Adaptation and validation of the Resilience Scale on Sinhala speaking adolescents attending school in the Kandy District

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Introduction

Adolescents are identified as those between the ages of 10 to 19 years (UNICEF, 2004). Adolescence is a developmentally stressful period leading to many being vulnerable to mental and physical problems, including psychopathology. Resilience, the antithesis of vulnerability, is the ability to bounce back; and resilient individuals are those who thrive despite adversity, and have positive mental health. Resilience is defined as "a personality characteristic that moderates the negative effects of stress and promotes adaptation" (Wagnild and Young, 1993).

In Sri Lanka 18.9% of adolescents, 13 to 18 years experienced clinically significant behavioral and emotional difficulties out of which the effects on education (15.5%) and peer relationships (12.45%) were most severe (Perera, 2004). Another study identified that stress affected the academic performance of 15% of boys and 11.6% of girls (UNICEF, 2004).

This study seeks to fill the void of a translated and validated psychometric instrument in Sinhala to measure resilience in 14 to 18 year old Sri Lankan adolescents. This age group is documented to be especially vulnerable due to facing the two all Island General Certificate Examinations within 2-3 years. The study also hopes to understand any culturally specific resilience factors. Results can be useful in delivering target-based intervention and implementing programs for vulnerable youth.

The primary objective was to validate the Resilience Scale (RS) (Wagnild and Young, 1993) on the chosen sample by translating it, pre-testing it, and evaluating its reliability and validity.

Research Design and Methodology

In a cross sectional, correlational factor analytic study conducted among four mixed and single sex government secondary schools in the Kandy district, a simple random sample of students (*N=150; Girls=73, Boys=77*) self-completed the Sinhala translations of the Resilience Scale and the Strengths and Difficulties Questionnaire (Goodman, 1997) supervised by the principal researcher. The versatility of the Resilience Scale (Wagnild and Young, 1993), its robust psychometric properties, simplicity in administration, scoring, and interpretation, rendered it favorable for this study.

The scale was translated according to systematic scale validation criteria (Grammatikopoulos *et al,* 2010). The Delphi process was adapted according to Jones and Hunter, (1995). Content and consensual validity were independently rated and all items received acceptable ratings (≤ 7). The pre-test on N = 18 students (*n = 6* declared; *n = 12* undeclared) indicated the scale was culturally and linguistically coherent therefore no amendments were made.

Test-retest reliability and internal consistency were estimated by Cronbach's alpha and Pearson's *r* respectively. Concurrent validity was computed by *Pearson's r.* Construct validity was

assessed through Exploratory Factor Analysis using varimax rotation to assess if the intended original factors were present in the translated scale.

Data collection was conducted according to accepted guidelines and data were cleaned and checked for inconsistencies. Quantitative analysis was conducted using PASW version 18. Oversampling to reduce participation bias, repeating the study on n=30 two weeks following initial administration and using a single data collector ensured quality of data. The University of Colombo granted ethical clearance, educational authorities approved the study and the principal researcher ensured participant confidentiality and anonymity.

Results

Results showed strong content and consensual validity, high test-retest reliability (0.92; *n=30*), and internal consistency (Cronbach's α = 0.89, N= 150), and a weak negative correlation of α = -0.01 on concurrence with the Strengths and Difficulties Questionnaire. Principal component analysis on 23 of 25 items with varimax rotation showed six components, 'autonomy and ego strength', 'self-reliance *a'*, 'perseverance', 'acceptance', 'self-reliance *b'*, and 'equanimity' as related to resilience and similar to those of the initial study. The results differed on the factor 'existential aloneness', likely due to cultural connotations. Moderately resilient students (*n=78*) exceeded those high (*n=39*) and low (*n=33*), and boys appeared more resilient as per current resilience research trends.

Conclusions and Policy Implications

The aim of the present study was achieved by the results of the validity and reliability tests, which indicate the usefulness of the Resilience Scale (Sinhala version) on an adolescent school going population. The weak negative correlation of Strengths and Difficulties Questionnaire and the Resilience Scale (Sinhala version) does not imply incongruence between the two scales, but is assumed to instead reflect the waning of student motivation, the structure of the test packet, and the lack of a larger sample, which would have enhanced the correlation between the scales. The modified 23 item Resilience Scale (Sinhala version) is likely due to cultural idiosyncrasies. In conclusion, the results reflect established findings of the versatility of the Resilience Scale on the adolescent population (Ahern *et al,* 2006), with special emphasis on Sri Lankan secondary school 14 to 18 year old adolescents.

Results from this research study point towards the urgent need for structurally geared awareness programs for parents, caregivers and teachers on the importance of resilience and the necessity for mental health consciousness in these changing times. The Resilience Scale (Sinhala version) can be utilized to assess resilience in clinical and non-clinical populations across many domains, to assess culture specific resilience needs that will lead to policies and programs aimed at improving adolescent quality of life. Furthermore by reducing risk and enhancing resilience in the lives of people, protective factors necessary for optimum mental wellbeing can be cultivated.

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