

Development of the SAFER-HOME v.3

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BACKGROUND

The Safety Assessment of Function and the Environment for Rehabilitation - Health Outcome Measurement and Evaluation (SAFER-HOME) is an occupational therapy outcome measure. The SAFER-HOME was developed in response to the need for an outcome measure for occupational therapists to evaluate the changes following home safety intervention in daily practice. The SAFER-HOME was designed on the basis of the SAFER Tool [1,2], a clinical tool for home safety assessment. Since the initial work in the early 2000s, three versions of the SAFER-HOME have been developed. This poster describes the development of version 3.

METHODS

In 2004 to 2006, we undertook 5 development activities.

First, we obtained feedback from occupational therapists at six clinical team meetings at COTA Health. The occupational therapists felt that the SAFER-HOME v.1 useful and many used it often. They identified the following improvement suggestions: less paper work, clearer rating and scoring methods, more education, modification of particular items, and expansion to adults with mental health needs or brain injury.

Second, we conducted the item analysis of the initial, reassessment, and change scores of each item of SAFER-HOME v.1. The analysis was conducted based on 1,082 clients. We selected items that were rarely identified as a problem at initial assessment or had no change at reassessment. We also reviewed the factor analysis results of the SAFER-HOME v.1 and v.2 to decide the categories [3].

Third, we embarked on the most challenging task: to revise the ratings and their definitions; drop, modify, or add items; clarify the guidelines and recommendations of each item; reorganize the categories; reorder the item sequence; and simplify and improve the scoring method. Because the changes were closely related to one another, the authors went through many iterations before finalizing the item choices, definitions, categories, and orders.

Fourth, we wrote an accompanying manual [4] and developed a training workshop. The manual provides the background, administration methods, guidelines and recommendations of intervention, and 7 case studies.

Fifth, a pilot study was conducted to evaluate the training and the perceived clinical usefulness and sensitivity to change of the tool. We collected the feedback from participating occupational therapists using a questionnaire and a focus group.

RESULTS

The 93-items of the SAFER-HOME v.2 were reduced to 74 items in v.3. Items were removed or combined for different reasons: some were infrequently identified as a problem in the item analyses; some did not address home safety but rather focused on other areas such as quality of life. Some items were renamed to improve clarity. We added 6 new items based on clinical practice and the feedback from clinical team meetings. To better fit the factor analysis results and support practice, the categories were reduced from 14 categories to 12 categories. The items were recategorized accordingly, and the order of the items in each category rearranged. The scoring methods were revised. A more severe problem was given a greater score.

In the pilot study, 12 occupational therapists administered the SAFER-HOME v.3 with 18 clients. The mean initial SAFER-HOME score was 17 (SD=12) and reassessment score 10 (SD=10). The mean SAFER-HOME change score was minus 9 (SD=8; a negative change score indicated an improvement). The participating occupational therapists felt that the revisions made the SAFER-HOME v.3 a more concise tool, hence faster to administer. They indicated that the weighted score allowed them to prioritize interventions and improved the sensitivity to change of the score. They felt that the new items were clinically useful; the workshop and manual were helpful. Suggestions to refine a few items were identified and incorporated into the final design of the tool (see SAFER-HOME v.3 form in the next display box).

DISCUSSION AND CONCLUSION

Preliminary work shows that the SAFER-HOME v.3 has the potential to be clinically useful and able to detect change. Although prior studies have established the validity and reliability of the SAFER Tool and earlier versions the SAFER-HOME [2,3], further research will be needed to establish the psychometric properties of the SAFER-HOME v.3.

We have attempted to expand the use of the SAFER-HOME v.3 to other age groups and clinical needs. The primary groups are geriatric clients with physical rehabilitation or mental health needs. We have revised the tool to support its use with younger adults with physical or mental health needs or with developmental disabilities. We need to learn more about how well the SAFER-HOME v.3 supports these populations.

We have tried to select and describe items to make them appropriate to culturally diverse populations. At present, the SAFER-HOME v.3 is being translated into Canadian French, and psychometric studies will be undertaken to assess the validity and reliabilities of the French version.

We have aimed to improve the ability of SAFER-HOME v.3 to support clinical practice and to measure outcome: when used as a clinical assessment, a person's ability to safely carry out functional activities in his or her home can be assessed; when used as an outcome measure, changes following intervention and intervention effectiveness can be evaluated. This paper reports on one of a series of studies that brings us one step closer to our goal.

References

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