16 - PAIN PARAMETERS RELATED TO BOTH PHYSICAL ACTIVITY INTERRUPTION AND CONTINUITY IN WOMEN

CARLA PINHEIRO LOPES
VANESSA BATISTA DIAS
LETÍCIA SILVEIRA MONTE
MARINEI LOPES PEDRALLI
Universidade Luterana do Brasil – Campus Torres
Torres, Rio Grande do Sul, Brasil.
lopescarla.p@gmail.com

INTRODUCTION

Population aging is a worldwide phenomenon. Foss and Keteyian (2000) reported that there is a myth around the aging process. According to Barros, Turíbio and Ghorayeb (2000), such myth is the idea that it is normal for a person to be out of shape, lose muscle flexibility, and experience increased blood pressure, body weight and cholesterol as a result of advancing age. Although these changes are typical of what happens to the aging adult in our society, they are not normal nor represent a consequence of the aging process.

Faro, Lourenço and Neto (1996) claim that physical inactivity may anticipate the decline of aging, turning it into a decisive factor for the decline of quality of life in old age.

Among the consequences that demographic transition and longevity have brought to society, pain is one of the most significant ones. Macedo, Martinez and Pinheiro point out that, due to its long duration, chronic pain loses its function for maintaining homeostasis and as a warning sign, causing functional impairment, suffering, progressive disability and socioeconomic cost (Teixeira et al, 2001 e Atkinson e Murray, 1989) .

In studies by Duarte & Diogo (2000), the findings on the frequency of occurrence of chronic pain in the elderly range from 20% to 88%. Studies differ as far as the coverage period, the chronic syndromes classification and characterization of pain complaints are concerned, making it difficult to compare them.

This study aimed to verify association between interruption time of regular physical activity and pain subjective parameters in women.

METHOD

This study is characterized as a qualitative and quantitative research of longitudinal and retrospective description approved by the Lutheran University of Brazil Ethics Committee in Human Research, according to resolution CNS 196/96, protocol 2010-177H). Sixteen women, aged 52 to 81 years, out of the 50 participants in the guided physical activity extension program "Active Age" of the Lutheran University of Brazil campus Torres – RS, participated in this study. A total of 36 sessions was conducted for group (a) (a 3-month break), and 52 sessions for group (b) (a 1-month break).

The instrument was the regularly used anamnesis of the skeletal-muscle system (Mozerle, 2009) to assess the intensity of pain through the pain rates: (1) mild, (2) moderate, (3) little strong, (4) strong, and (5) unbearable. The incidence of initial pain was verified - August/2009 (time 1) increases, maintains or decreases when there is interruption of 3 months (group a) and 1 month (group b), compared to the final period, in March/2010 (time 2). Two kinds of sampling were used: simple random selection - draw: group (a); and for group (b) it was used trial screening, since the eight women chosen were those who voluntarily remained in the group and agreed to participate in the study. The data collected were organized, stored and processed with the aid of Microsoft Excel. The analysis adopted for the data processing was descriptive statistics, Variation Coefficient (Vc), prevalence rates, Cumulative Incidence (Ci), and Relative Risk (RR).

RESULTS AND DISCUSSIONS

The average age of the sample was 64 ± 9 years, ranging from 52 to 81 years. Table 1 shows the characteristics of the group, where the mean ages, the standard deviation (SD), and variation coefficient (Vc) can be seen.

Table 1 – Group Study Characteristics

	Mean (Age)	SD	V_c
Group Total	64,93	8,66	0.13
Group (a)	65,5	8,05	0.12
Group (b)	64,37	9,75	0.15

Table 2 – "Time and pain outcome" variables associated with groups (a) and (b)

Pain Outcome	Group (a)> pause	Group (b)< pause	Pain Report Total
Time 1	4	21	25
Time 2	9	12	21
% prevalence	16(1):42(2)	84(1):57(2)	54(1):45(2)

The prevalence of pain was higher (42%) in the reports of affected places after the 3-month break (group a) when compared among the reports of the same group (16%) at the beginning of the activity (T1). In group (b), however, after a one-month break (T2), the prevalence of pain decreased (57%) as associated with initial pain reports (T1) which were mentioned at the anamnesis of these people's joining the program (84% nociceptive prevalence).

Table 3 – Incidence of appearance and disappearance of pain and subjective parameters of nociceptive intensity:

Variable	Cumulative Incidence %			Disappearance %	Intensity %		
	No Pain	Pain maintenance	New Cases		Increase	Decrease	Maintenance
Group (a)	15,38	15,38	**53,84 %**	**15,38**	50	0	50
Group (b)	0	26,08	**8,69%**	**56,52**	33,33	33,33	33,33
Total %	15,38	41,46	**62,53%**	**71,9**	83,33	33,33	83,33

Relative Risk (RR) of pain incidence for group (a)=1.7:> risk factor in Time 1(longer break); Relative Risk (RR) of incidence pain for group (b)=0.33: protecting or preventive factor (<1) indicates beneficial exposure for shorter break of regular physical activity.

The pain was predominantly located at the anatomical points: knee joint (24.39%), followed by cervical region (17.07%), and lumbar region of the back (14.03%). The findings with the greatest occurrence in this study were on the knee joint, corroborating what Montagnini et al. (2001) claim when they describe high appearance of pain on the lower limbs at this age range as a possible cause of walking trouble, falls, fractures, bringing about significant inability among the elderly.

Anderson et al. (1993) reported a 23.8% prevalence, having used as chronic pain criterion the one that lasted for over a 3-month period. Lumbar pain was identified as an important place of chronic pain in studies with adults in Pelotas, RS, Brazil (Silva et al, 2004) while in this study lumbar findings appear in third place as far as occurrence is concerned. According to Teixeira et al.(2001), lumbar pain is one of the most common causes of motor impairment.

Pimenta and Teixeira (2000), in a study with +65-year-old 990 individuals, also found more frequent pain at joints (50%), lumbar region (42%), and lower limbs (41%).

In Jakobson's study (2004), pain prevalence (Lessa, 1998 and Porto et al, 2000) was also in the lower limbs and dorsal region of the back, and associated chronicity.

The quality of life of people with chronic pain is altered by the intensity of painful episodes, modifying adhesion to or permanence in regular physical activity. The relation between physical exercise and health has been confirmed by several studies (Shephard, 2003; Marino et al, 2005; Warburton et al, 2006; Gallahue e David, 2001; Marin et al, 2000; Laurenti,2005). In this study, the intensity of group (a) increased 50% against 33.33% increase in group (b), therefore a 16.57% difference. According to Veras & Camargo (1995), in order to assure life quality improvement throughout the aging process, a two-fold challenge must be faced: to ensure quality services for this segment and to develop excellent, knowledgeable human resources to deal with the age group that is growing most in the country.

CONCLUSION

This research identified a higher incidence of pain in the group that had a 3-month period recess, and disappearance of painful events in the group that had shorter interruption of oriented physical activity.

The findings suggest that physical inactivity, even during vacation time or community programs recess, may jeopardize the quality of life of regularly active people, whether they are biologically mature or in the aging process.

REFERENCES:

Andersson HI, Ejlertsson G, Leden I, Rosenberg C. Chronic pain in geographically defined general population: studies of difference in age, gender, social class, and pain localization. Clin J Pain 1993;9:174-82.

Atkinson LD, Murray ME. Fundamentos de Enfermagem: Introdução ao processo de Enfermagem. Rio de Janeiro: Editora Guanabara Koogan,1989.

Barros, Turíbio e Ghorayeb Nabil. O exercício: preparação fisiológica, avaliação médica, aspectos especiais e preventivos. São Paulo: Atheneu,2000.

Duarte YAO, Diogo MJD. Atendimento Domiciliar: Um enfoque Gerontológico. São Paulo: Editora Atheneu, 2000.

Foss, Merle L.; Keteyian F. Bases fisiológicas do exercício e do esporte. Rio de Janeiro: Guanabara Koogan, 2000.

Faro MPF, Lourenço, MFA, Neto TLB. Alterações fisiológicas e atividade física na terceira idade - revisão da literatura e comentários- Medicina Desportiva, v.5,n.19,maio,1996.

Gallahue D, David L. Compreendendo o desenvolvimento motor: bebês, crianças, adolescentes e adultos. São Paulo: Phorte, 2001

Jakobsson RN. Pain management among older people in need of help with activities of daily living. Pain Manag Nurs.2004;5:

Laurenti R, Jorge MHPM, Gotlieb SLD. Perfil epidemiológico da morbimortalidade masculina. Ciência & Saúde Coletiva, São Paulo, v.10,n.1,p.35-46,2005.

Lessa, I. O Adulto Brasileiro e as Doenças da Modernidade – Epidemiologia das Doenças Crônicas Transmissíveis. Rio de Janeiro/ São Paulo: Editora Hucitec/Abrasco,1998.

Marin MJS, Barbosa OMK, Takitane MT. Diagnósticos de enfermagem mais frequentes entre idosas hospitalizadas em unidade de clínica médica e cirúrgica. Rer. Bras. Enfermagem(Brasília). 2000;53:513-523..

Macedo AC, Martinez JE, Pinheiro DFC. Perfil clínico e demográfico dos pacientes com dor músculo- esquelética crônica acompanhados nos três níveis de atendimento de saúde de Sorocada. Acta Fisiatrica. 2004;11:67-71.

Montagnini M. Dor em doente idoso. In: Teixeira MJ, Figueiró JAB. Dor: epidemiologia, fisiopatologia, avaliação, síndromes dolorosas e tratamento. São Paulo: Moreira Júnior, 2001. p 397-9.

Marino FE, Bird SP, Tarpenning KM. Designing resistance trainning programmes to enhance muscular fitness: a review od the acute programme variables. Sports Med, Auckland, v. 34, n.10, p. 841-845, 2005.

Mozerle A, Carvalho T. CEFID: Núcleo de Cardiologia da UDESC – Florianópolis/SC, 2009.

Pimenta CAM, Teixeira MJ. Dor no idoso. In: Duarte YAO, Diogo MJE. Atendimento domiciliar um enfoque gerontológico. São Paulo: Atheneu;2000. p.373-87.

Silva MC, Fassa AG, Valle NCJ. Dor lombar crônica em uma população adulta do Sul do Brasil : prevalência e fatores associados. Cad Saúde Pública. 2004; 20:377-85.

Shephard, RJ. Envelhecimento, Atividade Física e Saúde. São Paulo: Phorte, 2003.

Teixeira MJ, Teixeira WGJ, Santos FPS. Epidemiologia clínica da dor músculo- esquelética. Rer. Med (São Paulo).

2001:80 (Ed Esp pt1):1-21.

Trindade, ML. Envelhecimento e auto estima. In37-43.: Guedes, Onacir carneiro (org). Idoso, esporte e atividades físicas. João Pessoa: Idéia, 2001.

Teixeira MJ, Teixeira WGJ, Santos FPS. Epidemiologia clínica da dor músculo- esquelética. Ver Med (São Paulo). 2001;80 (Ed Esp PT 1): 1-21.

Veras RP, Camargo Jr KR. Idosos e universidade: parceria para a qualidade de vida. In. Veras RP, organizador. Terceira idade: um envelhecimento digno para o cidadão do futuro. Rio de Janeiro: Relume Dumará, UnATI;1995.o.11-27.

Warburton DER, Nicol CW, Bredin SSD. Health Benefits of Physical Activity: The evidence. Canadian Medical Association Journal, (Ottawa).2006; 6:801-809.

Rua Cruzeiro do Sul, nº10/04;
Praia da Cal – Torres/RS
CEP: 95560-000
Cel: (51) 8195 8810

PAIN PARAMETERS RELATED TO BOTH PHYSICAL ACTIVITY INTERRUPTION AND CONTINUITY IN WOMEN

ABSTRACT

This study aimed to assess pain incidence in active elderly people, relating such occurrence to vacation time or term breaks in the extension projects carried out by institutions and community welfare programs. The study group consisted of 16 women out of the 50 participants in the “Ativa Idade” extension program, average age 64 ± 9 (DP=8,66). The pain parameters were assessed through an individual questionnaire, applied at the beginning of the program. The pain was located predominantly on the knee joint (24,39%), followed by the cervical region of the spine (17,07%), and the lumbar region of the spine (14,63%). This research found a higher number of pain occurrences, both as to incidence and prevalence, in the group that had a three-month recess than in the group that had a one-month recess only. Also, the disappearance of pain was greater in the latter. It has been found that physical inactivity, even over a short period of time, may jeopardize the quality of life of mature adults and regularly active elderly people.

KEY-WORDS: aging; inactivity; pain.

PARAMETRES DE LA DOULEUR LIÉE À L' INTERRUPTION ET LA CONTINUITÉ DE L'ACTIVITÉ PHYSIQUE CHEZ LES FEMMES

RÉSUMÉ

Cette étude visait à évaluer l'incidence de la douleur chez les personnes âgées actives, considérant cette occurrence par rapport aux intervalles ou pauses semestrielles des projets d'extension offerts par les institutions et les programmes de soins communautaires. Le groupe d'étude a été composé de 16 femmes parmi les 50 participants dans le projet Active Âge, avec l'âge moyen global de 64 ± 9 (SD = 8,66). Les paramètres de la douleur ont été évalués au moyen d'un questionnaire individuel administré au début du programme . La localisation de la douleur a été prédominant dans l'articulation du genou avec 24,39%, suivi par la colonne vertébrale cervicale avec 17,07% et le rachis lombaire avec 14,63%. On a identifié une incidence plus élevée de la fréquence et de la douleur dans le groupe qui a pris trois mois de congé, par rapport au groupe qui s'est arrêté juste un mois. Il y avait aussi une incidence plus élevée dans la disparition de la douleur dans le groupe avec l'intervalle inférieur. Il est conclu que l'inactivité physique, même en courte période, peut compromettre la qualité de vie des aînés régulièrement actifs. Mots-clés: personnes âgées, l'inactivité, la douleur.

MOTS-CLÉS : vieillissement, inactivité, douleur

PARÁMETROS DE DOLOR RELACIONADAS A LA NTERRUPCIÓN E LA CONTINUIDAD DE LA ACTIVIDAD FÍSICA EM MUJERES.

RESUMEN

Este estudio tuvo como objetivo evaluar la incidencia del dolor en mujeres idosas activas relacionado con la ocurrencia de intervalos de pausas de los programas de extensión ofrecidos por las instituciones y la atención comunitaria. El grupo de estudio estuvo constituida por 16 mujeres dentre los 50 participantes en el proyecto de ampliación Edad Activa, con edad promedio 64 ± 9 (SD = 8,66). Los parámetros de dolor, fueron evaluados a través de un cuestionario individual en el comienzo del programa. La localización del dolor fue predominante en la articulación de la rodilla con 24,39%, seguido de la columna cervical con 17.07% y la columna lumbar con 14,63%. Identificada una mayor incidencia y prevalencia del dolor en el grupo que tomó tres meses para retirar, en comparación con el grupo que detuvo a tan sólo 1 mes. También hubo una mayor incidencia en la desaparición del dolor en el grupo con menor receso. Se concluye que la inactividad física, incluso en período corto, pueden comprometer la calidad de vida de las mujeres maduras y idosas regularmente activa.

PALABRAS-CLAVE: envejecimiento; inactividad, dolor.

PARÂMETROS DE DOR RELACIONADOS COM A INTERRUPÇÃO E COTINUIDADE DA ATIVIDADE FÍSICA EM MULHERES

RESUMO

Este estudo teve por objetivo avaliar a incidência de dor em idosos ativos relacionando este aparecimento aos intervalos de férias ou pausas semestrais de projetos extensionistas oferecidos por instituições e programas de atendimento comunitário. O grupo de estudo consistiu de 16 mulheres entre os 50 participantes do projeto de extensão Ativa Idade, com idade média total de 64 ± 9 (DP=8,66). Os parâmetros de dor foram avaliados por meio de um questionário individual, aplicado no início do programa. A localização de dor predominante foi na articulação do joelho com 24,39%, seguida pela região da coluna cervical com 17,07% e região da coluna lombar com 14,63%. Identificou-se uma prevalência e incidência maior de dor no grupo que teve 3 meses de recesso, quando comparado ao grupo que parou apenas 1 mês. Também houve uma incidência maior no desaparecimento de dor no grupo com menor recesso. Conclui-se que a inatividade física, mesmo em período breve, pode comprometer a qualidade de vida em adultos maduros e idosos regularmente ativos.

PALAVRAS-CHAVE: envelhecimento, inatividade, dor.