky behaviors on their pain scientifically. Through interviewing, it was cleared that the least of patients (12.5%), believed risky behaviors could make deteriorate LBP.

Table 1: Demographic characteristic of patients with low back pain

Variable	N	%
Education		
High education	4	16.6
Low education	20	83.4
Occupation		
Employed	2	8.3
Non Employed	22	89.7
Income		
High income	3	12.5
Low income	21	87.5
Smoking		
Smoker	1	4.16
Non Smoker	23	95.84
Doing Exercise		
Yes	2	8.3
No	22	89.7

Table 2: Risky behaviors stated by patients with low back pain

	N	%
Doing hard manual work	20	83.3
Not complying body mechanic	18	75
Psychological factors	11	45.8
Pregnancy and Delivery	5	20.8
Age	2	8.3
Genetic factors	1	4.16

Discussion

According scientific texts jobs and/or activities that require long periods of sitting, lifting or pulling heavy objects, frequent bending or twisting, heavy physical exertion, repetitive motions, or exposure to constant vibration are the most important risk factors for low back pain. Also poor postures and not keeping proper body mechanics are other factors that could lead to LBP. Similarly in this study the majority of patients relied on hard manual work and 75% of subjects focused on not keeping correct body mechanics during daily activities as the reason of LBP. Several epidemiologic studies, have demonstrated a relationship between LBP and working postures especially "stooping (11). Psychological problems were the other findings of the present study regarding LBP risk factors which stated by subjects. The previous studies showed that depression like anxiety can affect LBP to be occurred or became worse (12). Carol and co-workers showed that depression was a strong and independent predictor for the onset of an episode of intense and /or disabling neck and LBP. So those in highest quartile of depression scores had a four-fold increased risk of troublesome neck and LBP (13). Although enhancing knowledge and awareness of the patients about anatomy and physiology of vertebra column is recommended in any back edu-

cation program especially in modern back schools (14), but according to the present study none of the patients had any information in this regard. Also of all patients (74%) did not have scientific perception of the risk behaviors to deteriorate their LBP but they knew physician diagnosis of their disease. patients' perceptions about the nature of their problems may influence their uptake of and response of particular treatment modalities (2). Despite the previous studies it has been shown that patients' beliefs about the causes of their pain and anticipated effects of treatments will also influence whether they take up a particular treatment and the likely outcome of treatment (4) only a few people (11%) believed risk factors and non-healthy behavior could deteriorate LBP (3). Also it has been demonstrated that the degree to which patients believe that they are disabled by their pain, is a powerful factor in the extent of their functional impairment and some beliefs about pain have been found in cross-sectional studies to be associated with physical dysfunction. A few people (12/5%) believed that their LBP was due to their age and genetic factor and was not changeable. Studies have revealed beliefs that the pain is stable and unchangeable and are associated with poor compliance with physical and psychological treatment (5). Conversely, patients who believe that they have greater control over they pain might be more likely to participate in and benefit from rehabilitation programs (6). This study recommends that education aimed at giving more knowledge would seem to be useful but the education should be focused more on changing attitude and promoting their perception.

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References

1. McCracken LM, Carson JW, Eccleston C, Keefe FJ (2004). Acceptance and change in the context of the chronic pain. *Pain*, 109: 4-7.
2. Linton SJ, Helsing AL, Halden KA (1998). Population based study of spinal pain among 35-45 year old individuals, Prevalance, sick leave and health care use. *Spine*, 23: 1457-63
3. Simmonds MJ, Kumar S, Lechelt E (1996). Psychological factors in disabling low back pain: causes or consequences. *Disab Rehabil*, 18: 161-68.
4. Turner JA, Jensen MP, Romano JM. (2000). Do beliefs, coping, and catastrophizing independently predict functioning in patients with chronic pain. *Pain*, 85: 115-125.
5. Schwartz DP, DeGood DE, Shutty MS (1989). Direct assessment of beliefs and attitudes of chronic pain patients. *Arch phys Med Rehabil*, 66: 806-9.
6. Williams DA, Thorn BE (1999). An empirical assessment of pain beliefs, *Pain*, 36: 351-358.
7. Jensen MP, Karoly P, Huger RT (1987). The development and preliminary validation of an instrument to assess patient's attitude toward pain. *J Psychosom Res*, 31: 393-400.
8. Guzman J (2001). Multidisciplinary rehabilitation for chronic low back pain, A systematic review. *Br Med J*, 322: 1511-16.
9. Ewles L, Simnett I (2003). *Promoting health a practical guide*. 5th ed, Bailliere Tindall Inc, PP: 272-92.
10. Lone Schou (1992). *Theories and models of health behaviour*, New york Axford university press, PP: 44-5.
11. Sonya V, Vich B, King AC (2003). Meaning and knowledge of health among older adult immigrant from Russia: A phenomenological study. *Health Educ Res*. 18(2): 135.
12. Emami MJ, Abbdinejad F, Nazarizadeh H (2003). Epidemiology of low back pain in women. *Iran J Med Sci*, 23(3): 116-19.
13. Mirzamani SM, Sadidi A, Sahrai J (2003). Phsycological aspects of low back pain. *Arch Iranian Med*, 6(2): 91-94.
14. Claiborne N, Vandenburg H, Krause TM, Leung P (2002). Measuring quality of life changes in individuals with chronic low back condition: a back education program evaluation. *Evaluation and program planning*, 25: 61-70.