

**The Norwegian Occupational Balance Questionnaire (OBQ11-N) –
Development and pilot study**

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Abstract

Background: The concept occupational balance has been linked with health and well-being, and it is therefore viewed as an important concept for occupational therapy practice, theory and research. To operationalize and measure occupational balance, the Occupational Balance Questionnaire (OBQ) was developed in Sweden. To date, no Norwegian translations of the OBQ exists.

Aim: To describe the process of developing a Norwegian version of the 11-items Occupational Balance Questionnaire (OBQ11-N) and to evaluate its feasibility and face validity.

Methods: The development process followed a predetermined series of steps, including forward and back translation and cognitive interviews with a pilot sample.

Results: The pilot study sample ($n = 8$) varied with respect to age, gender and education level. There was high level of agreement between the participants with regard to their understanding of the content of the items. Three of the items were slightly modified in terms of words and phrasing.

Conclusion: The OBQ11-N was developed according to established translation guidelines and appears to be feasible and have good face validity.

Significance: The OBQ11-N may prove useful for assessing occupational balance and associated factors in Norwegian population groups. However, more research is needed to establish the Norwegian version of the questionnaire as psychometrically valid.

Keywords: assessment, instrument development, occupational balance, occupational therapy, translation,

Introduction

Within occupational therapy and occupational science, occupational balance is viewed as one important concept (1). Occupational balance is a recurring phenomenon in the literature and there is empirical evidence concerned with the association between occupational balance and health. For example, in a longitudinal study of more than 2.200 employees in a public organization in Sweden, occupational imbalance was found to predict stress-related disorder even after adjusting for perceived stress (2). Based on focus groups interviews with 19 women with stress-related disorder, Håkansson and co-workers also suggested a relationship between occupational balance and well-being mediated by manageability, control, and a harmonious occupational repertoire (3). This linkage makes the concept of occupational balance essential in occupational therapy practice as well as in occupational science (4).

Occupational balance was first mentioned by Adolf Meyer in 1922 (5). Meyer emphasized the need to attend to the rhythms of daily life as they contribute to mental health. Since that time, occupational therapy theory has included reference to the idea of achieving a balance of participation in different types of activities, like work, play, self-care, and sleep (6, 7). During the evolution of the concept, Wilcock (8) played a prominent role. For example, when writing about different types of balance, she stated “[...] balance may be among physical, mental and social occupations; between chosen and obligatory occupations; between strenuous and restful occupations, or between doing and being” (p. 343). More recently, in a concept analysis conducted by Wagman and co-workers (1), occupational balance was conceptualized as the individual’s perception of having the proper amount of occupations and the right variation between them.

Self-report assessments in health research have become increasingly important over the last decades (9), and research is often facilitated using instruments that measure the concept of interest (10). To operationalize and measure the concept of occupational balance,

the Occupational Balance Questionnaire (OBQ) was developed (11) based on previous research on perceptions of occupational balance in different groups (1, 3, 12). Based on the established definition of occupational balance, the perception of having the right amount and variation of occupations in everyday life, it originally consisted of 13 items measured on six-grade ordinal scales (measured 0-5). The content of the items reflected, for example, the balance between doing things for oneself and for others, the balance between energy-giving and energy-taking occupations, and satisfaction with how time is spent in everyday life (11). In its original form, the instrument has been shown to possess good content validity, internal consistency and test–retest reliability (11). Following a recent Rasch analysis, the instrument has been abbreviated to encompass 11 items, comprising the OBQ11. In this version, the response scale is reduced to four categories (13).

Summarizing the above, several articles have been published using the OBQ to explore occupational balance in different groups, particularly in Sweden. However, the OBQ11 – or any other instrument for assessing occupational balance – has not yet been adapted into Norwegian. Given the importance of the concept for occupational therapy practice, theory and research, conducting a high quality Norwegian translation of the OBQ11 is warranted.

Aim of the study

The present study aimed to describe the process of developing a Norwegian version of the OBQ11, and to evaluate the feasibility and face validity of the new instrument.

Methods

The translation process followed the sequence of ten steps as proposed by Wild and co-workers (14). The steps are: 1) Preparation, 2) Forward translation, 3) Reconciliation, 4) Back translation, 5) Back translation review, 6) Harmonization, 7) Cognitive debriefing, 8) Review

of cognitive debriefing results and finalization, 9) Proof reading, and 10) Final report. Steps 1-7 are presented in the Methods section, whereas steps 8-10 are presented in the Results section. This article represents the 10th and final step of the process.

Step 1: Preparation

The authors of the original questionnaire was contacted, and permission to translate the OBQ11 into Norwegian was granted.

Step 2-3: Forward translation and reconciliation

Two translators produced their separate independent translations of the OBQ11. Both translators were occupational therapists and familiar with the concept of occupational balance and with the instrument. They were both of Norwegian background, were educated in Norway and had good understanding of the Swedish language. Most of the terms used in these translations were identical or considered equivalent in terms of their meaning content, and given the straightforward phrasing in the original OBQ11, there were relatively few differences in sentence structure. The translations aimed at finding Norwegian terms and expressions that would retain the meaning of the original, while at the same time keeping as close to lay, everyday language as possible. Building on the two draft translations, the translators developed a joint version of the OBQ11-N. This reconciliation was achieved at one meeting between the two translators, during which all their initial differences were carefully scrutinized and resolved. Again, most of the differences were concerned with their initial preferences for words and phrasing, and not differences in meaning content.

Step 4: Back translation

One person of Swedish background performed the back-translation into Swedish. At the time of performing the back-translation, she was a student at the occupational therapy education program in Oslo, Norway. Therefore, Swedish was her native language while she was also competent in using the Norwegian language.

Step 5-6: Back translation review and harmonization

The back-translation was sent to the authors of the original instrument for review, and they gave their comments to it independently of each other. After comparing the original and the back-translated OBQ11, they asked that a few minor issues were considered once more.

Concerning item 4, it was pointed out that the Swedish term for domestic work ('hemsysslor') had been translated into a Norwegian word ('husarbeid') that in Sweden might be associated with house renovation. It was emphasized that this item was concerned with activities performed at home and for the family. Nonetheless, the translators concluded that associations with renovation would not likely be the case for native Norwegians, and the term 'husarbeid' was therefore retained. Concerning item 5, the back-translated term 'behöver' (need) was considered not to be as strong as the original term 'måste' (must). The verb was changed into the Norwegian term 'må', according to the feedback. With a view to the scale descriptors, a possible difference between the Swedish term (instämmer mycket) and the Norwegian (stemmer i stor grad) considered, according to the developers' request. However, the two terms were considered synonymous and of equal use in the Norwegian language. The chosen term 'stemmer i stor grad' was therefore retained as a somewhat more popular term than the alternative 'stemmer i høy grad'. As a result of this process, the two translators then agreed upon a slightly modified Norwegian version of the OBQ11.

Step 7: Cognitive debriefing

At this point, the preliminary OBQ11-N was ready to be tested in a small-scale pilot study. The purpose of the pilot study was to evaluate the OBQ11-N in terms of face validity; i.e., whether it appeared to measure occupational balance, and to identify potential issues that might lead to confusion or misunderstanding among persons in the target group. In cases where confusion or misunderstanding was felt, we decided to probe for alternatives regarding how items might be more clearly phrased.

Participants and procedure

Eight persons were invited to participate in the study, and all volunteered to take part. The participants were approached by convenience, as they were all known to the recruiter, but were also stratified by age group, gender and education level. The participants were four men and four women. Within each of the groups of men and women, two had higher education (defined as three or more years of university/college education) and two had not. Similarly, within each group of men and women, two were aged under 45 years and two were aged 45 years or higher.

The recruiter informed the participants about the aims and procedures, explained that participation was voluntary, and that the collected data would be treated in confidence and only used for developing the Norwegian version of the OBQ11. No benefits were provided to participants. The location and time of the interview was decided in collaboration between the interviewer (Author #2) and each of the participants. The interview guide asked about participants' understanding of each of the 11 items, plus five questions regarding the name of the tool, its layout, instructions, time to complete, and any additional comments. The interviewer asked follow-up questions to ensure she understood the responses and documented the responses in writing. In accordance with policy for research not collecting person-identifying or sensitive data, formal ethical approval was not required.

Results

Step 8: Review of cognitive debriefing

The results from the cognitive debriefing interviews are summarized in Table 1. During the cognitive debriefing, the participants stated that the title of the questionnaire worked well and that it felt like a good heading that summarized the content of the questionnaire. One participant was initially unsure about the meaning of the title, but claimed that it became clear by reading through the questionnaire. Another participant also commented that the title was

clear, especially when seeing the items below. The assessment instructions were considered highly understandable. Similarly, all participants reported that the layout of the questionnaire showed a good structure and that it was appropriately comprehensive. There were no significant differences in the time used for responding to the items. The participants reported that they used between five and ten minutes to complete the questionnaire.

In view of the similarities between the participants' expressed understanding of the questionnaire items, high agreement in the understanding of the content of most items was concluded. However, there were instances where the choice of words led to ambiguity, and an alternative and clearer phrasing was proposed. In particular, using the word 'må' ('must') in items 5 and 9 appeared ambiguous. The phrasing "the things I must do" (item 5) was considered unclear, and one participant stated he would prefer examples of the meaning content of the word "must" (since there was nothing that he "must" do). Similarly, ambiguity was experienced with the same word when used in item nine. As a result of the feedback from the participants, we modified items 5 and 9 by adding the word 'forpliktelser' (commitments) in parenthesis behind the word 'må' (must), with the aim of making these items unambiguous without allowing the changes to interfere with the content. With regard to the phrasing in item 11, one word was considered awkward ('fornøyd', meaning 'satisfied') and was therefore rephrased (into 'tilfreds', identical meaning).

[TABLE 1 ABOUT HERE]

Step 9-10: Proof reading and final report

At the final step of the process, a PhD-student who was not part of the research group, conducted the proofreading of the OBQ11-N. Overall, the questionnaire read well, and no comments were made regarding spelling, sentence structure or questionnaire layout. One

word in item 11 was changed following this step. The adjustment concerned the word ‘restitusjon’, meaning recovery or recharge, which was considered a jargon expression, possibly generating a risk of ambiguity among people not familiar with the word. The Swedish word ‘återhämtning’, which is used in the original version of the OBQ11, is not easily translated into Norwegian, as the noun “innhenting” does not reflect the content properly. Therefore, the noun ‘restitusjon’ was replaced with a more active phrasing, using the expression “å hente meg inn” (meaning to ‘recover’ or ‘recharge’). We believe this slight reconstruction will contribute to easier reading and a clearer understanding among Norwegian users of the instrument. This article, the final report, also represents the final step of the translation process.

Discussion

The aim of this study was to describe the process of translating the OBQ11 into Norwegian and to evaluate its face validity. Given the similarities between the Norwegian and Swedish languages, the translation process was relatively straightforward. In comparison, translations across greater cultural distances have been shown to result in greater difficulty with a view to obtaining translations with identical meaning content, for example when translating from US English to Norwegian (10). With regard to the present work, the feedback from the instrument developers (early stage), the panel participants (intermediate stage) and the proof-reader (final stage) lead to few and only minor adjustments to the translated questionnaire. According to the participants, the questionnaire items worked well together and the title was considered a good heading that summarized the content of the questionnaire. The content of the instrument was generally perceived to reflect the concept of occupational balance. Consequently, we consider the resulting Norwegian version of the OBQ11 to have good face validity.

The few translational issues that occurred were concerned with phrasing and choice of words. We aimed to find Norwegian words and expressions that would keep the meaning of the original version without losing the natural flow of language. At the same time we wanted to keep as close to everyday language as possible. A few minor changes were made without altering the meaning content of the items. As Swedish and Norwegian are both Scandinavian languages, they share several grammatical and lexical similarities that allow speakers of the two languages to understand each other without much strive. Nevertheless, instrument translation principally means a change of language and context, and translation across such distances typically generates a risk for a simultaneous change in how the instrument is able to measure what it is supposed to measure (14-16). Further studies of the psychometric properties of the OBQ11-N are therefore needed, as are comparisons with the properties of the original Swedish version of instrument. As the original OBQ11 is presently in use in occupational therapy research in Sweden, it will be important to secure that the measurement properties of the OBQ11-N reflects those of the original (17). In the eventual case of future translations of the OBQ11 into other languages, one might need to pay particular attention to words and expressions that can have different connotations in the two language contexts. For example, this may apply to the rating scale descriptors, as discussed in an early stage of the present study.

Study strengths and limitations

The study adhered to a structured procedure for two-way translation, including validity checks with members of the target population (Norwegian general population), and the present article makes the development process transparent to the interested reader. According to Wild and co-workers (14), a sufficient number of participants were employed in the pilot study, aiming to verify that the participants' understanding of the questionnaire items was in line with the intended meaning. Measures were also taken to recruit a balanced sample, such

that the eight panel study participants represented both genders, a variety of age groups, and both higher and lower levels of education. We found no evidence of the questionnaire items being perceived differently across these parameters. Nonetheless, this is a report of a small-scale pilot study, which may need replication in specific samples, including samples characterized by diverse disabilities. A possibility is also to replicate a previous Swedish study [11], in which occupational therapists were employed as participants to evaluate content validity. Further research is needed to establish the measurement properties of the OBQ11-N.

Conclusion

This paper has described the process of translating and adapting the OBQ11, a questionnaire measuring occupational balance, into Norwegian. The process followed a series of ten steps, as previously suggested, including forward translation using two translators, back translation, translation review, pilot study and proof-reading. Comparing the resulting OBQ11-N with the Swedish original, no major differences were found, and minor points were addressed throughout the development process. In conclusion, the process has resulted in a Norwegian version of the OBQ11, which appears to be feasible and have good face validity.

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Conflicts of interest

There are no conflicts of interest related to this manuscript.

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Table 1

Interview structure and aggregated responses

| Item | Content | Summary of responses |
|------|---|---|
| 1 | Sufficient amount of things to do | High levels of agreement in understanding |
| 2 | Balancing doing things for others and self | High levels of agreement in understanding |
| 3 | Have time for things I really want | High levels of agreement in understanding |
| 4 | Balance between different activities | High levels of agreement in understanding |
| 5 | Sufficient time for doing things I must do | 'Things I must do' may be ambiguous |
| 6 | Balance between different categories of occupation | High levels of agreement in understanding |
| 7 | Satisfaction with how time is spent | High levels of agreement in understanding |
| 8 | Satisfaction with number of activities | High levels of agreement in understanding |
| 9 | Sufficient variation between doing things I must and want | 'Things I must do' may be ambiguous |
| 10 | Balance between energy-giving and energy-taking | High levels of agreement in understanding |
| 11 | Satisfaction with time spent on restful activities | The term used for 'satisfied' should be replaced |
| | Title – How did you interpret the title? | Targets the balance between the activities one performs (High levels of agreement in understanding) |
| | Layout – How was it to read the questionnaire? | Simple and clear (High levels of agreement in understanding) |
| | Instructions – How did you understand the instructions? | Rate the current situation on the four-step scale (High levels of agreement in understanding) |
| | How long did you use to complete the questionnaire? | 5-10 minutes (No reports of using more than 10 minutes) |
| | Any other comments? | Ambiguity regarding the words "satisfied" and "must" |