# 151 - INFLUENCE OF LOW BACK PAIN IN ACTIVITIES OF DAILY LIVING IN CAREGIVERS OF CHILDREN WITH CEREBRAL PALSY IN CLINIC FAG.

HEVILYN BAZEGIO
DAYANE DOS SANTOS VERONEZE
Faculdade Assis Gurgacz (FAG) – Cascavel – Paraná – Brazil
h.bazegio@yahoo.com.br

## INTRODUCTION

According to Vieira (1996), care means the act or task to ensure of welfare os someone, giving assistance, taking responsability and charges inherent in the act. Now is fundamental know that only makes sense care of someone when it can not perform their daily activities, or is unable to care for themselves, os can not perform their daily tasks without help from others.

The impact of low back pain in caregivers of children with cerebral palsy (CP) despite several risk factors involved, has been little studied. On the CP there are disorders of motor and cognitive qnd the greater the commitment, the more dependent the child becomes a caregiver. Furthermore, studies show that caregivers of children with functional limitations are more likely to experience depression and stress when compared to caregivers of children without disabilities.

The term cerebral palsy (CP) designates a group of brain disorders that are stationary that due to the injury or developmental abnormalities that occur during fetal life or during the first months of life. The motor disturbances are typically differentiated and in the clinic according to the affected part of the body (hemiplegia, diplegia and quadriplegia). (SHEPHERD, 1995).

According to Raina et. al. (2004), CP generates disability in childhood leading to functional limitation in the long term. Rotta (2002) adds that the motor disorder, based in clinical, associated in different combinations, a series of symptoms such as mental retardation, epilepsy, language disorders, hearing, eye, and visual conduct. Mancini et. al. (2004) also reports that the greater the commitment, the more dependent the child becomes a caregiver.

Nolan (2000) quoted in Maranhão (2005) says that these children needs special attention because of multiple systems involvement. Brehaut (2004) and Ones (2005) add that having a child with CP becomes a immense challenge, since their caregivers should try to control the health problem of their children and attempting to maintain their activities of daily living.

Gonçalves and Sell (2002) report that it is possible to say that there are three types of caregivers: institutional caregivers, which is requested by the institution where the child is, but is hired by the family; the home caregiver also hired by the family and caregivers who are the family, the spouses, parents, grandparents or any family member who, voluntarily ou otherwise assumes the task of caring for the child.

According to Pearlin et. al. (1990), be caregiver understands the various roles carried out over the life course and restructure themselves when situations of disability and dependence emerge. Zarit (1990) quoted in Jung (2006), says that providing care may cause physiological stress. The activities of personal hygiene, such as bathing, combing hair, brushing teeth, move the child, feeding her, require energy and can tired anyone.

Tuna (2004) quoted in Camargos et. al. (2009) reports on studies that the quality of life of caregivers of children with CP is decreased in the areas of physical function, vitality, general health and emotional role.

The demand of the families of children with CP is significantly higher, since it needs to participate more actively in the care of these children. This justifies the high incidence of lower back pain in more than 70% of caregivers of children who need support to transfers.. (TONG et al, 2003).

According to Horng et. al. (2005) the low back pain is one of the most frequent diseases in the industrialized world and generates impacts not only physical health, but also interfers in the functionality and quality od life of individuals. Gheldof (2006) and Carragee (2001) quoted in Maia (2008) say there is a multiplicity of factors that contribute to the development and maintenance of chronic low back pain which, in turn, can lead to reduced functional capacity.

However, care of these children is inevitable considering that depend on their caregivers. However, the manner in which these precautions are carried out directly interferes with the caregiver's life, since the lack of guidelines leads to an ainappropriate uso of body posture, thus leading to disabilities, so reflecting the life of the caregiver and the child to be cared for.

Thus, the present study search identify how far the dependence of these children is interfering in the lives of their caregivers, taking into account that these are most of the time working out these children.

The research has as objective check the influence of low back pain, if present, in activities of daily living (ADLs) in caregivers of children with cerebral palsy on the clinic FAG, through a Roland Morris questionnaire (attached).

## MATERIALS AND METHODS

This is a epidemiological study, is the type qualitative and quantitative cross-sectional with a probability sample.

The research was perfomed on integrated clinica Assis Gurgacz College (FAG), located at Torres Avenue, No. 500, in the Cascavel - PR city, which has a public target caregivers of children with cerebral palsy.

The study population was composed of caregivers of children with cerebral palsy who attend the physiotherapy in clinic FAG, taking the sample caregivers who were available and the criteria for inclusion: caregivers of children diagnosed with cerebral palsy and those who agreed in signing the free and clear commitment, were excluded from the study caregivers that presented diagnosis of muscle disorders with a history of surgery of fracture the spine, those who refused to sign the term and those who didn't experience low back pain, totaling 14 caregivers, where 1 was male and 13 female with average of age 32.28.

The data collection was conducted between June and July 2010, where it was explained to the participant about the research, and delivered a statement of commitment free and clear, sociodemographic data were collected using questions develops for this study, gathering information of gender, age, weight, height, time of onset of pain and occupation of the subjects. To measure the intensity of pain was used to visual analogue scale (VAS), where the subject indicates the level of the pain 0 to 10, with 0 without pain and 10 several level of pain. After we applied the Roland Morris questionnaire (attached), by a trained examiner in advance where it could explain the questions if there doubts on the caregivers. This questionnaire assesses the level of disability in activities of daily living (ADLs), containing 1 questions with 24 statements that describe functional limitations commonly related to low back pain. The result is the number of marked items. The scores range from 0 to 24, adding the affirmative answers; scores above 14 indicate significant disability. Each interview took approximately 15 minutes.

The data were tabulated using the Microsoft Excel 2007 (Windons 7 operating system Microsoft Corporation, Inc.)
The research project was approved by the Ethics Committee on Human research of the Assis Gurgacz College (FAG).

**RESULTS**

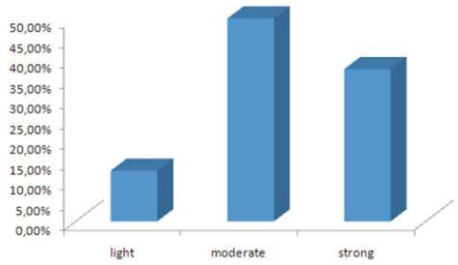
Initially, were analyzed 14 questionnaires, where 92.86% were female and 7.14% male, with an average of 32.28% year, ranging from 19 to 52, and average weight of 60.07kg ranging from 48 to 82. Since 100% of caregivers were family and devoted his full time to caring for the child.

When asked about the presence of low back pain, 57.14% (8 caregivers) responded yes, however, 42.86% (6 caregivers) responded that they hadn't low back pain, from then on were excluded those questionnaires 6.

When questioned about the pain, was found the presence of chronic pain, considering that it tool an average of about two years, where 62.05% reported that this pain increased overnight, 25% during the day and 12.05% has constant pain, in addition 100% reported that pain increased during activities that require greater efforts.

Regarding the amount of pain, half of the sample has moderate pain.

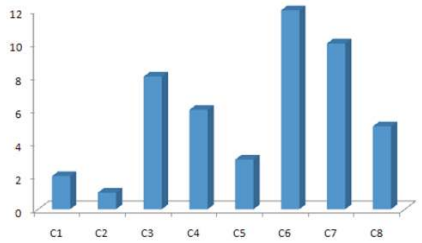
GRAPH 1: Pain Intensity




Source: Author, 2010.

Regarding the second part of the questionnaire (Roland-Morris) was found an average of about six items marked, ranging from 1 to a maximum 12 items. Thus showing that the average presented is low, considering that just over 14 items is considered a severe level os disability.

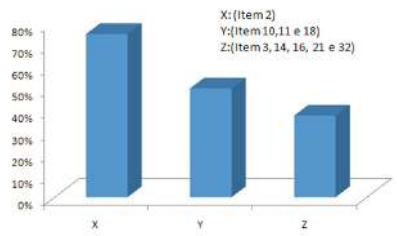
GRAPH 2: Number of items reposted by caregivers




Source: Author, 2010.

Most of the answers marked, 75% of interviewed change their postion to try to relieve the pain (item 2); 50% are unable to stay long standing and not perfom movements that need to bend or crouch, in addition also reported that sleeping on up to worsen the pain condition (items 10, 11 and 18) and 37.5% perform ADLs slower than normal when they have pain (items 3, 14, 16, 21 and 23). However the pain did not influence the basic activities as getting around, toiletries, clothing and do not exhibit behavioral and physiological changes, mood and appetite, respectively (items 1, 4, 7, 15, 19 and 24). Recalling that the respondent could choose more than one alternative.

GRAPH 3: Items most responded




Source: Author, 2010.

**DISCUSSION**

To study the functional impact of low back pain inn caregivers of children with CP, can provide information for understanding the physical and psychosocial health of this population. (Morais et al, 2008).

The ability to perform activities of daily living is of great importance in the life of any individual, especially in individuals who need to take care of themselves and anyone else, as is the case of caregivers. For this, there are ways to assess how much influence the activities of caregivers in the daily life of each one, like the Roland-Morris.

Analyzing the results of this research, it is found that the 14 interviewed, only 8 responded yes when asked abouth the presence of low back pain, and these 100% female anda family caregiver, according to a study by González et al (2004) that, regarding the overload of caregivers of people with neurological injuries, 82.20% of caregivers were female, another agreement is Jung (2006) where the occupational profile of caregivers of children showed that the neurological kinship caregiver / child prevalent were female, with the mothers or grandmothers primary caregivers.

The 57.14% of individuals who had pain in the lower back pain showed a level of moderate pain intensity which coincides with the study by Turner (2004) and confirmed by other studies. The periods during which these pains also increase agrees with a study by Jung (2006), when it reports that 46.4% of respondents feel an increasing pain at night, where this study is a percentage of 62.5% of interviewed, which is also the marjority.

After measured the intensity of pain, scored the Roland-Morris questionnaire, in relation to average to items rated in this questionnaire, we obtained a low score, with only 14 items from reported is considered a high level of disability. It is known that low back pain causes restrictions in ADLs, but this study did not significantly as quoted by Jung (2006) when he says that the caregiver can feel incapable of making a weekly output.

The items marked more by interviewed when asked about disabilities in day-to-day, 50% of caregivers reported feeling more pain when you bend or crouch, or not was most marked, which disagrees with the study of Jung (2006) in his research when 43.2% for the marjority, they feel increased pain when bending over.

The intense pain, that pain that forces briefly to remain at rest or change position to relieve the pain, the intensity was more prevalent in the period studied, where 75% were the same, which agrees with the study of Jung (2006) where he earned a score of 50%. recalling that in this study a single respondent could choose more than one answer.

Given this, the results were not sufficient to say the caregivers are unable to perform activities of daily living. Kovacz et al (2004) in their model explained only 11% of disabilities, saying it complements the more comprehensive research have not been able to develop a highly explanatory model, since disability is a broad construct, and influenced by several factors.

**CONCLUSION**

The results in the article come from against many literature when the say that the inability due the low back pain, generated in caregivers of children with a physical impairment and who depend on their caregivers, is significantly high and may prevent these caregivers to perform activities such as leaving home and ADLs in general.

What can be observed in this study is that regardless of the pain that these caregivers feel because they are family caregivers, usually mothers, still perform these activities, taking into account that usually do not have a helper, ie, it is essential to care activity and personal activities. It then showed that on average, low back pain did not influence the activities of daily life in caregivers of children with CP clinic FAG, ie does not interfere with basic day-to-day life of an individual. It takes into account also that these caregivers are family caregivers and have no other employment, which contributes to a low overhead. These caregivers while devoting most of their time to these children can still reconcile the personal activities.

**BIBLIOGRAPHIES**

1.ROTTA, Newra Tellechea. **Paralisia cerebral, novas perspectivas terapêuticas.** J. Pediatr. (Rio J.) [online]. 2002, vol.78, suppl.1, pp. S48-S54. ISSN 0021-7557.

2.CAMARGOS, Ana Cristina Resende et al. **Avaliação da sobrecarga do cuidador de crianças com paralisia cerebral através da escala** Burden Interview. Rev. Bras. Saude Mater. Infant. [online]. 2009, vol.9, n.1, pp. 31-37. ISSN 1519-3829.

3.BREHAUT, J. C; KOHEN, D. E; RAINA, P; WALTER, S. D; RUSSEL, D. J; SWINTON,M; O'DONNEL, M; ROSENBAUM, P. **The health of primary caregivers of children with cerebral palsy: how does it compare with that of other Canadian caregivers? Pediatrics.** 2004; 114: 182-91.

4.ONES, K; YILMAZ, E; CETINKAYA, B; CAGLAR, N. **Assessment of the quality of lifeof mothers of children with cerebral palsy (primary caregivers)**. Neurorehabil Neural Repair. 2005; 19: 232-7.

5.SHEPHERD, B. R. **Fisioterapia em pediatria.** São Paulo: LS Santos, 1995, cap. 5 pag.110.

6. Mancini MC, Alves ACM, Schaper C, Figueiredo EM, Sampaio RF, Coelho ZAC, et al.**Gravidade da paralisia cerebral e desempenho funcional**. Rev Bras Fisioter. 2004;8(3):253-60.

7.MAIA, C. A; FIALHO, B. C; ALCÂNTARA, A. M; MORAIS, S. L. R. **Incapacidade funcional associada à lombalgia em cuidadores de crianças com paralisia cerebral grave**. Fisioter Pesq. 2008;15(4): 349-54.

8.Horng YS, Hwang YH, Wu HC, Liang GHW, Jang Y, Twu FC, et al. **Predicting health-related quality of life in patients with low-back pain**. Spine. 2005;30(5):551-5. in MAIA, C. A; FIALHO, B. C; ALCÂNTARA, A. M; MORAIS, S. L. R. Incapacidade funcional associada à lombalgia em cuidadores de crianças com paralisia cerebral grave. Fisioter Pesq. 2008;15(4): 349-54.

9.GONÇALVES, Luciana O.; SELL, Ingeborg. **Cuidadores primários familiares dos idosos atendidos na clínica escola de fisioterapia da Universidade do Vale do Itajaí – UNIVAL**I. Dissertação apresentada ao Programa de Pós-Graduação em Engenharia de Produção da Universidade Federal de Santa Catarina, Florianópolis, 2002.

10.PEARLIN, L.I. et al. **Caregiving and the stress processan overview of concepts and their measures.** The Gerontologist, v.30, n.5, p.583-591.

11.JUNG, Z. G. **Desconforto corporal em cuidadores ocupacionais de criançasneurológicas.** Tubarão, 2006.

12.CAMARGOS, R. C. A; LACERDA, B. T. T; VIANA, O. S; PINTO, A. R. L; FONSECA; S. L. M. **Avaliação da sobrecarga do cuidador de crianças com paralisia cerebral através da escala de Burden** Interview. Rev. Bras. Saúde Matern. Infant., Recife, 9 (1): 31-37.

13.LIM, J; ZEBRACK, B. **Caring for family members with chronic physical illness: a critical review of caregivers literature**. Health Qual Life Outcomes, 2004; 2:1-9. in CAMARGOS, R. C. A; LACERDA, B. T. T; VIANA, O. S; PINTO, A. R. L; FONSECA; S. L. M. **Avaliação da sobrecarga do cuidador de crianças com paralisia cerebral através da escala de Burden** Interview. Rev. Bras. Saúde Matern. Infant., Recife, 9 (1): 31-37.

14.COX, M. J. **Dor lombar. Mecanismo, diagnóstico e tratamento**. São Paulo. Ed.Manole, 2002. Cap 2, 22,23.

15. KNOPLICH, **José. Enfermidades da coluna vertebral**. 2.ed. São Paulo: Panamed,1986.

16. MARANHÃO, M. V. M. **Anestesia e Paralisia Cerebral.** Rev Bras Anestesiol 2005; 55: 6: 680 - 702

17. KOVACS MF, ABRAIRA V, ZAMORA J, GIL TM, LIBERA J, FERNANDÉZ C. **Correlationbetween pain, disability, and quality of life in patients with common low-back pain.** Spine. 2004;29(2):206-10.

Rua das Palmeiras n° 4140 – Bairro: Coqueiral
Cascavel – Paraná – Brasil.
Fone: (45) 30354279.
h.bazegio@yahoo.com.br

**INFLUENCE OF LOW BACK PAIN IN ACTIVITIES OF DAILY LIVING IN CAREGIVERS OF CHILDREN WITH CEREBRAL PALSY IN CLINIC FAG.**

**ABSTRACT**

Introduction: The cerebral palsy is a chronic condition that causes disability since childhood until adulthood. These children being physically unable to perform some activities of the day to day, depend on caregivers. The overload of activities that these caregivers exert can lead to significant musculoskeletal changes such as low back pain which can cause disability. Objective: The research has as objective check the influence of low back pain, if present, in activities of daily living (ADLs) in caregivers of children with cerebral palsy on the clinic FAG. Methodology: This is a epidemiological study, is the type qualitative and quantitative cross-sectional with a probability sample. The sample consisted of 14 caregivers of children diagnosed with cerebral palsy of integrated clinical FAG. Initially, sociodemographic data were collected, to measure the intensity of pain was used to visual analogue scale (VAS) and after applied the Roland Morris questionnaire that assesses the level of disability in ADLs. The data were tabulated and analyzed by Microsoft Excel 2007. Results: In the analysis of sociodemographic data, 50% reported feel moderate pain. In the second part of the questionnaire, we found an average approximately 6 items marked. Theses answers, 75% change positions frequently to relieve the pain, 50% can't get much time standing or bending and 37.5% perform ADLs slower than normal. On the total score wasn't obtained a significant score, which is low, which proved that no influence on the ADLs of caregivers on the clinic FAG. Conclussion: We conclude that there isn't influence of low back pain on activities of daily life of caregivers of children with cerebral palsy on clinic FAG.

**KEYWORDS:** Caregivers. Low back pain. Activities of daily living.

**L'INFLUENCIE DE LA LOMBALGIE DANS LES ACTIVITÉS DE LA VIE QUOTIDIENNE AUX SOIGNANTES DES ENFANTS AVEC PARALYSIE CÉRÉBRALE DE LA CLINIQUE FAG.**

**RÉSUMÉ**

Introduction : La paralysie cérébrale est une condition chronique qui produit des incapacités depuis l'enfance jusqu'à la vie adulte. Ces enfants, ayant des incapacités physiquement de réaliser quelques activités quotidienne, dépendent des soignantes. La surcharge d'activité que ceux soignantes exercent, peut prendre à des modifications musculo-squelettiques significatives, comme la lombalgie, ce qu'il peut produire des incapacités. Objectif : La recherche a comme objectif vérifier l'influencie de la lombagie, se présente, dans les activités de la vie quotidienne (AVD'S) aux soignantes des enfants avec paralysie cérébrale de la clinique FAG. Méthodologie : L'étude c'est du type épidémiologique, de caractère quality quantitative du coupe transversal avec un échantillon probabiliste. L'échantillon s'est composé de 14 soignantes des enfants avec des diagnostic de Paralysie Cérébral des cliniques intégrés FAG. Initialement ont été rassemblés des données sociodémographiques, pour mesurer l'intensité de la douleur a été utilisé une escale visuelle analogique (EVA) et après a été appliqué le questionaire de Roland Morris qu'évalue le niveau d'incapacité dans AVD'S. Les données ont été tabulé et analysés par le programme Microsof Excel 2007. Résultats : Dans l'anlyse des données sociodémografiques, 50% a commenté sentir douleur modérée. Déjà dans la seconde partie du questionaire, il a été trouvé une moyenne d'approximativement 6 articles marqués. De ces réponses, 75% changent de position fréquemment pour le soulage de la douleur, 50% n'arrive pas rester beaucoup de temps de debout ou se plier et 37,5% réalisent l'AVD'S plus lentement que normal. Du score total n'est pas obtenu un score significative, en étant ce ci bas, ce qu'il a vérifié que n'influence pas dans AVD'S aux soignantes de la clinique FAG. Conclusion : On conclut qu'il n'y a pas d'enfluence de la lombalgie dans les activités de la vie quotidienne aux soignantes des enfants avec paralysie cérébrale de la clinique FAG.

**MOTS-CLÉS** : Soignantes. Lombalgie. Activités de la vie quotidienne.

**INFLUENCIA DE LA LUMBALGIA EN LAS ACTIVIDADES DE LA VIDA COTIDIANA EN LOS CUIDADORES DE NIÑOS CON PARÁLISIS CEREBRAL DE CLÍNICA FAG.**

**RESUMEN**

Introducción: La Parálisis Cerebral es una condición crónica que causa la discapacidad desde la infancia hasta la edad adulta. Estos niños, que están físicamente incapaces de realizar algunas actividades del día a día, dependiendo de los cuidadores. La sobrecarga de actividad que estos cuidadores ejercen, puede causar alteraciones musculoesqueléticas significativas, tales como la lumbalgia, que puede causar discapacidad. Objetivo: La investigación pretende verificar la influencia de la lumbalgia, si está presente, en las actividades de la vida diaria (AVD's) en cuidadores de niños con parálisis cerebral de la clínica FAG. Metodología: El estudio es de carácter epidemiológico, cualitativa y cuantitativa de corte transversal con una muestra probabilística. La muestra fue constituida por 14 cuidadores de los niños diagnosticados con Parálisis Cerebral de las clínicas integradas FAG. Inicialmente, se recogieron datos sociodemográficos, para medir la intensidad del dolor se utilizó la escala visual analógica (EVA) y después se aplicó el cuestionario de Roland-Morris, que evalúa el nivel de discapacidad en las AVD's. Los datos fueron tabulados y analizados por el programa Microsof Excel 2007. Resultados: El análisis de datos sociodemográficos, el 50% relató sentir dolor moderado. En la segunda parte del cuestionario, se observó una media de cerca de 6 ítems marcados. De estas respuestas, el 75% cambian de posición a menudo para aliviar el dolor, el 50% no consigue quedarse mucho tiempo de pie o encorvarse, y el 37,5% llevan a cabo las AVD's más lento de lo normal. De la puntuación total no se obtuvo un Score significativo, con este número bajo, comprobó que no influye en las AVD's de los cuidadores de la clínica FAG. Conclusión: concluimos que no hay influencia de la lumbalgia en las actividades de la vida diaria de los cuidadores de niños con parálisis cerebral de la clínica FAG.

**PALABRAS-CLAVE:** Cuidadores. Lumbalgia. Actividades de la vida diaria.

**INFLUÊNCIA DA LOMBALGIA NAS ATIVIDADES DA VIDA DIÁRIA NOS CUIDADORES DE CRIANÇAS COM PARALISIA CEREBRAL DA CLÍNICA FAG.**

**RESUMO**

Introdução: A Paralisia Cerebral é uma condição crônica que gera incapacidades desde a infância até a vida adulta. Essas crianças, por estarem incapacitadas fisicamente de realizar algumas atividades do dia-a-dia, dependem de cuidadores. A sobrecarga de atividade que esses cuidadores exercem, pode levar a alterações musculoesqueléticas significativas, como a lombalgia, o que pode gerar incapacidades. Objetivo: A pesquisa tem como objetivo verificar a influência da lombalgia, se presente, nas atividades da vida diária (AVD's) nos cuidadores de crianças com paralisia cerebral da clínica FAG. Metodologia: O estudo é do tipo epidemiológico, de caráter qualiquantitativo de corte transversal com uma amostra probabilística. A amostra foi composta por 14 cuidadores de crianças com diagnóstico de Paralisia Cerebral das clínicas integradas FAG. Inicialmente foram coletados dados sociodemográficos, para medir a intensidade da dor foi utilizado a escala visual analógica (EVA) e após foi aplicado o questionário de Roland Morris que avalia o nível de incapacidade nas AVD's. Os dados foram tabulados e analisados pelo programa Microsof Excel 2007. Resultados: Na análise dos dados sociodemográficos, 50% relatou sentir dor moderada. Já na segunda parte do questionário, foi encontrado uma média de aproximadamente 6 itens assinalados. Dessas respostas, 75% mudam de posição frequentemente para alívio da dor, 50% não consegue ficar muito tempo em pé ou curvar-se e 37,5% realizam as AVD's mais lentamente que o normal. Do score total não se obteve um score significativo, sendo este baixo, o que comprovou que não influencia nas AVD's dos cuidadores da clínica FAG. Conclusão: Concluímos que não há influencia da lombalgia nas atividades da vida diária dos cuidadores de crianças com paralisia cerebral da clínica FAG.

**PALAVRAS-CHAVE:** Cuidadores. Lombalgia. Atividades da Vida Diária