

CORRELATIONS FOR ADOLESCENT RESILIENCE SCALE WITH BIG FIVE PERSONALITY TRAITS¹

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Summary.—Currently, individuals tend to encounter many unavoidable, painful events and hardships in the process of growth and development. To lead one's life adapting to these social conditions, it is necessary to maintain one's mental health even while experiencing challenging events; in other words, resilience is required. This study of 130 undergraduates focused on the Adolescent Resilience Scale which assesses capacity for successful adaptation despite challenging or threatening circumstances and examined correlations with scores on the Big Five Personality Inventory. A significant negative correlation of $-.59$ ($p < .001$) was noted for scores on the Adolescent Resilience Scale and the Neuroticism dimension of the Big Five Personality Inventory, accounting for 35% of the variance, and positive values with the Extraversion, Openness, and Conscientiousness dimensions ($r_s = .37, .40, .48$, accounting for 14, 16, and 18% of the variance, respectively). Personalities of adolescents who have psychological traits leading to resilience may be partially predicted using these results.

In modern society, everybody is liable to experience severe events and accidents, natural disasters, etc. Moreover, many such events are unavoidable and difficult to deal with for anyone. It is important that individuals overcome such negative events without falling into a prolonged slump or depressive mood or similar psychologically unhealthy conditions. Resilience plays an important role in understanding the psychological adjustment process of individuals. Resilience is defined as the process or outcome of successful adaptation despite challenging or threatening circumstances (3). Studies related to resilience are attracting increasing attention.

Many factors may be involved in developing resilience, but individuals' personality traits are particularly important. Examining psychological characteristics commonly possessed by those who show adaptive recovery from adverse conditions may offer information pertinent to improvement of adolescents' psychological health.

A comprehensive study of resilience among adolescents led to construction of the Adolescent Resilience Scale (5) to measure mental recuperative power. The scale has 21 items in three subscales: Novelty Seeking, Emotional Regulation, and Future Positive Orientation. Novelty Seeking refers to ability to show interest in and concern about a wide variety of events. Emotional Regulation is a trait of individuals who exhibit composure and control

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their internal emotions. And, Positive Future Orientation concerns approach to outlook, dreams, and goals in the future. The Adolescent Resilience Scale is a unique test of possible protective factors in individuals, not a test of resilience as an outcome.

Oshio, *et al.* (5) examined the relationship of the Adolescent Resilience Scale with adolescents' negative experiences and their self-esteem. Adolescents with high scale scores tended to maintain high rated self-esteem even when experiencing painful negative events. Additional evidence (4) showed that a group of highly resilient adolescents with strong mental health tended to have higher Adolescent Resilience Scale scores despite occurrence of negative events.

This study examines the relationship between the Adolescent Resilience Scale scores and the Big Five Personality Traits widely used in studies on personality. Research has established association between resilience and personality traits of individuals (e.g., 2, 6). However, these studies have classified individuals as belonging to either one of the representative personality categories of Resilients, Overcontrollers, and Undercontrollers, based on cluster analysis of scores on the Big Five Personality Inventory. In other words, few studies have examined the association of psychological traits that lead to resilience and scores on personality traits.

It was expected that scores on the Adolescent Resilience Scale would be correlated with Neuroticism scores from the Big Five Personality Inventory and positively correlated with Conscientiousness scores. The former reflects instability of emotions and low adaptation, characteristics typical of people with low mental recuperative powers. The Conscientiousness dimension, however, indicates strong convictions and self-control and is considered to be positively related to mental recuperative power. Among the subscales of the Adolescent Resilience Scale, Novelty Seeking was expected to correlate positively with the Extraversion and Openness scores. The Emotional Regulation subscale was expected to correlate negatively with Neuroticism and positively with Conscientiousness scores. Moreover, the Positive Future Orientation might be positively related to scores on Extraversion and Conscientiousness. Big Five Personality scores were assessed on the Revised NEO Personality Inventory, constructed to measure five-factor personality traits.

METHOD

The participants were 130 undergraduate students (60 men and 70 women) in Toyota city, Japan. The population of the city is about 400,000 and the population densities are 450 people per square K. Their average age was 20.8 yr.

Costa and McCrae constructed the Revised NEO Personality Inventory (1) to measure Big Five personality traits. In this study, the Japanese version,

which was translated into Japanese (7), was given. There are five dimensions, Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness, each of which has six subscales of eight items each for a total of 240 items. The internal consistency of the inventory was estimated by Cronbach alpha coefficients: $\alpha = .85$ for Neuroticism, $\alpha = .83$ for Extraversion, $\alpha = .60$ for Openness, $\alpha = .68$ for Agreeableness, and $\alpha = .83$ for Conscientiousness. Three coefficients were suitable; two estimates showed weak internal consistency.

The Adolescent Resilience Scale (5) has 21 items in three subscales of Novelty Seeking, Emotional Regulation, and Positive Future Orientation. Respondents rated items using anchors of 5: Definitely yes and 1: Definitely no. Cronbach coefficients alpha were .75 for the Novelty Seeking, .73 for the Emotional Regulation, and .80 for the Positive Future Orientation. The overall consistency was .80, confirming the internal consistency of the whole scale.

RESULTS AND DISCUSSION

Correlations between Subscale scores of the Adolescent Resilience Scale and the dimensions of the Big Five personality traits were examined (see Table 1). For Neuroticism from the Big Five Inventory, significant negative correlations with the overall resilience scale as well as with subscales were observed ($r_s = -.59, -.27, -.60,$ and $-.33$) so adolescents with high Resilience Scale scores tend not to show neurotic tendencies such as anxiety and depression. Then, for the Conscientious dimension, moderately positive correlations were seen with the overall Adolescent Resilience Scale as well as with the Emotional Regulation and Positive Future Orientation subscales ($r_s = .48, .47,$ and $.37$, respectively). The Conscientiousness dimension is comprised of a group of subscales suggesting self-control and goal-oriented personality traits so positive correlations are not surprising with the Emotional Regulation subscale, which reflects control of emotions, and the Positive Future Orientation subscale, which reflects orientation toward the future.

TABLE 1
PEARSON CORRELATIONS FOR ADOLESCENT RESILIENCE SCALE
WITH BIG FIVE PERSONALITY TRAITS ($N = 130$)

Trait	All	Novelty Seeking	Emotional Regulation	Positive Future Orientation	M	SD
Neuroticism	-.59‡	-.27†	-.60‡	-.33‡	111.0	25.7
Extraversion	.37‡	.48‡	.03	.39‡	100.7	23.3
Openness	.40‡	.47‡	.13	.33‡	116.4	16.3
Agreeableness	.17	-.03	.22*	.14	108.4	16.9
Conscientiousness	.48‡	.15	.47‡	.37‡	95.3	22.1

* $p < .05$. † $p < .01$. ‡ $p < .001$.

For the Big Five Extraversion, significant positive correlations were seen with the scores for the overall Adolescent Resilience Scale as well as Novelty Seeking and Positive Future Orientation scores ($r_s = .37, .48, \text{ and } .39$, respectively). For the Big Five Openness dimension, significant positive correlations were seen with the overall score on the Adolescent Resilience Scale as well as with scores on Novelty Seeking and Positive Future Orientation. Both the Big Five Extraversion and Openness personality dimensions are considered measures of self-expression and interest in the future and the outside world. It seems reasonable that these dimensions correlate positively with the Novelty Seeking and Positive Future Orientation subscales of the Adolescent Resilience Scale. The Big Five Agreeableness was positively correlated with scores on the Emotional Regulation subscale as Agreeableness is based on indications of obedience. Also, a positive relationship is reasonable as the relations with other subscales are weak. In general, results supported the hypotheses. The Adolescent Resilience Scale which measures the protective factors for resilience in individuals shows construct validity.

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