ORIGINAL ARTICLE

doi: 10.35366/123367

Revista Mexicana de MEDICINA FÍSICA Y REHABILITACIÓN

Prevalence of low back pain and its relationship with disability within an adult population in a Honduran community

Prevalencia de lumbalgia y su relación con discapacidad en población adulta de una comunidad hondureña

Jessica Henriquez, M.D.,[*,‡] Eligia González, M.D.,[*,‡] Tatiana Martínez Lozano, M.D.,[*,‡] Nadia Cubas Vega, M.D.,[*,‡] José Elpidio Sierra, M.D.,[*,§] Jessica María Galeas, M.D.,[*,§] Edna Janeth Maradiaga, M.D.[*,¶]

Keywords:
Honduras, low back pain, posture, quality of life, sitting duration, Oswestry disability index.

Palabras clave:
Honduras, dolor lumbar, posturas, calidad de vida, postura sentada, índice de discapacidad Oswestry.

ABSTRACT

Introduction: this study aimed to determine the prevalence of low back pain (LBP), the resulting disability and associated factors in Jacaleapa, Honduras. **Material and methods:** a cross-sectional descriptive study with association analysis was conducted. The study utilized multistage sampling and random selection of patients aged ≥ 18 years. The Oswestry disability index and the 12-item short form survey were employed to assess disability and quality of life. **Results:** a total of 311 participants were included, with a median age of 47 years (IQR:35.0-61.0), and 173 (55.6%) were women. The prevalence of LBP was 57.9% (180/311, 95%CI 52.3-63.3). Among these, 140 (77.8%) reported associated disability, with 44 (30.6%) experiencing moderate to severe disability. Significant associations with LBP were female sex (OR:2.4, 95%CI 1.1-5.4), age ≥ 50 years (OR:4.2, 95%CI 1.8-10.0), regular or common-law marriage (OR:5.2, 95%CI 2.3-11.9), and inadequate sitting posture (OR:3.4, 95%CI 1.5-7.8). Individuals with LBP-related disability demonstrated a higher body mass index and reported spending ≥ 4 hour seated ($p < 0.05$). The physical domain score of quality of life for participants was 44.3 (IQR:35.9-50.7). **Conclusion:** the studied community exhibits a high prevalence of LBP and associated disability. Developing multimodal prevention and treatment strategies is thus recommended.

RESUMEN

Introducción: *el objetivo de este estudio fue determinar la prevalencia del dolor lumbar (DL), la discapacidad resultante y los factores asociados en Jacaleapa, Honduras.* ***Material y métodos:*** *se realizó un estudio descriptivo transversal con análisis de asociación. El estudio utilizó un muestreo por etapas y una selección aleatoria de pacientes mayores de 18 años. Se emplearon el índice de discapacidad de Oswestry y la encuesta abreviada de 12 ítems para evaluar la discapacidad y la calidad de vida.* ***Resultados:*** *se obtuvieron 311 participantes, mediana 47 años (RIC:35.0-61.0), 173 mujeres (55.6%). Prevalencia de DL 57.9% (180/311, IC95% 52.3-63.3), 140 (77.8%) personas con discapacidad asociada, 44 (30.6%) grado moderado-severo. Se encontró asociación con ser mujer (OR:2.4, IC95%1.1-5.4), edad ≥ 50 años (OR:4.2, IC95%1.8-10.0), casado/unión libre (OR:5.2, IC95%2.3-11.9), y postura sedente inadecuada (OR:3.4, IC95%1.5-7.8). Las personas con discapacidad por lumbalgia presentaron mayor índice de masa corporal y permanecen ≥ 4 horas sentadas, ($p < 0.05$). El puntaje en el dominio físico de calidad de vida fue 44.3 (RIC:35.9-50.7).* ***Conclusión:*** *la comunidad estudiada presenta una alta prevalencia de DL y discapacidad asociada. Por lo tanto, se recomienda desarrollar estrategias multimodales de prevención y tratamiento.*

* Universidad Nacional Autónoma de Honduras (UNAH). República de Honduras.
‡ Medical Doctor and Physical and Medicine & Rehabilitation Resident.
§ Medical Doctor, Physical and Medicine & Rehabilitation Specialist and College Professor.
¶ Medical Doctor, Epidemiology Master and College Professor.

Received: September, 2025.
Accepted: January, 2026.

Abbreviations:

95%CI = 95% confidence interval
BMI = Body Mass Index
GBD = Global Burden of Diseases
ICF = International Classification of Functioning
IQR = interquartile range
LBP = low back pain
ODI = Oswestry Disability Index
OR = Odds Ratio
STROBE = Reporting of Observational Studies in Epidemiology

Citar como: Henriquez J, González E, Martínez LT, Cubas VN, Elpidio SJ, Galeas JM et al. Prevalence of low back pain and its relationship with disability within an adult population in a Honduran community. Rev Mex Med Fis Rehab. 2026; 38 (1): 28-35. https://dx.doi.org/10.35366/123367

INTRODUCTION

Low Back Pain (LBP) is a prevalent health condition, with approximately 80% of the global population experiencing an episode at some point in their lives. It is associated with various risk factors including weight, age, sex and occupation among others[1-3] and it has significant adverse effects on the physical and mental domains of health-related quality of life.[4] LBP is characterized by either axial lumbosacral, radicular and referred pain. Depending on chronicity, it can be classified as acute, subacute and chronic, with LBP symptoms persisting between 6 to 12 weeks or more.[1] LBP leads to limited physical activity, loss of productivity and work absences, which has a direct impact on socio-economic environments.[2]

Due to the burden that LBP represents to the healthcare system, a better understanding and management of this condition is of utmost importance. According to the Global Burden of Diseases (GBD) study, which focuses on injuries and risk factors, approximately 619 million cases of LBP were reported worldwide, accounting for 69 million years lived with disability in 2020. LBP cases are expected to increase to 843 million by 2050 according to the GBD study.[5]

It has been estimated that the prevalence of LBP is about 32.9, 25.4 and 16.7% in high, middle and low-income countries, with a prevalence of 31.3% in Latin American countries.[6,7] However, epidemiological data on LBP cases from Honduras remains scarce. This study aimed to determine the prevalence and disability associated with LBP, as well as the contributing factors, in a Honduran community.

MATERIAL AND METHODS

Study design and participants

This descriptive cross-sectional study with association analysis was conducted between February and March 2024 in the community of Jacaleapa, located in eastern Honduras, Central America. The study included both male and female participants. Inclusion criteria were voluntary agreement to participate, age ≥ 18 years, and residence in the urban area of Jacaleapa. Individuals with cognitive or communication impairments were excluded. The study adhered to the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) guidelines.[8]

Sampling

The sample size was calculated using the OpenEpi online program (version 3) with the following parameters: a population size of 3,294 adults aged 18 years or older according to the 2022 census,[9] an anticipated prevalence of 31.3%, a 95% confidence interval (CI), and a 10% allowance for potential losses. Based on these parameters, a representative sample size of 331 participants was determined.

The sampling process was executed in multiple stages: 1) houses in the eight neighborhoods of the urban area were randomly and proportionally selected. If a selected house was uninhabited, another visit was scheduled. If the house remained closed during the second visit, a third attempt was made. A house was considered definitely closed after three unsuccessful visits; 2) a male and a female participant were selected from each household based on the following criteria: a) if there was only one person in the household, she or he was interviewed; b) if there was one person of each sex, both were interviewed; c) if there were two or more individuals of the same sex, one was chosen randomly; d) if there were multiple individuals of different sexes, one of each sex was chosen.

Characteristics of the participants

Participants were interviewed using two instruments specifically designed for this study. Instrument 1 was used to record the houses visited and document the age and sex of all inhabitants aged 18 years and older. Instrument two was divided into three sections: 1) sociodemographic data including age, sex, marital status, education, occupation, family income, weight, height, presence or absence of LBP, comorbidities, and postures used during sitting, sleeping, bending and picking up objects. Visual aids were provided to assist participants in describing postures accurately; 2) Measured disability related to LBP using the Oswestry Disability Index (ODI); and 3) Evaluated quality of life using the SF-12 Health Questionnaire (SF-12).[10,11]

OUTCOME MEASURES

Cases of LBP were identified based on an affirmative response to having experienced tension, pain, or stiffness localized below the costal margin and above the inferior gluteal folds, with or without radiation to the lower extremities, within the previous six months. A visual diagram was provided to assist participants in accurately identifying the anatomical region.

The ODI version 2.1b was used to evaluate disability in participants meeting the case definition for LBP. The results were expressed as a percentage and categorized according to the International Classification of Functioning, Disability, and Health (ICF), as follows: 0-4% without disability, 5-24% with mild disability, 25-49% with moderate disability, 50-

95% severe disability and greater than 96% total disability. For this study, a score of 5% or higher was considered indicative of disability associated with LBP.[12]

Quality of life was evaluated using the SF-12 Health Questionnaire, which measures eight dimensions of health. These dimensions are summarized into two main components: physical and mental health. A score below 50 in either component was considered indicative of impaired quality of life.

Body Mass Index (BMI) was calculated using participants' weight and height measurements. Weight was measured using a digital scale (JPD-700C Weight Scale, Jumper®, China). Height was measured using a stadiometer (Height Measurement Tape, Hegebeck®, USA). Measurements were standardized by ensuring that the participants stood barefoot on a flat, rigid surface during the assessment.

Statistical analysis

The collected data were tabulated in spreadsheets using Microsoft Excel 365® (Microsoft Corporation, Redmond, WA, USA) and analyzed using the SPSS® version 21.0 statistical software (IBM; SPSS Inc., Chicago, IL, USA). A univariate analysis was conducted, including qualitative variables (frequencies, percentages, and 95% CIs) and quantitative variables (measures of central tendency and dispersion, adjusted based on normality). For the bivariate analysis, participants were divided into two groups: those with disability and those without disability due to LBP. Quantitative variables were compared using parametric or non-parametric tests, depending on the normality of the data. For qualitative variables, a multivariate stepwise logistic regression model was used. Step 1) A backward likelihood ratio was applied to all factors, identifying those with a possible association ($p < 0.05$). Step 2) Factors showing an association with LBP disability in step 1 were included in a new model to calculate the Odds Ratio (OR), with values > 1 considered significant ($p < 0.05$) and a 95%CI.

Ethics statement

The study was approved by the Biomedical Research Ethics Committee of the Faculty of Medical Sciences, National Autonomous University of Honduras (approval number 010-2024). All authors were certified in Good Clinical Practices through The Global Health Network. Participation was voluntary, without financial compensation, and written informed consent was obtained from all participants. Confidentiality was ensured through the use of anonymized identification codes, with data securely managed by the research team. Participants reporting LBP were referred to the Comprehensive Community Health Center for further evaluation and management.

RESULTS

Study population

From the initial representative sample of 331, 311 were selected to be interviewed, with no exclusions recorded during the study *(Figure 1)*. Sociodemographic characteristics: median age was 47 years (interquartile range [IQR]: 35.0-61.0), 173 (55.6%) participants were women, and 193 (62.1%) participants were married or in a common-law union *(Table 1)*.

Among the 311 participants, 180 reported experiencing LBP within the last six months, resulting in a prevalence of 57.9% (95%CI: 52.3-63.3). Among women, 103 out of 173 participants (59.5% [95%CI: 52.1-66.7]) experienced LBP compared with 77 out of 138 (55.8% [95%CI: 47.4-63.9]) in men. In participants aged under 60 years of age, 124 out of 221 (56.1% [95%CI: 49.5-62.5]) experienced LBP compared with 56 out of 90 (62.2% [95%CI: 51.9-71.8]) in those over 60 years of age.

Disability and LBP

Among the domains measured using the ODI, the most impacted activity was lifting, as reported by 131/180

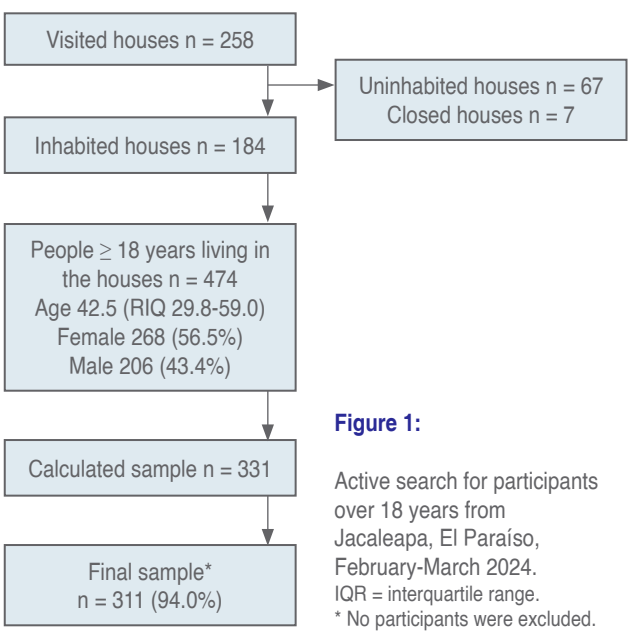

Figure 1:

Active search for participants over 18 years from Jacaleapa, El Paraíso, February-March 2024.
IQR = interquartile range.
* No participants were excluded.

Table 1: Sociodemographic characterization in the population over 18 years of age in Jacaleapa, El Paraíso, February-March 2024 (N = 311).

Characteristics	n (%)
Age, years old‡	47 [35-61]
18-59	221 (71.1)
≥ 60	90 (28.9)
Sex	
Female	173 (55.6)
Male	138 (44.4)
Marital status	
Married	103 (33.1)
Single	92 (29.6)
Common-law marriage	90 (28.9)
Widower	23 (7.4)
Divorced	3 (1.0)
Schooling	
None	14 (4.5)
Primary	119 (38.3)
High school	117 (37.6)
University	61 (19.6)
Occupation	
Housewife	93 (29.9)
Merchant	38 (12.2)
Agriculture-construction	55 (17.7)
Officer, teacher, or healthcare worker	40 (12.9)
Retired-unemployed	26 (8.3)
Cleaning-maintenance	17 (5.5)
Transportation, factory security	19 (6.1)
Student	6 (1.9)
Others	17 (5.5)
Household income (minimum wages)	
< 1	136 (43.7)
1-2	85 (27.3)
> 2	90 (28.9)
Background‡	
BMI, kg/m2	26.8 [24.0-30.2]
Smoking	33 (10.6)
Comorbidity	168 (54.0)
High blood pressure	120 (38.6)
Diabetes mellitus	34 (10.9)
Anxiety	25 (8.0)
Fall or bump	18 (5.8)
Hernia nucleus pulposus	20 (6.4)
Depression	16 (5.1)
Spine surgery	12 (3.9)
Other	74 (23.8)
Hours of sleep	7.0 [6.0-8.0]
Seated hours	4.0 [2.0-5.0]
Inappropriate postures	
Seated	202 (65.0)
Crouching	230 (74.3)
Supine/lateral decubitus	227 (74.0)
Collecting items	239 (76.8)

BMI = body mass index. IQR = interquartile range.
* Others: barber or stylist = 4, carpentry = 2, caretaker = 2, craftsman = 1, cartographer = 1, customer service = 1, blacksmith = 1, agronomist = 1, mechanic = 1, confectionery = 1, tailor = 1, upholstery = 1. ‡ quantitative variables are presented as median and interquartile range.

participants (73.3%). This was followed by traveling, which was reported as limited by 125 out of 180 participants (69.3%) *(Table 2)*. The overall proportion of disability associated with LBP was 140 (77.8%). The distribution of disability severity levels was as follows: mild disability in 97 participants (69.3%), moderate disability in 39 participants (27.8%), and severe disability in four participants (2.8%). The total ICF score interpreted from the ODI results showed a median of 14.0 (IQR: 6.0-24.0).

Factors associated with disability due to LBP

Participants with LBP disability had a median age of 52 years (IQR: 42.0-64.0), compared with 37.5 years (IQR: 30.2-56.5) for those without disability ($p < 0.01$). Based on this finding, a cut-off point of 50 years was established for multivariate analysis. The mean BMI for participants with LBP disability was 28.3 ± 5.3, compared with 26.0 ± 4.9 for those without disability ($p < 0.05$). Participants with LBP disability reported a median of 4.0 hours (IQR: 2.2-5.0) spent sitting daily, compared with 3.0 hours (IQR: 2.0-4.0) for those without disability ($p < 0.05$). The median hours of sleep were 6.0 (IQR: 5.2-8.0) for participants with LBP disability and 7.0 (IQR: 6.0-8.0) for those without disability ($p = 0.05$). The distribution of factors assessed between the groups with and without LBP disability, as analyzed in the first step of the logistic regression, is presented in *Table 3*.

The ORs and 95%CIs for factors that showed a significant association with LBP in the final step of the logistic regression analysis are summarized in *Table 4*.

LBP and quality of life

Participants with LBP had a quality-of-life score in the physical domain of 44.3 (IQR: 35.9-50.7), compared with 53.9 (IQR: 47.1-55.9), in the group without LBP ($p < 0.01$). In the mental domain, the quality-of-life score was 49.1 (IQR: 40.8-58.3) for participants with LBP and 50.1 (IQR: 41.6- 58.9) for those without, with no statistically significant difference ($p = 0.7$).

DISCUSSION

LBP is recognized as the leading cause of disability worldwide, exerting significant functional, economic, social and quality-of-life impacts. In this study, more than half of the population reported experiencing LBP in the last six months, with a prevalence of 57.9% (95%CI 52.3-63.3). This prevalence is notably higher than that in populations in other countries such as Spain (20.9%),

Ghana (15.7%), and Iran (25.2%). It is also higher than figures reported in urban populations of Latin America, including Brazil (28.8-48.1%) and Ecuador (14.1%). These discrepancies could be explained by methodological differences among studies, including the inclusion of participants from rural populations, variations in group selection criteria, such as age ranges, use of secondary information sources originally collected for other epidemiological objectives, as well as differences in the case definition of LBP.[5,13-18]

Table 2: Oswestry disability index in the population over 18 years of age with low back pain in Jacaleapa, El Paraíso, February-March 2024 (N = 180).

Answers	n (%)
1. Current low back pain	
Painless	59 (32.8)
Very mild pain	91 (50.5)
Severe-worse pain	30 (16.7)
2. Limitation in the basic activities of daily living	
Self-care without major pain	105 (58.3)
Self-care with further pain	49 (27.2)
Limited, needs help or bedridden	26 (14.4)
3. Lifting	
Lifts heavy objects without further pain	48 (26.7)
Lifts heavy objects with further pain	76 (42.2)
Cannot lift heavy, light objects	56 (31.1)
4. Limitation in walking	
No limit on distance	95 (52.8)
Limited to 1 km	52 (28.9)
Bedridden or bounded between 100 m-1 km	33 (18.3)
5. Sit	
Any chair, no time limit	63 (35.0)
Favorite chair, no time limit	50 (27.8)
Limited from 10 minutes	67 (37.2)
6. Standing	
No time limit, no additional pain	68 (37.8)
No time limit, with additional pain	49 (27.2)
Limited to 10 min	63 (35.0)
7. Sleep	
Not altered	109 (60.5)
Occasionally altered	49 (27.2)
Sleep less than 6 hours due to pain	22 (12.2)
8. Sexual activity	
Not applicable	36 (20.0)
Regular, causes no additional pain	102 (56.7)
Regular or near regular, increases pain	36 (20.0)
Very limited, impossible	6 (3.3)
9. Social activities	
Regular, causes no additional pain	108 (60.0)
Regular, Increases pain	40 (22.2)
Limits energy-confined activities	32 (17.8)
10. Travel	
Anywhere, pain-free	55 (30.5)
On either side, pain increases	69 (38.3)
Severe pain, travel greater than 2 hours	45 (25.0)
Impossible-restricted to travel less than 1 hour	11 (6.1)

The proportion of disability associated with LBP in this study, as measured using the ODI, was 77.8%, with approximately 70% of participants experiencing a mild degree of severity. Similarly, Gonzalez et al.[16] reported a mild level of disability in the population of Sao Paulo, Brazil, although disability in that study was assessed using the Roland-Morris Questionnaire, a different measurement tool. In contrast, a study conducted in Nigeria using the ODI reported a 44.5% prevalence of moderate disability, which is higher than the percentage of moderate disability observed in this study. This discrepancy is likely influenced by the fact that the Nigerian study population consisted of individuals attending rheumatology consultations, potentially leading to an overestimation of disability cases. A significant finding in this study is that one-third of participants with LBP exhibited moderate-to-severe disability, which could contribute to increased absenteeism from work and greater utilization of healthcare resources, both human and physical. This, in turn, may result in a substantial economic impact.[5,19]

The factors associated with LBP disability in this study included being married or in a common-law union, age ≥ 50 years, improper sitting posture and female sex.

In contrast to this study, Mirza et al.[20] found that being without a partner was correlated with greater disability due to LBP ($p = 0.03$). This difference could be attributed to the study population, which was selected from a clinical trial conducted at a rehabilitation institute, where participants were being treated for pain. Additionally, the population studied by Mirza et al. was younger. (28.8 ± 5.4) compared with the current study population. The association found in this study may be explained by the cultural context in Honduras, where being married or in a common-law union is often associated with older age. In Honduran culture, it is common to live with a partner from early adulthood, which might influence the observed correlation between marital status and LBP disability.

The 2019 U.S. National Health Survey reported that being over 45 years of age is associated with disability due to LBP, with mobility and work activities being the most affected.[21] These findings align with the results of this study, which can be explained by evidence in the literature suggesting that aging is associated with physiological and psychosocial changes that influence the prevalence and impact of LBP in this population. Such changes include osteodegenerative and disc changes, spinal ligament

Table 3: Frequency distribution among factors assessed with low back pain disability in the population over 18 years old in Jacaleapa, El Paraíso, February-March 2024 (N = 180).

Factors	With disabilities N = 140 n (%)	No disability N = 40 n (%)	p
Age, years			
≥ 50	74 (52.8)	11 (27.5)	**< 0.01**
Female	84 (60.0)	19 (47.5)	**0.03**
Marital status			
Married/common-law	102 (72.8)	17 (42.5)	**< 0.01**
Schooling			
Up to high school	114 (81.4)	33 (82.5)	0.3
Household income			
Less than 2 minimum wages	102 (72.8)	26 (65.0)	0.3
Occupation			
Cleaning-maintenance	52 (37.1)	14 (35.0)	0.5
Merchant	18 (12.8)	4 (10.0)	0.5
Agricultural-construction	27 (19.3)	10 (25.0)	0.2
Seated postures	23 (16.4)	7 (17.5)	0.2
Retired/unemployed	9 (6.4)	2 (5.0)	0.1
Students	2 (1.4)	0 (0.0)	1.0
Probable factors			
Smoking	14 (10.0)	4 (10.0)	0.2
Comorbidity	92 (65.7)	20 (50.0)	0.6
HBP	68 (48.6)	13 (32.5)	0.5
Diabetes mellitus	19 (13.6)	3 (7.5)	0.9
Anxiety	15 (10.7)	0 (0.0)	1.0
Fall	13 (9.3)	4 (10.0)	0.9
HNP	18 (12.8)	1 (2.5)	0.1
Depression	8 (5.7)	0 (0.0)	1.0
Spine surgery	9 (6.4)	0 (0.0)	1.0
Inappropriate postures			
Seated	102 (72.8)	21 (52.5)	**< 0.01**
Trunk flexion	106 (75.7)	29 (72.5)	0.06
Supine/lateral decubitus	102 (72.8)	31 (77.5)	0.8
Collecting items	116 (82.8)	30 (75.0)	0.2

HBP = High blood pressure. HNP = Herniated Nucleus Pulposus

thickening, myofascial pain, decreased physical activity, alterations in pain perception and psychological distress. These factors are thought to contribute to an increased likelihood of disability associated with LBP in older individuals.[22]

Similar to the findings in this study, Feldman et al.[21] reported that the female sex was most strongly associated with disability due to LBP. This association may be explained by post-pubertal physiological changes in women, including a higher percentage of body fat, lower bone density, reduced muscle mass and strength, as well as muscle imbalances and increased fatigue. These changes are largely influenced by hormonal fluctuations.[23,24]

Other authors have described the association between inadequate sitting posture and the presence of LBP. Tavares et al.[25] reported that having at least one poor postural habit significantly increases the likelihood of experiencing LBP compared to individuals with adequate posture. This finding aligns with the results of the current study, where poor sitting posture was associated with LBP and was identified as a factor contributing to some degree of disability.

In this study, it was observed that individuals with LBP disability spent significantly more hours sitting (at least 4 hours daily) ($p < 0.05$). Similarly, Gupta et al.[26] found that the number of hours spent sitting, measured using

accelerometers, was associated with the intensity of LBP in young workers. Consistent with these findings, Sany et al.[27] reported that college students who spent more hours sitting had a higher risk of developing LBP ($p < 0.005$). Both studies highlight the association between prolonged sitting and LBP. While the focus of these studies was not specifically on low back disability, existing literature supports a positive correlation between pain intensity and disability related to LBP.[28]

In an Iranian cross-sectional study, a higher BMI was found to be significantly associated with the onset of LBP ($p < 0.0001$). Similar findings were observed in this study, where participants with LBP disability had a significantly higher BMI than those without disability. This relationship can be explained by various mechanisms through which excess weight contributes to pain in overweight and obese individuals, both directly and indirectly. These mechanisms include overloads on the myoarticular system, a chronic pro-inflammatory state, sleep deprivation, reduced physical activity and secondary postural alterations.[13,29,30]

Few population studies explore the correlation between LBP and quality of life. In a study by Iguti et al.[31] conducted in São Paulo, Brazil, an inverse correlation was observed between the presence of LBP and the scores of the SF-36 Health Questionnaire, indicating a worse quality of life among individuals with LBP compared to those without. Similarly, in the population of Jacaleapa, the physical health component of quality of life was found to be the most affected among participants with LBP. This could be attributed to the negative impact of pain and associated disability on daily functioning and overall well-being.[32,33]

Strengths

Several aspects strengthen the validity and relevance of this study. The study employed multistage randomized sampling, reducing selection bias. This is likely one of the first studies to determine the prevalence of LBP in a Honduran population. The study establishes a significant association between LBP and disability.

Table 4: Magnitude of association between factors and disability due to low back pain among the population over 18 years old in Jacaleapa, El Paraíso, February-March 2024 (N = 180).

Factor	OR	95% CI	p
Married/common-law partnership	5.2	2.3-11.9	< 0.01
Age ≥ 50 years	4.2	1.8-10.0	< 0.01
Improper seated posture	3.4	1.5-7.8	< 0.01
Female	2.4	1.1-5.4	0.03

95%CI = 95% confidence interval. OR = odds ratio.

Limitations

This study has a few limitations. While 94.0% (311/331) of the target participants were interviewed, some households could not be included due to being closed or having only one representative per sex present. The clinical characteristics of LBP were not included in the study objectives, which could have provided additional insights and enriched the results. While the findings may be extrapolated to communities with similar characteristics, they are not representative of the entire country.

CONCLUSION

This study established a high prevalence of LBP among a sector of the economically active population in eastern Honduras. The findings revealed that LBP contributes to a considerable proportion of moderate-to-severe disability, with associated factors including sex, age, marital status, overweight and prolonged and inadequate sitting posture, all of which negatively impact the quality of life. To address this issue, it is essential to develop multimodal strategies for managing LBP and mitigating its physical and mental repercussions. Additionally, further studies are recommended to identify other potential risk factors that may influence disability due to LBP.

ACKNOWLEDGEMENT

This work was supported by a grant from the Dirección de Investigación Científica, Humanística y Tecnológica (DICIHT) of the Vicerrectoría Académica (VRA) of the Universidad Nacional Autonóma de Honduras for the translation of this paper and dissemination of results.

REFERENCES

1. Urits I, Burshtein A, Sharma M et al. Low back pain, a comprehensive review: pathophysiology, diagnosis, and treatment. Curr Pain Headache Rep. 2019; 23 (3): 23. doi: 10.1007/s11916-019-0757-1.
2. Stewart WJ, Ng N, Peltzer K et al. Risk factors and disability associated with low back pain in older adults in low- and middle-income countries. Results from the WHO Study on Global AGEing and Adult Health (SAGE). PLoS One. 2015; 10 (6): e0127880. doi: 10.1371/journal.pone.0127880.
3. Shiri R, Falah-Hassani K, Heliovaara M et al. Risk factors for low back pain: a population-based longitudinal study. Arthritis Care Res (Hoboken). 2019; 71 (2): 290-299. doi: 10.1002/acr.23710.

4. Vlaeyen JWS, Maher CG, Wiech K et al. Low back pain. Nat Rev Dis Primers. 2018; 4 (1): 52. doi: 10.1038/s41572-018-0052-1.
5. GBD 2021 Low Back Pain Collaborators. Global, regional, and national burden of low back pain, 1990-2020, its attributable risk factors, and projections to 2050: a systematic analysis of the Global Burden of Disease Study 2021. Lancet Rheumatol. 2023; 5 (6): e316-e329. doi: 10.1016/S2665-9913(23)00098-X.
6. Hoy D, Bain C, Williams G et al. A systematic review of the global prevalence of low back pain. Arthritis Rheum. 2012; 64 (6): 2028-2037. doi: 10.1002/art.34347.
7. Garcia JB, Hernandez-Castro JJ, Nunez RG, Pazos MA, Aguirre JO, Jreige A, Delgado W, Serpentegui M, Berenguel M, Cantemir C. Prevalence of low back pain in Latin America: a systematic literature review. Pain Physician. 2014; 17 (5): 379-391.
8. Von Elm E, Altman DG, Egger M et al. The strengthening the reporting of observational studies in epidemiology (STROBE) statement: guidelines for reporting observational studies. J Clin Epidemiol. 2008; 61 (4): 344-349. doi: 10.1016/j.jclinepi.2007.11.008.
9. Ministry of the Interior J and D. Municipal Profile Jacaleapa Municipal Development Index, El Paraíso. 2022.
10. Fairbank JC, Pynsent PB. The oswestry disability index. Spine (Phila Pa 1976). 2000; 25 (22): 2940-2952; discussion 2952. doi: 10.1097/00007632-200011150-00017.
11. Ware JE, Kosinsky M, Keller SD. SF? 12: How to score the SF? 12 physical and mental health summary scales. Boston, MA: The Health Institute, New England Medical Center; Second Edition. 1995.
12. World Health Organization. International Classification of Functioning, Disability and Health. Madrid, Spain; 2001.
13. Ghafouri M, Teymourzadeh A, Nakhostin-Ansari A et al. Prevalence and predictors of low back pain among the Iranian population: Results from the Persian cohort study. Ann Med Surg (Lond). 2022; 74: 103243. doi: 10.1016/j.amsu.2022.103243.
14. Miller D, Hasan K, Kirk A et al. Prevalence and characteristics of low back pain in a rural ghana primary care clinic population. PM R. 2020; 12 (3): 251-256. doi: 10.1002/pmrj.12245.
15. Alonso-García M, Sarría-Santamera A. The economic and social burden of low back pain in Spain: a national assessment of the economic and social impact of low back pain in Spain. Spine (Phila Pa 1976). 2020; 45 (16): E1026-E1032. doi: 10.1097/BRS.0000000000003476.
16. Gonzalez GZ, da Silva T, Avanzi MA et al. Low back pain prevalence in Sao Paulo, Brazil: a cross-sectional study. Braz J Phys Ther. 2021; 25 (6): 837-845. doi: 10.1016/j.bjpt.2021.07.004.
17. Bento TPF, Genebra CVDS, Maciel NM, Cornelio GP, Simeao SFAP, Vitta A. Low back pain and some associated factors: is there any difference between genders? Braz J Phys Ther. 2020; 24 (1): 79-87. doi: 10.1016/j.bjpt.2019.01.012.
18. Caiza Castro KE, Cifuentes Garcés KS, Grijalva Grijalva IO, Moran Lazo AR, Briones Fajardo DT. Prevalence of musculoskeletal disorders in patients attending the Health Center of the province of Guayas. Vive Magazine. 2022; 5: 909-917. doi: 10.33996/revistavive.v5i15.197.
19. Emorinken A, Erameh CO, Akpasubi BO, Dic-Ijiewere MO, Ugheoke AJ. Epidemiology of low back pain: frequency, risk factors, and patterns in South-South Nigeria. Reumatologia. 2023; 61 (5): 360-367. doi: 10.5114/reum/173377.
20. Baig AAM, Ansari B, Ahmed SI, Ishaque F, Farooqui WA. Association of demographics, lumbar active range of motion and disability in chronic low back: a baseline data analysis of a randomized controlled trial from Pakistan. BMC Musculoskelet Disord. 2024; 25 (1): 489. doi: 10.1186/s12891-024-07613-9.
21. Feldman DE, Nahin RL. Disability among persons with chronic severe back pain: results from a nationally representative population-based sample. J Pain. 2022; 23 (12): 2144-2154. doi: 10.1016/j.jpain.2022.07.016.
22. Wong AYL, Karppinen J, Samartzis D. Low back pain in older adults: risk factors, management options and future directions. Scoliosis Spinal Disord. 2017; 12: 14. doi: 10.1186/s13013-017-0121-3.
23. Allison KF, Keenan KA, Sell TC et al. Musculoskeletal, biomechanical, and physiological gender differences in the US military. US Army Med Dep J. 2015: 22-32.
24. Gulati M, Dursun E, Vincent K, Watt FE. The influence of sex hormones on musculoskeletal pain and osteoarthritis. Lancet Rheumatol. 2023; 5 (4): e225-e238.
25. Tavares C, Salvi CS, Nisihara R, Skare T. Low back pain in Brazilian medical students: a cross-sectional study in 629 individuals. Clin Rheumatol. 2019; 38 (3): 939-942. doi: 10.1007/s10067-018-4323-8.
26. Gupta N, Christiansen CS, Hallman DM, Korshoj M, Carneiro IG, Holtermann A. Is objectively measured sitting time associated with low back pain? A cross-sectional investigation in the NOMAD study. PLoS One. 2015; 10 (3): e0121159. doi: 10.1371/journal.pone.0121159.
27. Sany SA, Tanjim T, Hossain MI. Low back pain and associated risk factors among medical students in Bangladesh: a cross-sectional study. F1000Res. 2021; 10: 698. doi: 10.12688/f1000research.55151.3.
28. Sirbu E, Onofrei RR, Szasz S, Susan M. Predictors of disability in patients with chronic low back pain. Arch Med Sci. 2020; 19 (1): 94-100. doi: 10.5114/aoms.2020.97057.
29. Lucha-López MO, Hidalgo-García C, Monti-Ballano S et al. Body mass index and its influence on chronic low back pain in the spanish population: a secondary Analysis from the European Health Survey (2020). Biomedicines. 2023; 11 (8): 2175. doi: 10.3390/biomedicines11082175.
30. Chin SH, Huang WL, Akter S, Binks M. Obesity and pain: a systematic review. Int J Obes (Lond). 2020; 44 (5): 969-979. doi: 10.1038/s41366-019-0505-y.
31. Iguti AM, Guimarães M, Barros MBA. Health-related quality of life (SF-36) in back pain: a population-based study, Campinas, São Paulo State, Brazil. Cad Saude Publica. 2021; 37 (2): e00206019. doi: 10.1590/0102-311X00206019.
32. Mroczek B, Lubkowska W, Jarno W, Jaraczewska E, Mierzecki A. Occurrence and impact of back pain on the quality of life of healthcare workers. Ann Agric Environ Med. 2020; 27 (1): 36-42. doi: 10.26444/aaem/115180.
33. Hnatesen D, Pavic R, Rados I et al. Quality of life and mental distress in patients with chronic low back pain: a cross-sectional study. Int J Environ Res Public Health. 2022; 19 (17): 10657. doi: 10.3390/ijerph191710657.

Correspondence:
Eligia González
Tel. (+504) 9450-5373
E-mail: elimagogo@gmail.com