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Ability for self-care and its association with sociodemographic factors of people with spinal cord injury*

CAPACIDADE DE AUTOCUIDADO E SUA ASSOCIAÇÃO COM OS FATORES SOCIODEMOGRÁFICOS DE PESSOAS COM LESÃO MEDULAR

CAPACIDAD DE AUTOCUIDADO Y SU ASOCIACIÓN CON LOS FACTORES SOCIO-DEMOGRÁFICOS EN PERSONAS CON LESIÓN MEDULAR

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ABSTRACT

This study aimed to verify the association between self-care ability and sociodemographic factors of people with spinal cord injury (SCI). It was a cross-sectional study, conducted in 2012, in all 58 Basic Health Units of Natal/RN, Brazil. Seventy-three subjects completed a sociodemographic form andSelf-Care Agency Scale. Statistical analyses were performed using SPSS,including Cronbach's Alpha, Chi-square, Fisher's and contingency coefficient tests. The Cronbach's alpha was 0.788. The result verified that sex ($p = 0.028$), religion ($p < 0.001$), education ($p = 0.046$), current age ($p = 0.027$), SCI time ($p = 0.020$) and the SCI type ($p = 0.012$) were variables associated with self-care ability of the subjects. It was concluded that sociodemographic factors may interfere with the self-care ability of persons with SCI, and nurses should consider this aspect during the execution of the nursing process.

DESCRIPTORS

Spinal cord injuries
Self care
Rehabilitation nursing
Socioeconomic factors

RESUMO

Objetivou-se verificar a associação entre a capacidade de autocuidado e os fatores sociodemográficos de pessoas com lesão medular (LM). Estudo transversal, realizado em 2012, em todas as 58 Unidades Básicas de Saúde de Natal/RN, Brasil. Participaram 73 sujeitos que responderam um formulário sociodemográfico e a Escala de Avaliação para o Autocuidado. Foram efetuados no SPSS os testes Alfa de Conbrach, Qui-quadrado, Fisher e Coeficiente de contingência. O Alfa de Cronbach foi 0,788. Verificou-se que o sexo ($p=0{,}028$), a religião ($p<0{,}001$), a escolaridade ($p=0{,}046$), a idade atual ($p=0{,}027$), o tempo de LM ($p=0{,}020$) e o tipo de LM ($p=0{,}012$) são variáveis associadas à capacidade de autocuidado dos sujeitos. Conclui-se que os fatores sociodemográficos podem interferir na capacidade de autocuidado das pessoas com LM, devendo os enfermeiros considerar esse aspecto durante a execução do processo de enfermagem.

DESCRITORES

Traumatismos da medula espinhal
Autocuidado
Enfermagem em reabilitação
Fatores socioeconômicos

RESUMEN

El objetivo fue verificar la asociación entre la capacidad de autocuidado y los factores socio-demográficos en personas con lesión medular (LM). Estudio transversal llevado a cabo en el 2012, en todas las 58 unidades básicas de atención primaria de Natal/RN, Brasil. Participaron 73 sujetos que respondieron un cuestionario socio-demográfico y la Escala de Evaluación de Autocuidado. Las pruebas de Alfa de Cronbach, Chi-quadrado, Fisher y Coeficiente de contingencia fueron aplicadas en el SPSS. El Alfa de Cronbach fue de 0,788. Se verificó que el sexo ($p=0{,}028$), la religión ($p<0{,}001$), la escolaridad ($p=0{,}046$), la edad actual ($p=0{,}027$), el tiempo de la lesión medular ($p=0{,}020$) y el tipo de lesión medular ($p=0{,}012$), son variables asociadas a la capacidad de autocuidado de los sujetos. Se concluye que los factores socio-demográficos pueden interferir en la capacidad de autocuidado de las personas con lesión medular, por lo que las enfermeras deben considerar este aspecto durante la ejecución del proceso de enfermería.

DESCRIPTORES

Traumatismos de la médula espinal
Autocuidado
Enfermería en rehabilitación
Factores socioeconómicos

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INTRODUCTION

The number of people with spinal cord injury (SCI) has significantly increased in recent years, reflecting the greater frequency of external trauma due to urban violence[1]. The principal causes of these injuries are motor vehicle accidents, work, leisure, and episodes with a firearm[1-2]. However, the SCI may also be the result of non-traumatic etiologies, such as infectious, vascular, and degenerative diseases and malignancies[3].

Data on SCI are not yetwell established, but the worldwide incidence is estimated at between nine and 50 cases/million inhabitants, and it is more prevalent in large cities[4]. In the United States, about 60 million peopleannually, mostly young, are victims of traumatic injuries. On the European continent, trauma is the leading cause of death in individuals up to 40 years of age[5]. In Brazil, approximately 7,000 ocurrences of people with SCI per year were verified[6].

Since the spinal cord is the organ responsible for the communication between the brain and other body areas, SCI interferes in nerve pathways and can cause serious health complications. People with this type of damage may have a deficit in respiratory, thermal, musculoskeletal, circulatory, urinary and bowel sphincter functions as well as in sexual activity[3].

In addition to the health problems mentioned above, the SCI is a serious public health problem, since it affects, most often, young people who come to depend on a costly and complex process of rehabilitation[7]. Other aggravating factors of such problems are the difficulty of health facilities access for persons with disabilities due to architectural and attitudinal barriers and unfavorable socioeconomic factors, such as low income and education[8].

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The sequelae of SCI undermine people's ability to perform activities in their daily lives, such as: walking, transferring, dressing, and climbing stairs. The individual with this injury usually presents with self-care deficits, and is considered dependent on nursing care or lay caregivers for basic activities of daily living[9]. Therefore, studies that address the self-care ability of people with SCI are relevant, and this is the object of the study in this manuscript.

Self-care is considered the set of actions developed by the individual to meet daily needs. The nursing care for the subject with SCI should assist in the prevention and treatment of complications associated with it, and, especially, promote rehabilitation and help him, along with his family, in the development of self-care to be done at home[3]. Thus, it is understoodd asfundamental that the care provided by nurses is grounded in the Systematization of Nursing Care[3], favoring the identification of nursing diagnoses and planning of intervention/evaluation guided by theoretical constructs.

The research was guided by the assumption that, in addition to health difficulties generated by medullary damage, demographic and social factors may also adversely affect the ability to develop self-care actions[9]. The etiology, type and period of SCI can impair functional ability[10]. From this perspective, the objective was to verify the association between self-care ability and sociodemographic factors of people with spinal cord injury.

The study was justified because of some gaps in publications of official data and workwith respect to SCI in Brazil, since this condition is not subject to compulsory notification[4]; by the potential of research to offer subsidies for the (re)formulation of public policies designed to ensure the citizenship of people with disabilities; as well as planning nursing care in post-rehabilitation to ensure greater self-care and quality of life for people with SCI, with the importance of knowledge about the relationship between sociodemographic factors and self-care capacity.

METHOD

This was a cross-sectional and analytical study, with a quantitative approach, performed in the period from January to September of 2012, in all 58 Basic Health Units (BHU) in Natal/RN, Brazil.

No sampling technique was used; due to logistical and temporal viability it was possible to perform a census of people with SCI registered in theBHU. Thus, 73 subjects (58 paraplegics and 15 quadriplegics) who met the eligibility criteriaparticipated: 18 years of age or older, SCI diagnosed by aspecialist, preserved cognitive function, and assigned to one of the BHU in the city of Natal.

The strategy for approaching the subjects and data collection was the home visit, with the accompaniment of the community health worker from the Family Health Strategy responsible for each micro-area. At first, the research was explained and participants were invited to sign the Terms of Free and Informed Consent. Thereafter, people who agreed to participate responded to two instruments: Form I and the Self-Care Agency Scale (ASA).

Form I was designed for the investigation of demographic and socioeconomic variables. This instrument included closed questions that were completedby the researcher based on participant responses.

The ASA was developed based on studies with a foundation in Orem's Theory of Self Care, in which the capacity of self-care ability of the human being to perform practices of self-careis understood, in the relationship between the individual and the environment. The ASA is composed of 24 items, in a scale ranging from four points where the number 1 (never) corresponds to the lowest value in the self-care ability, 2 (almost never), 3 (almost always) and 4 (always) equals the maximum ability of the subject. The overall result ranges from 24 to 96 points. A score between 24-48 means low self-care capacity, 49-72 represents regular self-care capacity, and 73-96 is good self-care capacity.

The validity of the ASA was studied by Evers and Isenberg, and was positively related to health status in different cultures(11). This instrument was orally applied by the researcher, and all the items of the scale were read for each participant, with repetition in cases in which it was requested. After reading, the scale was marked according to the responses of the subjects.

Data were processed and analyzed by the *Statistical Package for the Social Sciences* (SPSS) basis for Windows 15.0 and presented in tables. Deductive statistics were used to describe the variables, by means of absolute and relative frequencies, means, standard deviation and range of numerical distribution.

In order to verify the internal consistency of the ASA scale in the studied sample, the Cronbach's Alpha test was used, considering the Item-Total Correlation, Cronbach'sAlpha withdeleted item, and total Cronbach's Alpha. Total Cronbach's Alpha values > 0.70 were considered satisfactory(12).

To verify the level of significance between the association of self-care capacity and sociodemographic factors, a dichotomy of the total scores of the ASA was conducted (Dependent = low or average capacity of self-care; Independent = good capacity for self-care), the prevalence ratio was calculatedand compared to the proportions of prevalence using the Chi-square or Fisher when blanks were below five(12). To evaluate the magnitude of association between variables, the Contingency Coefficient and the following parameters were used: c≥0.750 = strong association; 0.500 to 0.749 = moderate association; ≤ 0.499 = weak association. Confidence intervals of 95% were considered during associationsinvestigated(12).

The project was approved by the Ethics in Research Committee of the *Universidade Federal do Rio Grande do Norte*, under protocol No. 223/11 and CAAE No.0243.0.051.000-11. The ethical principles of privacy, confidentiality, autonomy and the right of participants to decline participation at any time and without onus were observed.

RESULTS

Sociodemographic Profile

As shown in Table 1, the majority of participants were male (84.9%), single (61.7%), held religious beliefs (83.6%), had primary school education (54.6%), survived with per capita monthly income up to 1 time the minimum wage (64.4%), and suffered the injury up to 34 years of age (81.2%), mostly by traumatic injury (73.9%) and with progression to paraplegia (79.4%). The mean age at injury was 25.48 years (± 12.11) and the mean age at the time of data collection was 38.37 years (± 13.09). The mean time ofSCI was 12.89 years (± 9.34).

Table 1 – Sociodemographic profile of the adults with spinal cord injury – Natal, RN, Brazil, 2012

	Variables	n	%
Sex	Male	62	84.9
	Female	11	15.1
Currentage	18 - 33 yearss	30	41.2
	34 - 49 years	26	35.6
	50 - 65 years	15	20.5
	66 - 81 years	2	2.7
Age at the time of SCI	1 - 17 years	16	21.9
	18 - 34 years	44	60.3
	35 - 51 years	11	15.1
	52 - 68 years	2	2.7
Religion	No faith	12	16.4
	Catholic	35	47.9
	Evangelical	24	33
	Spirtism	2	2.7
Education	No schooling	1	1.4
	Grade school	23	31.3
	Junior high school	16	21.9
	High school	24	33
	College	7	9.6
	Postgraduate	2	2.8
Marital Status	Single	45	61.7
	Married	17	23.3
	Stable	5	6.8
	Divorced	4	5.5
	Widower	2	2.7
***Per capita* income**	1x minimum wage*	47	64.4
	2x minimum wage	18	24.7
	3x minimum wage	2	2.7
	≥ 4x minimum wage	4	5.5
Etiology	Firearm	35	47.9
	Automobile accident	19	26
	Infectious disease	8	11
	Fall	4	5.5
	Diving into shallow water	3	4.1
	Bladed Weapon	4	5.5
Time of SCI	1-10 years	35	47.9
	11-20 years	26	35.6
	21-30 years	9	12.4
	31-40 years	3	4.1
Type of SCI	Paraplegia	58	79.4
	Quadraplegia	15	20.6

Source: Research data.Note: n = 73; *Minimum wage = R$:622.00; Two participants refused to report income.

Reliability test of the ASA scale

By means ofthe Cronbach's test, the ASA scale presentedsatisfactory internal consistency for the sample studied, with a total alpha of 0.788. According to Table 2, each item of the scale also showed good reliability.

Table 2 - Self-Care Agency Scale (ASA) tested with Cronbach's alpha - Natal, RN, Brazil, 2012

ASA Items Ability to:	**Total correlation of corrected items**	**Cronbach's alpha with item deleted**	**Cronbach's alpha total**
Make adjustments when facing changes	0.486	0.774	0.788
Ascertain whether these habits are good	0.481	0.772	
Get help if you cannot move	0.158	0.788	
Keep the house in which you live clean	0.521	0.768	
Prioritize health	0.564	0.771	
Take care of yourself as you should	0.534	0.769	
Improve health care	0.206	0.787	
Increase the frequency of baths	0.449	0.775	
Change eating habits	0.305	0.782	
Do not change your way of being	0.154	0.790	
Getting exercise and rest	0.222	0.788	
Appeals to friends	0.177	0.792	
Getting enough sleep	0.111	0.793	
Request information on health	0.508	0.771	
Inspect your body	0.363	0.779	
Changing lifestyle habits	0.519	0.775	
Request information aboutmedications	0.426	0.775	
To take protective actions	0.435	0.775	
Assess lifestyle habits	0.552	0.770	
Take time to care for yourself	0.041	0.804	
Obtain information when sick	0.400	0.777	
Get help if you cannot care for yourself	0.134	0.789	
Taking time for yourself	0.021	0.793	
Taking care of yourself as desired	0.360	0.779	

Source: Research data.

Self-care ability

The statistical analysis of the data from the ASA showed that the mean of the total scale was 75.9 points, standard deviation of ± 9.45, with a range in responses between 44-92 points, and a real amplitude range of 24 to 96 points. It was verified that 69.9% of the participants presented good self-care ability, 28.8% hadregular self-care ability, and 1.4% had lower self-care ability. Among participants who presented regular or low self-care ability, 93.3% (n = 14) were quadraplegic.

According to the data presented in Table 3, the self-care activities that presented greater impairment were: takingtime to care foryourself (63%), gettingexercise and rest (50.7%), appeals to friends (38.4%), taking care of yourself as desired (37%), and request information about medicines (37%).

Table 3 - Distribution of people with spinal cord injury according to their self-care ability indicated by the ASA - Natal, RN, Brazil, 2012

ASA Items	**Never**		**Almost never**		**Almost always**		**Always**	
Ability to:	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Make adjustments when facing changes	2	2.7	10	13.7	23	31.5	38	52.1
Ascertain whether these habits are good	6	8.2	13	17.8	25	34.3	29	39.7
Get help if you cannot move	0	0	4	5.5	21	28.8	48	65.7
Keep the house in which you live clean	14	19.2	7	9.6	17	23.3	35	47.9
Prioritize health	2	2.7	5	6.8	22	30.2	44	60.3
Take care of yourself as you should	6	8.2	13	17.8	24	32.9	30	41.1
Improve health care	6	8.2	11	15	28	38.4	28	38.4
Increase the frequency of baths	3	4.1	9	12.3	18	24.7	43	58.9
Change eating habits	11	5	10	13.7	18	24.7	34	46.6
Do not change your way of being	5	6.8	12	16.5	21	28.8	35	47.9
Getting exercise and rest	21	28.8	16	21.9	17	23.3	19	26
Appeals to friends	21	28.8	7	9.6	21	28.8	24	32.8
Getting enough sleep	7	9.6	14	19.2	16	21.9	36	49.3
Request information on health	6	8.2	9	12.3	15	20.6	43	58.9
Inspect your body	5	6.8	4	5.5	22	30.2	42	57.5
Changing lifestyle habits	0	0	6	8.2	24	32.9	43	58.9
Request information about medications	17	23.3	10	13.7	14	19.2	32	43.8
To take protective actions	7	9.6	3	4.1	14	19.2	49	67.1
Assess lifestyle habits	4	5.5	6	8.2	18	24.7	45	61.6
Take time to care for yourself	30	41.1	16	21.9	13	17.8	14	19.2
Obtain information when sick	4	5.5	6	8.2	23	31.5	40	54.8
Get help if you cannot care for yourself	2	2.7	2	2.7	12	16.4	57	78.2
Taking time for yourself	1	1.4	5	6.8	18	24.7	49	67.1
Taking care of yourself as desired	9	12.3	18	24.7	18	24.7	28	38.3

Source: Research data.

Relationship between self-care ability and sociodemographic factors

In Table 4, sex (p = 0.028), religion (p <0.001), education (p = 0.046), current age (p = 0.027), time of SCI (p = 0.020) and the type of SCI (p = 0.012) were sociodemographic factors that were associated with the self-care ability of the subjects, with associations of low magnitude (c ≤ 0.499).

Table 4 - Associations between the self-care ability and sociodemographic factors of people with spinal cord injury - Natal, RN, Brazil, 2012

Sociodemographic factors	**Self-care ability**				**deleted**	**X2**	***P*[d]**	***c***
	Depend.		**Independ.**					
	n	**%**	**n**	**%**				
Sex								
Male	14	22.6	48	77.4	0.41 (0.20-0.84)	4.800	**0.028**	0.457
Female	6	54.5	5	45.5				
Religion								
No faith	7	58.4	5	41.6	2.74 (1.39-5.40)	6.910	**<0.001**	0.219
With faith	13	21.3	48	78.7				
Education								
<10 years	15	36.6	26	63.4	2.34 (0.95-5.76)	3.970	**0.046**	0.143
≥10 years	5	15.6	27	84.4				
Marital Status								
Without partner	16	31.4	35	68.6	1.72 (0.65-4.57)	1.344	0.193	0.246
With partner	4	18.2	18	81.8				
Income								
Up to 2 MW†	17	26.2	48	73.8	0.78 (0.23-2.61)	0.144	0.513	0.704
More than 2 MW	2	33.4	4	66.6				
Current age								
< 48 years	19	33.4	38	66.6	5.33 (0.77-36.8)	4.600	**0.027**	0.244
> 48 years	1	6.3	15	93.7				
Age at SCI								
< 34 years	16	26.7	44	73.3	0.86 (0.34-2.16)	0.900	0.503	0.764
> 34 years	4	30.7	9	69.3				
Etiology								
Traumatic	18	27.7	47	72.3	1.10 (0.31-3.91)	0.026	0.872	0.019
Nontraumatic	2	25	6	75				
Time ofSCI								
< 10 years	14	40	21	60	2.53 (1.05-5.86)	5.370	**0.020**	0.205
> 10 years	6	15.8	32	84.2				
Type of SCI								
Quadraplegia	8	53.3	7	46.7	2.57 (1.29-5.14)	6.385	**0.012**	0.284
Paraplegia	12	20.7	46	79.3				

Source: Research data. Dependent = low or medium self-care ability; Independent = good self-care ability, †MW = minimum wage * Withless than five blanks, we considered the Fisher test.

DISCUSSION

In this study, the predominance of male individuals, whose mean age at the time of injury was approximately 25 years, supported the research conducted in the city of Campina Grande, Paraíba, in which the proportion was 10.75 men for every woman, in which 48.9% suffered their SCI when they were in the age range of 13 to 30 years(2). Other research also identified mostly young men: Malawi, Africa (75.7%)(5); Brasília, Brazil (69.2%)(13); and São Paulo, Brazil (86.7%)(14).

The occurrence of SCI in people in the productive age range constitutes a public health problem, because it affects health, limits the ability for work and daily activities, in addition to causing economic and social implications for both the individual and for society, due to the long rehabilitation period(7).

A study from São Paulo/SP with 60 people who suffered traumatic SCI indicated that there was frequent difficulty in returning to the labor market and earning an income for these subjects, since most of them had a low level of education (63.3%) were social security recipients (63.3%) and had some occupation (36.7%), including informal activities, such as traveling salesman(15).

About the sociodemographic variables, most of the participants were single, with religious beliefs, elementary school and family income up to one minimum wage. A study conducted in São Paulo-SP, with

60 subjects, identified similar results: men (86.7%), single (61.7%), a mean age of 32.9 (± 9.47) years, and primary education (63.3%)(14).

These results are worrying, because the consequences of a SCI extend beyond the motorissues. This is, often, an independent individual who becomes partially or completely dependent on others to meet his basic needs. The lack of companion, the low level of education and family income are complicators that will emerge or saturateddifficulties in emotional, social, economic and interpersonal areas(16).

Regarding self-care, most of the participants presented good self-care ability. However, a considerable portion of the participants were classified as regular or low capacity. This result is consistent with the literature consulted, which indicates that these individuals may present changes in motility and sensitivity, resulting in dependence on others for everyday or intimateactivities, or that is, impairing the capacity for self-care(17). Importantly, the fact that each item of the ASA scale showed good internal reliability reinforced the relevance and consistency of the results presented(12).

In this context, it is essential that nurses develop their praxis of care for people with SCI, considering the new paradigm within the understanding of persons with disabilities. Arising in the midst of the creation of the International Classification of Functioning, Disability and Health (ICF), such a paradigm replaces the negative perspective of disability with a positive understanding. That is, people with disabilities should be considered in their entirety and with potentials that can be developed to facilitate the process of social (re)inclusion(18).

Based onself-care activities, inwhich there wasgreater impairment, it is believed thatthere are relevantnursing prescriptionsaimed atself-defense, self-care, satisfaction of basic needs and recreational activities, because the success of their implementation will contribute to a reduction in the limitations that these people face(19).

However, biological changes are not the only determinants of the (in)abilityof self-care for people with SCI, because, as demonstrated by the results, there is a strong influence of psychological aspects. Therefore, the structure of nursing care for these individuals should consider the human aspects, such as subjectivity, emotions, the unconscious, and the will to live, so that their individual needs are met, including the maintenance and stimulation of social interaction(16).

In addition to the biological and psychological aspects, the environment also interferes with the ability of these persons to care for themselves, and consequently,is relevant to the planning of the nursing process. According to the conceptual constructs of the ICF, the environment affects the functional status of individuals, and can offer barriers or facilitate the process of social participation. Therefore, in addition to the problems of natural biology, one must consider the interaction of the person with SCI and the environmental context in which he is inserted(18).

Regarding the association between self-care ability and sociodemographic factors of people with SCI, we observed statistical significance for gender, religion, education, current age, duration and type of SCI. Onlyone study with similar methodology was found, which used the Barthel Index to analyze the association between sociodemographic factors and functional capacity in people with SCI, however no association was verified(9). Thus, the paucity of similar studies prevents a more detailed comparison of the results, indicating the need for replication of the methodology used in other locations.

In general, the frequency of dependence in self-care capacity was higher in females, a similar result to that shown by a study about the basic activities of daily living, conducted with individuals with SCI living in the Agreste region of Paraíba(9). This finding probably occurred because a woman, after traumatic events, is more likely to present emotional vulnerability, depression, and compromise in self-image, which hinders her effective participation in self-care and the quest for independence(16).

Another highlight was the fact that the majority had some religious belief,this is because, as a rule, the SCI event happens without people being prepared to face it, necessitating spiritual support. The loss suffered results in a violation of the person as a whole and the suffering goes beyond the physical, reaching the psychological and spirituality. Therefore, hope powered by faith and sustained by a religious belief helps in overcoming subjective states such as hopelessness or impotence, which contributes to adaptation and a range of self-care ability. After overcoming them, as they adapt and achieve the ability to care for themselves, religion becomes more concrete in the view of these subjects(1).

Other variables associated with functional status were education, age and the actual time of SCI. In the majority of the participants affected by SCIin youth, the longer the time of injury, the better the individual had adapted to the condition which ensured greater independence for self-care, due to coping strategies constructed with time and maturity(13).

Regarding education, it is believed that fewer years of study can generate difficulty in obtaining work and, therefore, financial deficits arise. With low income, prevention and health promotion will be more difficult, as well as access to goods and servicesforhealth, especially at the secondary level of health care(9). Adequate access to sources of information and care will be jeopardized, a disturbing fact, because such assistance is crucial for adaptation and acquisition of independence for activities. In this context, nursesshould take advantage of the fact that people arein need ofinformation and supportto execute qualified listening, incentive andhealth educationto facilitatethe process ofaccessibility, rehabilitation and social(re)inclusion(20).

With relationship to the association between self-care ability and the type of SCI, it is necessary to consider that paraplegics and quadriplegics present different degrees in terms of motor coordination of the upper limbs, making them more or less able to care for themselves. A study conducted in Rio de Janeiro with 70 people with SCI identified the lesion level was negatively correlated ($p = 0.01$) with spasticity, indicating that the higher the level, the greater the spasticity(10).

As to the implication of this study for nursing practice, the result indicating that the rehabilitation of individuals with SCI goes beyond merely motor issues is emphasized. The sociodemographic characteristics are also important in the planning of care; in order to achieve functional independence, nurses should consider this aspect during the execution of the nursing process. However, care providers still need a specific instrument to measure the funtional capacity of people with SCI, to improve nursing care for this population(9).

Another important factor that must be considered is the inclusive perspective and understanding of the social model of disability. Therefore, it is believed that it is necessary to confront people with SCI as subjects able to develop activities in the family, the community, the labor market and in all social sectors. Therefore, in addition to physical accessibility, the plural society should be encouraged to change prejudiced attitudes and become active in the process of inclusion of these people in the context of communities.

From this perspective, a network of social support is needed for better care for people with SCI, and the lack of social support is a factor that influences the quality of life and burden on the family caregivers(21).

When considering that the quality of life of caregivers can interfere with the care provided and, consequently, the self-care ability of individuals with SCI, a concern should exist for knowing the level of burden that the care for a person with little ability to satisfybasic needs can generate in the caregiver. A study conducted in Malaga, Spain, found that the burden and stress of caregivers of people with some dependencywere associated with dysfunctional thoughts(22). Therefore, nursing care aiming at comprehensiveness should consider the dyad of theperson with SCI-caregiver, providing technical and psychological support for the lay caregivers.

Finally, a limitation of the study was the impossibility to determine the directionality of the associations (risk of reverse causality), because the variables were considered concurrently, with the transversalverification of conditioning factors and outcomes therefore occurrig. Another limiting factor was the fact that some units did not possess community health workers, or possessed some small micro-areas without monitoring by these professionals.

CONCLUSION

Individuals with SCI living in the city of Natal/RN, in the majority, were: men, with a mean age of 38 years, with religious beliefs, primary education, single, earning up to two times the minimum wage, and suffered aSCI due to trauma, progressing to paraplegia. Most were classified with good self-care capacity, however, mainly due to the participation of individuals with quadraplegia, impairment in the realization of some activities were identified, among which the following were highlighted: taking time to care for yourself, getting exercise and rest, appeal to friends, taking careof yourselfas desired, and requesting information on medications.

It was found that sociodemographic factors may interfere with self-care ability for people with SCI, especially those related to gender, age, religion, education, time and type of SCI, that nurses from the BHU, where subjects of this study were identified, should consider this aspect and include it in the planning and implementation of the nursing process focused on long-term care, including evaluation through systematic home visits.

It is hoped that the knowledge generated by the study allows, in addition to statistical data for planning health actions at the local level, the implementation of more qualified nursing actions for the recovery of self-care capacity in this population.

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