http://www.periodicos.uem.br/ojs/index.php/CiencCuidSaude
ISSN on-line1984-7513
DOI: 10.4025/cienccuidsaude.v24i1.74549

ORIGINAL ARTICLE

PREVALENCE OF USE OF LOWER LIMB ORTHOSES BY PEOPLE WITH SPINAL CORD INJURY POST-REHABILITATION

Adriana Dutra Tholl*
Gabriel Vanderson Mattos**
Janaina Medeiros de Souza***
Scheyla Paula Bollmann Oleskovicz Nogueira****
Wiliam Cesar Machado*****
Juarez de Souza Pereira******
Jonas Felisbino*******

ABSTRACT

Objetivo: to describe the prevalence of use of lower limb orthoses in the daily home of people with spinal cord injury after physical rehabilitation program. **Method:** quantitative, cross-sectional and descriptive study, developed with 121 individuals with spinal cord injury in a rehabilitation center in southern Brazil, between October 2019 and January 2020. Data were collected through interviews guided by a semi-structured script. They were analyzed in IBM SPSS Statistics 22, with the Kolmogorov-Smirnov test for normality, and the Pearson Chi-square and Mann-Whitney U tests for statistical analysis. **Results:** of the 121 individuals with spinal cord injury, 60.3% (n=73) received lower limb orthoses. Of these, 65.7% (n=48) maintained the use of orthoses for three days per week in daily household and 34.2% (n=25) stopped using the orthoses after the rehabilitation program. **Conclusion:** the low prevalence of use of lower limb orthoses in the home, post-rehabilitation program, can compromise the health and quality of the individual with spinal cord injury, leading to waste of public spending. Thus, it is inferred that the monitoring of these individuals and awareness of the benefits of using them can contribute to the adherence to the use of this assistive technology in daily home post-rehabilitation program.

Palavras-chave: Spinal Cord Injuries. Rehabilitation. Rehabilitation Nursing. Orthotic Devices. Activities of Daily Living.

INTRODUCTION

The use of orthoses is fundamental in the rehabilitation process, especially in individuals with neuromusculoskeletal impairment[1]. Orthoses are external devices applied to the body to modify the functional or structural characteristics of the musculoskeletal system.

They play an essential role in the restoration and optimization of motor functions, providing support, alignment, correction of deformities and, in some cases, facilitating movement. In addition, orthoses are used to prevent deformities, especially in situations of altered muscle tone, helping to maintain the structural integrity of joints and soft tissues[2].

In the context of spinal cord injury (SCI), which is characterized by damage to the spinal cord due to trauma or disease, resulting in impairment of motor and sensory functions below the level of the lesion, the use of orthoses becomes even more relevant. SCI can lead to significant loss of mobility and postural control, and orthoses play a crucial role in compensating for these losses[2].

The main orthoses indicated for the lower limbs in patients with SCI include the pelvic podalia, cruropodalia and suropodalia. These devices are designed not only to prevent and correct musculoskeletal deformities, but also to

*Nurse. PhD in Nursing. Professor of undergraduate and postgraduate nursing at the Federal University of Santa Catarina. Florianópolis, Santa Catarina, Brazil. E-mail: adriana.dutra.tholl@ufsc.br. ORCID iD: https://orcid.org/0000-0002-5084-9972
**Nurse at the Children and Adolescents Home. Municipality of Balneário Camboriú, Santa Catarina, Brazil. E-mail: gabriel_vmattos@hotmail.com. ORCID iD: https://orcid.org/0009-0006-5569-9770
***Physiotherapist. PhD in Nursing (Philosophy and Health Care and Nursing). Professor at the Nursing Department of the Federal University of Santa Catarina. Florianópolis, Santa Catarina, Brazil. E-mail: janaina.medeiros@ufsc.br. ORCID iD: https://orcid.org/0000-0001-8645-9215
****Physiotherapist. Master in Neuroscience. Physiotherapist at the Santa Catarina Rehabilitation Center. Florianópolis, Santa Catarina, Brazil. E-mail: sche78@gmail.com. ORCID iD: https://orcid.org/0000-0002-6000-5589
*****Nurse. PhD in Nursing Sciences, Professor of undergraduate and postgraduate nursing at the Federal University of Rio de Janeiro. Rio de Janeiro, Rio de Janeiro, Brazil. E-mail: wily.machado@gmail.com. ORCID iD: https://orcid.org/0000-0002-4325-7143
******Physiotherapist. Master in Health and Technology in the Hospital Space. Federal University of Rio de Janeiro. Rio de Janeiro, Rio de Janeiro, Brazil. E-mail: juarezpereira.fisio@gmail.com. ORCID iD: https://orcid.org/0000-0001-7072-6753
*******Nurse. Master in Nursing Care Management. Nurse at the Municipality of Florianópolis, Florianópolis, Santa Catarina, Brazil. E-mail: jonas.felisbino@hotmail.com. ORCID iD: https://orcid.org/0000-0003-3974-6179

facilitate orthostatism (maintenance of upright posture) and gait (walking), promoting greater independence and quality of life for patients[1].

One of the most important approaches in the rehabilitation of people with SCI is the use of different orthoses[3]. As much as it is essential, its rapid delivery to potential users is evident, considering the role of early intervention in promoting quality of life and reducing osteomioarticular complications[4].

The continuous use of these orthoses provides numerous benefits from the initial stages of rehabilitation and, due to the positive effects of prolonged orthostatism, it is recommended that their use be maintained regularly throughout life. Orthostatism stimulates the digestive system, assisting in the rehabilitation of the neurogenic intestine, a condition often associated with SCI that affects intestinal control.

In addition, regular use of orthoses helps maintain cardiovascular and musculoskeletal health, preventing common complications in these people, such as deep vein thrombosis (DVT), muscle mass loss, and osteoporosis[5,6].

In addition to all the physical, mechanical and orthopedic benefits attributed to their use, orthoses also have a positive effect on the psychological aspect of the patient[3,6], since, besides improving the "normal aesthetics" of the sometimes, there are benefits in the independence of the individual, enabling him to perform activities that had been lost[7].

SCI changes the way of living and compromises the independence of the individual, distancing him from society, negatively affecting his intrapersonal relationships[8]. In this sense, rehabilitation is the most effective way to promote the quality of life of these people, whose actions help in the process of resignification of the experience of living and living with ML in everyday life[9].

When there is adherence to the rehabilitation process, we see the resumption of life happen earlier, making the process lighter, integrated into support networks. Health professionals have a significant role in the process of adherence to rehabilitation of people with SCI. By encouraging people for their potential, they stimulate the protagonism in self-care and/or assisted care, giving meaning to the process, collaborating for adherence to rehabilitation[8,9].

Moreover, the adherence to the use of orthoses can be determined by instruction on their use and professional follow-up, in order to guide its importance in the rehabilitation process, as well as in the identification of discomforts that may occur and influence, negatively, in its use. Such interventions contribute to making good use of this investment[10,11].

Outpatient and inpatient care expenses of individuals with ML are costly. In a study at a university service, 51 individuals generated 304,433.77 BRL in expenses, 23% of which corresponds to rehabilitation[12]. Another study shows that in the period from 2010 to 2015, the amount of Orthoses, Prostheses and Special Materials (OPME) provided in the five regions of Brazil was 28,101,997, a total of R$ 3,205,108,088.42[13]. Another investigation showed that, between 2013 and 2017, the amount of expenses extracted from legal proceedings opened against the Federal District Department of Health engaged for the acquisition of orthoses and prostheses was R$ 9.5 million, a high value for the number of registered lawsuits[14]. Therefore, not using orthoses, in addition to signifying a great loss in the health of the individual with SCI, also represents a waste of public money.

In this context, the continuous follow-up of post-SCI individuals is crucial to maximize rehabilitation outcomes and promote long-term quality of life. Thus, the importance of an interdisciplinary and longitudinal follow-up is highlighted, where the participants of a specialized clinic were able to achieve approximately half of the rehabilitation goals related to their secondary health conditions by following the recommendations of professionals in their home routines[15]. This monitoring is essential not only to monitor health conditions, but also to ensure the effective use of orthoses, which play a central role in the recovery and maintenance of motor function[16].

Regarding the use of orthoses, the benefits mentioned above are amplified when there is a long-term follow-up after SCI. In addition to providing immediate support and facilitating

mobility, orthoses can contribute to motor recovery over time. A study exemplifies this possibility, showing that 21.2% of participants with SCI were able to stop using walking orthoses because they felt that they had regained the ability to walk without the aid of these devices[17]. These findings underline the importance of continuous monitoring, not only to adapt rehabilitation strategies as necessary, but also to identify and promote the potential for motor recovery in individuals with SCI.

Given the above, this study aims to describe the prevalence of use of lower limb orthoses by people with spinal cord injury in daily home post-rehabilitation program.

METHOD

This is a cross-sectional and descriptive research with a quantitative approach, developed in a rehabilitation center in southern Brazil, between October 2019 and January 2020.

To estimate the sample size, version 11.65 of WINPEPI was used. Taking into account a confidence level of 95%, a margin of error of 5% and an estimated ratio of 50%, a minimum sample size of 97 individuals was achieved, maximizing the sample size. According to the established criteria, the final sample selected for the study was composed of 121 participants.

The inclusion criteria followed were: age equal to or over 18 years, spinal cord injury regardless of etiology and participation in a Rehabilitation Program. The exclusion criteria were: people living in the interior of Santa Catarina that were not located by phone after three contact attempts, at different times and days, and individuals with associated cognitive deficit, found in medical records.

Participants were invited to participate in the research by the head of the Nursing Sector, through a messaging application (WhatsApp) of the Group of Support for People with Spinal Cord Injury (GALEME) in addition to invitations made at the face-to-face meetings of the group and to individuals after ambulatory rehabilitation sessions during the research period. After accepting to participate in the research, it was requested to sign the Informed Free Consent Form (IFCF), and scheduled data collection.

Data were collected through 55 face-to-face interviews in a private setting at the institution. For individuals from the interior of the state, who reported difficulty in getting to the institution, data collection was carried out by telephone contact, corresponding to 66 interviews. In both formats, the average interview time was 50 minutes. The interviews were guided by an instrument used by the nurses of the institution, therefore continuously updated and validated, containing questions about the clinical and epidemiological data of the participants, type of orthosis received, time of use in weeks and reasons associated with the non-use of orthoses.

The data were organized in an Excel spreadsheet and analyzed using IBM SPSS Statistics software, version 22. Initially, the normality of continuous variables was evaluated by means of the Kolmogorov-Smirnov test. The continuous variables that presented normal distribution were summarized using means and standard deviations, while those with asymmetric distribution were described by means of medians and interquartile intervals (Q1-Q3). Among the continuous variables analyzed, participants' age, time since injury, years of schooling and family income were highlighted.

The categorical variables, such as sex, marital status, type of injury, origin and weekly frequency of use of lower limb orthoses, are presented in terms of absolute and relative frequencies. To compare the categorical variables between groups, we used the chi-square test of Pearson. The comparison of continuous variables, depending on normality, was performed using the parametric T-Student test or the non-parametric Mann-Whitney U test, in the case of asymmetric variables. All analyses were conducted with a significance level of 5%, ensuring the accuracy and validity of the results obtained.

The study was approved by the Research Ethics Committee under CAAE number 93502418.2.0000.0121 and Protocol n. 2.841.165.

RESULTS

As presented in Table 1, the majority of the sample was composed of males (71.9%), aged between 20 and 49 years (71.1%) and complete lesions (73.4%), classified by the American Impairment Scale (AIS). Regarding marital status, 52.1% of the participants were married or lived in a stable union, and slightly more than half resided in the region of Greater Florianópolis (51.2%).

The average of the participants' years of study was nine years, corresponding to complete elementary school. The median time since injury was six years. Regarding the use of lower limb orthoses, participants reported using them on average three days per week. The median family income was 2,800.00 BRL, with interquartile range ranging between 1,895.00 BRL and 3,938.00 BRL.

Table 1. Characterization of the sample regarding socioeconomic and clinical data – Florianópolis, SC, Brazil, 2020

Variables	**n (%)**
Sex	
Female Male	34 (28.1)
Age Group (years)	87 (71.9)
20 - 49	
50 - 87	86 (71.1)
	35 (28.9)
Marital Status	
Stable union	63 (52.1)
Single	58 (47.9)
Region	
Greater Florianópolis	62 (51.2)
Interior of the State of Santa Catarina	59 (48.8)
Type of lesion	
Traumatic	94 (77.7)
Non-traumatic	27 (22.3)
AIS (SCIT***)**	
A B C D	69 (73.4)
E	12 (12.8)
	05 (5.3)
	08 (8.5)
	00 (00)
Variables	**Median (Q1-Q3)**
Education (years)	9.0 (7-11)
Lesion time (years)	6.0 (4-11)
Use time (days per week)	3 (2-7)
Family Income (BRL)	2800.00 (1895.00-3938.00)

** American Impairment Scale (AIS) - assessment using key sensory and motor points, which allow the classification of SCI into five categories: A, B, C, D, D and E.
*** SCIT – Traumatic Spinal Cord Injury; Q1 – first quartile; Q3 – third quartile.

In Table 2, the prevalence of use of lower limb orthoses in daily home care by people with spinal cord injury after rehabilitation program was 60.3% (n=73). Men maintained a higher percentage, with 62.1% of them (n=54) maintaining equipment in routine use, compared to 55.9% (n=19) of women.

The only variable that correlated with the use or not of orthoses was age, showing that there is a higher prevalence of its use in individuals under 50 years compared to those with older age ($p = 0.01$). The other variables were not significant, although individuals with complete injuries and individuals with higher income have a greater tendency to use orthoses, compared to people with incomplete injuries and individuals with lower income, as shown in Table 2.

Table 2. Prevalence of orthosis use according to socioeconomic factors and clinical aspects of the injury - Florianópolis, SC, Brazil, 2020

Variables	**Orthesis**		**p value***
	Yes (n/%) – n=73	**No (n/%) – n=48**	
Sex			
Female	19 (55.9)	15 (44.1)	0.53
Male	54 (62.1)	33 (37.9)	
Age (age group)			
20 - 49 years	58 (67.4)	28 (32.6)	0.01
50 or more	15 (42.9)	20 (57.1)	
Marital Status			
With partner	35 (55.6)	28 (44.4)	0.26
Without partner	38 (65.5)	20 (34.5)	
Region			
Greater Florianópolis	40 (64.5)	22 (35.5)	0.34
Interior	33 (55.9)	26 (44.1)	
Type of lesion (n=57)			
Complete	47 (68.1)	22 (31.9)	0.07
Incomplete	12 (48.0)	13 (52.0)	
Time of lesion (YEARS)			
<6	33 (66.0)	17 (34.0)	0.29
≥6	40 (56.3)	31 (43.7)	
Variables	**Yes (median/Q1-Q3)**	**No (median/Q1-Q3)**	**p value#**
Education (years)	10.0 (7-11)	9.0 (6-11)	0.60
Lesion time (years)	6.0 (4-12)	6.5 (3.5-11)	0.98
Income (BRL)	3000.00 (1996.00-4000.00)	2300.00 (1700.00-3398.00)	0.07

n = number; * Pearson's chi-square; # Mann-Whitney U test; Q1 – first quartile; Q3 – third quartile.

Of all 121 participants in the study, 73 individuals received lower limb orthoses. The majority of individuals received orthoses of the pelvic podalic type and stopped using them due to difficulty in handling the equipment, generating discomfort and non-adaptation, as presented in Table 3.

Table 3. Frequency of orthoses received and adherence to use - Florianópolis, SC, Brazil, 2020

Characteristic	**n (%)** (n=73)
Type of received ortheses*	
HKAFO**	46 (63.0)
KAFO***	18 (24.7)
AFO****	19 (26.0)
Type of ortheses not used*	
HKAFO**	18 (39.1)
KAFO***	6 (33.3)
AFO****	4 (21.1)
Reasons not to use the orthesis	
Difficulty in use (discomfort and lack of adaptation)	5 (20.0)
Laziness	3 (12.0)
Stopped using over time (not reassessed)	2 (8.0)
Equipment breakage	2 (8.0)
Weight loss	1 (4.0)
Fear of getting hurt	1 (4.0)
Return to physical activity	1 (4.0)
Not specified	10 (40.0)

n = number; *Some participants are counted more than once because they use more than one type of orthosis, so the final percentage of orthoses is more than 100%. ** Hip Knee Ankle Foot Orthosis. *** Knee-ankle-foot-orthosis. **** Ankle-foot-orthosis.

Of the 73 individuals who received lower limb orthosis, 48 continued to use the orthoses at home after the rehabilitation program and 25 stopped using the pelvic orthoses (18), the pediatric orthoses (6) and the suropodalia (4).

The time of injury was the only variable that correlated with the continuity or not of the use of orthoses, showing that individuals with more recent injuries wear more orthoses than individuals with injuries for longer (p=0.003), and people with incomplete injuries tend to remain more with orthoses than those with complete injuries, as shown in Table 4.

Table 4. Adherence to the use of orthoses according to socioeconomic factors and clinical aspects of the injury – Florianópolis, SC, Brazil, 2020

Variables	Received ortheses – n=73		p value*
	Still using (n/%) – n=48	Quit using (n/%) – n=25	
Sex			
Female	10 (52.6)	09 (47.4)	0.16
Male	38 (70.4)	16 (29.6)	
Age (age group)			
20 - 49 years	38 (65.5)	20 (34.5)	0.93
50 or more	10 (66.7)	05 (33.3)	
Marital Status			
With partner	22 (62.9)	13 (37.1)	0.62
Without partner	26 (68.4)	12 (31.6)	
Region			
Greater Florianópolis	25 (62.5)	15 (37.5)	0.52
Interior	23 (69.7)	10 (30.3)	
Type of lesion (n=57)			
Complete	28 (59.6)	19 (40.4)	0.07
Incomplete	12 (100.0)	00 (0.0)	
Lesion time (years)			
<6	27 (81.8)	6 (18.2)	0.09
≥6	21 (52.5)	19 (47.5)	
Variables	Yes (median/Q1-Q3)	No (median/Q1-Q3)	p value#
Education (years)	10.0 (7-11)	9.0 (6-11)	0.76
Lesion time (years)	6.0 (4-12)	6.5 (3.5-11)	0.003
Income (BRL)	3000.00 (1996.00-4000.00)	2300.00 (1700.00-3398.00)	0.20

n = number; * Pearson's chi-square; # Mann-Whitney U test; Q1 – first quartile; Q3 – third quartile.

DISCUSSION

Analysis of the demographic profile of participants revealed a predominance of 71.9% (n=87) males and 28.1% (n=34) females, which is consistent with the findings from other national and international studies[4,18-20]. This similarity suggests that the demographic characteristics of the studied population are aligned with the general profile of individuals with this condition.

Although previous studies have shown a higher adherence to the use of orthoses among male subjects[17], this study did not find any significant difference between the sexes. This discrepancy can be attributed to several factors, such as the specific characteristics of the sample, the differences in rehabilitation interventions and the definition of adherence used in each study. However, it is important to note that differences in the clinical and socioeconomic characteristics of the participants may influence the prevalence of orthosis use, requiring a more thorough analysis of the data.

Regarding the etiology of SCI, a higher prevalence of men 92.3% (n=36) for traumatic SCI followed by gunshot wound (51.28%, n=20), while SCI in women 54% (n=5) found a higher prevalence of non-traumatic SCI, confirming findings that suggest that this prevalence occurs because male individuals are more exposed to the daily dangers that can cause a SCI[20,21].

The predominant age group in the study ranged between 20 and 49 years, with 71.1%

(n=86) of the participants, also similar to the findings of other epidemiological profile studies that demonstrate the prevalence of higher ML in economically active men in the labor market and society. In a study conducted in China in 2022, similar results were found, with an average age of 46.3 ± 15.5 years and 28.6% (n=169)[22].

In the present study, among traumatic spinal cord injuries (n=94), AIS A was found in 73.4% of cases, followed by AIS B in 12.8% and AIS D and C in 8.5% and 5.3% respectively, these data differ slightly from the study carried out in Goiânia, where 57 individuals, 33%, were AIS A, e 9% (n=5), 32% (n=18), 23% (n=13) e 4% (n=2), respectively, were AIS B, C, D e E[23]. In another study with 3,478 individuals, in northwestern China, very different data were obtained: the classification that had more individuals was AIS D (41.12%)[24].

Regarding marital status, in this study, 52.1% of the individuals (n=63) had a stable union and 47.9% (n=58) were single. Unlike another study[25], in Campina Grande-PB, 61.1% (n=33) were individuals without partners and 38.9% (n=21) were married or had a stable union. In another study, conducted in Beijing, the majority of subjects lived in a stable union, with 83.9% (n=495) married and only 16.1% (95) single, widowed, divorced or not providing information about their marital status[22].

The family income at the time of the survey varied from 1,895.00 BRL to 3,938.00 BRL, with a median of 2,800.00 BRL, conditions slightly better than those observed in the study by Moreno[26], in São Paulo, where 55% of the total family income was lower than 1,500.00 BRL and 37.39% higher than 1,500.00 BRL.

The median family income in this study was 2,800.00 BRL, while the average income of individuals who adhered to treatment with orthoses was 3,000.00 BRL. In contrast, the average income of individuals who did not adhere to the use of orthoses was 2,300.00 BRL, suggesting that a higher income may be associated with greater adherence to the use of these devices. In support of this observation, a study showed greater adherence among individuals with income above 1,500.00 BRL compared to those with lower income[26]. Although it cannot be said for sure, it is possible that individuals with higher income have a higher prevalence of using orthoses because they can afford the cost of continuous follow-up with physiotherapists or other professionals who assist them in the proper placement and use of orthoses.

The average level of schooling of the participants was 10 years, indicating a level of complete elementary education, similar to the research in Paraíba, where most of the spinal cord injuries (51.6%) also had completed elementary school[25]. Despite the low average schooling, a positive trend was observed in relation to the use of orthoses. This association between schooling and adherence corroborates the findings of Moreno[26], who reported an adherence of 71.28% among individuals with higher levels of education. It is suggested that individuals with higher education may have greater ease in understanding the benefits of treatment and, consequently, show greater adherence.

In the SCI, the use of orthoses varies from case to case, but when the right needs are identified, it has substantial importance. In higher lesions, a pelvic orthosis can be used with the pelvic girdle blocked to return the orthostatism, generating benefits in the cardiovascular system, preventing Deep Venous Thrombosis, since it improves the venous return, improves intestinal function and peristalsis, helping in evacuation, helps in the conservation of bone density, preventing osteoporosis, and in the preservation of muscle mass, besides having a positive effect on the self-image of the patient[6].

In lower lesions, still above the lumbar spine, when the patient has good control of trunk, head and neck, the pelvic orthosis can be used with the pelvic belt unlocked for walking, after orthostatism and gait training, along with auxiliary devices of movement, such as crutches, and may even evolve to walk without aids when it has control of trunk, hip mobility and strength, after proper training. However, in both cases, walking longer distances may not be feasible due to the great effort required[27].

The suropodal ankle-foot orthosis ensures that the subtalar and tibiocarsic joints remain in their functional position, helping the foot to

come out of the ground and not dragging it in ambulatory cases. In addition, when used at rest, which is more common in spinal cord injury, it keeps the limb in an anatomical position, preventing the development of deformities or even correcting them when they are already present[28].

When the level of the lesion is lumbar and pelvic stability is preserved, a cruropodal orthosis used with locomotion aids makes it possible to walk, now with a reciprocating gait or four supports, by the biomechanics of movement[29].

In a study with 102 participants, 67.6% (n=69) continued using orthoses for 3 to 7 days per week, while 32.4% (n=33) stopped using orthoses[17]. Data similar to those found in this research regarding the prevalence of use of lower limb orthoses after rehabilitation program. In another study, 67.7% (n=42) of the individuals with SCI used the prescribed lower limb orthosis[30].

The analysis of the use of orthoses after the rehabilitation program showed that 65.7% of the 73 participants who received lower limb orthoses continued to use the device, on average three days per week. On the other hand, 34.2% stopped using, citing difficulties in use as main reasons, generating discomfort and non-adaptation, laziness, stopped after a while without re-evaluation, equipment breakage, weight loss and return to physical activities. Ten subjects 13.7% did not report the reason.

Although there was a low adherence to the use of orthoses in all age groups, exceeding 70%, the present study revealed a higher adherence among individuals aged between 20 and 49 years (65.5%). It is important to note that, unlike Moreno's study[26], in which sporadic use was already considered adherence, in this work we established a more rigorous criterion, considering as adherents only those who used the orthosis at least three days a week. This difference in the definition of adherence may explain, in part, the variations.

In a study carried out at a training and research hospital in Physical Medicine and Rehabilitation in Ankara, Turkey, 71.4% of individuals with an injury time of more than 12 months used the prescribed lower limb orthoses[30]. In this study, 81.8% (n=27) of participants with more recent lesions used orthoses, compared to 52.5% (n=21) of those with older lesions (p=0.003)[30]. These data suggest that individuals with more recent spinal cord injuries are more likely to continue using orthoses after the rehabilitation program, highlighting the importance of periodic reassessments to increase long-term adherence, stimulating the protagonism of the subjects in the rehabilitation process.

In this study[30], when it comes to AIS classification, individuals with AIS A and B (71.4%) had higher prevalence of use of lower limb orthoses, similar to the present study, 68.1%. As for the permanence of the use of orthoses post-rehabilitation program, individuals with incomplete injuries tend to remain more with orthoses than with 100% complete lesions (n = 12).

It is important to note that the absence of continuous updating of identification information in medical records and the transition to electronic records during the collection period represented methodological limitations that may have affected the quality and quantity of data obtained. Future research should consider the importance of more up-to-date and efficient record systems to ensure more accurate and complete data collection.

CONCLUSION

The epidemiological profile found by the present study was that male individuals of working age in society are more subject to a SCI. Still, in their majority, they were classified as AIS A, representing the loss both in motor and sensory issues, and showing that traumatic spinal cord injury is more present in the group.

The present research showed a low adherence to the use of lower limb orthoses in daily post-rehabilitation. Of the 73 individuals with ML who received IMCI orthoses, 65.7% (n=48) maintained use for at least three days per week, while 34.2% (n=25) discontinued treatment. The main reasons for the interruption were difficulties of adaptation, discomfort, laziness, lack of re-evaluation, equipment breakage, weight loss, fear of injury and return to physical activities.

This low adherence can compromise the

results of rehabilitation and have a negative impact on the quality of life of patients, since orthoses are indicated to aid function recovery and prevention of complications. The results of this study suggest the need for more effective intervention strategies to promote better adherence to the use of orthoses and ensure long-term benefits of treatment.

Individuals aged 50 years or older, single, with less time of injury, incomplete injury, higher income and schooling time tended to make more use of the post-rehabilitation program orthoses.

It is essential to investigate and implement strategies that improve adherence to the use of orthoses, such as detailed educational programs, individualized follow-up and provision of appropriate and comfortable equipment. In addition, the identification of specific factors that influence treatment adherence or interruption can help personalize interventions and develop more effective rehabilitation programs.

In this context, the continuous monitoring of these individuals becomes essential for long-term health promotion. Early rehabilitation, offered at different levels of health care, combined with qualified professionals, can promote awareness for self-care and/ or assisted care. Encouraging the use of orthoses in the home environment after completion of rehabilitation programs can result in a significant improvement in the quality of life of these patients.

It is recommended to follow up these individuals post-rehabilitation program by rehabilitation services, aiming at raising awareness for longer time of use, considering the long-term benefits, in order to avoid complications and unnecessary public expenses.

PREVALÊNCIA DO USO DE ÓRTESES DE MEMBROS INFERIORES POR PESSOAS COM LESÃO MEDULAR PÓS-REABILITAÇÃO

RESUMO

Objetivo: descrever a prevalência do uso de órteses de membros inferiores no quotidiano domiciliar de pessoas com lesão medular pós-programa de reabilitação física. **Método**: estudo quantitativo, transversal e descritivo, desenvolvido com 121 indivíduos com lesão medular em um centro de reabilitação no sul do Brasil, entre outubro de 2019 e janeiro de 2020. Os dados foram coletados por meio de entrevistas guiadas por um roteiro semiestruturado. Foram analisados no IBM SPSS Statistics 22, com teste de Kolmogorov-Smirnov para normalidade, e os testes Qui-quadrado de Pearson e Mann-Whitney U para análise estatística. **Resultados:** dos 121 indivíduos com lesão medular, 60,3% (n=73) receberam órteses de membros inferiores. Destas, 65,7% (n=48) mantiveram o uso de órteses por três dias por semana no quotidiano domiciliar e 34,2% (n=25) deixaram de usar as órteses depois do programa de reabilitação. **Conclusão:** a baixa prevalência do uso de órteses de membros inferiores no domicílio, pós-programa de reabilitação, pode comprometer a saúde e a qualidade do indivíduo com lesão medular, acarretando desperdício de gastos públicos. Deste modo, infere-se que o monitoramento destes indivíduos e a sensibilização para os benefícios do uso das mesmas, pode contribuir para a adesão ao uso dessa tecnologia assistiva no quotidiano domiciliar pós-programa de reabilitação.

Palavras-chave: Traumatismos da Medula Espinal. Reabilitação. Enfermagem em Reabilitação. Aparelhos Ortopédicos. Atividades cotidianas.

PREVALENCIA DEL USO DE ÓRTESIS DE EXTREMIDADES INFERIORES POR PERSONAS CON LESIÓN MEDULAR POST-REHABILITACIÓN

RESUMEN

Objetivo: describir la prevalencia del uso de órtesis de extremidades inferiores en el cotidiano domiciliario de personas con lesión medular tras programa de rehabilitación física. **Método**: estudio cuantitativo, transversal y descriptivo, desarrollado con 121 individuos con lesión medular en un centro de rehabilitación en el sur de Brasil, entre octubre de 2019 y enero de 2020. Los datos fueron recolectados a través de entrevistas conducidas por un guion semiestructurado. Se analizaron en el *IBM SPSS Statistics 22*, con la prueba de Kolmogórov-Smirnov para normalidad, y las pruebas Chi-cuadrado de Pearson y U de Mann-Whitney para el análisis estadístico. **Resultados**: de los 121 individuos con lesión medular, 60,3% (n=73) recibieron órtesis de extremidades inferiores. De estos, 65,7% (n=48) mantuvieron el uso de órtesis durante tres días a la semana en el cotidiano domiciliario y 34,2% (n=25) dejaron de usar las órtesis después del programa de rehabilitación. **Conclusión**: la baja prevalencia del uso de órtesis de extremidades inferiores en el hogar, tras programa de rehabilitación,

puede comprometer la salud y la calidad del individuo con lesión medular, conduciendo a un desperdicio de gastos públicos. De este modo, se infiere que el monitoreo de estos individuos y la sensibilización sobre los beneficios del uso de las órtesis, puede contribuir a la adhesión al uso de esta tecnología de asistencia en el cotidiano domiciliario tras programa de rehabilitación.

Palabras clave: Traumatismos de la Médula Espinal. Rehabilitación. Enfermería en Rehabilitación. Aparatos Ortopédicos. Actividades cotidianas.

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Corresponding author: Adriana Dutra Tholl. Endereço institucional: Campus Universitário - Trindade, CEP: 88040-900 - Florianópolis - SC - Brasil | BLOCO I (CEPETEC) - Centro de Ciências da Saúde - Piso Térreo. Telefone: Fone +55 (48) 37212758 E-mail: adriana.dutra.tholl@ufsc.br.

Submitted: 08/11/2024
Accepted: 28/02/2025