TEST-RETEST RELIABILITY OF THE DISPOSITIONAL RESILIENCE SCALE-15, A BRIEF HARDINESS SCALE

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Summary.—Test-retest correlations provide the most appropriate estimate of reliability when short scales are used to measure complex constructs. A brief, 15-item hardiness scale was developed from a longer version known as the Dispositional Resilience Scale (DRS), which first appeared in 1989. This short hardiness scale (DRS–15) has the advantages of brevity, good internal consistency, and validity (Barone, 1995, 1999); however, test-retest reliability has not yet been estimated. The present study addresses this issue, using a sample of 104 military academy cadets. The 3-wk. test-retest reliability coefficient was .78.

Hardiness is a personality style associated with resilience, good health, and performance under stressful conditions (Maddi & Kobasa, 1984; Bartone, 1999; Ramanaiah, Sharp, & Byravan, 1999). A short, 15-item hardiness measure (DRS–15) was derived from a longer (30-item) version and has shown good internal consistency ($\alpha = .82$) and criterion-related validity across multiple samples (Bartone, 1995, 1999). The 30-item version is a short form of the original 45-items (Bartone, Ursano, Wright, & Ingraham, 1989; Bartone, 1991). Efforts to create a short hardiness scale were spurred by the need for a scale that could be completed quickly and easily by respondents, while eliminating any items only weakly associated with the core construct. Scores on the DRS–15 version correlate .84 with the 30-item version ($N = 1193$ Army males, unpublished data). The present study estimated the test-retest reliability of this 15-item hardiness scale.

The DRS–15 was completed by 104 undergraduate freshmen at the U.S. Military Academy, West Point as part of a larger study. The sample was 86.5% male, and 13.5% female, with a mean age of 18.9 yr. Three weeks later, the same group completed the version again. Pearson correlation coefficients were computed for total hardiness scores and for the hardiness subscales of Commitment, Control, and Challenge, over the 3-wk. interval.

The 3-wk. test-retest reliability coefficient for the DRS–15 was .78. Corresponding test-retest coefficients for the three hardiness subscales, with five items each, were Commitment = .75, Control = .58, and Challenge = .81. These coefficients indicate acceptably high reliability for both the scale and

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subscales, although some caution may be warranted with respect to the Control scale.

Cronbach coefficient alpha is by far the most commonly used index of reliability for self-report scales. But Cronbach alpha reflects the internal consistency of scale items and can underestimate reliability when a complex construct is measured with relatively few items. In such cases, test-retest reliability is the preferred approach (Anastasi & Urbina, 1997). The 3-wk. test-retest coefficient of .78 reported here indicates high reliability for the DRS-15 short hardness scale.

REFERENCES

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