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## ORIGINAL ARTICLE

# Adherence to a stability exercise programme in patients with chronic low back pain<sup>☆</sup>

Tania Inés Nava-Bringas<sup>\*</sup>, Antje Roeniger-Desatnik, Aurelia Arellano-Hernández, Eva Cruz-Medina

Servicio de Rehabilitación de Columna, Instituto Nacional de Rehabilitación, Secretaría de Salud, México D.F., Mexico

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### KEYWORDS

Therapeutic adherence;  
Lumbar stabilisation exercises;  
Chronic low back pain

### Abstract

**Background:** Chronic low back pain is a major cause of disability. The most effective intervention is exercise, with higher benefits in terms of pain and function.

**Objective:** Knowing the level of adherence to therapeutic exercise is essential to assess the effectiveness of health services, for planning strategies, optimising resources, and promoting the full recovery of patients in less time.

**Material and methods:** A prospective, observational study with 6 months follow-up was performed on 31 patients with chronic low back pain who underwent a lumbar stability programme. Rating scales for pain, function, anxiety, depression and fear of avoidance were applied. Adherence was recorded using daily therapy diary. Parametric tests were performed to determine correlations of interest, and to evaluate the changes presented over time.

**Results:** The percentage of adherence was 82–84% during the 3 trimesters. There were no correlations between adherence and socio-demographic variables, depression, anxiety, or fear of avoidance. Patients categorised as adherent showed faster and more significant improvements in pain and function ( $p > 0.05$ ).

**Conclusions:** At the end of the study all patients had a significant improvement in pain and function. Depressed patients showed higher scores on scales of pain and disability at the beginning and end of the study. However, neither depression, anxiety, nor fear of running activity were predictors of non-adherence to the therapy.

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<sup>\*</sup> Corresponding autor at: Rehabilitación de Columna, Instituto Nacional de Rehabilitación, Secretaría de Salud. D.F., México, Av. México-Xochimilco 289, Col.: Arenal de Guadalupe, Tlalpan, C.P. 14389 D.F., Mexico. Tel.: +52 55 5999 1000 ext. 13124.

E-mail address: [tanianava@gmail.com](mailto:tanianava@gmail.com) (T.I. Nava-Bringas).

**PALABRAS CLAVE**

Adherencia terapéutica; Ejercicios de estabilidad lumbar; Dolor crónico de espalda baja

## Adherencia al programa de ejercicios de estabilización lumbar en pacientes con dolor crónico de espalda baja

**Resumen**

**Antecedentes:** El dolor crónico de espalda baja es una de las principales causas de discapacidad. La intervención más eficaz es el ejercicio, con un beneficio superior en términos de dolor y funcionalidad.

**Objetivo:** Conocer el grado de adherencia a los programas de ejercicio terapéutico es indispensable para evaluar la eficacia como servicios de salud, planificar estrategias, optimizar recursos, y favorecer la plena recuperación de los pacientes en un menor tiempo.

**Material y métodos:** Se realizó un estudio prospectivo, observacional con seguimiento a 6 meses de 31 pacientes con dolor crónico de espalda baja, incluidos en el programa de estabilidad lumbar. Se aplicaron escalas de valoración para dolor, funcionalidad, ansiedad, depresión y miedo a la actividad física. Se registró la adherencia mediante un diario de terapia. Se realizaron pruebas paramétricas para correlaciones de interés, así como para determinar los cambios presentados en el tiempo de seguimiento.

**Resultados:** El porcentaje de adherencia fue de 82-84% en cada trimestre. La adherencia no mostró correlaciones con variables sociodemográficas, depresión, ansiedad ni miedo. Los pacientes categorizados como adherentes mostraron una mejoría más rápida y evidente en cuanto al dolor y funcionalidad ( $p > 0.05$ ).

**Conclusión:** Al término del seguimiento todos los pacientes presentaron mejoría significativa en cuanto a dolor y funcionalidad. Los pacientes con depresión mostraron puntajes más altos en las escalas de dolor, funcionalidad al inicio y término del estudio. Sin embargo, ni la depresión, la ansiedad, ni el miedo a ejecutar actividad fueron factores pronóstico de no adherencia terapéutica.

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**Background**

Effective intervention for the treatment of chronic back pain is exercise, with higher benefits in terms of pain and function, compared with any other type of intervention.<sup>1</sup>

The advocacy of exercise programmes as “routines for doing at home” enables health care systems to manage a large volume of the population and respond to the growing demands for care, especially regarding chronic pains such as lower back pain, but it depends on the therapeutic adherence of patients to the indications given.

Despite the health service’s efforts to obtain optimum management, it has been estimated that up to 45% of patients do not meet with therapeutic recommendations, and all the more so when the regimes consist of changes in habits or lifestyle (which include exercise), resulting in poorer treatment efficacy.<sup>2,3</sup>

Many factors are associated with poor therapy adherence, and they vary according to the population under study. Of these, personal factors stand out such as: lack of education, sedentarism, perception of physical fragility, fear or belief that physical activity could be harmful, associated depression or anxiety. Intrinsic characteristics to the treatment regime, the doctor–patient relationship and even socio-economic and environmental factors which facilitate or hinder fulfilment of a programme are also of influence.<sup>4</sup>

Despite the above, little has been reported regarding adherence to exercise and the factors which influence this in patients with chronic lower back pain.

**Objective**

To assess the main factors related to the level of therapeutic adherence to the exercise programme for lower back pain stabilisation, in patients who are diagnosed with chronic lower back pain.

**Material and methods**

A prospective, observational study was conducted with a 6 month follow-up, in patients with a diagnosis of chronic lower back pain who presented at the external services of the Rehabilitation de Columna del Instituto Nacional de Rehabilitación centre and who agreed to participate subsequent to giving their informed consent. The protocol was approved by the Research Committee of the institution.

Older patients were included, regardless of gender, with a presence of mechanic type chronic lower back pain.

Patients who were illiterate were excluded as were those with a history of lumbar surgery, systemic rheumatic disease (rheumatoid arthritis, systemic eritematous lupus, inflammatory spondiloarthritis), polyneuropathy of any type, mainly diabetic, or neuromuscular diseases. Those who did

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