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STROKE SPECIAL INTEREST GROUP

Academy of Neurologic Physical Therapy

In this newsletter...

- **Stroke Corner:** Manual Dexterity and Use of Upper Extremity after Stroke
- APTA Advocacy: New Legislation-- You can still help fight payment cuts!
- ***NEW*** Elections information now available: Sign up to run for ANPT or SIG Office!

Stroke Corner
New Research Article Review: Manual Dexterity Is Associated With Use of the Paretic Upper Extremity in Community-Dwelling Individuals With Stroke

Title: **Manual Dexterity Is Associated With Use of the Paretic Upper Extremity in Community-Dwelling Individuals With Stroke**

Article Link:
https://journals.lww.com/jnpt/Fulltext/2021/10000/Manual_Dexterity_Is_Associated_With_Use_of_the.7.aspx?context=FeaturedArticles&collectionId=1

Background/Purpose
This article sought to describe real in-home daily use of the upper extremity (UE) after stroke and determine establish manual dexterity cut-off points associated with levels of UE use in the home environment.

Participants
129 individuals with chronic stroke (6+ months) living in the community participated. Participants with unimanual motor impairment (hemiparesis) (Upper Extremity section of Fugl-Meyer score of ≤65 points—FMUE) and no cognitive impairment were included.

Measuring UE Use

The actual amount of UE use was assessed using the behavioral mapping adapted for use with poststroke individuals. When conducting behavioral mapping, the observer records the participant's performance of a task in the home every 5 minutes for a period of 4 hours. Checklists included task description, type of activity, hand function, and type of grasp. The observer also registered hand function during the task (stabilization, manipulation, reach-to-grasp, gestural, support, and push), and the type of grasp performed (digital or whole hand).

Outcome Measures
Gross manual dexterity was assessed using the Box and Blocks test (BBT).
Fine manual dexterity was assessed using the Nine Hole Peg Test (NHPT).

Classifications
Then participants were classified into 4 groups based on relative paretic unimanual UE activity and the frequency with which the paretic UE was used to reach-to-grasp, manipulate, and perform digital grasp as follows:

1. Little or no use of the paretic UE (n=11)
2. Limited integration of the paretic UE into activities (n=12)
3. Partial integration of paretic UE into activities (n=12)
4. Full or almost full integration of paretic UE into activities (n=12)

Results
The main differential characteristics of these groups are the hand function and type of grasp used to accomplish the daily tasks. As expected, activity complexity increasing according to the greater degree of integration of the paretic UE.

Twenty-four participants (52%) did not complete the NHPT while 7 (15.2%) did not move a block with the paretic UE in the BBT. None of those who did not do the BBT with paretic UE used the paretic UE in the actual environment.

There was a positive high correlation between the BBT and total (unimanual + bimanual activities) [ρ(44)= 0.82, CI = 0.59-0.92] and unimanual paretic UE activity [ρ(44) = 0.78, CI = 0.55-0.90]. The correlations between the NHPT and the total task-related paretic UE use, unimanual paretic UE activity, and bimanual UE activity were not significant.

Conclusions
The BBT has a positive high correlation with the use of the paretic UE in task-related activities at home among community-dwelling individuals with stroke.

- Cut-off between full/almost full and partial integration: **BBT >30 blocks**
- Cut-off between partial and limited integration: **BBT >16 blocks**
- Cut-off between limited and little/no use: **BBT >3 blocks**

Authors also recommend the NHPT for identifying the boundary between full/almost full and partial paretic UE integration into activities (**≤41 seconds**).

NEW Legislation Introduced to offset payment cuts: Use your voice today

Speak Out on the 2022 Fee Schedule Cuts (H.R. 6020)

Congress has the opportunity to take action to address CMS plans for significant payment reductions for physical therapy services and implementation of the PTA differential in the 2022 physician fee schedule.

A bipartisan bill in the House of Representatives would increase funding to effectively offset the cuts — **now's the time to let lawmakers know that they need to act.** APTA's Patient Action Center makes it quick and easy to contact lawmakers and advocate for the profession.

Click on the link below to send a message to your lawmakers!

Run for Office!
ANPT and Special Interest Group Elections

Plan ahead and consider running for a position on the Stroke SIG board!

The following Stroke Special Interest Group are open:

- Chair Elect
- Vice Chair
- Nominating Committee

Nominations are due March 21, 2022 and you are encouraged to self-nominate. The nomination link is now live on the ANPT Elections Webpage.

Elections will be held April 4 - May 4, 2022. Three year terms begin July 1, 2022.

All Stroke SIG board positions involve attendance at monthly meetings and leadership of one of our Stroke SIG initiatives, such as our podcast, Student Corner, Social media, or weekly newsletter.

For more information on Stroke SIG initiatives, visit our page here.

Don't hesitate to reach out to our Nominating Committee for more information at

strokesig@gmail.com

Nominating Committee Members:

- Rachel Prusynski (Chair)
- Ginny Little
- Mackenzie Wilson

ELECTIONS WEBSITE

VISIT THE STROKE SIG ONLINE!

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info@neuropt.org | www.neuropt.org

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