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KNOWLEDGE ABOUT STROKE AMONG USERS OF SUS: STUDY IN POPULATION FROM SOUTH OF SANTA CATARINA

Jordana Corrêa Barcelos, Karoline Emily Braatz, Laura Polo, Angélica Cristiane Ovando
Universidade Federal de Santa Catarina (UFSC), Florianópolis, SC, Brazil

Background: Stroke is the leading cause of disability in adults in Brazil and has a significant financial impact on the Unified Health System (SUS). This impact can be reduced with preventive measures in primary care aimed at identifying risk factors and early diagnosis of the disease. Few studies assess the knowledge of SUS users about stroke.

Objectives: This study aimed to investigate the knowledge about stroke among the population that uses the SUS in the South of Santa Catarina.

Methods: This cross-sectional study was carried out based on the analysis of a questionnaire which evaluated knowledge about stroke regarding signs and symptoms, pathophysiology, risk factors and sequelae, developed by the researchers, with 350 individuals who were SUS users. The data collected were tabulated and analyzed in the Statistical Package for Social Science for Windows (SPSS) version 22. Descriptive statistics were performed in order to characterize the sample regarding sociodemographic and socioeconomic characteristics, as well as to describe the results of the questionnaire application.

Results: The sample was mostly female, with a mean age of 36 ± 14.33 years, mostly white, married/stable union, with an income of 1.5 minimum wages. It was observed that 64.5% ($n = 226$) of the participants believed they knew the pathophysiology of stroke, but of these only 28.8% ($n = 65$) answered correctly. The same occurs with signs and symptoms, risk factors and sequelae of stroke. The most common error found in the pathophysiology questions was the confusion of stroke with acute myocardial infarction. Regarding the immediate conduct when witnessing an individual having a stroke, 96.8% ($n = 239$) of the interviewees answered correctly, calling the emergency services. Even so, there were errors when correctly answering the SAMU number, 81.7% ($n = 286$) of the participants said they knew, however 51.4% ($n = 147$) reported the wrong number. Of the generic signs and symptoms of stroke, the most frequently cited during the study was headache, mentioned 80 times, followed by numbness in the arms 53 times, crooked mouth 42 times, dizziness 39 times, speech difficulties 30 times, high blood pressure 20 times, facial paralysis and fainting 12 times, and mental confusion 11 times. Regarding the consequences of stroke, the most frequently cited was paralysis of the limbs and mouth, mentioned 104 times, followed by impaired movement/motor function 102 times and speech 91 times. Among the least frequently cited were being confined to bed, mentioned 11 times, and death, 9 times. When asked about the pathophysiology of Transient Ischemic Attack, only 1.4% ($n = 5$) of the total number of interviewees were able to answer correctly.

Conclusion: This study showed that most of the interviewees do not know in general about stroke, however, they believe they know which can lead to inadequate prevention and intervention practices in stroke.

Implications: The need for educational interventions among this population became evident, as a way of preventing stroke, in order to reduce the individual and collective impact of the disease.

Keywords: Knowledge, Unified Health System (SUS), Stroke

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ASSOCIATION BETWEEN STAGE OF PARKINSON'S DISEASE AND KINEMATIC GAIT VARIABLES

Julia Fantim Lopez, Nise Ribeiro Marques, Francieli Da Silva, Daniele do Nascimento, Beatriz Moretto Silva
Universidade Estadual Paulista (UNESP), Bauru, SP, Brazil

Background: With increasing life expectancy, the prevalence of chronic neurodegenerative diseases increases. Among these diseases, the second most prevalent is Parkinson's disease. Parkinson's disease is a chronic and progressive disorder of the nervous system that leads to the death of dopamine-producing neurons. Symptoms of Parkinson's disease include rigidity, postural instability, akinesia, bradykinesia, and tremor, as well as gait changes.

Objectives: To analyze the correlation between Parkinson's disease staging and kinematic parameters of gait in people with Parkinson's disease.

Methods: Fifteen patients diagnosed with Parkinson's disease participated in the study. Data collection was performed in a single visit to the collection environment. The Hoehn and Yahr scale and the Unified Parkinson's Disease Rating Scale (UPDRS) were used and applied during the intervention. Kinematics were assessed by the following parameters: gait speed, stride length, support time, swing, single support, double support, and stride. The variability of these parameters was calculated using the mean of the standard deviation. Pearson's correlation test was used to correlate disease staging and gait kinematic parameters. The significance level was set at $p < 0.05$.

Results: Associations were found between gait speed and disease stage ($p < 0.001$ and $r = -0.943$), stance time and disease stage ($p < 0.001$ and $r = 0.933$), disease stage and stride time ($p < 0.001$ and $r = 0.966$), disease stage and stance time variability ($p = 0.01$ and $r = 0.785$) and disease stage and swing time variability ($p < 0.016$ and $r = 0.766$) and disease stage and stride time variability ($p < 0.016$ and $r = 0.0761$).

Conclusion: As the stages of Parkinson's disease progress, the occurrence of gait abnormalities increases in individuals with the disease, such as reduced speed, increased support and stride time, and increased variability in the temporal kinematic parameters of gait, which may increase the risk of early fatigue and falls in these individuals.

Implications: The main limitation of the present study is the low n-sample. Rehabilitation through strengthening of key gait muscles has been shown to be the main precursor to reducing falls and early fatigue.

Keywords: Parkinson's disease, Gait, Kinematics

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TELEHEALTH INTERVENTION WITH HEARTS TECHNICAL PACKAGE AND ACTIVITY MONITOR TO INCREASE PHYSICAL ACTIVITY POST-STROKE: PRELIMINARY RESULTS OF A FEASIBILITY STUDY

Paula da Cruz Peniche, Olive Lennon, Jordana de Paula Magalhães, Jéssica Melo dos Santos, Gisele Florentino Sant'Ana de Assunção, Laís Ferreira Marques, Janaine Cunha Polese, Christina Danielli Coelho de Moraes Faria

Department of Physiotherapy, Universidade Federal de Minas Gerais (UFMG), Belo Horizonte, MG, Brazil

Background: Low physical activity level is a common risk factor for recurrent stroke. Behavior-changing interventions can increase physical activity participation, but face barriers (e.g., home visits or internet access). Low-cost telehealth approaches, like telephone calls and activity monitors, may offer a feasible solution. However, evidence supporting the efficacy of activity monitors to increase physical activity levels post-stroke remains limited. A previous systematic review suggests that integrating these devices into multifaceted behavior change interventions, such as the 5As (Ask, Advise, Assess, Assist, and Arrange) brief intervention from the HEARTS Technical Package, may enhance their effectiveness.

Objectives: To present preliminary results on the feasibility of implementing the telehealth intervention that combines the 5As brief intervention, as outlined in the HEARTS Technical Package, with the additional use of an activity monitor, compared to a control group receiving only the 5As brief intervention, for increasing physical activity level post-stroke.

Methods: A feasibility randomized controlled trial (RCT) with blinded assessment enrolled 24 individuals' post-stroke (= 6 months), aged = 18 years, inactive, able to walk 10 meters independently, and medically approved for physical activity. Participants were randomized into an experimental group (EG) (n = 12) or a control group (CG) (n = 12). Both groups received the 5As brief intervention outlined in the HEARTS Technical Package (12-weeks), via telephone call, with the EG also using an activity monitor. Outcomes included recruitment feasibility, intervention feasibility (1. retention, 2. attendance, 3. safety, and 4. perceived effectiveness), and physical activity level (assessed with the Human Activity Profile). Descriptive statistics were used for analysis.

Results: The recruitment rate was 38%. For intervention feasibility: 1. retention was 75% in the CG (9/12) and 83% in the EG (10/12); 2. attendance was 97% in the CG and 99% in the EG; 3. no adverse events were reported; 4. perceived effectiveness: in the CG, 55.6% reported feeling "much better" performing routine physical activity, 11.1% "moderately better," and 33.3% "a little better"; in the EG, 30% felt "much better," 20% "moderately better," 40% "a little better," and 10% reported "the same". Physical activity levels (mean $\pm$ SD) increased from 37 ± 12 to 49 ± 16 in the CG and from 42 ± 10 to 57 ± 18 in the EG.

Conclusion: Preliminary findings suggest that the intervention is feasible (high retention and attendance rates and no adverse events). Additionally, the proposed telehealth intervention may positively impact physical activity levels post-stroke.

Implications: To our knowledge, this is the first study investigating the feasibility of implementing a telephone call-based 5As brief intervention, as outlined in the HEARTS Technical Package, combined with an activity monitor compared to the 5As brief intervention alone. These findings will inform a fully powered RCT. The study addresses key gaps in the literature, including: 1. identifying a theoretically-informed intervention to increase physical activity post-stroke while overcoming barriers such as home visits and internet access; 2. addressing the lack of evidence supporting physical activity monitors for stroke survivors; and 3. exploring the additional effects of integrating activity monitors into multifaceted behavior change interventions to enhance physical activity post-stroke.

Keywords: stroke, physical activity, telehealth

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EXPLORING PERCEPTIONS AND EXPERIENCES OF INTERVENTION FOR BALANCE AND GAIT CONCOMITANT TO TDCS IN SPINOCEREBELLAR ATAXIA: A QUALITATIVE STUDY

Yasmin Carvalho Heiderick^b, Anna Fontes Baptista^a, Marcos Paulo Gonçalves dos Santos^a, Marina Holanda Oliveira^b, Rachel Cristina Alves Abreu De Paula^b, Laura Alice Santos de Oliveira^{a,b}

^a Graduate Program in Rehabilitation Sciences, Centro Universitário Augusto Motta (UNISUAM), Rio de Janeiro, RJ, Brazil

^b Instituto Federal do Rio de Janeiro (IFRJ), Rio de Janeiro, RJ, Brazil

Background: Spinocerebellar ataxias (SCA) are a group of autosomal dominant inherited cerebellar disease characterized mainly by imbalance, motor incoordination, and dysarthria because of progressive degeneration of the cerebellum and/or its pathways. SCA type 3 (SCA3), also known as Machado-Joseph disease, is the most common form of SCA and has a high prevalence in Brazil. Patients with SCA face a progressive functional decline that compromises their quality of life. Understanding the factors that influence the adherence of individuals with SCA3 to programs of rehabilitation to improve balance is essential to adapt it to their expectations and needs. However, there is still little investigation on perceptions about both the impact of these interventions and the disease in their lives.

Objectives: To explore the perceptions and experiences of patients who participated in a balance and gait intervention program.

Methods: This is a qualitative study approved by the local Ethics Committee. Initially, a pilot group of 12 participants diagnosed with SCA3 were interviewed using a semi-structured script. These participants completed 20 consecutive sessions of an exercise program for balance and gait exercises concomitant to Transcranial Direct Current Stimulation (tDCS). Based on the initial interviews, the script was improved, resulting in a final version composed of 15 questions organized into four main axes: motivation, difficulties, benefits of treatment, and expectations. Subsequently, an independent researcher conducted semi-structured interviews with 25 additional participants with SCA3 who had completed the same intervention. All interviews were transcribed and analyzed using ATLAS.ti® software.

Results: The analysis revealed five main themes: participation experience, expectations for improvement, motivational factors, challenges faced, and perceptions during the study. Participants reported health benefits, strengthening of interpersonal bonds, and gratitude for the opportunity, despite challenges such as difficulty in performing the exercises and environmental barriers. Expectations ranged from perceived significant improvements to uncertainty about maintaining the improvements achieved. Motivation was reinforced by hope, persistence, and confidence in the treatment. In addition, participants shared perceptions about electrostimulation and suggestions for improving the intervention protocol.

Conclusion: The results provide a broader understanding of the positive, neutral, and negative perceptions and experiences of the participants that undergoing the intervention. Predominantly positive responses were observed regarding the experience in general, indicating that the proposed intervention was favorable in the perception of the participating individuals.

Implications: This study has the potential to help refine future programs and identify ways to reduce barriers that may lead to dropout from similar programs. It also has important application in providing valuable information about the perceptions of individuals with SCA3.

Keywords: SCA 3, Machado-Joseph disease, Perceptions and experiences, Semi-structured interview