25 - EVALUATION OF FUNCTIONAL CAPACITY ON INSTITUTIONALIZED ELDERLY IN THE CITY OF JEQUIÉ-BA

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BACKGROUND

The aging process may be followed by the decline of both physical and cognitive capacities of the elderly, according to their characteristics of life [1]. It is noticed that among the alterations related to the age are the presence of risk factors and the occurrence of chronic-degenerative diseases, which determine a certain dependence level to the elderly, directly related to the loss of autonomy and difficulty performing basic activities of daily living, interfering with their quality of life[2].

The capacity of the individual of performing their physical and mental activities that are necessary to the maintenance of their basic and instrumental activities, like: taking a bath, dressing up, keeping themselves clean, move themselves, keeping continence, preparing meals, financial control, taking medicines, cleaning their houses, shopping, using public transport, using the telephone, and walking certain distance, it's defined as functional capacity [3]. Under this perspective, this study, which is integrant part of the Master's Degree Dissertation in Health Sciences of Universidade Federal do Rio Grande do Norte, has as aim to evaluate the functional capacity on institutionalized elderly in the city of Jequié-BA.

METHODS

It is a quantitative, exploratory-descriptive and cross-sectional study. The study location was Fundação Leur Brito because it's the only institution of exclusive elderly sheltering in the city of Jequié-BA and also by the fact that this institution is an intership place for Physical Therapy and Nursing majors of UESB.

The study population was compound by all the elderly living at the mentioned institution, having as inclusion criteria elderly who were mentally able to answer the interview script, participate voluntarily, and sign the informed consent. From the total of 68 elderly, 8 were excluded for having cognitive deficit, 60 elderly, therefore, participated of the study. The instrument used was compound by three parts: (1) Mini-mental State Examination (MMSE)[4], (2) socio-demographic characterization and health conditions, and (3) evaluation of the functional capacity through Barthel Index[3].

The information collection procedures were instituted after approval by the Research Ethics Committee of Universidade Federal do Rio Grande do Norte-UFRN (Counsel n.177/05). The data collection was made between December 2005 and February 2006. The collected data were transfered to the electronic spreadsheet of Microsoft Excel 2000 XP, exported and analized in the program Statistical Package for Social Science (SPSS) version 14.0 Windows. The statistical treatment was conducted through descriptive and inferential analysis, by crossing the socio-demographic, health and functional capacity variables in contingency tables 2x2, with Chi-Square test (2), having a level of statistical significance of $p < 0,05$. Within this process, the results were tabulated and presented in tables and pictures.

RESULT

It was chosen to present the socioeconomic and health characterization of the institutionalized elderly according to their age group, which is presented on Table 01.

Table 01 Distribution of the elderly concerning the socio-demographic and health characterization according to the age group. Jequié/BA, 2007.

Socio-demographic and health variables	Age Group				Total	
	60 to 80 years		> 80 years			
	N	%	N	%	N	%
Sex						
Male	20	33,3	10	16,7	30	50,0
Female	15	25,0	15	15,0	30	50,0
Educational Level						
Illiterate	25	41,6	19	31,7	44	73, 3
Literate	8	13,3	6	10,0	14	23,3
Elementary	1	1,7	0	0,0	1	1,7
Higher education	1	1,7	0	0,0	1	1,7
Income						
1 Minimum wage	35	58,3	25	41,7	60	100,0
Profession						
Retired	35	58,3	25	41,7	60	100,0
Institutionalization time						
1 to 10 anos	31	51,7	20	33,3	51	85,0
> 10 anos	4	6,7	5	8,3	9	15,0
Mental State						
Preserved cognition	14	23,3	10	16,7	24	40,0
Cognitive alteration not suggestive of deficit	21	35,0	15	25,0	36	60,0
Musculoskeletal disorders						
Present	18	36,8	20	40,8	38	77,6
Absent	8	16,3	3	6,1	11	22,4
Musculoskeletal disorders						
Arthritis/Arthrosis/Arthralgia/Plantar fasciitis/Osteoporosis/Rheumatoid arthritis	15	39,5	13	34,2	28	73,7
Intervertebral disk displacement/ Low back pain	3	7,9	4	10,5	7	18,4
Tendinopathy/ Bursitis	0	0,0	3	7,9	3	7,9

The average age of the elderly was 75 years old, with standard deviation 11,6. The data shown on Table 01 indicate a higher frequency of elderly in the age group between 60 and 80 years, corresponding to 58,3% from the total, male representing 33,3% and female, 25%. Concerning the educational level, it was noticed that 73,3% of the elderly are illiterate and 41,6% belong to the age group of 60 to 80 years.

Concerning institutionalization time, 85% live in the shelter within the period of 1 to 10 years. About mental state, 40% of the subjects had cognitive functions preserved and 60% showed some cognitive alteration not suggestive of deficit, and this alteration was more frequent on elderly between 60 and 80 years (35%). Concerning musculoskeletal disorders 77,6% of the elderly suffered from such disorders, and 40,8% of them in the age group of older than 80 years.

Concerning musculoskeletal disorders, 73,7% of the subjects reported to suffer from arthritis, arthrosis, arthralgia, plantar fasciitis, osteoporosis or rheumatoid arthritis, and 39,5% of those belonged to the age group of 60 to 80 years. Intervertebral disk displacement or low back pain was mentioned by 18,4% of the sample, being the predominant age group of older than 80 years and just 7,9% of the elderly reported to suffer from bursitis or tendinopathy. Within this distribution of these variables by age group there was no statistical correlation.

Since the variable mental state was used as inclusion criterion, it was chosen to isolate this variable and cross it with the other ones from the study, but this variable presented statistical significance only with sex and age group, as shown on Table 02.

Table 02 - Distribution of the elderly concerning the socio-demographic and health characterization according to mental state. Jequié/BA, 2007.

Sócio-demographic and health variables	Mental State				Total		p-value
	Preserved cognition		Cognitive alteration not suggestive of deficit				
	N	%	N	%	N	%	
Sex							
Male	12	20,0	18	30,0	30	50,0	0,000
Female	12	20,0	18	30,0	30	50,0	
Age Group							
60 to 80 years	20	23,3	30	35,0	50	58,3	0,000
> 80 years	10	16,7	15	25,0	25	41,7	
Educational Level							
Illiterate	17	28,3	27	45,0	44	73,3	
Literate, high school and higher education	7	11,6	9	15,0	16	26,7	0,128
Absent	6	12,2	5	10,2	5	22,4	

The data from table 02 showed that in the distribution of the mental state by sex there was no statistical difference, and 60% of the elderly had cognitive alteration not suggestive of deficit, 30% for each sex. In this association there was statistical significance with p-value = 0,000. When correlating age group with mental state it was found a predominance of elderly with cognitive alteration not suggestive of deficit in the age group of 60 to 80 anos (35%), in this association it was also found statistical significance with p-value = 0,000.

About educational level, 45% of the elderly with cognitive alteration not suggestive of deficit were illiterate, and 31,7% had institutionalization time within the period of 1 to 10 years. When correlating mental state with educational level divided in the variables illiterate, literate, elementary and higher education, it was noticed that the level of education illiterate was more predominant in the individuals with preserved cognition, while the literate showed higher frequency of cognitive alteration not suggestive of deficit (13,3%).

Correlating the total score of Barthel Indexl (dependent and independent) with the variables of the study it was verified that the elderly were classified as dependent on the variables female (38,3%), age group of 60 to 80 years (38,3%), illiterate (50%) and the ones who suffer from arthritis, arthrosis, arthralgia, plantar fasciitis, osteoporosis, and rheumatoid arthritis (46,7%). No statistical significance was found as shown on Table 03.

Table 03 - Distribution of the eldelry concerning the socio-demographic and health characterization according to total score of Barthel Index. Jequié/BA, 2007.

Socio-demographic and health variables	Barthel Total				Total		p-value
	Dependent		Independent				
	N	%	N	%	N	%	
Sex							
Male	19	31,7	11	18,3	30	50,0	1,270
Female	23	38,3	7	11,7	30	50,0	
Age group							
60 to 80 years	23	38,3	12	20,0	35	58,3	0,735
> 80 years	19	31,7	6	10,0	25	41,7	
Educational Level							
Illiterate	29	48,3	15	25,0	44	73,3	
Literate	12	20,0	2	3,3	14	23,3	
Elementary School	0	0,0	1	1,7	1	1,7	
Higher Education	1	1,7	0	0,0	1	1,7	
Musculoskeletal Disorders							
Present	30	50,0	8	13,3	38	63,3	0,112
Absent	6	10,0	5	8,3	11	18,3	F
Present Musculoskeletal Disorders							
Arthritis/Arthrosis/Arthralgia/Plantar fasciitis/Osteoporosis/Rheumatoid arthritis	22	36,7	6	10,0	28	46,7	
Intervertebral disk displacement/ Low back pain	5	8,3	2	3,3	7	11,7	
Tendinopathy/ Bursitis	3	5,0	0	0,0	3	5,0	

In the correlation of the activities of the Barthel index with the variables of the study the elderly were classified as dependent on six activities specified below. Concerning the activity of taking a bath it was verified that the eldelry were classified as dependent only on the variable length of pain suffering from 1 to 5 years (28,3%). There was statistical significance only with sex (p-value = 0,000). It was verified on the activity of dressing up that the elderly were classified as dependent on the variables presence of musculoskeletal disorders (35%), presence of pain (41,7%), and length of pain suffering within the period of 1 to 5 years (31,7%). No statistical significance was found in this correlation.

About the activity of climbing up stairs the elderly were classified as dependent on the variables sex (60%), age group (60%), illiterate (41,7%), institutionalization time from 1 to 10 years (46,7%), with cognitive alteration not suggestive of deficit (36,7%), present musculoskeletal disorders (45%), presence of pain (51,7%) and length of pain suffering from 1 to 5 years (35%). There was statistical significance with the variable sex (p-value = 0,000). About the activity of ambulation the elderly were

classified as dependent on the variable male (28,3%), illiterate (40%), institutionalization time within the period of 1 to 10 years (43,3%), cognitive alteration not suggestive of deficit (30%), presence of pain (46,7%) and length of pain suffering from 1 to 5 years (31,7%). There was no statistical significance.

It was verified on the activity bed and chair transference that the elderly were classified as dependent on the variables female (35%), age group of 60 to 80 years (36,7%), illiterate (46,7%), institutionalization time from 1 to 10 years (53,3%), cognitive alteration not suggestive of deficit (41,7%), presence of musculoskeletal disorders (48,3%), presence of pain (55%), intense pain (38,3%) and length of pain suffering from 1 to 5 years (36,7%). It was found statistical significance only with sex (p-value = 0,003). It was noticed on the activity transference to personal hygiene that the elderly were classified as dependent on the variables female (26,7%) and male (26,7%), illiterate (40%), institutionalization time within the period of 1 to 10 years (45%), presence of musculoskeletal disorders (43,3%), intense pain (33,3%) and length of pain suffering from 1 to 5 years (35%). There was statistical significance only with sex (p-value = 0,000).

CONCLUSIONS

According to the present study, the elderly mean age was 80 years and there was no difference between sexes. This contrasts with the found in literature which says that in Brazil life expectancy at birth has been higher to female [4]. The low educational level reported by most of the participants on the present study, in which 66,6% (44) were illiterate, shows the necessity to have adequate actions of health education, so that those people will have better understanding and higher motivation. Since some characteristics such as illiterateness, retirement and changes on the nutritional state may lead to a higher dependency of the elderly relating other people [5-6].

According this study 70% of the elderly has some sort of impairment on the functional capacity. It was noticed that among the alterations related to the age are the presence of risk factors and the occurrence of chronic-degenerative diseases, which determine to the elderly certain level of dependence, directly related to the loss of autonomy and difficulty performing basic activities of daily living, interfering with their quality of life [7]. Research results about elderly living in institutions verified that they have presented dependency on the activities of taking a shower (91,2%), dressing up (77,7%), using the bathroom (63,3%), transference (62,7%) and feeding themselves (40,4%) [8] . Each year, about 10% of adult population, from 75 years on, loses the independence on one or more basic activities of daily living, such as: bathing, dressing up, feeding themselves e personal hygiene [9]. Some studies affirm that bath, transference to personal hygiene, bed and table, and clothing represented higher level of partial or total dependency [8-10].

The factors referent to sex, age group and mental state didn't have influence on the functional capacity of the elderly since no significant association was found. It was noticed through the presented data, that there is no sex distinction and that there is higher concentration among the elderly who belonged to the age group of 60 to 80 years and with cognitive alteration. It is remarked that the results here obtained, are referent to only one institution, and therefore generalizations cannot be made about the evaluation of the functional capacity of all elderly. This knowledge about the functional capacity of institutionalized elderly obtained through use of specific instruments, are relevant to the acting of the health professionals with this increasing part of the population, in order to give them better autonomy and independence with consequent improvement on quality of life.

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FUNCTIONAL CAPACITY EVALUATION IN INSTITUTIONALIZED ELDERY IN THE CITY OF JEQUIÉ, STATE OF BAHIA.

ABSTRACT:

The aim of this study was to evaluate functional capacity in institutionalized elderly. This is a descriptive exploratory study with quantitative approach. The sample of this study was 60 institutionalized elderly in the city of Jequié, State of Bahia, being inclusion criteria: cognitive conditions to answer the query, voluntary participation and signature of the agreement term. The query had sociodemographic and health variables and Barthel Index. Data showed that 58,3% of the elderly had age between 60 to 80 years, 60% have shoused cognitive changes however they not showed cognitive deficit, 81,7% had bone and muscle pathologies and 73,3% related pain. 70% showed functional capacity decrease, mainly in activities as going upstairs

(81,7%) and transfer for intimal hygiene activities (66,7%). Crossing total Barthel score obtained with variables of this study, there was statistical significance in all the variables. Institutionalized elderly need assistance in activities of daily living, what can impair their quality of life.

KEY-WORDS: Health of Institutionalized Elderly; Activities of Daily Living; Evaluation.

ÉVALUATION DE LA CAPACITÉ FONCTIONNELLE INSTITUTIONNALISÉE PERSONNES ÂGÉES DANS LA VILLE DE JEQUIÉ, DE L'ÉTAT DE BAHIA.

RESUMÉ:

Cette étude a eu l'objetive d'évaluer la capacité fonctionnelle dans personnes âgés institutionalisés. On s'agit d'une étude explorateur descriptive avec une une exécution qualitative.La référence s'est composée pour 60 personnes âgés que ont été institutionalisé en Jequié-Ba, ayant comme critère d'inclusion personnes âgés qui ont eu des conditions mentales à répondre à l'instrument, et ils avaient participé à la manière volontaire et pour signer le terme de consentement. L'instrument s'est composé pour variables sociodemographiques, de santé et d'index de Barthel. Les données avaient démontré que 58.3% des personnes âgés ont eu entre 60 et 80 ans, 60% avaient présenté le changement non-suggestif de déficit cognitive, 81.7% étaient porter des problèmes dans les os et les muscles 73.3% a présenté la douleur. 70% avait démontré le compromettiment dans la capacité fonctionnelle, avec la proéminence dans les activités de monter les escaliers (81.7%) et la transférence pour l'hygiène personnelle (66.7%). Quand nous croisons les données de toute la ponctuation de Barthel avec les variables de l'étude il y a eu la signification dans chacune des variables. Les personnes âgés institutionalisé ont besoin d'accompagnement et d'aide dans les activités quotidiennes, ce qu'il intervient avec la son indépendance et qualité de la vie.

MOTS CLÉS: Santé des personnes âgées institutionalisées; Activités Quotidiennes; Évaluation.

EVALUACIÓN DE LA CAPACIDAD FUNCIONAL EN ANCIANOS INSTITUCIONALIZADOS EN LA MUNICIPALIDAD DE JEQUIÉ-BA

RÉSUMÉE:

Este estudio ha objetivado analisar a la capacidad funcional en ancianos institucionalizados. Trátase de un estudio exploratorio descritivo con el abordaje cuantitativo. La muestra fue compuesta por 60 ancianos institucionalizados en Jequié-BA, teniendo como criterio de inclusión ancianos que tuvieran condiciones mentales para contestar al instrumiento, participar voluntariamente y firmar una suscripción de consentimiento. El instrumiento ha sido compuesto por variables sociodemográficas, de salud e Índice de Barthel. Los datos demostraron que 58,3% de los ancianos tenían entre 60 a 80 años, 60% tener shoused alteración cognitiva sin embargo no han demostrado déficit cognoscitivo, 81,7% eran portadores de disturbios osteomusculares y 73,3% presentaban dolor. 70% demostraron comprometimiento en la capacidad funcional, con destaque en las actividades de subir escaleras (81,7%) y transferencia para su higiene íntima (66,7%). Al cruzarse la puntuación total de Barthel con las variables del estudio hubo em todas lãs variables. Los ancianos institucionalizados precisan de assistencia en las actividades diarias, lo que interfiere en su independencia y calidad de vida.

PALABRAS-CLAVE: Salud del Anciano Institucionalizado; Actividades Cotidianas; Evaluación.

AVALIAÇÃO DA CAPACIDADE FUNCIONAL EM IDOSOS INSTITUCIONALIZADOS NO MUNICÍPIO DE JEQUIÉ-BA

RESUMO:

Este estudo objetivou avaliar a capacidade funcional em idosos institucionalizados. Trata-se de um estudo exploratório descritivo com abordagem quantitativa. A amostra foi composta por 60 idosos institucionalizados em Jequié-BA, tendo como critério de inclusão idosos que tivessem condições mentais para responder ao instrumento, participar voluntariamente e assinar termo de consentimento. O instrumento foi composto por variáveis sociodemográfica, de saúde e Índice de Barthel. Os dados demonstraram que 58,3% dos idosos possuíam entre 60 a 80 anos, 60% apresentaram alteração cognitiva não sugestiva de déficit, 81,7% eram portadores de distúrbios osteomusculares e 73,3% apresentavam dor. 70% demonstraram comprometimento na capacidade funcional, com destaque nas atividades de subir escada (81,7%) e transferência para higiene íntima (66,7%). Ao cruzar a pontuação total de Barthel com as variáveis do estudo houve significância em todas variáveis. Os idosos institucionalizados necessitam de assistência nas atividades diárias, o que interfere na sua independência e qualidade de vida.

PALAVRAS-CHAVE: Saúde do Idoso Institucionalizado; Atividades Cotidianas; Avaliação.