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Low back pain and functional changes in marketers: a cross-sectional study

Lombalgia e alterações funcionais em feirantes: um estudo transversal

Roquenei da Purificação Rodrigues[1], Kionna Oliveira Bernardes Santos[2]

[1]Corresponding author. Children State Hospital. Feira de Santana, Bahia, Brazil. ORCID: 0000-0001-8991-0331. roquenei@gmail.com
[2]Federal University of Bahia. Salvador Bahia Brazil. ORCID: 0000-0003-3181-2696. kionna.bernardes@gmail.com

RESUMO | INTRODUÇÃO: A dor lombar atinge níveis epidêmicos na população em geral, sendo uma das causas de incapacidade funcional e motivo mais comum para a consulta médica. Sua etiologia é multifatorial e os fatores mais comuns para esta sintomatologia envolvem os elementos biomecânicos, ocupacionais e as características individuais. **OBJETIVO:** investigar a ocorrência das lombalgias e as repercussões funcionais entre os feirantes do setor de hortifruti (varejo). **METODOLOGIA:** Foi realizado um estudo quantitativo, de natureza descritiva, com desenho de estudo transversal. Para tanto, aplicou-se o formulário de incapacidades Oswestry (modificado) e para a mensuração da dor, a Escala Visual Analógica. Os dados foram avaliados descritivamente, por meio de frequência absoluta e relativa. **RESULTADOS:** Foram entrevistados 100 feirantes, com a idade média de 43 anos. Destes, 73% apresentam alguma dor ou desconforto na região lombar e para minimizar tal ocorrência, 39,7% faziam uso de remédio oral/tópico sem orientação médica. Com relação às alterações funcionais, 14% apresentam incapacidade intensa. **CONCLUSÃO:** O estudo permitiu identificar, que os indivíduos com lombalgia, possuíam algum grau de incapacidade que repercutiam no seu contexto de vida.

PALAVRAS-CHAVE: Local de trabalho. Setor informal. Dor lombar.

ABSTRACT | INTRODUCTION: Back pain affects epidemic levels in the general population, one of the causes of disability and the most common reason for medical consultation. Its etiology is multifactorial and the most common factors for these symptoms involve biomechanical elements, occupational and individual characteristics. **OBJECTIVE:** To investigate the occurrence of low back pain and the functional consequences of the fairground's grocery sector (retail). **METHODS:** a quantitative study was conducted descriptive, cross-sectional study design. Therefore, the form applied Oswestry disability (modified) and pain measurement, the Visual Analogue Scale. The data were analyzed descriptively, through absolute and relative frequency. **RESULTS:** We interviewed 100 stallholders, with a mean age of 43 years. Of these, 73% have some pain or discomfort in the lower back and minimize such an occurrence, 39.7% were using oral medicine/topic without medical advice. With regard to functional alterations, 14% have a severe disability. **CONCLUSION:** The study revealed that individuals with low back pain, had some degree of disability that had repercussions in the context of his life.

KEYWORDS: Workplace. informal sector. Backache.

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Introduction

The show comes from the Latin word "Feria" which means "feast day"[1]. This practice of retail trade comes from the Iberian Peninsula, framed with African practices, and its economic importance with the decline of the feudal system and the rise of capitalism, since this activity has favored the emergence of new cities such as Feira de Santana[2,3].

The free fair, in addition to the significant contribution in the economic sector, is a link between different social groups that are derived from different locations, either to eat or work, expressing their commercial identity through songs, rhymes, phrases, or by way of exposing their goods to arouse the attention of clientes[4].

It is important to note that in most cases, the vendors have a journey of long daily and weekly work, devoid of health actions in their jobs, and often, they go to work sick and/or discomfort board in corpo[5].

In this perspective, it is important to note that backache reaches epidemic levels in the general population, one of the causes of disability and the most common reason for medical consultation. Population-based studies have investigated this occurrence among workers in the formal sector of the economy and its interference in quality of life and labor[6,7,8]. In contrast, not specifically know the repercussions that this causes symptoms among different groups of workers in the informal sector. What is necessary to investigate among the population fairground, so that health actions are traced directed to these.

The objective of this study was to investigate the occurrence of low back pain and functional impact on the fairground grocery sector (retail).

Materials and methods

This is a quantitative, descriptive, cross-sectional study design. The convenience sample consisted of 100 stallholders of the grocery sector (retail) Fair Supply Center de Santana, Bahia.

Data collection was performed with the fairground, in the first half of 2009, after informed about the objectives of the study and agreed to participate in the interview and signed the Informed Consent. Participants were chosen randomly, according to the following inclusion criteria: persons aged less than 18 years of both sexes with voluntary participation and marketer of banking with sales activity in the area of grocery retail. And as exclusion criteria, the following: fairground under the age of 18 years or those with cognitive impairment. The project was submitted to the Research Ethics Committee of the Adventist School of Bahia, being approved by Opinion no. 4055/08, registered in the CAAE4055.0.000.070-08.

Initially a form of characterization of the fairground was applied, in order to describe the sociodemographic and occupational data (age, gender, ethnicity, position or function, marital status, national origin, housework, working hours, weekly participation in open market, occurrence of accidents work and the occurrence of discomfort in the lower back). Then, the questionnaire was administered in Oswestry functional evaluation (modified), which is comprised 10 sessions that address the pain intensity, personal care, weight lifting, walking, sitting and standing posture, sleep, sexual activity, social life, and travels. Each question consists of 6 alternativas9. The methodological approach to analyze this data ranged in scale from zero to five points. The interim statements were scored according to this ranking. The interpretation of the results is realized as follows: 0% to 20% - minimal disability; 21% 40% - moderate disability; 41% 60% - Severe disability; 61% 80% - crippled; 81% 100% - invalid.

Subsequently, he graduated pain using a visual analog scale (VAS). For better understanding, it adopted the scale containing facial expressions. With instructional purposes, coded up this scale as follows: 0 - no pain; 1 -3 mild pain. 4-7 moderate pain; 8-10 strong / unbearable.

The data were analyzed descriptively, through absolute and relative frequency. Systematized in tables and graphs with the help of Excel program of Microsoft Corporation (2007).

Results

In this study, 100 fairgrounds screened, 17% were male and 83% female, mean age 43 + 11.15. Table 1 presents the characterization of the socio-demographic fairground.

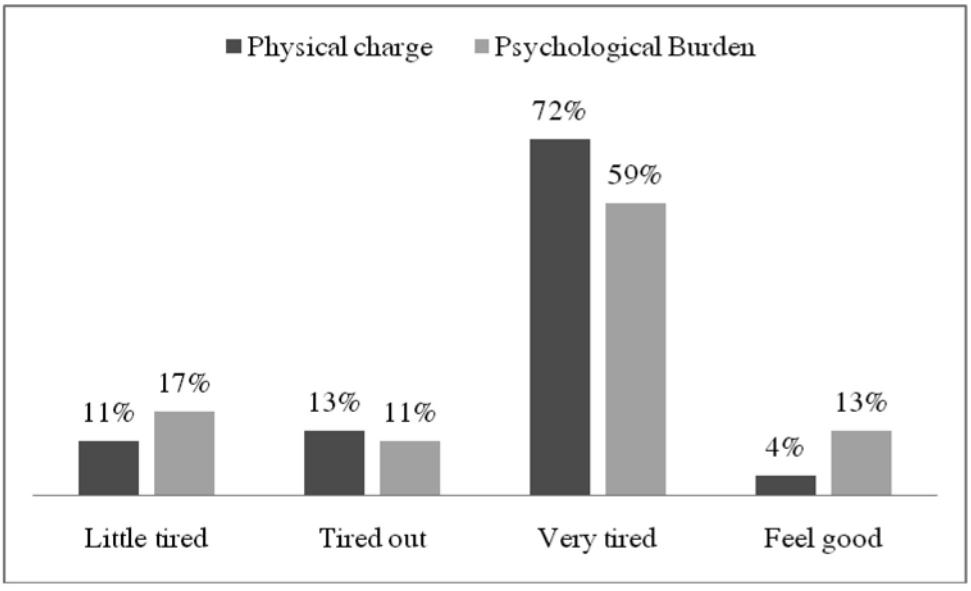
Table 1. Socio-demographic characteristics of fairground's grocery sector (retail) Fair Supply Center Santana - BA

FEATURES	N	%
SEX		
Male	17	17%
Female	83	83%
SCHOOLING		
Illiterate	5	5%
incomplete primary education	59	59%
Complete primary education	9	9%
Incomplete high school	15	15%
Complete high school	2	2%
PHYSICAL EXERCISE		
Constantly	13	13%
Rarely	9	9%
They did not practice	78	78%

Source: Field Research, Supply Center, 2009.
Prepared by the authors, 2009.

In general, the workers interviewed had 16.75 years in this activity + 10.01, with an average of 5.32 days worked per week + 1.58 days and average working hours from 10.79 hours + 2.10. Associated with these data, we found a high level in mental burden, where 59% felt very tired psychologically and 72% physically felt very tired after a working day (Figure 1).

Figure 1. Percentage of the psychic and physical load after the working day, between the vendors of the grocery sector (retail) Fair Supply Center Santana - BA



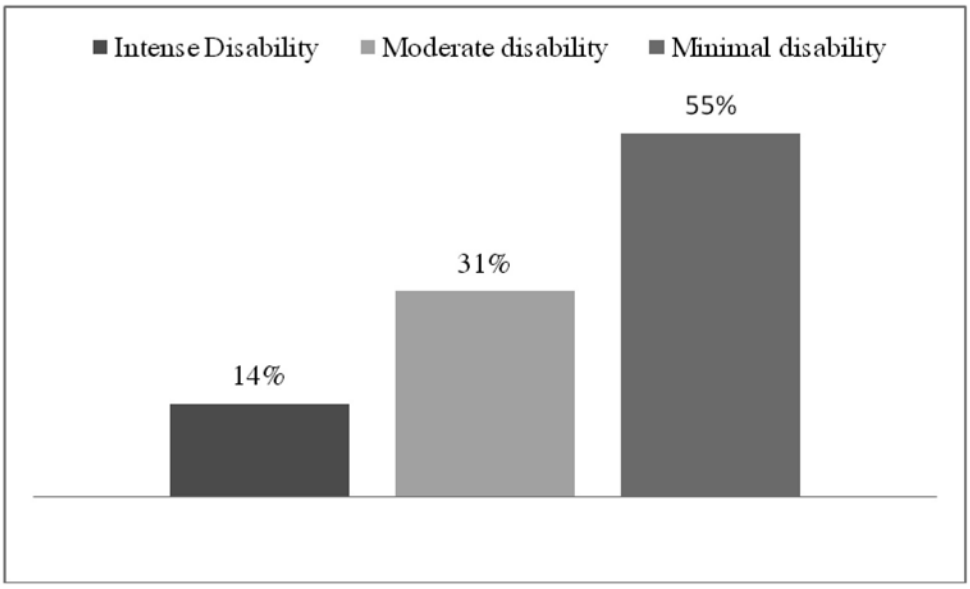
Source: Field Research, Supply Center, 2009.
Prepared by the authors, 2009.

In addressing the vendors for performing housework, 68% of performing such activity. This rate can be correlated to the prevalence of interviews women. Of these, 69% have the cooperation of someone for the implementation of domestic activities, and 81.2% carry out this activity every day.

Among the investigated fairground, 73% showed any pain, discomfort and "tingling" in the lumbar region. To minimize these symptoms, 39.7% were receiving drug treatment on their own, 31.5% used a home remedy, 15.1% do not adopt any combat mechanism and 13.7% sought a specialized professional. With respect to pain intensity measured by VAS, it was found that 28% had no pain, mild pain were 20%, 46%, 6% moderate pain and unbearable pain.

Figure 2 shows the result of low back pain disability among the studied population.

Figure 2. Functional disability resulting from back pain between the vendors of the grocery sector (retail) Fair Supply Center Santana - BA



Source: Field Research, Supply Center, 2009.
Prepared by the authors, 2009.

The Table 2 It describes the characteristics of the population who had evaluated lumbago.

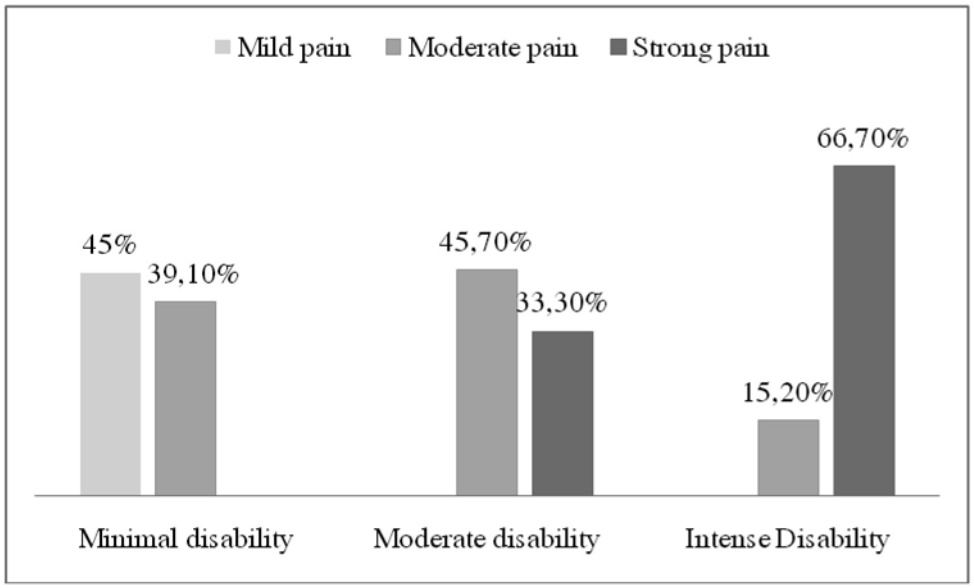
Table 2. Characteristics of market traders who had low back pain

FEATURES	N	%
SEX		
Male	13	17.8
Female	60	82.2
AGE		
young adult	47	64.4
advanced Adult	26	35.6
PHYSICAL EXERCISE		
Yes	19	26.0
Not	54	74.0
ATTITUDE AT WORK		
Standing	21	29.0
Seated	2	4.0
switches	50	68.5
WORK HOURS		
1-8 hours	9	12.3
9 hours or more	64	87.7
WORK DAYS		
1 to 5 days	25	34.2
6 days or more	48	65.8
SALE TIME		
up to 5 years	15	20.5
from 6 to 15 years	15	20.5
16 and over	43	58.9

Source: Field Research, Supply Center, 2009.
Prepared by the authors, 2009.

The figure 3 exposing the relationship between back pain and disability among the vendors.

Figure 3. Relationship between the degree of disability and pain fairground between the grocery industry (retail) Fair Supply Center de Santana-BA



Source: Field Research, Supply Center, 2009.
Prepared by the authors, 2009.

In this study, the largest number of respondents consisted of females. For Vasconcelos et al. (2007)[10], the inclusion of women in the formal and informal labor market, reaching over 40% of the workforce in many countries. However, most of these are directly linked to the precarious world of the informal sector, in order to survive.

As for the level of education, 59% had incomplete primary education and with regard to physical exercise, 78% did not practice. In a study by Pitanga and Lessa (2005)[11], including participants of the Cardiovascular Diseases Monitoring Program and Diabetes in Brazil, it was noted that the most sedentary percentage was observed in individuals with low education, both for men and women. According to these same authors, this is due to lack of opportunity to meet and develop physical exercises at the base.

Regarding the psychological and physical fatigue, the majority of respondents reported having both after the workday. The worker Mental exhaustion is realized when its activity ceases to be a source of pleasure, well-being, satisfaction, feeling useful, becoming place of pain, suffering and fatigue[12].

Ludemir; Melo Filho (2002)[13], say the instability of the labor relationship, low wages, lack of social benefits and protection of the labor laws are probably responsible for the development of anxiety and depression among informal workers.

It is important to note that individuals with psychological stress, tend to become strained, causing a severe contraction of the muscles, reducing the blood supply, causing muscle[14].

Muscle fatigue, according to Kroemer and Grandjean (2005)[15] is characterized by a muscle located event, acute and painful, which causes a reduction in yield.

According to Maciel (2007)[16] and Feix (1998)[17], Installation of fatigue produces biochemical changes

such as the imbalance of metabolic processes, the reduction of energy reserves, the increase in waste such as lactic and carbonic acid that causes the appearance of muscle pain.

Almeida (2005)[12] reports that workplace accidents are the greatest damage to health of workers becoming today undisputed object of Public Health and the Public Policy directed to the Unified Health System (SUS), with emphasis on prevention of harm to workers' health. However, it was found in this study that only 11% of respondents suffered some work accident during the years of toil.

In this study, it was found that individuals who had some painful discomfort in the lower back, mainly used as a strategy for reducing symptoms, the use of drugs without medical supervision, or the use of home remedies. Archangel, and Silva Nations (2007)[19], Claim that the individual has a physical disorder selects, in some cases, the drugs through the help of family members, neighbors and pharmacy clerks, and this self-medication now controls the development of their healing as they decide how much and when taking.

Regarding the use of home remedies, Rezende and Cocco (2002)20They affirm that the use of alternative practices in the population has persisted, among other reasons, because of the difficulty in access to health care that does not have their demands and needs met, which are partially met by the use of alternative therapies and also by choice.

Among the population studied, correlating lumbago and functional disability, it was found that 55% had a minimal disability and 14% severe disability.

When evaluating the incidence of low back pain and its interference in the adult population that had assistance at the Health Center Senhora da Hora, Matosinhos, Portugal, it was found that 17% of individuals had a temporary disability in the work because of this discomfort[21]. The loss of biological-defensive function due to low back pain can be associated with personality changes and depression, because besides the individual presenting this picture, also will be excluded from the capitalist system that increasingly aims to productivity and the accumulation of capital[22].

Due to the predominance of women in this study, it was found that 82.2% of these, had lumbago. Fillingim (2003)[23], to conduct a review of the literature regarding the relationship of pain between the sexes, found that women are more susceptible since there are several factors which favor such a framework. Among these, we can mention low pain tolerance, sex hormones, height, and was factors.

Although epidemiological studies have shown, for the most part, the prevalence of low back pain among women, to check the number of visits for low back pain among treated at the Reference Center for Health Macroregion Joinvile worker, Destri and Mombach (2006)[24] They found a predominance of males.

The young adults had the highest occurrence of symptoms. Ikari (2009)25, By checking back pain among horticultural chargers CEASA / Campinas, describe a similar result. This author points out that adults with advanced age can take self-defense strategies as a way to keep working.

With regard to physical exercise, of those with low back pain, 74.0% did not practice. Although there is evidence that active groups have less likely to have localized pain in the lower back it is important to consider that only the factor to carry out the exercise in daily life, does not mean protection factor, since it must take into consideration the care of the type of exercise, activity level, workload, and posture corporal[26].

People with more years of service, hours worked daily and working days in the week are those that most reported low back pain. In a study by Tables (2006)28with supermarket cashiers was identified that the worker is subjected to long hours, the reduced intervals for food or rest, resulting in an increased number of workers become ill. Ikari (2009)[27], points out that the longer the length of service, most back pain.

The work postures were also evaluated. Individuals who reported having low back pain, 68.5% alternated constantly. The execution of the standing working mainly in static for a long time, not only causes fatigue of the muscles that favors the adoption of wrong postures, as adverse conditions of blood flow[15].

Barbosa and Penoni (2004)[28] reported in their study that the sitting position is an ideal position relative to energy expenditure. On the other hand, produces a greater load on the lumbar spine to the standing position, because they have straightening of the lumbar region, and a center of gravity shift forward compromising also pelvis and lower limbs.

Among the vendors, to check the relation between the degree of back pain and disability, it was found that individuals with severe pain, had the highest percentage of severe disability (66.70%), since the vendors to moderate pain, showed 45.70% moderate disability.

Moraes (2003)[29] states that impairments triggered by back pain not only have repercussions on the labor activity in the activities of daily living. Thus, this factor represents a significant social and economic problem, since it means spending on health care, and impact on the quality of life or even cause mental disorders due to functional changes.

Conclusion

The results of the study made it possible to check a high prevalence of low back pain associated with functional changes in the context of the life of the fairground grocery sector (retail) Fair Supply Center Santana - Bahia. The data presented indicate the need for promotion and prevention measures the health of this working population since the actions in the health of informal workers is still a big challenge.

Contributions of authors

Rodrigues PR and KOB Santos participated in the elaboration of the study design, analysis, and interpretation of results and writing of the manuscript.

Conflicts of interest

No financial conflicts, legal or political involving third parties (government, private companies, and foundations, etc.) has been declared for any aspect of the submitted work (including but not limited to grants and funding, participation in the advisory board, study design, preparation manuscript, statistic analysis, etc.).

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