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The Non-Motor Symptoms Questionnaire and Non-Motor Symptoms Scale for use in Sweden

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Peter Hagell¹, Maria H Nilsson², Ray Chaudhuri³, Per Odin⁴

¹The PRO-CARE Group, School of Health and Society, Kristianstad University, Kristianstad, Sweden

²Department of Health Sciences, Lund University, Lund, Sweden

³Department of Basic and Clinical Neuroscience, The Maurice Wohl Clinical Neuroscience Institute, King's College London, London, UK

⁴Department of Clinical Sciences Lund, Lund University, Lund, Sweden

OBJECTIVE

To translate the Non-Motor Symptoms Questionnaire (NMSQuest) and the Non-Motor Symptoms Scale (NMSS) into Swedish, and test their linguistic validity and user-friendliness.

BACKGROUND

Non-motor symptoms (NMS) are common but under recognized in Parkinson's disease (PD). The NMSQuest and NMSS were developed to ease NMS detection and assessment. The NMSQuest is a patient-reported checklist regarding the presence of 30 NMS. The NMSS is a clinician-administered interview-based rating scale regarding the frequency and severity of 30 NMS. Both are widely used, but Swedish versions have been lacking.

METHODS

The UK English NMSQuest and NMSS were translated into Swedish in two stages. First, Swedish translations were produced by a professional translator and 3 bilingual PD-clinicians. Second, translations were reviewed by 3 independent PD-clinicians, resulting in minor revisions. The subsequent Swedish versions were then field-tested by 4 PD-clinicians on 5 people with PD each (n=20; 15 men; mean age and PD duration 67.6 and 9 years; HY stages II-IV). Field-test evaluations included user burden (completion time), content relevance, easiness to understand, and perceived usefulness.

CONCLUSIONS

The NMSQuest and NMSS were translated into Swedish and the linguistic validity of both translations was supported. There was also support for the user-friendliness of the NMSQuest, but not for the NMSS. Issues detected with the NMSS do not appear to be specific for the Swedish version. Further evaluations of the NMSS in larger samples are needed.

RESULTS

| | NMSQuest | NMSS |
|--|-----------------------------------|------------------|
| Time to complete (min), mean (min-max) | 4.8 (2-8) | 13 (8-25) |
| Instructions easy to understand (PwPD) | 19 / 20 PwPD | n.a. |
| Instructions easy to understand (clinicians) | n.a. | 4 / 4 clinicians |
| Items easy to understand (PwPD) | 17 / 20 PwPD | 2 / 4 clinicians |
| Items easy to answer (PwPD) | 17 / 20 PwPD | 1 / 4 clinicians |
| Items easy to rate (clinicians) | n.a. | 1 / 4 clinicians |
| Relevant content (PwPD) | 19 / 20 PwPD | 4 / 4 clinicians |
| Relevant content (clinicians) | n.a. | 4 / 4 clinicians |
| <i>Usefulness</i> | Number of clinician ratings (n=4) | |
| In clinical research | Not at all | 0 |
| | A little | 0 |
| | Moderately | 3 |
| | Very much | 1 |
| In clinical practice | Not at all | 0 |
| | A little | 0 |
| | Moderately | 0 |
| | Very much | 4 |
| Will use the scale | 4 | 0 |
| n.a., not applicable | | |