

## **Sinhalese Version of the Neck Disability Index: A Reliability and Validity Study**

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The Neck Disability Index is a validated and reliable questionnaire used in assessing pain in the neck region. The Sinhalese version of the Neck Disability Index has not been validated yet. Thus, the objective of the current study was to assess the validity of the Neck Disability Index- Sinhalese version (NDI-S) among Sinhalese individuals with neck pain. This cross-sectional study was conducted among 100 patients with neck pain attending the Department of Physiotherapy, Teaching Hospital Peradeniya and National Hospital Kandy from September 2021 to February 2022. To evaluate the performance of the NDI-S, Short Form 36 Health Survey Questionnaire (SF-36) and Visual Analogue Scale (VAS) were used in their mother tongue on their first visit. After a 10- day interval, all the participants were asked to complete the Global Rating of Change (GRoC) and NDI-S to prevent participant from recall bias. The study sample consisted of 45 males and 55 females with mean age of  $36.93 \pm 1.14$  years. Cronbach's alpha for the NDI-S was 0.896 indicating excellent internal consistency and intraclass correlation coefficient value was 0.985 indicating excellent reliability. The Bland and Altman analysis showed that the mean of the difference was  $0.021 \pm 0.14$ . Mean NDI-S  $\pm$  standard deviation value of test and re-test studies were  $30.73 \pm 6.09$  and  $30.71 \pm 6.07$  respectively. The Pearson's correlation test revealed a significant correlation between NDI-S and the SF-36 scores ( $r = -0.786, p < 0.001$ ). There was also a significant positive correlation between NDI-S score and VAS score ( $r = 0.799, p < 0.001$ ). NDI-S demonstrated a structure with two dimensions and these factors explained 73.25% of the total variance. The NDI-S has been successfully translated and cross-culturally adapted into the Sinhalese language and it is a reliable and valid measuring tool of pain and functional ability.

**Keywords:** Neck Disability Index- Sinhalese version, Sri Lanka, Translation, Reliability, Validity