

Reliability of the Slovenian Version of the Dialysis Symptom Index in Hemodialysis Patients

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Abstract

The aim of the current study was to translate and to determine the reliability of the Dialysis Symptom Index (DSI) questionnaire in the Slovenian HD population. Fifty-six HD patients from Slovenia were included in the study (66.4 ± 11.0 years; 58.2% male gender). The English version of the DSI was translated into Slovenian and the reliability of the Slovenian version of the DSI was based on the internal consistency (the Cronbach alpha coefficient) and stability of the test-retest values (kappa values). The test-retest reliability of the index was performed after one week in order to assess the index's stability over time. The Kappa statistics showed that test-retest ranged from 0.449 to 0.998. The results of the current study showed that the Slovenian version of the DSI is a reliable tool for assessing symptoms in the Slovenian HD population.

Introduction

Most patients with end-stage renal disease in Slovenia and worldwide are treated with hemodialysis (HD). These patients suffer from physical and emotional symptoms of varying frequency and severity, and therefore their health-related quality of life (HRQOL) is much lower than that of the general population (1). Developed by Weisbord et al. (2), the DSI was designed to examine the prevalence and distress of 30 self-reported physical and emotional symptoms. Little is known about the prevalence, severity, and overall impact of physical and psychological symptoms in this population in Slovenia because of lack of a validated instrument. Additionally, there is no reliable tool in Slovenian language for assessing symptoms of HD patients. Therefore, our aim was to translate and to determine the reliability of the Dialysis Symptom Index (DSI) questionnaire in the Slovenian HD population.

Methods

Fifty-six HD patients from Slovenia were included in the study (66.4 ± 11.0 years; 58.2% male gender). The DSI contains 30 items that target a specific physical or emotional symptom. The English version of the DSI was translated separately into Slovenian by three bilingual medical and nursing professionals. The reliability of the Slovenian version of the DSI was based on the internal consistency (the Cronbach alpha coefficient) and stability of the test-retest values (kappa values). The test-retest reliability of the index was performed after one week in order to assess the index's stability over time.

Results

The internal consistency reliability of the Slovenian DSI for HD patients, as assessed by Cronbach's α , ranged from 0.86 to 0.88 for physical and emotional subscales, respectively, and 0.92 for all 30 items combined. The item-total correlations were weaker for the seven items of constipation ($r = 0.11$), nausea ($r = 0.36$), vomiting ($r = 0.22$), numbness or tingling in feet ($r = 0.32$), swelling in legs ($r = 0.12$), headache ($r = 0.39$) and dry skin ($r = 0.36$), while the other 23 items had correlation coefficients of $r = 0.42$ - 0.72 . The Kappa statistics determined for each symptom appearing in the index for the test-retest ranged from 0.449 to 0.998. Fifteen items showed kappa values of ≥ 0.60 .

Conclusion

The Slovenian version of the DSI demonstrated good psychometric properties, measures and can be used to assess symptom burden at different stages of CKD. The results of the current study should encourage greater clinical and research attention to symptom burden in CKD.

References

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