Letter to Editor

Reliability and Validity of the Turkish Translation of the Beliefs about Medicines Questionnaire (BMQ-T) in Patients with Behçet's Disease

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Dear Editor,

We have read with great interest the article entitled "Cross-cultural Adaptation and Validation of Beliefs about Medicines Questionnaire on Asthma and Chronic Obstructive Pulmonary Disease Patients" by Arıkan et al. [1], which appeared in the January 2018 issue of Turkish Thoracic Journal. In this article, the authors have stated that they evaluated the reliability and validity of the Beliefs about Medicines Questionnaire (BMQ) Turkish translation (BMQ-T) in patients with asthma and chronic obstructive pulmonary disease. However, it is not the first study assessing the validity and reliability of the BMQ-T, since my colleagues and I have published our study in 2016, wherein we assessed the reliability and validity of the BMQ-T for patients with Behçet's disease (BD) [2].

In the study by Arıkan et al. [1], in terms of reliability, the internal consistency of BMQ-T Specific Necessity, BMQ-T Specific Concern, BMQ-T-General Harm, and BMQ-T-General Overuse were 0.83, 0.72, 0.79, and 0.68, respectively. The original Cronbach's α values were 0.86, 0.65, 0.60, and 0.51, respectively [3]. Although the Cronbach's α values in our study was slightly lower than those of this study, the Cronbach's α values of our study (0.81, 0.67, 0.68, and 0.66, respectively) were consistent with those of the original version [2]. In addition, we calculated the intraclass correlation coefficient to assess test–retest reliability. An adequate statistically significant and positive correlation was observed between the first test and the retest scores ($p<0.05$) in our study. Additionally, we performed the paired samples t test and demonstrated that there was no difference between test and retest scores of the whole scales of BMQ-T ($p>0.05$) [2].

In both studies, the construct validity of the scale was evaluated using factor analysis. In our study, the total explained variance was 54.73%, and the lowest item load was 0.46 (2); in the study by Arıkan et al. [1], the total explained variance is 58.3%, and the lowest item load is 0.42 (2). In the study of Arıkan et al. [1], they found that the "natural remedies are safer than medicines", which is on the subscale of General Harm, has a lower factor load than the other items. They have reported that natural remedies that are being used for a long time are replacing conventional medicine. However, in our study, we found that the factor structure obtained is consistent with the original scale structure. We think that this is because patient groups with chronic diseases chosen in our studies were different [2].

The BMQ-T is a reliable and valid scale for evaluating patients' attitudes and beliefs about drug therapy in patients with chronic illness. Furthermore, it is valid and reliable in different disease groups, as shown in both studies. Our study is the first study in this context and our findings emphasize the utility of BMQ-T for assessing the beliefs of BD patients regarding their medicines.

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Author's Reply

We thank Çınar et al. [1] for their knowledgeable comments on our study. Their main concern is that their study published on May 2016 is the first study of Beliefs about Medicines Questionnaire (BMQ) in Turkish. This is indeed true. As we mentioned in acknowledgments, our study is a product of MECOR 2015 which took place in November. We did our literature search at that time. So, we did not come across for mentioned study and proceed as usual.

In our study, like Çınar et al. [1], we used factor analysis to show construct validity. But apart from that we provided confirmatory factor analysis and indices like comparative fit index, normed fit index and root mean square of error of approximation. These indices provide more insight to construct validity.

Unlike from Çınar et al. [1] we found that item G4 of BMQ which is "natural remedies are safer than medicines" has a lower factor load than original study. We speculated that natural remedies have been in the Turkish tradition for a long time and are regarded as a substitute for conventional medicine. As for chronic obstructive pulmonary disease and asthma although there is little data and that cannot be generalized we know that use of natural remedies like herbs or herbal teas is 46.7% [2]. Interestingly although we could not find any study regarding complementary and alternative medicine (CAM) use in Behçet's disease a study on rheumatoid arthritis revealed that 46.9% of patients used CAM [3]. This could be an interesting research topic and may provide us more insight regarding natural remedies.

In summary, although they may have diversity among results, we believe that both studies revealed that cross cultural adaptation of BMQ is valid and reliable in different patient populations.

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