

PSYCHOLOGICAL PROBLEMS IN LOW BACK PAIN PATIENTS

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ABSTRACT

Objective: Low back pain (LBP) is one of the most common chronic pains in patients. The purpose of the present study was to assess psychological problems in LBP patients.

Methodology: The subjects of this cross sectional study was 92 volunteers (50 male and 42 female), referrals suffering LBP to clinical centers with different occupations. They all completed SCL- 90-R.

Results: About 71.7% of patients suffered from psychological problems (66% male, 78.6% female). The problems included somatic, psychosis, and hostility. The male's mean of Global Severity Index (T=68) was more than females (T=63). In males, a significant relationship was observed between their Job and psychological problems (P<0.01).

Conclusion: Our findings indicate some common psychological problems in Low Back Pain patients. Females reported more frequent complaints of psychological problems in comparison to males who reported more intensive complaints. The study's findings suggest psychological assessment of these patients and also the addition of psychological therapy to their treatments.

KEY WORDS: Chronic Pain, Low back Pain, Psychological Problems.

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INTRODUCTION

Chronic pains are among today's common problems, and the most common are low back pain (LBP), headaches, cancer pains and arthritis. The chronic pain may lead to various psychological problems.¹ After the headaches,

LBP is the second cause of referring to the clinical centers.² Existing estimates indicate between 12 to 45 percent of adults and between 60-80 percent of all people will suffer from LBP once in their lifetime.³ Also, this problem causes 12 percent of recuperative off-gettings,² as well as the 25 percent of all compensatory expanses caused by inabilities at work.^{2,4} According to the existing estimates, 0.5 percent of working people suffering from LBP resign if they have LBP for more than six months.⁵ The studies show that the psychosocial characteristics can be an important factor in the painful and inability periods, and psychological treatments are effective in pain's reduction.⁶ Also, emotional problems accompanying LBP lead the pain to become a chronic one⁷; of course the pain itself causes the psychological symptoms.⁶

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According to the studies which predict 90.7 percent of the acute LBP patients will suffer from chronic inabilities,⁷ the chance of the patients with one of the psychiatric disorders in I Axis for chronic inabilities is significantly more than the others.⁸ Although, in another study, pain behavior did not correlate with anxiety or depression but correlated with measures of disability and pain intensity.⁹ Using diagnostic methods, the present studies have shown psychological and psychosocial factors are more important than medical exploration and distinct physical phenomena in the incidence of LBP.⁴ In a study on retail material handlers, dissatisfaction was shown as a major factor in the incidence of LBP.¹⁰ The findings of another study conclude work hardening and a contented ethos of the manual labors under study have moderate association between the prevalence and etiology of LBP.¹¹ Today, researches, considering behavioral, educational and psychological factors' role in the functional rehabilitation programs for LBP chronic patients, have combined the treatment with relaxation, ergonomic, aerobics and physiotherapy.¹² Another study's results suggest the presence of non-organic signs should alert the physical therapist of the need for additional psychological tests and should not necessarily be considered an indicator of malingering.¹³ The prospective studies indicated that psychological variables were related to the onset of pain, and to acute, sub acute, and chronic pain¹⁴, but there is no relation between the acute and chronic pains with pain's dimensions.¹⁵ Moreover, women reported higher levels of psychological distress than men¹⁶ and find more functional limitations in job decision latitude.¹⁷ Considering previous studies, the purpose of this study was to assess psychological problems in LBP patients in order to show the necessity of a psychological assessment for a better diagnosis and therapy of this illness.

METHODOLOGY

It was a cross-sectional study. Among the referrals to wards of orthopedic, neurosurgery, physical medicine and physiotherapy centers

in Ahwaz city who have received LBP diagnosis by specialists, with no care to their age, sex, occupation and education, 92 subjects found to be co-operative were selected. The sampling was done non-randomly and was aim-based. After explaining the research's goal, the symptom Check List-90 – revised (SCL 90-R) and information form was given to be completed. The illness period being less than six months was determined as an acute period and more than six months as a chronic period. The SCL-90-R is a 90- item self –report symptom inventory developed by Clinical Psychometric Research. It is designed primarily to reflect the psychological symptom patterns of psychiatric and medical patients. The "90" is scored and interpreted in terms of 9 primary symptom dimensions. These are labeled, Somatization(SOM), Obsessive-Compulsive (OC), Interpersonal Sensitivity(TNT), Depression (DEP), Anxiety (ANX), Hostility(HOS), Phobic Anxiety (PHOB), Paranoid Ideation (PAR) and Psychoticism (PSY).¹⁸ Based on the previous studies in Iran, the cut of point of SCL-90-R for Global Severity Index (GSI) was set 0/4. Then, data was analyzed through spss/ 14 software with non-parametric tests.

RESULTS

Table-I contains demographic features of the sampling. In replying to the research's questions, the score of 71.7 percent of subjects (0.68% of women and 66.4% of men) was

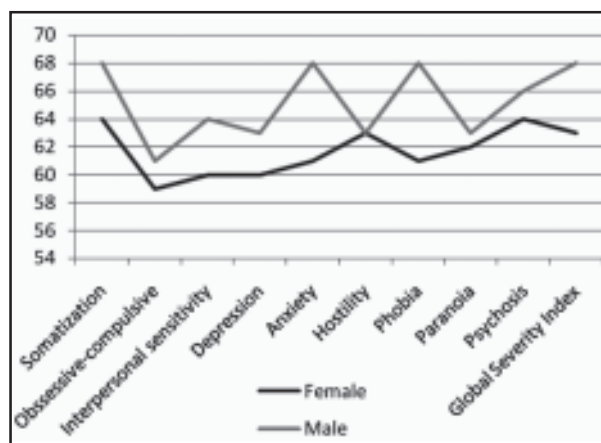


Chart-1: Distribution of psychological problems profiles of subjects based on gender (N=92)

higher than the cut of point. Table-II shows psychological problems based on standard score (T) for each of the two genders.

Most subjects' problems were somatic and psychotic. Also, men reported more severe problems, whereas women reported a larger number of problems. In the analysis of data, there was no relation between psychological problems and gender, duration of the illness (acute or chronic), but a meaningful relationship between men's occupation and their psychological problems existed ($p < 0,027$).

DISCUSSION

In the present study in which the SCL-90-R was used, 0/071 percent of sampling suffered from psychological problems. Also, the average of their GSI was 0/78 percent ($T=63$), which means its average score is higher than 84 percent of normal population. This finding, which indicates a significant percentage of psychological problems between the subjects, is coordinated with the same mentioned studies.^{7-9,13,16,19} Level of problems in these studies vacillates between 40 percent⁶ to 83 percent.²⁰ Many studies have shown association between psychological problems including depression, anxiety and cognitive dysfunctional with chronic pain patients such as LBP. Some of them reported the effects of psychological factors in increasing the inability level in LBP patients^{6,8,21,23} and some other studies have mentioned these factors as effective ones in shifting the pain to a chronic one.^{6,9,14} Finally, some

other studies show these factors effective in LBP's incidence.^{4,10,11} The aim of the present study was to identify the level of psychological factors' association with LBP and there was not any attempt in finding its etiology. Therefore, we cannot have any judgment about their effects on the pain's development or its severity or the resulting inability, but, in comparison to the same studies our patients named a higher percentage of psychological problems.

In these studies, LBP patients benefited from combination therapies including physical and psychological therapy,^{6,12,21-23} but our study's subjects were selected from the centers representing physical therapy. It may be mentioned here that at the moment, a center providing combined therapy does not exist in Ahwaz. It seems that if psychological therapies are applied synchronously, psychological problems will reduce partially. As far as SCL-90-R has diagnosed, the patients' most important complaints included SOM ($T=68$), PSY ($T=65$), PAR and HOS ($T=63$) and ANX ($T=62$) stood in the next place. There is no assessment of the severity level of pain and the patient's level of complaints in the present study to determine whether there is an increase in psychological problems as the severity of pain is increased. Therefore, the comparison of the results with the present theories is difficult to do. In any way patients have mentioned even more complaints than in the same studies that suggest doing more research to confirm these findings. However, it is felt that the severity of pain from

Table-I: Sample population' demographic characteristics (N=92)

Age		Sex	
<20	3/85	Male	54/3%
21-30	23/7%	Female	45/7%
31-40	23/7%	Marital status	
41-50	23/7%	single	14/7%
51-60	13/8%	marriage	85/3%
>61	11/3%	Job	
Duration		Housewife	29/3%
Acute	16/7%	Unemployed	7/6%
Chronic	83/3%	White-collar	25%
		Laborers	38/1%

the amount of SOM is high and those affected are also more in number. It might have something to do with present treatments.

In the test, no meaningful relationship between psychological problems and gender in the subjects was seen. The GSI's score has been 68 in men and 63 in women. Although there was no significant relationship, all SCL-90-R dimensions men's complaints have been much more than women's, especially in SOM dimension, which is similar to the studies of Dickens et al.⁹ Quint et al,¹⁶ who assessed their patients with SCL-90-R, the women's levels of psychological distress has been reported higher than men's, which is not in line with the present study. However, in Lrous et al.,²¹ the limitation of job performances caused by back pain was observed more in women than men.

There is a meaningful relationship between psychological problem's level and type of jobs in men ($p < 0/027$), but not in women. As a result, there is no significant difference in the two genders. In others studies,^{10,17,19-24} except for one or two cases^{10,19} which assessed mechanical activity, the others assessed inability levels at work, the level of job's discontentment and disablement in relation to effective psychological factors. This study's findings compare favourably with some studies^{10,19} and can be so with other studies indirectly, too. Ignoring the job specification may have been done with the assumption that it makes no difference and they have been researching the other occupational factors. But in this study, the men's occupation was proven to be related to their psychological problems. Regarding the 70.4 percent of the women in sampling being housewives and unemployed, and the 56 percentage of men being drivers, technical workers we may consider hard and long hours of working as the cause of psychological problems accompanied by back pain. Although the women's psychological problem's percentage was higher than men, they were milder than men's. Women, due to not having difficult jobs or long work hours, may have more free time to exercise, attend physical therapy and be on

suggested diets. As a result, they have more self-efficiency for pain control.

Suggestions: According to the present study's findings and the observed limitations during the study, there are some suggestions in order to acquire a better and more trustable analysis of psychological factors' effects in LBP's incidence, severity and inability of patients:

- * High percentage of psychological problems accompanying low back pain suggests the necessity of psychological assessment of these patients.
- * Adding psychological therapy for pain control to the treatment of these patients in the frame of a researching plan in clinical trials on Iranian samplings, if possible, is recommended.
- * Doing some studies in measuring the severity of inability at work and complaining level of pain is recommended.
- * Analysis and comparison of mental health of work using Industrial psychologists' theories and recommendations in working environment to the present situation in order to achieve more occupational contentment and decreasing emotional stresses accompanying pain in the frame of optimal researching plans are suggested.

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