

DEVELOPMENT OF EMOTIONAL RESPONSE SCALE ASSOCIATED WITH URINARY EXPERIENCE OF STROKE PATIENTS IN THE RECOVERY PHASE

Hypothesis / aims of study

The purpose of this study was to develop an emotional response scale associated with urinary experience of stroke patients in the recovery phase.

Study design, materials and methods

We adopted a three-step approach to develop this scale. Firstly, research carried out concept analysis of emotional response scale associated with urinary experience of stroke patients in the recovery phase from literature review. Secondly, 6 rehabilitation professionals and 4 researchers who specialize in urinary care were interviewed about emotional response scale associated with urinary experience of stroke patients in the recovery phase. Thirdly, the preliminary scale was tested on 123 stroke patients in seven convalescent rehabilitation wards in two prefectures, and examined validity and reliability of the measure to prepare the definitive measure. Exploratory component analysis with varimax rotation and confirmatory factor analysis were performed. In addition, the external-criterion validity was assessed in the scale and OABSS (overactive bladder symptom score), FIM (functional independence measure) and Spearman's rank correlation coefficient. Internal consistency was evaluated by Cronbach's alpha coefficient of the measure. Informed consent was obtained from all participants according to the second Helsinki Declaration, and the Yamagata University Medical Faculty Ethics Committee approved the trial.

Results

The preliminary scale was constructed of 18 items of four factors. The preliminary scale was tested on 123 stroke patients in seven convalescent rehabilitation wards in two prefectures, and examined validity and reliability of the measure to prepare the definitive measure. In advance, the survey was approved by the ethics committee in our faculty, and hospital administrators, doctors in charge and nursing administrators in each institution.

Validity and reliability of the measure was examined using replies from 120 patients that had no missing values. From the results of the explanatory components analysis with varimax rotation and maximum likelihood methods, three prescribing factors of emotional response associated with urinary experience of stroke patients in the recovery phase were extracted.

In brief, the final scale consisted of 12 items and three factors: "bitterness to receive assistance", "anxiety due to lower urinary tract symptoms" and "anxiety up junk on urinary incontinence". Moreover, the hypothesis that was made from the results of the exploratory factor analysis indicated that three-factor model of emotional response associated with urinary experience of stroke patients in the recovery phase provided the best fit for the current sample (GFI 0.90, AGFI 0.85, CFI 0.96, RMSEA 0.08).

Finally, the external-criterion validity has been confirmed by strong correlation between OABSS ($r=0.44$), which evaluates storage symptoms, and FIM ($r=-0.54$), which includes urinary activity ($p<0.01$). Cronbach's alpha coefficient of the measure was 0.90 and thus the internal consistency was maintained.

Interpretation of results

It was suggested that the scale emotional response scale associated with urinary experience of stroke patients in the recovery phase developed has relevance and reliability.

Concluding message

The developed scale may have possibilities that emotional reactions associated with urinary experience of stroke patients by nurses, might be able to assist in the rehabilitation of stroke patients.

Disclosures

Funding: None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Yamagata University Medical Faculty Ethics Committee **Helsinki:** Yes **Informed Consent:** Yes