

INTRODUCTION



- Patient-reported outcome measures for people with neck-related disability mix symptoms and disability and have failed to isolate the construct of disability.

PURPOSES

1. To develop a measure of neck-related disability.
2. To assess content validity.
3. To estimate test-retest reliability.
4. To assess construct validity.

NECK DIFFICULTY 10 (ND10)

Name: _____ Date: _____
Please place a mark (X) in the box that describes how much difficulty you had over the past week for each of the activities listed below because of your neck.

	No difficulty 	A little difficulty	Moderate difficulty	A lot of difficulty	Extreme difficulty	Unable to do at all 
Get washed and dressed						
Lift and carry heavy things						
Read (a book or electronic device)						
Do my usual work						
Go for long drives (in a car, bus, train or other transportation)						
Do my usual recreation or sports						
Concentrate on tasks						
Sleep in my usual position						
Place something on a high shelf						
Do overhead work (like change light bulbs, wash walls)						

Are there other things you want to share about difficulties you have because of your neck pain?

METHODS

1. Item pool developed from qualitative interviews, other neck measures, and literature.
2. Cognitive interviews.
3. ICF Linking.
4. Administered to patients with subset repeated:
 - a. Neck Difficulty 10 (ND10)
 - b. Neck Disability Index (NDI)
 - c. Single Assessment Numeric Evaluation (SANE)
 - d. Quick Disabilities of Arm, Shoulder & Hand (QuickDASH)
 - e. VAS Pain
5. Analysis: ICCs (reliability), Pearson correlations (construct validity), descriptive analyses (ICF codes and patient interviews)

SUBJECT DEMOGRAPHICS

Demographic	N = 79
Mean age (standard deviation)	56 (16)
Gender Male : Female (%)	75 : 25 (%)
Duration of symptoms (months)	24 ± 20.7 months
Mean ND10 Total Score (out of 100) (standard deviation)	30 (20)

RESULTS

1. Patient and data confirm that upper extremity function is a key component not present on NDI.
2. ICF linking indicates the 10 items that address unique codes include: self care (D5), lift and carry object (d430), attention (d140) and using transportation (d470).
3. Correlations of ND10:
 - a. NDI-5 = 0.93
 - b. NDI = 0.91
 - c. QuickDASH = 0.87
 - d. SANE = 0.51
 - e. VAS Pain = 0.55
4. Patients on ND10: Easy to read = 98%; Relevant to me = 90%, Easy to answer = 98%; Ask enough = 70%
5. Cronbach's α = 0.93
6. Test-retest over 7-35 days = 0.87 (CI = 0.75-0.93)

CONCLUSIONS

1. The ND10 was developed to focus on disability NOT symptoms, in contrast to the NDI which measures pain-interference or pain-related disability.
2. Despite the conceptual clarity, the statistical performance and patient preferences were not statistically different from the NDI.
3. The ND10 reliability and validity met expectations and were favourable.
4. The literacy burden is low.
5. There is a need to study ND10's responsiveness, performance in different contexts.
6. We suggest the ND10 and a separate valid pain/symptom scale might provide clear information in people with neck disorders.

HINDI CROSS-CULTURAL TRANSLATION

<https://macsphere.mcmaster.ca/handle/11375/19577>

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