

Review

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## International versions of the Menopause Rating Scale (MRS)

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### Abstract

**Background:** Symptom scales for aging women have clinically been used for years and the interest in measuring health-related quality of life (HRQoL) has increased in recent years. The Menopause Rating Scale (MRS) is a formally validated scale according to the requirements for quality of life instruments. The aim of this paper is to review the current state of the instrument particularly concerning versions of the scale in different languages.

**MRS versions available:** The translations were performed following international methodological recommendations for the linguistic & cultural adaptation of HRQoL instruments. The first translation was done from the German original scale into English (UK & USA). The English version was used as the source language for the translations into French, Spanish, Swedish, Mexican/Argentine, Brazilian, Turkish, and Indonesian languages (attached as additional PDF files).

**Conclusion:** The MRS scale is obviously a valuable tool for assessing health related quality of life of women in the menopausal transition and is used worldwide. The currently available 9 language versions have been translated following international standards for the linguistic and cultural translation of quality of life scales. Assistance is offered to help interested parties in the translation process.

### Background

Symptoms such as impaired memory, lack of concentration, nervousness, depression, insomnia, periodic sweating or hot flushes, bone & joint complaints, and reduction of muscle mass occur during menopausal transition. Scales to measure menopausal or climacteric symptoms in a standardized way have been developed and are widely accepted. These scales, e.g. the Menopause Rating Scale (MRS), measure health related quality of life [1,2].

The first widely accepted attempt to measure the severity of *menopausal complaints* in women was the Kupperman Index [3,4]. This instrument focuses primarily on symptomatic relief, assessed on the basis of the *physician's* summary of the severity of the climacteric complaints, i.e. assisted by the index, rather than letting women assess their perceived symptoms.

The MRS was developed and validated some years ago (5–8) aiming at establishing an instrument to measure HRQoL that can easily be completed by *women*. The aims

of the MRS were (1) to enable comparisons of the symptoms of aging between groups of women under different conditions, (2) to compare severity of symptoms over time, and (3) to measure changes pre- and post-treatment [7–9]. A review of reliability and validity was published elsewhere [2]. Further details will not be discussed in this paper.

Development and standardization were published elsewhere [5]. In brief, the standardization of this scale was performed on the basis of a representative sample of 500 German women aged 45–60 years in 1996. A factorial analysis was applied to establish the raw scale of complaints or symptoms. Statistical methods were used to identify the dimensions of the scale. Finally, three dimensions of symptoms/complaints were identified: a psychological, a somato-vegetative, and an urogenital factor that explained 59 % of the total variance [5]. Reference values for the severity of symptoms or complaints were calculated based on the population sample [5].

The scoring scheme is simple, i.e. the score increases point by point with increasing severity of subjectively perceived symptoms in each of the 11 items (severity 0 [no complaints] 4 scoring points [very severe symptoms]). The respondent provides her personal perception by checking one of 5 possible boxes of "severity" for each of the items. This can be seen in the questionnaires in the additional files linked to this publication. The composite scores for each of the dimensions (sub-scales) is based on adding up the scores of the items of the respective dimensions. The composite score (total score) is the sum of the dimension scores. The three dimensions, their corresponding questions and the evaluation are detailed and summarized in an attached file linked to this publication [see Additional file 1].

The German original MRS scale was initially translated and culturally adapted into English, showing cross-cultural equivalence [10]. Sporadic information about translations into other than the two first languages required attempts to inform the scientific community about already existing international versions of the scale. In turn we hope that we will be informed about language versions that we are not aware of.

This should also help other international research groups to have easy access to existing language versions, and to prevent double translations.

### **MRS versions available**

All translations were done by partners of our group and following international methodological recommendations for the linguistic & cultural adaptation of HRQoL measures [11,12], using the English version as source lan-

guage to ensure cross-cultural equivalence among countries. Six steps of the translation process were recommended: Forward translations (at least two independent translators), a consensus meeting with the coordinator of the translation, a check by a bilingual expert to evaluate the scientific correctness of the wording, a backward translation, a consensus meeting among the translators with the coordinator, and finally a pretest with a few subjects the test has been designed for (also called cognitive debriefing).

In the translation process of the English version we realized early that from the view of the North American translators further revision was essential. In a consensus meeting, a wording was finally agreed upon that was compatible in both cultures and also in different social classes. Thus, the English version is supposed to be compatible with UK English and American English. Most of the other existing versions were translated only for use in one specific country (France, Indonesia, Sweden). Two versions exist for the Spanish language: For Spain itself and for application in Mexico / Argentina (already applied in these countries). The Portuguese version was developed in Brazil and was not tested for use in Portugal. Recently we got also the result of the linguistic/ cultural adaptation into the Turkish language (as courtesy of Oslem C. Gurkan, College of Nursing, University of Mamara, Haydarpapa / Ystanbul, Turkey, who coordinated the translation process).

If the scale is to be applied in other countries with the "same" language, at least a critical review of the translation will be necessary by a group experienced in the field of cultural adaptation. In some cases, a new translation may be required. This is a complex process that needs expert experience, which can be provided by the authors of this publication (LAJH).

Critical distance is particularly important if results of the MRS are intended to be pooled between different populations or regions, and less important if a study is planned as before-after-treatment-comparison in one country with only one language. The latter applies only if the linguistic/ cultural adaptation process considered different social classes and regions with slight language differences, which is standard in experienced groups.

For access to the original scales in 9 different languages, please see additional files linked to this publication:

- Additional file 1: Evaluation form of the MRS
- Additional file 2: German version of the MRS
- Additional file 3: English version of the MRS

- Additional file 4: Swedish version of the MRS
- Additional file 5: French version of the MRS
- Additional file 6: Spanish version of the MRS
- Additional file 7: Mexican/Argentinean version of the MRS
- Additional file 8: Turkish version of the MRS
- Additional file 9: Brazilian version of the MRS
- Additional file 10: Indonesian version of the MRS

It should be pointed out that individuals who are interested in using the MRS scale in their research can download the appropriate language version and use it without any formal permission. However, it would be important to keep an overview who is using the scale and for what reason. In return, all information on the scale that will have become known in between will be made available.

### Conclusions

The MRS scale is obviously a valuable tool for assessing health related quality of life of women in the menopausal transition and it is used worldwide. It is a standardized scale meeting psychometric norms. The currently available 9 language versions have been translated following international standards for the linguistic and cultural translation of quality of life scales. Assistance is offered to help interested parties in the translation process.

### Competing interests

None declared.

### Authors' contributions

LAJH: involved in the methodological improvement of the scales for years, and in writing the paper. PP: involved in the initial development & standardization of the original German scale, co-ordinated the translation of all attached languages except Turkish, and contributed to writing the paper. HPGS: involved in establishing the scale and in clinical application, contributed to writing the paper.

### Additional material

#### Additional File 1

*Format of file: PDF; Title and description: Evaluation form of the MRS scale.*

Click here for file

[<http://www.biomedcentral.com/content/supplementary/1477-7525-1-28-S1.pdf>]

#### Additional File 2

*Format of file: PDF; Title and description: German version of the MRS.*

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[<http://www.biomedcentral.com/content/supplementary/1477-7525-1-28-S2.pdf>]

#### Additional File 3

*Format of file: PDF; Title and description: English version of the MRS.*

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[<http://www.biomedcentral.com/content/supplementary/1477-7525-1-28-S3.pdf>]

#### Additional File 4

*Format of file: PDF; Title and description: Swedish version of the MRS.*

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[<http://www.biomedcentral.com/content/supplementary/1477-7525-1-28-S4.pdf>]

#### Additional File 5

*Format of file: PDF; Title and description: French version of the MRS.*

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[<http://www.biomedcentral.com/content/supplementary/1477-7525-1-28-S5.pdf>]

#### Additional File 6

*Format of file: PDF; Title and description: Spanish version of the MRS.*

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[<http://www.biomedcentral.com/content/supplementary/1477-7525-1-28-S6.pdf>]

#### Additional File 7

*Format of file: PDF; Title and description: Mexican/Argentinean version of the MRS.*

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[<http://www.biomedcentral.com/content/supplementary/1477-7525-1-28-S7.pdf>]

#### Additional File 8

*Format of file: PDF; Title and description: Turkish version of the MRS.*

Click here for file

[<http://www.biomedcentral.com/content/supplementary/1477-7525-1-28-S8.pdf>]

#### Additional File 9

*Format of file: PDF; Title and description: Brazilian version of the MRS.*

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[<http://www.biomedcentral.com/content/supplementary/1477-7525-1-28-S9.pdf>]

#### Additional File 10

*Format of file: PDF; Title and description: Indonesian version of the MRS.*

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[<http://www.biomedcentral.com/content/supplementary/1477-7525-1-28-S10.pdf>]

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