

## **PSYCHOMETRIC EVALUATION OF THE BARTHEL INDEX SHORT FORMS IN IRANIAN ELDERLY PEOPLE RESIDING IN NURSING HOMES**

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**Objectives:** The continuous screening of functional independence level in activities of daily living in elderly people residing in nursing home is necessary. It seems, shortness of tool is one of the important characteristics of the proper tools. So, this study was carried out in order to assess the reliability and validity of the 5-item, 4-item and 3-item Barthel index in older Iranians residing in nursing home, kashan-Iran, 2006.

**Methods:** The Shah version of Barthel Index short forms were translated to Persian through back & forward method. The sampling was performed using census method in Kashan Golabchi nursing home (n=100). The questionnaires were completed through interview and observation by two personnel of the mentioned center. Inter-rater agreement was assessed. The tools reliability was determined via internal consistency (Item- total Correlation and Cronbach's alpha). Their validity was determined via Concurrent validity and Known-groups approach. In recent method, the samples were divided into 4 groups, according to age groups suggested by WHO; and then scores of Barthel index short forms were compared separately among 4 groups. The data were analyzed using Pearson correlation coefficient, Intra-class correlation coefficient (ICC), Kappa, Cronbach's alpha coefficient and Kruskal-wallis test.

**Results:** In all of the assessed tools, the inter-rater reliability for every item was excellent (Kappa>0/75); in related to the total score, all of the tools Intra-class correlation coefficients were more than 0/9. The questionnaires reliability coefficients (internal consistency) were calculated 0/83-0/93. Item-total correlation confirmed their reliability too. Their concurrent validity with Persian original Barthel index were confirmed (r=0/98, p<0/0001). The known-groups approach also revealed these tools are valid (p<0/0001).

**Conclusion:** The Persian versions of Barthel index short forms for evaluation of disability in elderly Iranians residing in nursing homes are valid and reliable.