Psychometric Evaluation of Indonesian Version of Connor-Davidson Resilience Scale in Adolescent Survivors of Disaster (PST)

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Purpose:

Assessing adolescent survivors' resilience in the long-term period after disaster need an appropriate measurement. The Indonesian version of 25-item Connor-Davidson Resilience Scale (CD-RISC) is provided; however, no published study clearly explains its factorial structure, construct validity, and reliability. Moreover, a psychometric testing of the scale has never been reported among adolescent survivors of disaster. It is very important to examine whether the scale has adequate internal consistency and construct validity for its use in different background, population, and culture.

Methods:

A cross-sectional study design was conducted among 599 adolescent survivors aged 12-18 years old who live in the post 2010 Mount Merapi volcanic eruption in Yogyakarta, Indonesia, from 3 junior and 4 senior high schools. Those who experienced the volcanic eruption and complete both of parents' informed and students' assent form were also included in the study. We assessed their resilience using Indonesian version of 25-item CD-RISC and examined both its exploratory and confirmatory factor analysis through SPSS-21 and AMOS-21 software to determine the construct validity and reliability of the scale. Among the 599 participants, we randomly divided into 2 groups using SPSS-21 software; Group 1 (n=300) for exploratory factor analysis (EFA) and Group 2 (n=299) for confirmatory factor analysis (CFA).

Results:

Among adolescent survivors of disaster, both of groups have the same characteristics in terms of age, gender, grade, school, residency, religion, with whom they live, and parents' profiles (p>0.05). EFA yielded a new 4-factor model (Group 1, n= 300) that explain 52.17% variances and excluding item number 4 which was different with the original 5-factor model. We then conducted the CFA for both of the original 5-factor and 4-factor model using Group 2 (n=299). The present 4-factor model confirmed the best model among the other models examined [x^2/df= 2.571, the root-mean-square error approximation (RMSEA)= 0.073, the goodness of fit index (GFI)= 0.848, the comparative fit index (CFI)= 0.830, and the Tuker-Lewis index (TLI)= 0.808] and demonstrated good internal consistency (Chronbach α overall scale=0.903, factor 1= 0.804, factor 2= 0.712, factor 3= 0.713, and factor 4= 0.655).

Conclusion:

The findings support validation data for the Indonesian version of 25-item CD-RISC which was approved with 24 items and 4 factors, as well as evidence on the resilience construct for the use of the scale among adolescent survivors of disaster in Indonesia.

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Keywords:

Connor-Davidson Resilience Scale, adolescent and disaster survivor

References:

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Abstract Summary:

The present study is about psychometric testing of Indonesian version of 25-item Connor-Davidson Resilience Scale (CD-RISC) in adolescent survivors of a volcanic eruption in Yogyakarta, Indonesia. Pediatricians, mental health professional, and methodologist need to know about the importance of resilience measurement testing to find an appropriate assessment.

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