CROSSCULTURAL ADAPTATION OF THE HUNGARIAN VERSION OF STROKE IMPACT SCALE (SIS)

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OBJECTIVES

Stroke is a high priority in healthcare's prevention, intervention and rehabilitation. It significantly impacts the patient's quality of life, and a valid assesment of this can help in selecting an appropriate therapy. The Stroke Impact Scale (SIS) stroke-specific questionnaire measures the quality of life in nine dimensions, including physical, mental, and emotional symptoms and interpersonal relationships with excellent psychometric indicators. We aim to adapt the SIS to Hungarian.

METHODS

The adaptation process followed Beaton's internationally accepted six-step protocol. At the pretesting stage we had 30 retrospective, pre-planned cognitive interviews at the University of Pécs Clinical Centre Department of Neurology between February and April of 2023 among stroke patients in Baranya county (n=30). In addition to observing the internal consistency (Cronbach's-alpha) of the questionnaire, we also collected sociodemographic and medical history data.

RESULTS

We succesfully performed the linguistic and cultural adaptation of the questionairre following Beaton's six step method. Our sample consisted of 18 men and 12 women with a mean age of 63.9 years (SD±13.75 years). 77% had ischaemic, 6% had haemorrhagic stroke, and 17% had TIA. 86.64% had cardiovascular diseases, 76.67% lived with hypertonia. 17 cases were treated conservatively, 7 with thrombolysis, 5 with thrombectomy and 1 with combination of both. A significant difference in the quality of life score was found between employed (QoL = 88.79 [SD±10.89]) and non-employed (QoL=70.16 [SD±18.26]) individuals (p=0.002). The internal consistency is $\alpha=0.97$ [0-1] with the lowest "Emotion" domain $\alpha=0.69$ and the highest "Hand function" domain $\alpha=0.96$.

CONCLUSIONS

The Hungarian version of the SIS has excellent internal consistency, can be used to determine significant and non-significant results, and suitable for testing validity on a large sample.

SIS domain	Mean score [SD]	Minimum score	Maximum score	Ceiling-effect (%)	Floor-effect (%)
Strenght	66,88 [27,32]	12,50	100,00	0,00	23,34
Memory and thinking	78,68 [20,92]	17,86	100,00	0,00	16,67
Emotion	73,06 [15,18]	44,44	100,00	0,00	3,33
Communication	83,57 [18,91]	39,29	100,00	0,00	30,00
Activities of Daily Living	75,00 [24,46]	15,00	100,00	0,00	30,00
Mobility	73,61 [25,11]	11,11	100,00	0,00	20,00
Hand function	71,00 [34,58]	0,00	100,00	10,00	33,00
Participating	84,38 [22,72]	15,63	100,00	0,00	20,00

Table 1.
Mean, standard deviation, minimum and maximum values of the Stroke Impact Scale 3.0 mean QoL scores per dimension, with percentage observability of the floor and ceiling effect in the sample (n=30).

Domain	Internal consistency of the Hungarian version of SIS (Cronbach-alfa)	Original questionairre (Duncan et al., 1999) (Cronbach-alfa)
Strenght	0,89 (n=30)	0,83-0,90 (n=91)
Memory and thinking	0,87 (n=30)	0,83-0,90 (n=91)
Emotion	0,69 (n=30)	0,57 (n=91)
Communication	0,88 (n=30)	0,83-0,90 (n=91)
Activities of Daily Living	0,94 (n=30)	0,83-0,90 (n=91)
Mobility	0,94 (n=30)	0,83-0,90 (n=91)
Hand function	0,96 (n=30)	0,83-0,90 (n=91)
Participating	0,90 (n=30)	0,83-0,90 (n=91)

Figure 1.
Comparison of our own results with the reliability values of the original questionnaire (Cronbach's alpha)

QUALITY OF LIFE FOR EMPLOYED AND NON-EMPLOYED INDIVIDUALS (SCORE)

p=0,002

88,79   70,16
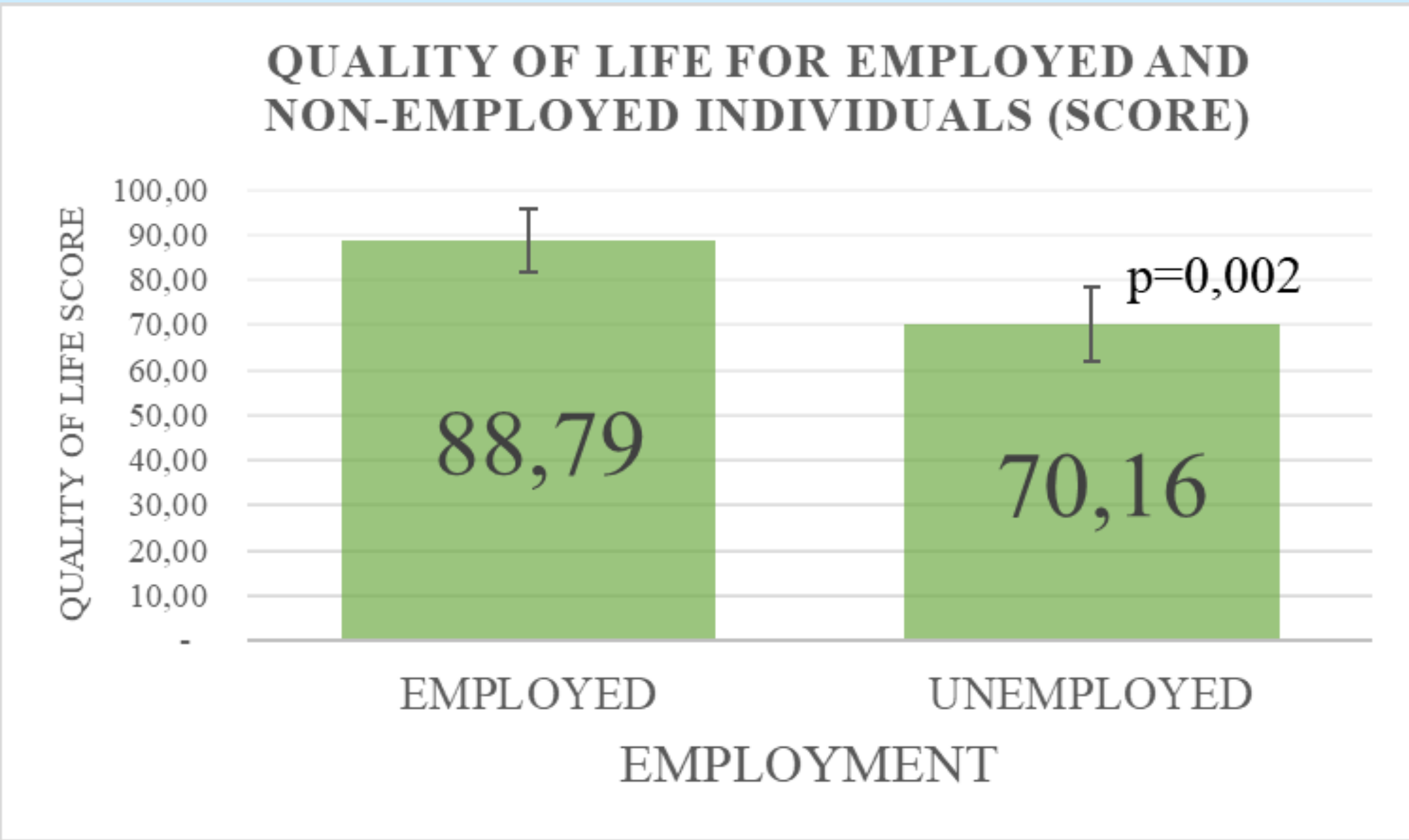
EMPLOYED   UNEMPLOYED
EMPLOYMENT

Figure 2.
Difference between quality of life scores of employed and non-employed individuals in the sample (n=30).

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