Turkish reliability of the vulnerable elderly survey-13.

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Abstract

Objective: Our aim was to adapt for Turkish and perform the reliability study of the vulnerable elderly survey-13. Material and methods: VES-13 was translated to Turkish by three researchers and a consensus meeting was held after the translation process. Turkish text on which the researchers agreed was translated into English by an independent professional translator. As a result of this process, the researchers obtained the final version on which they agreed and the accuracy of which was proved by back translation. Results: The questionnaire was administered to patients above 71 y presenting to Family Medicine clinic. Total of 95 patients (39 male 56 female, with an average age of 80.65 ± 5.27 y) took part in this study. Turkish version of the questionnaire was found to be quite reliable (Cronbach’s alpha 0.857). Conclusion: Turkish version of the vulnerable elderly survey-13 is quite reliable. We believe that this questionnaire may be used for objective assessment of diagnosing frailty, evaluating its severity and its follow-up in clinical practice.

Keywords: The vulnerable elderly survey-13, Frailty, Turkish reliability.
Scale is scored based on each question. Expected rate of bad complications (hospitalization and deaths) which has a score 1-3 is 14.8%, while it's expected up to 54.9% on 4 and/or over scores.

Total score of the first question for age was in <75 ages, while it was 1 in 75-84 ages and 3 in >85 ages. Answers to questions related daily physical activities are scored according to ability to perform daily activities [10].

Translation process
VES-13 was translated into Turkish by three researchers, and a consensus meeting was held after the translation process. The Turkish text on which the researchers agreed was translated into English by an independent professional translator. After the researchers compared the English text, a product of back translation, and the source text in terms of meaning and comprehensibility, they decided that there were no differences between the two texts. As a result of this process, the researchers obtained the final version on which they agreed and the accuracy of which was proved by back translation.

Patient collection
This study was conducted in the clinic of Eskisehir Osmangazi University Medical Practice and Research Hospital Family Medicine between 1 and 31 of July 2016. The questionnaire was administered to the voluntary patients above 71 y that presented to the clinic. Ethical approval was received from Eskisehir Osmangazi University non-interventional clinical studies ethical committee to carry out this study.

Results
Total of 95 patients (39 male, 56 female and an average age of 80.65 ± 5.27, 66 y) took part in this study. The mean score was 6.44 ± 2.32.

Analysing of the 3rd question of VES-13 showed the Cronbach’s alpha coefficient was 0.857. We removed 3B question on the scale and analysed each of 5 questions one by one, so we determined the Cronbach’s alpha coefficient as 0.864. A 0.007 difference appeared tolerable; therefore we decided to assess 6 questions instead of 5. The validity results and coefficients of the 3rd question are shown in Table 1.

<table>
<thead>
<tr>
<th>Question</th>
<th>Cronbach’s alpha values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 3A</td>
<td>0.810</td>
</tr>
<tr>
<td>Question 3B</td>
<td>0.864</td>
</tr>
<tr>
<td>Question 3C</td>
<td>0.834</td>
</tr>
<tr>
<td>Question 3D</td>
<td>0.845</td>
</tr>
<tr>
<td>Question 3E</td>
<td>0.818</td>
</tr>
<tr>
<td>Question 3F</td>
<td>0.828</td>
</tr>
</tbody>
</table>

After validity studies, to estimate the reliability of VES-13, Spearman Brown coefficient was calculated using Split-Half method (an statistical method) and was found 0.880 and after statistical analysis, it was concluded that VES-13 is valid for Turkey.

Mean value of total score calculated by statistical method was 6.44 ± 2.32. Mean score according to gender and general mean score were shown in Table 2.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Man</td>
<td>39</td>
<td>6.0769</td>
<td>2.55862</td>
<td>1.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Women</td>
<td>56</td>
<td>6.6964</td>
<td>2.13132</td>
<td>1.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Total</td>
<td>95</td>
<td>6.4421</td>
<td>2.32340</td>
<td>1.00</td>
<td>10.00</td>
</tr>
</tbody>
</table>

Relation of total score obtained in statistical analysis and marital status, gender, living place, education period, individual/individuals residing together, experienced diseases was calculated using Independent Sample Mann-Whitney U test and Independent Sample Kruskal-Wallis test. Given the marital status, being married has reduced the total score and this was found statistically significant (p=0.011). Comparison of educational status and total score showed that total score reduced by increasing of educational level and it was statistically significant (0.024).

Discussion
Vulnerability has become an important term with the increase in older population. Estimating of vulnerability degrees highlights actual aspects of falling, decrease in daily activities, post-operative hospitalization period, mortality rates, admission to health care centres and death. Primary care physicians who are essential on screening older patients should take account these risks mentioned above. Because primary care physicians may know well about patient from birth to death; they assess their patients’ bio-physo-social status and if needs they visit their patients at residence. The primary care physicians can raise quality of life of an older individual by simply identifying potential events (problems), taking implementing preventive cares.

There are many tests and methods that can be used to determine vulnerability. VES-13 questionnaire is an easier and understandable test. It can be applied by any of health careers. Face-to-face meeting is not necessary; interviews can be made by phone. There was a lack of studies and trials on validity and safety of VES-13 for Turkey. VES-13 questionnaire has been translated into Turkish by translate procedures under internationally accepted guidelines [11,12] and applied to 95 individuals. Given results of this study, Cronbach’ alpha
coefficient of each item and total score of VES-13 were found higher. It was concluded that VES-13 is quite valuable for Turkish older population.

**Vulnerable Elders Survey-13 (kırılgan Yaşlı Anketi-13)**

1. Yaş…………………………………………………….

2. Genel olarak yaşlarınız olan diğer bireylerle kıyaslandığında sağlığınız için ne söylersiniz:
   - Kötü
   - Aynı
   - İyi
   - Çok iyi
   - Mükemmel

3. Ortalama olarak aşağıdaki fiziksel aktiviteler sırasında ne derece zorluk hissedersiniz?
   - Alçalma, çömelme, diz çökme: 1 2 3 4 5
   - 450 g agırlığındaki nesneleri taşımak veya kaldırmak 1 2 3 4 5
   - Uzanmak veya kolları omuz seviyesine kaldırmak 1 2 3 4 5
   - Yazmak, küçük objeleri elinde tutmak, kavramak 1 2 3 4 5
   - 400 metre yol yürümek 1 2 3 4 5
   - Ağır ev işleri (yerleri fırçalamak veya camları silmek gibi) 1 2 3 4 5

4. Sağlığınız veya fiziksel koşullarınız nedeniyle aşağıdaki işleri yapmakta zorluk çekiyor musunuz?
   - Kişisel nesneler için alışveriş yapmak (tuvalet nesneleri veya ilaç gibi)
   - Para idaresi (giderleri takip etmek veya hesap ödemek)
   - Oda içinde yürümek (Yürüteç veya baston ile de olabilir)
   - Hafif ev işlerini yapmak (bulaşık yıkamak, doğrulmak, hafif temizlik işleri)

**References**


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