Development of Blood Donation Attitude Scale:
A Study of Validity And Reliability

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Extended Summary

Purpose

The purpose of the current study is to develop a valid and reliable scale to evaluate pre-service teachers' attitudes towards blood donation.

Method

The current research is a survey study aiming to develop a scale to evaluate the attitudes of the pre-service teachers from the Education Faculty of Muğla Sıtkı Koçman University towards blood donation. The universe of the current study consists of the pre-service teachers from the education faculties of Turkish universities and the sampling is comprised of 152 first-year students (110 females, 42 males) and 131 fourth-year students (87 females, 44 males), totally 232 pre-service teachers attending the Education Faculty of Muğla Sıtkı Koçman University (M.S.K.Ü) in 2013-2014 academic year.

Initially, the data collection tool included 58 items and then as a result of exploratory factor analysis and expert opinions, it was reduced to 24 items. The analyses revealed that the attitude scale consists of 3 factors and explains 52.59% of total variance. For the whole scale, Cronbach-Alpha internal consistency coefficient was calculated to be .84.

Findings

First the data collected through the blood donation attitude scale were subjected to exploratory factor analysis (EFA) to establish construct validity. As a result of this analysis, three-factor structure explaining 52.59% of total variance was obtained. First of these factors includes totally 12 items which are 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12. The item loadings of the items in this factor vary between .55 and .84. This factor explaining 31.568% of total variance is "Societal and Social Responsibility" sub-dimension. The second factor of the scale consists of totally 8 items which are 13, 14, 15, 16, 17, 18, 19 and 20 whose loadings vary between .47

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and .68 and this factor explains 12.842% of total variance. This factor is "Anxiety" sub-dimension. The third factor consists of four items which are 21, 22, 23 and 24 whose loadings vary between .31 and .83 and it is "Societal perception and conception" sub-dimension explaining 8.181% of total variance.

Model compliance of item-factor structure obtained from EFA was tested with confirmatory factor analysis (CFA). It was found that fit indices of the attitude scale consisting of 24 items and three sub-factors are significant (X^2 = 842.85, sd = 249, p = .000, X^2/sd= 3.38). The fit index values were found to be as follows: RMSEA = .071, GFI = .92, CFI = .91, NNFI = .90, IFI = .91. As CFA showed that the model exhibits a good fit, no modification was made on the items. Thus, three factors emerging as a result of exploratory factor analysis (Societal and social responsibility, Anxiety, Societal perception and conception) were confirmed through confirmatory factor analysis. For the whole attitude scale, cronbach-alfa reliability coefficient was calculated to be .84.

Results

In the current study a scale was developed to evaluate pre-service teachers' attitudes towards blood donation. The blood donation attitude scale measures pre-service teachers' societal and social responsibilities, anxiety and societal perception and conception. In the scale development study, first a 58-item test was developed and in line with the opinions of experts and factor analyses, the scale was reduced to 24 items. Fit indices obtained from the confirmatory factor analysis were found to be significant and the model exhibited a good fit. Cronbach Alpha (α) coefficient of the blood donation attitude scale was calculated to be .84. As a result, a valid and reliable scale that can evaluate pre-service teachers' attitudes towards blood donation was developed.