

40 - PRESENCE OF LOW BACK PAIN IN PHYSIOTHERAPY STUDENTS OF A PRIVATE COLLEGE LOCATED IN CASCAVEL, PR

JAYNE GRASEL;
 JOSÉ MOHAMUD VILAGRA
 FACULDADE ASSIS GURGACZ - FAG, CASCAVEL, PARANÁ, BRASIL.
Jaynegrasel@hotmail.com

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INTRODUCTION

Low back pain is usually defined as pain, discomfort, muscle tension or hardness located under the ribcage until the bottom of the gluteo, with or without leg pain. (ROBALO et al. 2011).

To Ehrlich (2003) low back pain is naimportante reason of inability, with high level presence in every culture, influencing negatively on people's quality of life. Cox (2002) says that between 60% and 80% of adults have or had na inability pai non spine, mainly on low back.

Low back pain is one of the most frequent diseases nowadays, happening in more than 80% of people during their lifetime. Low back pain is mainly acute and self-limited, but, can become chronic, generating a huge suffering and serious repercussion. As low back pain can be caused by the practice of some activities that overloads spine, physiotherapists, that make exhaustive activities on a daily basis, as moving patients with some physical limitations, patient's assistance, manual resistance, weight lifting and material lifting among other things, exposing their spine a big weights during their work time. So, physiotherapists are Professional that can have low back pain. (SILVA et al, 2005).

Presence of low back pain is stimated in 50% to 80% in any time on people's lifetime of industrialized nations (CARVALHO et al. 2009).

To be sitting for long periods is one of the causes of low back pain, as it causes increasing of pressure inside the intervertebral disc. This pressure increases 35% if person shifts from standing to sitting. Another importante thing about remain sitting is that with the falttening of intervertebral disc, all the structures of low parto f spine, as ligaments, nerves and small articulations are stretched. As these structures are very sensitive, there can happen symptoms of low back pain, mainly when mantainningna anterior body flexion. (OLIVEIRA, 2004).

The main objective is to verify the presence of low back pain in physiotherapists students of a private college in Cascavel, Pr.

MATERIALS AND METHOD

This research is epidemiologic with field research quantitative and transversal cut. It was done from May 19th, 2014 until June 6th, 2014, in a private college, AssisGurgacz, in Cascavel, Pr.

The sample was composed by 95 students, 20 from each class or 100% off emale physiotherapy students. The age of this population is between 18 and 30 year old. The choice of this students was intentional and random.

Data collection was done through a questionnaire fill prepared by the researchers, based on inability index questionnaire of Oswestry, 10 minutes screening testo f Hender and Roland Morris questionnaire.

The exclusion criteria was the students that didnt want to participate of the research, the one with prognosis of herniated discs and arthodesis, pregnants and with neurological changes.

Data were analysed on Microsoft Office Excell 2013 and statistic evaluation was done on SPSS15.0 software.

RESULTS

95 students participated from the research. 55 students had low back pain during their lifetime or live with pain nowadays. The presence of low back pai non the sample was 60,2%, the average of duration of pain was 22.4 +- 2.1 months. Data are on the table below

Period	Students	With low Back pain
1º	20	8
3º	20	10
5º	20	13
7º	20	16
9º	13	8

Table one: Presence of low back pain

The average age of students with low back pain was 21,3 +- 0,4 year old, with intensity of pain of 3,6 +-1,4. The pain is from low intensity to moderate intensity. 67,9% of these students related low back pain when they do physical activity, 12,5% with reduced muscle strenght, 7,1% with local pain, 7,1% with sciatica symthoms, 5,4% with legs tingling or numbness. Related to the activity or position that makes the pain worse, 7,4% of the students related yes and 28,6% related no: the main activities related were: remain sitting 30,4% and squat 21,4%, 62,4% of the students related that they remain sitting for more than 2 hours.

Relation between weight and height was evaluated through body mass index (IMC). It was considered overweight when result was above 25 (KHOURI et al. 2008). The average was 22,5+- 0,3 and average height was 1,63 +- 0,0m and average weight was 60+ - 1,1 Kg

Students that worked as a trainee on patient care clinic, the average was 52,7%, working average 4,9 +-0,9hours per week. From 55 students that had low back pain, 31 were working as a trainee.

Regarding physical activities, 62% of the students didn't work out and 38% worked out about 3,5 +- 0,1 hours per week. The activities were: running 5,4%, walking 6,5% and going to the gym 25,8%.

The biggest difficulties level related by the low back pain patients were: working out 51,1% with a lot of difficulty, doing the cleaning 50,2% with some difficulty , to squat 39,4% with a lot of difficulty, remain stand 35,7% with a lot of difficulty. The other difficulties related on the research are on the table below.

		0 No difficulties	1 Low difficulties	2 Some difficulties	3 Big difficulties	4 inability	5 Not applied
1	Sleep all night long	58,9	21,5	19,6	0	0	0
2	Turning over in bed	60,7	23,2	10,7	5,4	0	0
3	Reach high shelves	55,3	28,6	10,7	3,6	0	1,8
4	Carrying two shopping bags	46,4	17,9	28,6	7,1	0	0
5	Doing the cleaning	10,5	21,4	50,2	16,1	0	1,6
6	squat	23,1	16,1	21,4	39,4	0	0
7	Remain sitting	14,3	26,8	21,4	35,7	1,8	0
8	walking	57,2	26,8	8,9	7,1	0	0
9	Working out	0	7,1	20,3	51,1	17,9	3,6

Table 2: Identified difficulties

DISCUSSION

This research verified the presence of low back pain in physiotherapy students aged between 18 and 30 years old. On the investigation, was observed the presence of low back pain in 60.2% of the students. On Robalo (2011) study, presence of low back pain was 60% in a sample compound of 186 people aged between 18 and 42 years old. On Machado et al, (2013) study, with a sample of 45 people aged between 26 +6 years old, presence of low back pain on physiotherapy trainee was 59,3%. These data are similar to the one found in this research.

Nyland and Grimmer (2003) found on their study that the risk of low back pain in physiotherapy students is increases significantly on the first year of trainee program. To these authors, this risk becomes higher as soon as the graduation is going to the end and during professional life.

Presence of chronic low back pain increases linearly as IMC increases, which is related to Silva et. al (2004) study. This is justified by the extra weight that spine must sustain. This can change the biomechanical balance of the body, justifying the higher chronic low back pain in overweight people. The results found on Guedes (2006) research show that people that have body mass index above normal (>30 Kg/m²) had higher presence of pain. The author believes that obesity is a risk factor to the appearance of low back pain. He also states that low back is the most injured, mainly due to the weight it supports. But, on this study, average IMC was 22.5 +0,3. So, in this case there is no relation between obesity and low back pain.

Remain sitting for a long period was one of the risk factors found on this study. The same was found by Moraes et.al (2009). He verified that the longer people remain sitting, the bigger was the discomfort. People that remained sitting for 3 hours a day, 33,3% had discomfort and people that remained sitting for eight or nine hours a day, 66,7% had discomfort. Souza (2010), with the same intention, states that wrong positions for a long period, increases the pressure on the spine, causing discomfort and pain. It was also observed on this study, but without statistics significance.

As per Barros et.al (2011), to remain sitting helps muscle shortening, reducing mobility of hip joint and low back.

One of the most important results of this research was that 38% of students worked out and 25% practiced bodybuilder at the gym. On Souza et.al (2010) study, was observed that there was a high presence of low back pain during and after the bodybuilder exercise, 41% and 63% respectively. As per Bompa and Cornacchia (2000), there is a relation between the way exercise is done, low repetitions and high weight, as a wrong exercise, causing low back pain. As per Duca, Silva and Nhaus (2011), bodybuilder exercise must respect the individualities of each person. They also say that to workout regularly improves life quality.

CONCLUSION

This research showed that low back pain is present in 60.2% of physiotherapy students. The main issues related, known as ergonomic activity risk, 25,8% of students workout at the gym and related discomfort, mainly on squat exercise 39,4%. On this study, there was not found relation between obesity and low back pain, but it identified an increase of low back pain presence when evaluated the long period remained sitting.

REFERENCES

- BARROS, S. S.; ÂNGELO, R. D. C. O.; UCHÔA, E.P.B.L. Lombalgia ocupacional e a postura sentada. Rev Dor. São Paulo, 2011 jul-set;12(3):226-30.
- BOMPA, T. O.; CORNACCHIA, L. J.; Treinamento de força consciente: estratégias para ganho de massa muscular. São Paulo: Phorte, 2000. 277p.
- CARVALHO, L. C.; MORAIS, I. B.; FREITAS, D. G.; "Donas de casa do grupo humanizar: Prevalência de lombalgia e dos fatores associados". Revista funcional, v 2, n 2, p.88-99, dez. 2009.
- COX, J. M. Dor lombar 1ª edição brasileira, São Paulo: Manole, 2002.
- DUCA, G. F.; SILVA, S. G.; NAHAS, M. V. Introdução, IN: DUCA, G. F.; NAHAUS, M. V (Org). Atividade física e doenças crônicas: evidências e recomendações para um estilo de vida ativo. 1. Ed. Londrina: Midiograf, 2011. Cap. 1, p. 13-16.
- EHRLICH, G. E.; Low back pain. Bulletin - World Health Organization, v. 81, p. 671-676, 2003.
- GUEDES, F.G.; MACHADO, A. P. N. B. Fatores que influenciam no aparecimento das dores na coluna vertebral de acadêmicos do curso de fisioterapia. Estação Científica Online (Ed. Esp. Saúde) Juiz de Fora, n. 05, Jan. 2008
- KHOURI, M. E.; et al. Prevalência de lombalgia em garimpeiros de Serra Pelada, Pará / Brasil. Acta Fisiatr. São Paulo, 2008; 15(2): 82 - 86.
- MACHADO, R. M.; PEREIRA, K.C.; CELEDONIO, C. P.; LEMOS, T. V. Lombalgia em estagiários de fisioterapia da clínica escola da universidade salgado de Oliveira – Campus Goiânia. Caderno de estudos e pesquisa/ Goiânia. Vol. 17, Nº 37

(JUN 2013)–

MORALES, J. C.; FACCI, L. G. Prevalência de lombalgia em alunos de fisioterapia e sua relação com a postura sentada. Encontro Internacional de Produção Científica Cesumar 2009.

NYLAND, L. J.; GRIMMER, K. A. Isundergraduatephysiotherapiststudy a riskfactor for lowbackpain? A prevalence study of LBP in physiotherapy students. BMC Musculoskeletal Disorders, 4:22. 2003.

OLIVEIRA, M. C.; BERTO, V. D.; MACEDO, C. S. G. Prevalência de lombalgia em costureiras e correlação com a qualidade de vida e incapacidade. Arq. Ciênc. Saúde Unipar, Umuarama, 8(2), mai./ago. p.111-119, 2004.

ROBALO, C. S. Prevalência de lombalgia nos alunos da licenciatura de fisioterapia da escola superior de saúde Atlântica. Universidade Atlântica. Barcarena 2011.

SILVA, C. S.; SILVA, M. A. G. Lombalgia em fisioterapeutas e estudantes de fisioterapia: um estudo sobre a distribuição da frequência. Revista fisioterapia Brasil, São Paulo, v. 6, n. 5, 2005.

SILVA, M. C.; FASSA, A. G.; VALLE, N. C. J. Dor lombar crônica em uma população adulta do sul do Brasil: prevalência e fatores associados. Cadernos de saúde Pública, Rio de Janeiro, v. 20, n. 2, p. 377-385, 2004.

SOUZA, R.F.C.; PEREIRA, A. A. J. Prevalência de dor lombar em praticantes de musculação. Revista da Unifebe. Brusque, 2010.

Rua Tersilio Salgo, nº 486, AP:09, Cascavel – Pr.

PRESENCE OF LOW BACK PAIN IN PHYSIOTHERAPY STUDENTS OF A PRIVATE COLLEGE LOCATED IN CASCAVEL, PR

ABSTRACT

Introduction: Low back pain is usually defined as pain, discomfort, muscle tension or hardness located on the lowest part of spine, below thoracic spine and above sacrum, with or without leg pain. Objective: The objective of this article was verifying the presence of low back pain in physiotherapy students of a private college in Cascavel, Pr. Methodology: this is a n epidemiological study, with quantitative and cross cut research. The sample was compound by 95 students, female, ages between 18 and 30 years old. The researchers made a questionnaire, based on incapacity level of Oswestry, 10 minutes screening trial of Hendler and Roland Morris questionnaire, applied from May 19th 2014 until June 06th 2014. The results were analyzed on Microsoft Office Excel 2013 and statistics evaluation was done on SPSS15.0 Software. Results: We observed that 60,2% of the students had low back pain and intensity fluctuated from 3,6 +/-1,4 weak to medium. 39,4% have difficulty to execute squat exercise at the gym. 62,4% of the students have low back pain when they remain seated for a period longer than 2 hours. Conclusion: this study showed the presence of low back pain in 60,2% of the students and possible reasons are remain seated and the gym exercises when made in an incorrect way.

KEYWORDS: Low back pain. Presence. Young adults.

PRÉVALENCE DE LA LOMBALGIE EM CURSOS ACADÉMICOS DE TRATAMENTO D'UNE INSTITUTION PRIVÉE DE CASCAVEL PR

RÉSUMÉ

Introduction: La lombalgie est habituellement définie comme une douleur, l'inconfort, la tension musculaire ou raideur à la partie inférieure de la colonne vertébrale, et en dessous de la nervure au-dessus du sacrum, avec ou sans colonne de douleur à la jambe. Objectif: Cette étude visait à déterminer la prévalence de la lombalgie au cours académique de la physiothérapie dans une institution privée dans la ville de Cascavel-PR. Méthodologie: Il s'agit d'une étude d'une épidémie de recherche sur le terrain, quantitative et transversale, l'échantillon était composé de 95 femmes universitaires âgées de 18 à 30 ans, un questionnaire, écrits par les chercheurs eux-mêmes a été préparé, sur la base de questionnaires des Oswestry index de handicap, le dépistage d'essai 10 minutes Hendler, et Roland Morris questionnaire, administrés sur 19 mai 2014 à 6 Juin 2014, les données ont été compilées dans Microsoft office Excel 2013, effectué une analyse statistique descriptive par le logiciel SPSS 15.0. Résultats: Il a été observé que 60,2% des universitaires sont mal de dos, avec une intensité de 3,6 ± 1,4 faible à modérée, 39, 4% ont de grandes difficultés dans l'exercice de squat dans la gymnase, que 62,4% des universitaires lombalgies rapporté reste assis pendant plus de 2h. Conclusion: L'étude a révélé une prévalence de 60,2% dans la douleur lombaire, et les conclusions possibles ont été passées assis, et les exercices effectués dans la gymnase mal.

MOTS CLÉS: douleur au bas du dos. Prévalence. Les jeunes adultes.

LAPREVALENCIA DEL DOLOR LUMBAR EM CURSO ACADÉMICO DE TERAPIA DE UNA INSTITUCIÓN PRIVADA DE CASCAVEL – PR

RESUMEN

Introducción: El dolor lumbar se define generalmente como dolor, malestar, tensión muscular o rigidez en la región inferior de la columna vertebral, y por debajo de la costilla superior del sacro, con o sin la columna de dolor en la pierna. Objetivo: El presente estudio fue determinar la prevalencia de dolor lumbar en el curso académico de la fisioterapia en una institución privada en la ciudad de Cascavel-PR. Metodología: Se trata de un estudio de una epidemia con la investigación de campo, cuantitativa y transversal, la muestra estuvo conformada por 95 mujeres académicas de entre 18 a 30 años, un cuestionario, escrito por los propios investigadores fue preparado, basado en los cuestionarios de los índices de discapacidad de Oswestry, proyección de prueba 10 minutos cuestionario Hendler, y Roland Morris, administrado en mayo 19, 2014 a junio 6, 2014, los datos fueron tabulados en Microsoft Office Excel 2013, realizo el análisis estadístico descriptivo por el software SPSS 15.0. Resultados: Se observó que el 60,2% de los académicos tienen dolor de espalda, con una intensidad de 3,6 ± 1,4 débil a moderada, 39, 4% reportó grandes dificultades en squat en el gimnasio, que el 62,4% de los académicos dolor de espalda baja informado permanece sentado durante más de 2 h. Conclusión: El estudio reveló una prevalencia de 60,2% en el dolor lumbar, y los posibles hallazgos se pasó sentado, y los ejercicios a cabo en el gimnasio de forma incorrecta.

PALABRAS CLAVE: Dolor de espalda baja. Prevalencia. Los adultos jóvenes.

PREVALÊNCIA DE LOMBALGIA EM ACADÊMICAS DO CURSO DE FISIOTERAPIA DE UMA INSTITUIÇÃO PRIVADA DO MUNICÍPIO DE CASCAVEL-PR

RESUMO

Introdução: Lombalgia é usualmente definida como dor, desconforto, tensão muscular, ou rigidez, localizada na região inferior da coluna vertebral abaixo da coluna torácica e acima do sacro, com ou sem dor na perna. Objetivo: A presente pesquisa foi verificar a prevalência de lombalgia em acadêmicas do curso de fisioterapia de uma instituição privada do município

de Cascavel-PR. Metodologia: trata-se de um estudo de caráter epidemiológico com pesquisa de campo, quantitativa e de corte transversal, a amostra foi composta por 95 acadêmicas do sexo feminino com idade entre 18 à 30 anos, foi elaborado um questionário, de autoria dos próprios pesquisadores, tomando como base os questionários do índice de incapacidade de Oswestry, Teste de triagem de 10 minutos de Hendler, e questionário de Roland Morris, aplicado em 19 de maio de 2014 à 06 de junho de 2014, Os dados foram tabulados no Microsoft Office Excel 2013, realizada análise estatística descritiva pelo Software SPSS 15.0. Resultados: Observou-se que 60,2% das acadêmicas apresentam dor lombar, com intensidade $3,6 \pm 1,4$ fraca à moderada, 39,4% relata muita dificuldade no exercício de agachamento na academia, 62,4% das acadêmicas que relatam dor lombar permanece sentada por mais de 2h. Conclusão: O estudo revelou uma prevalência de 60,2% na dor lombar, e os possíveis achados foram a permanência sentada, e os exercícios realizados na academia de forma inadequada.

PALAVRAS-CHAVE: Lombalgia. Prevalência. Adultos jovens.