194

RELATIONSHIP BETWEEN HAND FUNCTIONAL CAPACITY AND DIGITAL DEXTERITY IN WOMEN WITH SYSTEMIC SCLEROSIS

Fátima de Sousa Paiva Duarte, Thaís Ferreira de Andrade Lima, Marcela Pinto Venâncio Lourenço Da Silva, Laura Lima da Silva, Nicolly Oliveira Barbosa, Isabelle da Nobrega Ferreira, Alessandro Dos Santos Beserra, Agnaldo José Lopes
Programa de Pós-graduação em Ciências da Reabilitação, Centro Universitário Augusto Motta (UNISUAM), Rio de Janeiro, RJ, Brazil

Background: One of the most relevant aspects of systemic sclerosis (SS) is the involvement of the hands, where the skin of the fingers becomes stiff, restricting movement. Additionally, calcifications in the phalanges, telangiectasias, and digital ulcers may appear. These abnormalities create limitations that can affect quality of life and the ability to perform daily activities.
Objectives: The aim of this study was to assess hand functional capacity in women with SSc (wwSSc) using the TGlittre-Shelf (TGlittre-S) and to correlate it with digital dexterity, muscle strength, lung function, and physical function.
Results: Mean age and body mass index were 51.9 $\pm$ 13.7 years and 24.4 $\pm$ 4.9 years, respectively. TGlittre-S time was higher in wwSc than in healthy controls [60 (55-74) vs. 44 (41-49) sec, $p < 0.0001$]. In addition, 9-HPT was higher in wwSc than in healthy controls [24 (22-26) vs. 20 (18-22) sec, $p < 0.0001$]. Similarly, CHFS was higher in wwSc than in healthy controls [6 (0.5-25) vs. 0 (0-0) points, $p < 0.0001$]. In wwSc, TGlittre-S time was significantly correlated with the following variables: HGS ($rs = -0.511$, $p = 0.0006$), HAQ-DI ($rs = 0.510$, $p = 0.0006$), 9-HPT ($rs = 0.398$, $p = 0.009$), and CHFS ($rs = 0.351$, $p = 0.024$). No significant correlation was found between TGlittre-S time and lung function. No significant differences in TGlittre-S time were found between limited cutaneous and diffuse cutaneous forms.
Conclusion: In wwSSc, there is a deterioration in impaired hand functional capacity as measured by TGlittre-S. In these patients, the longer the TGlittre-S time, the worse the HGS, digital dexterity, and physical function.
Implications: We observed that the TGlittre-S was able to capture the functional disability of the hands in wwSSc. As TGlittre-S is easy to perform and does not require much space, its incorporation into clinical practice is promising and may be considered as an outcome measure for future studies in SSc.
Keywords: Scleroderma, Hand, Exercise

Conflict of interest: The authors declare no conflict of interest.
Funding: CNPq #301967/2022-9 and #401633/2023-3, FAPERJ #E-26/200.929/2022 and CAPES Finance Code 001.
Ethics committee approval: No. 6.601.974.
Registration: Not applicable.

https://doi.org/10.1016/j.bjpt.2025.101457

195

ASSESSMENT OF TEMPORAL SUMMATION IN PEOPLE WITH SYMPTOMS OF TEMPOROMANDIBULAR DISORDER

Renale Beserra de Melo Freitas,
Ana Maria Cipriano de Almeida Pessoa,
João Henrique Ferreira França, Geovanne Lucas Rodrigues Rosendo, Isaque Leonel Pereira, Dandara Victória Araújo Martins, Renata Emanuela Lyra de Brito Aranha,
José Diego Sales Do Nascimento
Departamento de Fisioterapia, Centro de Ciências da Saúde, Universidade Federal da Paraíba (UFPB), João Pessoa, PB, Brazil

Background: Temporomandibular disorder (TMD) is characterized by signs and symptoms such as clicking and/or popping sounds in the temporomandibular joint (TMJ), along with restricted range of motion and pain in the orofacial region. TMD may be associated with alterations in the pain modulation system due to chronicity and central sensitization. Therefore, quantitative sensory tests, such as the temporal summation test (TST) and pressure pain threshold (PPT), may be useful for assessing individuals with TMD symptoms.
Objectives: To evaluate temporal summation in individuals with TMD symptoms.
Methods: This was an observational, non-probabilistic, cross-sectional study with convenience sampling. Individuals presenting signs and symptoms suggestive of TMD participated in the study. All participants underwent an evaluation process in which the TMD pain screening questionnaire from the Diagnostic Criteria for Temporomandibular Disorders (DC/TMD) was administered. Those who scored above two points were included in the study. Additionally, all participants completed the Jaw Functional Limitation Scale (JFLS-20). The assessment protocol involved measuring the PPT of the masseter muscle on the less symptomatic or pain-free side, followed by the TST, using a pressure algometer (MEDDOR). For the TST, 10 stimuli were applied at 30-second intervals, using the PPT value determined for the masseter muscle. Participants were instructed to rate pain intensity using the Numerical Pain Scale (NPS) after the first and tenth stimuli. For statistical analysis, the Shapiro-Wilk test was used to assess the normality of the sample, and the paired t-test was applied to compare NPS values between the first and tenth stimuli. Measures of central tendency and dispersion were expressed as mean and standard deviation (SD). Inferential analyses were performed with a 95% confidence interval, and a p-value < 0.05 was considered statistically significant.
Results: Twenty-two individuals participated in the study, including 17 women and 5 men, with a mean age of 37.09 years (SD = 15.44). The mean JFLS-20 score for mandibular function was 3.29 (SD = 2.31). The mean PPT of the masseter muscle, which was used as the stimulus intensity for the TST, was 1.02 kg/cm^2 (SD = 0.46). The mean NPS score for pain perception was 4.77 (SD = 2.54) after the first stimulus and 5.82 (SD = 2.68) after the tenth stimulus. Pain perception increased between the first and tenth stimuli, and this difference was statistically significant ($p < 0.01$).
Conclusion: An increase in pain perception was observed during the Temporal Summation Test in individuals with TMD symptoms.
Implications: The findings indicate an increase in pain perception with repeated stimuli of equal intensity. However, given the relatively small variation in pain perception, it is unclear whether this response reflects a dysfunctional process. Further studies with larger samples are needed to explore the relationship between quantitative sensory test measures, such as pressure pain threshold and TST, in individuals with TMD.
Keywords: Pain perception, Temporomandibular disorder

Conflict of interest: The authors declare no conflict of interest.
Funding: PIBIC.
Ethics committee approval: CAAE: 70797823.1.0000.5235.
Registration: Not applicable.

https://doi.org/10.1016/j.bjpt.2025.101458