Prevalence of nursing diagnosis Impaired Physical Mobility in people with multiple sclerosis

Prevalência do diagnóstico de enfermagem Mobilidade Física Prejudicada em pessoas com esclerose múltipla

Prevalencia del diagnóstico de enfermería Movilidad Física Deteriorada en personas con esclerosis múltiple

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ABSTRACT
Objective: to identify the prevalence of the nursing diagnosis Impaired Physical Mobility, its defining characteristics and related factors in people with multiple sclerosis, and to verify the association between both and their prevalence ratios. **Methods:** cross-sectional study, with 113 patients in a hospital in the Northeast region of Brazil. Pearson's chi-square test and Fisher's exact test were used to perform data analysis, and the prevalence ratios were calculated. **Results:** the diagnosis was present in 89% of the sample and the characteristics and factors that presented association were: changes in gait; postural instability; uncoordinated movements; reduction in fine and gross motor skills; depression; decreased muscle strength and skeletal muscle injury. **Conclusion:** the diagnosis was presented with high frequency in the sample, which allows identifying the needs of interventions that relate to the functional capacity of the individual, enhancing their functional and personal income through the planning of care and qualified care.
Descriptors: Multiple sclerosis; nursing diagnosis; nursing process; standardized nursing terminology.

RESUMO
Objetivo: identificar a prevalência do diagnóstico de enfermagem Mobilidade Física Prejudicada, suas características definidoras e fatores relacionados em pessoas com Esclerose múltipla e verificar a associação entre ambos e suas razões de prevalência. **Métodos:** estudo transversal com 113 pacientes em um hospital da região Nordeste do Brasil. Para a análise dos dados utilizou-se os testes de qui-quadrado de Pearson e exato de Fisher, sendo calculadas também as razões de prevalência. **Resultados:** o diagnóstico esteve presente em 89% da amostra e as características e fatores que apresentaram associação foram: alterações na marcha; instabilidade postural; movimentos descoordenados; redução nas habilidades motoras finas e grossas; depressão; força muscular diminuída e prejuízo músculo esquelético. **Conclusão:** o diagnóstico apresentou-se com elevada frequência na amostra, o que permite identificar as necessidades de intervenções que diz respeito à capacidade funcional do indivíduo, potencializando seu rendimento funcional e pessoal, através do planejamento do cuidado e da assistência qualificada.
Descritores: Esclerose múltipla; diagnóstico de enfermagem; processo de enfermagem, terminologia padronizada de enfermagem.

RESUMEN
Objetivo: identificar la prevalencia del diagnóstico de enfermería Movilidad Física Deteriorada, sus características definitorias y factores relacionados en personas con esclerosis múltiple, y verificar la asociación entre ambos y sus razones de prevalencia. **Métodos:** estudio transversal, con 113 pacientes en un hospital de la región noreste de Brasil. La prueba de chi-cuadrado de Pearson y la prueba exacta de Fisher se usaron para realizar el análisis de datos, y se calcularon las razones de prevalencia. **Resultados:** el diagnóstico estuvo presente en el 89% de la muestra y las características y factores que presentaron asociación fueron: cambios en la marcha; inestabilidad postural; movimientos descoordinados; reducción de las habilidades motoras fina y gruesa; depresión; disminución de la fuerza muscular y lesión del esqueleto muscular. **Conclusión:** el diagnóstico se presentó con alta frecuencia en la muestra, lo que permite identificar las necesidades de las intervenciones que se relacionan con la capacidad funcional del individuo, mejorando sus ingresos funcionales y personales a través de la planificación de la atención y la atención calificada.
Descriptores: Esclerosis múltiple; diagnóstico de enfermería; proceso de enfermería; terminología normalizada de enfermería.

INTRODUCTION

Multiple Sclerosis (MS) is an autoimmune, inflammatory, demyelinating, and chronic disease that affects the Central Nervous System (CNS), and is more common in young adults. Its etiology is not yet well defined, but some evidence suggests that it is related to both genetic and environmental factors[1].

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Its clinical manifestations start, most of the time, by outbreaks or acute attacks. The most common symptoms are optic neuritis, paresis, or limb paresthesia (refers to skin sensations such as tingling, pressure, cold or burning), coordination and balance disorders, myelitis, sphincter disorders and cognitive-behavioral disorders, in isolation or in combination[2-5].

MS affects women more, and its reason is still unknown. However, existing observations indicate that women are more susceptible to autoimmune diseases, and this predisposition is related to hormonal factors[6].

The average age of MS is approximately 30 years old, with 70% of patients showing symptoms between 20 and 40 years old. The age of onset is about 5 years earlier in women than in men. The outbreak-remission form tends to start earlier, on average between 25 and 29 years of age[5-7].

The incidence and prevalence of MS vary in terms of geographic distribution. The greatest incidences tend to be at the extremes of latitude in both hemispheres. This geographical variation can be explained in part by racial differences; white populations, especially those in northern Europe, are the most susceptible. Another possible explanation for the association of MS and latitude is sun exposure, which can be protective, both by the effect of ultraviolet radiation and by vitamin D. This hypothesis is supported by studies that found an inverse relationship between sunlight and/or exposure to ultraviolet radiation and the prevalence of MS[5-8].

In Brazil, although the distribution of cases of MS is not yet well known, studies on its manifestation in the municipalities of São Paulo and Santos revealed rates of 15 cases/100,000 inhabitants[9,10].

According to the Ministry of Health, it is estimated that approximately 35,000 people lives with the disease, and approximately 15,000 are currently undergoing treatment in the Unified Health System. Among the main symptoms are fatigue, tingling or burning in the limbs, blurred vision, double or loss of vision, dizziness, muscle stiffness and cognition problems[11], requiring professional monitoring, including nursing.

The nursing process is characterized as an assistance systematic practice, whose objective is to organize and plan the nursing care provided by identifying the priority needs. Diagnosis, results and interventions are part of the essential elements of the nurse's practice[12].

According to Taxonomy II of the North American Nursing Diagnosis Association (NANDA)-I, the diagnosis of Impaired Physical Mobility is inserted in domain 4, Activity/Rest, and in Class 2, Activity/Exercise. It is defined as a limitation of the body's independent and voluntary physical movement or of one or more extremities[13].

It is noteworthy that the occurrence of the Nursing Diagnosis (ND) in question can cause the development of intolerance to physical activity, discomfort in physical efforts and generalized weakness, presenting a deficit in self-care due to neuromuscular impairment[14].

Hence the need to identify the nursing diagnosis Impaired Physical Mobility early so that solutions are sought by the nurse with the patient and his family. In addition, it is necessary, for a good performance of the nurse, to accurately determine the defining characteristics and related factors that are associated with the Impaired Physical Mobility, so that the accuracy of the diagnosis is related to a good quality of care of nursing.

Thus, the relevance is to identify the prevalence of ND Impaired Physical Mobility and its components in people with Multiple Sclerosis to contribute to the establishment of positive results and effective nursing interventions for this clientele. In addition, the establishment of the prevalence ratio allows the inference of ND in the most reliable way, with greater accuracy, by estimating the chances of an individual to present this diagnosis in the presence of a certain characteristic and related factor.

From the gaps found, the following question emerged: What is the prevalence of the nursing diagnosis Impaired Physical Mobility in people with Multiple Sclerosis? Is there an association between this diagnosis, its defining characteristics and related factors? What are the chances of these people having this ND in the presence of these defining characteristics and related factors?

Thus, to answer the question, the study aimed to identify the prevalence of the nursing diagnosis of impaired physical mobility, its defining characteristics and related factors in people with multiple sclerosis, and to verify the association between both and their prevalence reasons.

LITERATURE REVIEW

The clinical forms of MS come in four types, namely: Recurrent-Sending form (MSRS), Primarily Progressive form (MSPP), Secondarily Progressive form (MSSP) and Progressive form with Outbreaks (MSPO). MSRS evolves in outbreaks that occur suddenly and can leave sequel, it is the most common form of the disease. It is characterized by exacerbations

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followed by a variable degree of improvement in neurological deficit, which may be complete or progress with residual symptomatic dysfunction[3].

MSPP represents 15% to 20% of MS cases as the most frequent in people over 40 years old and in males. Although there are no outbreaks, symptoms accumulate over time. MSSP is present in 15 to 20% of MS forms. For the diagnosis, it is necessary to carry out a retrospective analysis, since its confirmation is based on the prolongation of symptoms after six months. Initially, the course is presented as the MSRS form with subsequent progression, with or without outbreaks, discrete remissions and stabilizations[4].

MSPO is the rarest of the clinical forms, affecting about 5% or less of the patients. It presents a progressive onset with subsequent presence of well-defined outbreaks and progressive evolution[3].

METHODOLOGY

This is a cross-sectional, descriptive study with a quantitative approach carried out in a reference university hospital for neurological diseases in northeastern Brazil.

The study population consisted of patients with a confirmed medical diagnosis of MS identified and assisted at that hospital. Thus, the sample without replacement was calculated from the total number of patients registered at the hospital's Neurology outpatient clinic, thus constituting a population of 158 people. For the calculation of the sample size, the formula for finite populations was used, taking into account the 95% confidence level (Z∞ = 1.96), the sampling error of 5% and the population size, resulting in a sample of 113 patients.

The sample of patients was obtained through the convenience sampling of the consecutive type. The following inclusion criteria were adopted: to have been clinically diagnosed with MS, to be over 18 years of age, and to be registered at the hospital outpatient clinic during the data collection period. The exclusion criteria were the following: not being in psychic and emotional conditions to participate in the study. In order to verify whether the patient had compromised physical and psychological conditions, the researchers reported to the nursing team, consulted the medical records, as well as approached the patient in order to carry out an assessment of their general health status, level of awareness and guidance. The level of consciousness was assessed using the Mini Mental State Examination, which is a dichotomous measure of 30 items, with quick and brief application, which tracks the impairment of cognitive functions. It assesses temporal and spatial orientation, immediate memory and word recall, calculation, naming, repetition, executing a command, reading, writing and vasomotor skills[15].

To check the psychic condition of patients with MS, researchers previously reported to the medical record, to analyze the entire history of the disease and the evolution. Then, they reported to the nursing team to obtain additional information about the patient's behavior, his orientation regarding space and time.

The data were collected from March to September 2017, by means of an interview and physical examination script that contemplated the socio-demographic, clinical and behavioral aspects. This instrument was submitted to content and appearance validation by ten professors who develop studies in the area of Systematization of the Nursing Care (*Sistematização da Assistência de Enfermagem*, SAE) and Neurology, subsequently; the suggestions proposed were contemplated in the instrument.

Soon afterwards, theoretical and practical training was carried out to standardize data collection with two Scientific Initiation students and three graduate students at the Master's level, with a workload of 12 hours per week, developed through lectures and dialogues, in addition to discussions of clinical cases with an emphasis on approaching people with MS. After the theoretical stage of the course, a practical activity of simulation of physical examination in pairs was carried out, in order to train researchers and standardize data collection. Thus, after this stage, the instrument was applied as a pre-test to ten patients with MS.

The preparation of the diagnoses was procedural, performed simultaneously with the data collection, seeking to identify the defining characteristics and risk/related factors according to the NANDA-I, version 2015-2017. For the structuring of nursing diagnoses the stages of Risner's clinical trial were followed: Categorization of data, Identification of data gaps, Grouping of relevant data into standards, Comparison of standard groupings, norms and concepts, Identification with deviations and potentials in health, Proposals of etiological relationships[11].

After this stage, the results underwent a paired analysis in order to ensure a consensual and accurate judgment. Then, a database was built using Microsoft Excel 2009 software, recording all variables of the research instruments, such as the respective nursing diagnoses, defining characteristics and the related and risk factors identified.

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The data were analyzed using descriptive and inferential statistics. In the descriptive analysis, measures of central tendency and dispersion were used, and the Shapiro Wilk test test was applied to verify the distribution of data normality[16]. The mean and standard deviation of the quantitative variables were also calculated. In inferential analysis, Pearson's chi-square test and Fisher's exact test were used to verify the association of nursing diagnoses with defining characteristics, and related factors, p <0.05 was considered, and the reasons were also calculated prevalence.

In view of this, the research followed national and international ethical standards for research involving human beings, approved by the Research Ethics Committee of the Federal University of Rio Grande do Norte (*Comitê de Ética em Pesquisa da Universidade Federal do Rio Grande do Norte*, CEP/UFRN) under Opinion No. 1,146,907.

RESULTS

A total of 113 patients participated in the study, with a minimum age of 19 and a maximum age of 59 years old, with a mean age was 51.16 years old(±12.6), male (72.6%), single (66.4%), from the inland (55.7%), and without children (47.8%). The variables salary income and length of study showed asymmetric variation, indicating that half of the sample had an income of approximately one minimum wage and had up to eight years of study. The ND Impaired Physical Mobility was present in 89% of the patients.

Table 1 presents the prevalence of the Impaired Physical Mobility nursing diagnosis, its defining characteristics, and related factors.

TABLE 1: Prevalence of the Impaired Physical Mobility nursing diagnosis, its defining characteristics and related factors in people living with MS. Natal/RN, 2017 (N=113)

Variables	Presence		Absence	
	n	%	n	%
Nursing diagnosis				
Impaired Physical Mobility	78	89.0	35	31.0
Defining characteristics				
Gait changes	78	69.0	35	31.0
Postural instability	76	67.3	37	32.7
Uncoordinated movements	73	64.6	40	35.4
Reduction in the fine motor skills	68	60.2	45	39.8
Reduction in gross motor skills	65	57.5	48	42.5
Discomfort	58	51.3	55	48.7
Effort dyspnea	49	43.3	64	56.7
Reduction in the amplitude of movements	44	38.9	70	61.1
Movement-induced tremor	44	38.9	70	61.1
Slow movements	44	38.9	70	61.1
Related factors				
Depression	70	61.1	43	38.1
Decreased muscular strength	70	61.1	43	38.1
Musculoskeletal impairment	68	60.2	45	39.8
Decreased muscular control	68	60.2	45	39.8
Intolerance to activity	66	58.4	47	41.6
Neuromuscular impairments	61	53.9	52	46.1
Decreased muscular mass	58	51.3	55	48.7
Nursing diagnosis				
Impaired physical mobility	78	89.0	35	31.0

Based on the data presented in Table 1, the defining characteristic that stood out the most among the patients who presented the studied nursing diagnosis was gait changes. Among the most prevalent related factors were depression and decreased muscle strength. Table 2 presents the defining characteristics and related factors that were associated with ND, as well as their prevalence ratios in people with MS.

According to Table 2, five defining characteristics and 3 related factors showed a statistically significant association when related to the nursing diagnosis Impaired Physical Mobility (p<0.05), namely: changes in gait; postural instability; uncoordinated movements; reduction in fine and gross motor skills; depression; decreased muscle strength and skeletal muscle damage.

TABLE 2: Defining characteristics and related factors that were associated with the nursing diagnosis Impaired Physical Mobility. Natal/RN, 2017 (N = 113)

Variables Defining Characteristics	ND Impaired Physical Mobility Present	Absent	Total	Statistics
Gait changes				
Present	78	00	78	p= 0.001[1]
Absent	-	35	35	PR = 3.582
Total	78	35	113	CI95%: 1.829 - 3.981
Postural instability				
Present	58	10	68	p= 0.03[2]
Absent	20	25	45	PR = 2.671
Total	78	35	113	CI95%: 1.729 - 2.873
Uncoordinated movements				
Present	73	03	76	p= 0.002[1]
Absent	05	32	37	PR = 1.351
Total	78	35	113	CI95%: 1.112 - 2.126
Reduction in the fine motor skills				
Present	73	03	76	p= 0.002[1]
Absent	05	32	37	PR = 1.351
Total	78	35	113	CI95%: 1.112 - 2.126
Reduction in gross motor skills				
Present	73	03	76	p= 0.002[1]
Absent	05	32	37	PR = 1.351
Total	78	35	113	CI95%: 1.112 - 2.126
Related factors				
Depression				
Present	58	10	68	p = 0.000*
Absent	20	25	45	PR = 1.450
Total	78	35	113	CI95%: 0.989 - 2.723
Decreased muscular strength				
Present	48	22	70	p = 0.038**
Absent	30	13	43	PR = 1.684
Total	78	35	113	CI95%: 0.889 - 2.545
Musculoskeletal impairment				
Present	48	22	70	p = 0.038**
Absent	30	13	43	PR = 1.684
Total	78	35	113	CI95%: 0.889 - 2.545

[1]Fisher's exact test; [2]Pearson's chi-square test; $p < 0.05$; PR = prevalence ratio; CI = 95% confidence interval.

Regarding the prevalence ratios of the characteristics mentioned above, the chances of people with MS to develop the nursing diagnosis Impaired Physical Mobility in the presence of these characteristics were approximately: 3.5 times for changes in gait, 2.6 times for postural instability, 1.3 times for uncoordinated movements, 1.3 times for reduction in fine motor skills and 1.3 times for reduction in motor skills, when compared to patients who did not present these characteristics and factors.

Furthermore, despite the statistically significant association between the related factors; depression; decreased muscle strength and skeletal muscle damage with the impaired Physical Mobility ND, there is no way to establish the magnitude of the association, since the prevalence ratio did not present statistical significance due to the presence of value 1 in the confidence interval.

DISCUSSION

The prevalence studies of NDs (Nursing Diagnoses) assert a positive contribution to the nursing care practice, facilitating the planning of priority nursing actions for a given population. Thus, Nursing as science is affirmed, by using its own classification system proposed by NANDA-I, as a theoretical reference of nursing, collaborating for the assistance practices among nurses[17].

In this context, nurses' decision-making is characterized by their thorough and rigorous evaluation of relevant evidence on a nursing problem, starting with the synthesis of expressive data and obtaining information on possible

interventions, treatments and means of control and maintenance, leading taking into account the professional's expertise and the patient's will[18].

By listing NANDA-I's ND of Impaired Physical Mobility, the nurse will simultaneously plan their care plan based on the delimited diagnosis, through the Classification of Nursing Outcomes (NOC)[19], evaluating its indicators in order to program possible interventions, using the Nursing Intervention Classification (NIC)[20], and thus systematizing nursing care and assistance.

In MS the loss of myelin caused by the formation of demyelinating plaques in the central nervous system (CNS), leads to an impairment of the blood-brain barrier, inflammation, demyelination, remyelination, loss and depression of oligodendrocytes. Such characteristics occur due to a combination of several environmental factors and individual genetic predisposition that lead to the appearance of clones of auto reactive T lymphocytes in the bloodstream and a dysregulation of the immune regulatory processes in the peripheral blood and locally in the CNS, reaching areas such as per ventricular white matter and sub cortical, corpus callosum, cortex, superior fosse structure, optic nerves and medulla[21].

Therefore, the damage to nerve fibers caused by demyelination occurs due to the interruption of nerve impulses in the impaired nerve conduction. This interruption causes muscle fatigue and weakness, where the muscles do not receive the nerve impulses they need to work effectively, which can result in reduced resistance[22].

This picture presented by MS, will imply the limitation in the independent and voluntary physical movement of the body or its extremities, which consequently will significantly interfere in the mobility of patients affected by MS, thus, the DE Mobility is present and prevalent. Impaired physics in most cases of people diagnosed with MS.

In view of the Impaired Physical Mobility DE, the main result of classified nursing is mobility, with the indicators evaluated as type of gait, coordination and muscle movement[19].

Demyelinating lesions in the cerebellum and cerebellar tracts are common in MS, and are characterized by postural or intentional tremors to voluntary movements, which when exacerbated lead to disabilities in activities of daily living and weakness of the trunk muscles. Therefore, the nurse can implement activities of extreme importance that assist in postural instability, muscle tone and fatigue.

Among these activities we can mention the aid and guidance of exercises for transferring objects from one side of the body to the other because it helps to maintain the trunk and the stability of the proximal joints during motor activity; the joint assessment to the physiotherapist for better definition in performing the exercises as appropriate; offering information on the muscles' function, the physiology of exercises and the disuse consequences; providing a restful environment for the patient after periods of exercise, thus assessing the indicators of the outcome of nursing mobility[23,24].

Among the injuries resulting from the demyelination process, the reduction of gross and fine motor skills may appear in the course of MS, for this it is important that the nurse adopts activities together with the physical therapist that assist the patient in carrying out the activities of affected daily life as an assistant in the coordination activities for the hand and upper limb, working with the claw and clamp, grasping, palpating objects of varying sizes and thicknesses, making drawings on diagrams, trying to develop activities with progressive sequences, assisting in walking activities, climbing steps and body positioning, as appropriate[19,20].

Gait changes, uncoordinated movements, and reduction in the amplitude of movements are also related to demyelinating lesions in the cerebellum, such lesions can cause weakness, spasticity, sensory alteration or ataxia, as well as the combination of these factors[25].

Rehabilitation treatment for people living with MS usually includes cardiovascular, strength and balance training. However, due to the variable presentation in MS and the wide range of symptoms, no intervention approach was identified as the gold standard. Therefore, treatment is typically individualized, depending on the patient's individual signs and symptoms. Among the many common presentations in people with multiple sclerosis are complaints of dizziness, instability and lack of balance. Although these symptoms can contribute to altered muscle performance, dysfunctions of the vestibular system are a real possibility and are generally neglected[25].

From this, the nurse will implement activities aimed at assisting and guiding in the use of devices that assist in locomotion, support bars, use of orthoses, guide, demonstrate and assist in walking when possible. At the end of the activities, the progress of the suggested nursing outcome indicators is to be analyzed[26].

In this context of implementation of activities, the nurse must take into account the interdisciplinary role for the patient to interact and participate in handling, facilitating, and emphasizing the quality of the movement, thus reflecting on high performance and active role, which enriches reasoning and decision-making processes[26].

However, the movement-induced tremor is not easily associated with a neuroanatomical site, since MS is a multifocal disease. The predominance of these tremors suggests lesions in the cerebellum that show signs and symptoms such as parias, spasticities, exaggerated reflexes, involuntary flexor and extensor spasms[27].

Tremor in people with MS is a frequent and debilitating symptom, with a relatively poorly understood pathophysiology and contributes greatly to the disability of these patients. This tremor rarely presents with the high frequency action component seen in primary tremor disorders; on the contrary, it is the combination of several characteristics, particularly the cerebellar ones. Therefore, medications are rarely effective, while surgery can provide variable results, depending on the severity of the underlying ataxia[27].

In this case, the nurse can develop activities such as guiding the patient to avoid rapid, forced or commuting movements to prevent exaggerated stimulation to the myotactic reflex, always associating the measurement of the indicators of the result of nursing mobility.

In addition to the deficiency in the muscles of the trunk and limbs, the respiratory muscles are also affected, causing a decrease in strength and endurance. The weakness of the respiratory muscles, including the diaphragm and chest wall muscles, results in inefficient cough, increasing the chances of infection, and shallow breathing, leading to hypoventilation and, consequently, hypoxemia and hypercapnia. With hypoventilation, the lung bases are poorly ventilated and the lungs and chest walls become less elastic, resulting in respiratory complications[28].

As a result, dyspnea on exertion is present in individuals with MS, as they have less tolerance to physical exercises due to the reduction in muscle strength. In addition, these abnormalities can also increase the risk of frequent hospitalizations and morbidities and can reduce life expectancy. Unfortunately, the impact of exercise intervention on these anomalies is unknown. Therefore, it is suggested that the individual with MS be systematically screened for muscle, cardiac, ventilatory and metabolic function[29].

To reverse or mitigate this situation, the nurse will develop activities in order to minimize damage and improve flow rates and lung volumes, such as positioning the patient aiming at the relief of dyspnea, raising the head of the bed, listening to lung sounds, observing areas of decreased ventilation or absent, in addition to the presence of adventitious noises, monitors the occurrence of fatigue in the respiratory muscles, monitoring frequency, rhythm, depth and effort in breathing[30].

Secondary complications in MS that hinder patients' rehabilitation, such as psychosocial changes, may also occur. These changes imply a restructuring and adaptation, since these people have to learn to manage the new disease situation. Thus, the experience of chronic disease depends on individual characteristics, cultural beliefs, acceptance and what is expected from life, having a strong impact on future projects, education, social relationships, marriage, family and professional life[31].

Still in relation to psychosocial changes, depression is a factor related to MS. A Portuguese study carried out with people with MS points out that the decrease in social contacts and the loss of interest in activities previously considered pleasurable may be the result of the diagnosis and the physical consequences that accompany the disease, in addition, these two aspects may lead to greater depressive symptoms that , in turn, will reflect on a larger scale in the isolation of individuals[32].

In view of this, it is of utmost importance that nurses schedule activities that assist in the self-care of patients, in order to improve coping and the perception of their body image, such as encouraging the patient to carry out normal activities of daily living as according to their level. capacity, encourage independence, but interfere when the patient has difficulties in performance and provide assistance until the patient is fully able to assume self-care[20].

Therefore, it is important that individuals and families need monitoring by health professionals, in order to minimize the risk factors that jeopardize the individual's uniqueness and family dynamics. Support includes the clarification and transmission of quality information about the nature and evolution of the disease, management of signs and symptoms, identification of physical and emotional wear signs, promoting the acquisition of coping and adaptation strategies, improving the quality of life of these people[31,33].

Finally, it is understood that when indicating the DE Impaired Physical Mobility in people with MS, nurses have in their hands the use of a unique language, which standardizes their documentation and allows comparisons and

evaluation of the effectiveness of their interventions in solving problems of health of individuals, favoring their data collection and priority actions, subsidizing their work method[34].

CONCLUSION

The diagnosis of Impaired Physical Mobility was present with a high frequency in the investigated sample. The defining characteristics that presented a statistical association with this diagnosis were the following: gait changes; postural instability; uncoordinated movements; and reduction in fine and gross motor skills. The related factors that presented an association with the diagnosis were the following: depression; decreased muscle strength, and skeletal muscle damage. Among these, gait changes and postural instability presented the highest chances for the development of this diagnosis.

In view of the above, it is up to the nurse to identify the needs for interventions with regard to the individual's functional capacity to carry out his daily activities, as well as to make the MS patient be productive and reach a good level of resistance, promoting mobility, accessibility and participation with regard to their self-care, enhancing their functional and personal performance, through care planning and qualified assistance through the nursing process.

Among the limitations of the study, is the fact that the clinical evaluation is a subjective process, therefore, the diagnostic process is subject to uncertainties, bringing implications for the expected results and specific nursing interventions. In addition, the realization and dissemination of this and other studies related to the topic addressed can support nursing professionals regarding the development and implementation of a scientific, human and holistic nursing practice. As well as, bring reflections on the study promoting new research.

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