Reliability and Validity of the Essential Resilience Scale (ERS): An Instrument for Survey Research

Yan Wang, Ph.D. & Xinguang, Chen, M.D., Ph.D.

Background: Resilience research emerges as one of the priority areas in positive psychology. Various instruments are reported to measure resilience despite substantial differences in conceptualization of constructs.

Methods: Using the concept mapping approach and through team effort, we developed the Essential Resilience Scale (ERS, 15 items) with a conceptual framework consisting of three components (anticipation, flexibility and bounce-back) and three subscales (physical, emotional and social, 5 items per subscale). We tested the ERS with an adult sample (18-45 years old) in Mainland China consisting of rural-to-urban migrants (n=76), and non-migrant rural (n=85) and urban (n=77) residents.

Results: The Cronbach's alpha coefficients were 0.94 for the ERS, and 0.89, 0.88, 0.83 for the physical, emotional and social resilience respectively. Results from EFA indicated that one factor model explained 83% of the total variance; and results from CFA indicated that the data fit a two-level and three-factor model well (GFI = 0.94, CFI = 0.97, RMSEA = 0.06, chi-square/df = 132/68=1.93). The scale score, including the total and the three subscales differed by residential status, education and perceived health; they also significantly predicted social support, anxiety, stress and depression.

Conclusion: Psychometric evaluation demonstrated that the ERS, although short and brief, has adequate reliability and validity, it provides a new tool for survey studies to advance resilience research for health promotion. Further research is needed to evaluate its utility in different culture settings and for different age groups.