

# Factor Analysis and Reliability Evaluation of the Iranian Version of GHQ-12 Questionnaire

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**Abstract**— One of the most potent tools in screening mental health conditions is the 12-item General Health Questionnaire (GHQ-12). This article aims to investigate the factor analysis and test the reliability of the Iranian version of GHQ-12. So, using the translated version of GHQ-12 (Iranian version) along with demographic questions, data were collected from 106 university students in Tehran and Semnan. Each questionnaire was scored using the C-GHQ method. The reliability of the GHQ-12 was tested by assessing Cronbach's alpha coefficient. Finally, to analyze the factor structure of the GHQ-12 questionnaire, the principal component analysis was performed using the varimax factor solution. The obtained data were analyzed by SPSS-26 software. The results show that the mean score of the GHQ-12 questionnaire is 3.5377, with a standard deviation of 3.4370. The reliability test of the questionnaire represents a satisfactory result, as Cronbach's alpha was obtained 0.872. The result of factor analysis shows a three-factor structure for GHQ-12, which contains 60.047% of the total variance. In conclusion, based on the results, the Iranian version of the GHQ-12 questionnaire is reliable and has good structural characteristics using the C-GHQ scoring method to measure general mental health quality.

**Keywords**— *Factor Analysis, General Health Questionnaire, Iran, Reliability, University Students*