A review on internal consistency measures for medical sciences research

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In medical sciences research, (especially research based on clinical trials), Likert scale & summated scale are often used in survey instruments. The most important step is to assess the Reliability and Validity of instrument using different approaches. Most of the researchers merely rely on Cronbach's alpha for calculating internal consistency, and they have the desire to get higher level of alpha. But higher value of Cronbach's alpha decreases the validity of the instrument, and also not applicable at every situation due to violation of its assumptions. There are various other internal consistency measures such as Angoff’s coefficient, Raju’s coefficient, Kristoff’s coefficient and Guttman’s coefficient etc. In this article, a brief description of each of these coefficients is illustrated and at the end, recommendations for proper use at best suitable situation of these coefficients are presented.

Biography

Syed Jawad Ali Shah is serving in Pakistan Bureau of Statistics, Statistics Division, Government of Pakistan as a Statistical Officer since last 9 years. Currently, he is doing PhD (Statistics) from Department of Statistics, University of Peshawar, Pakistan and engaged in research over “Reliability issues in the field of Survival Analysis and Bio-statistics”. He has completed his MPhil (Statistics) from a reputed university of Pakistan and done research thesis over advance classification techniques for imbalanced data. He has presented his research work in international conference.

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