



Psychological Resilience as a Predictor for Perceived Stress During the COVID-19 Pandemic

Jaceson Baker, Kathryn E.R. Kennedy, Sarah Cloonan, William D.S. Killgore

Social, Cognitive, & Affective Neuroscience Laboratory, Department of Psychiatry, University of Arizona College of Medicine, Tucson, AZ



Problem

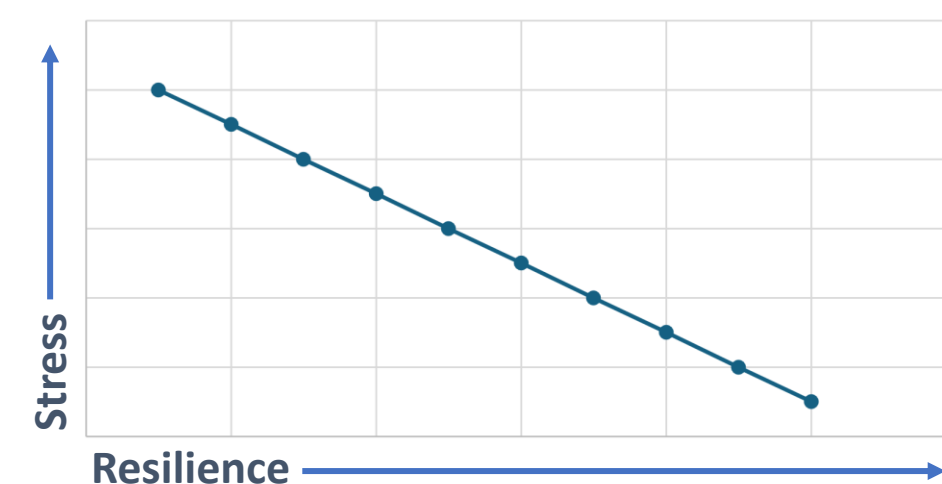
Soldiers are often placed in very stressful high-stake situations. Depending on the level of **perceived stress**, this can lead to a decline in performance.



Psychological **resilience** can be defined as the capacity to recover from, endure, and even thrive in the face of adversity. Due to these 'protective' factors, we decided to investigate if an individual's level of **resilience** was associated with their level of **perceived stress**.

If individual **resilience** levels have a negative correlation with **perceived stress**, then this could support the use of cognitive and behavioral interventions to support **resilience training**.

Coping with stress would prevent the decline of performance in high-stakes situations.



Methods & Equipment

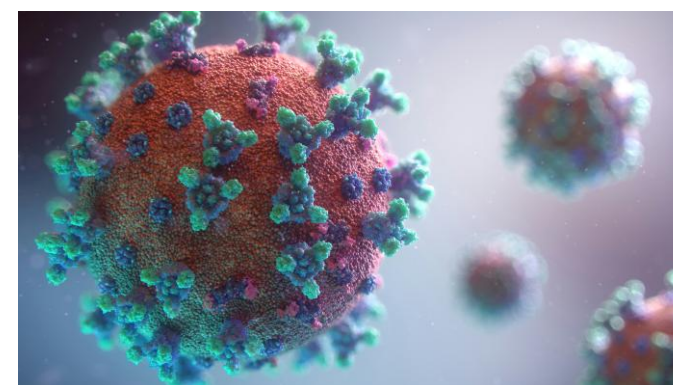
Participants

Nationwide Survey

N = 12,087 participants

Study Protocol

- Digital surveys were completed by those between the ages of 18-91 throughout the United States during the COVID-19 pandemic between April 2020 and April 2021, and again in October 2021. Participants provided demographic information and completed various validated psychological surveys.
- Resilience levels were measured via the **Connor Davidson Resilience Scale (CDRISC)**, a 25-item scale that prompts responses in different domains of stress, on a 5-point Likert scale.
- Perceived stress levels were measured via the **Perceived Stress Scale (PSS)**, a 10-point instrument that asks participants about different aspects of perceived stress on a 5-point Likert scale.
- Multivariate regression models were used with **CDRISC** as the primary predictor and **PSS** score as the outcome, with covariates including age, sex, race/ethnicity, education, and income.

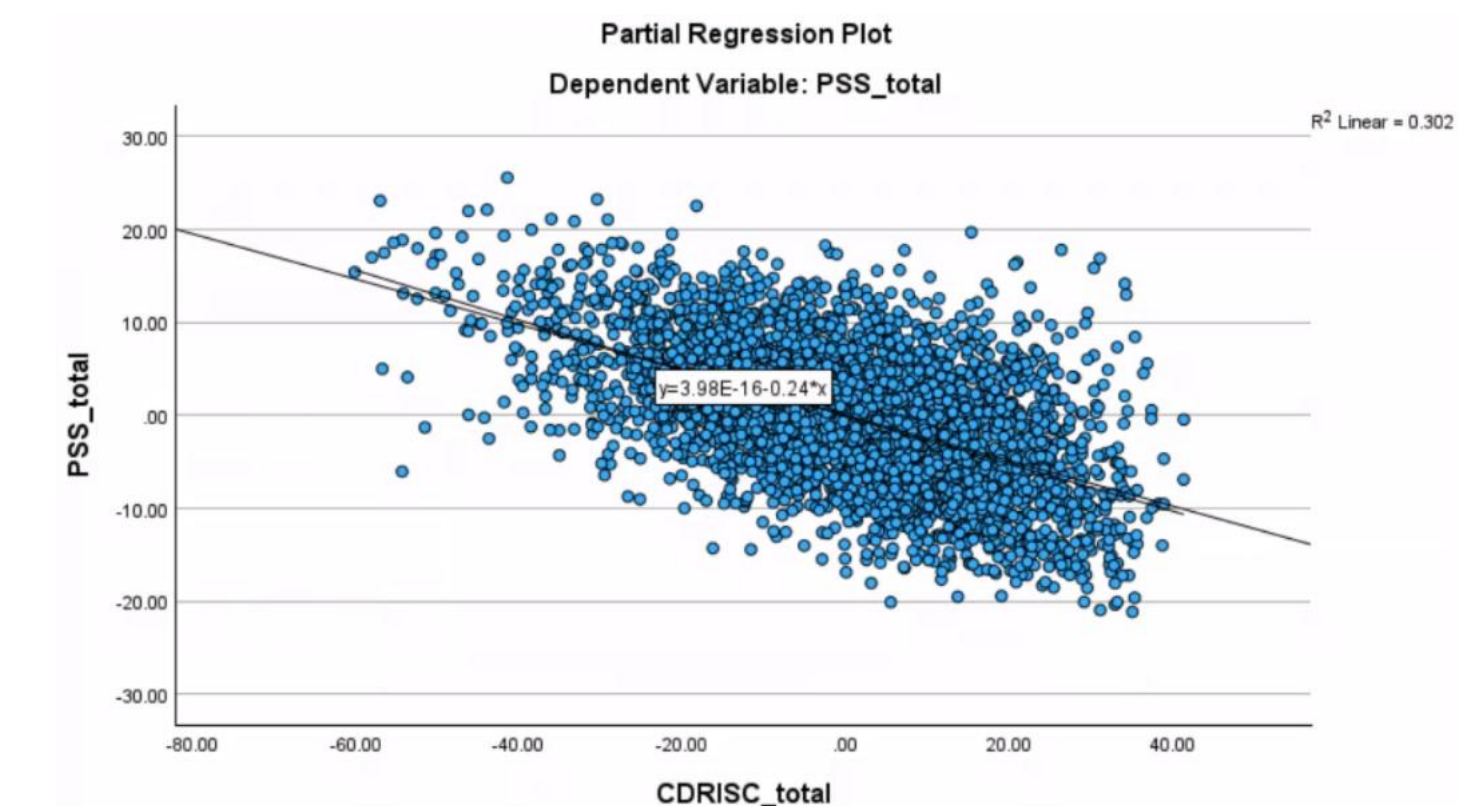


Results

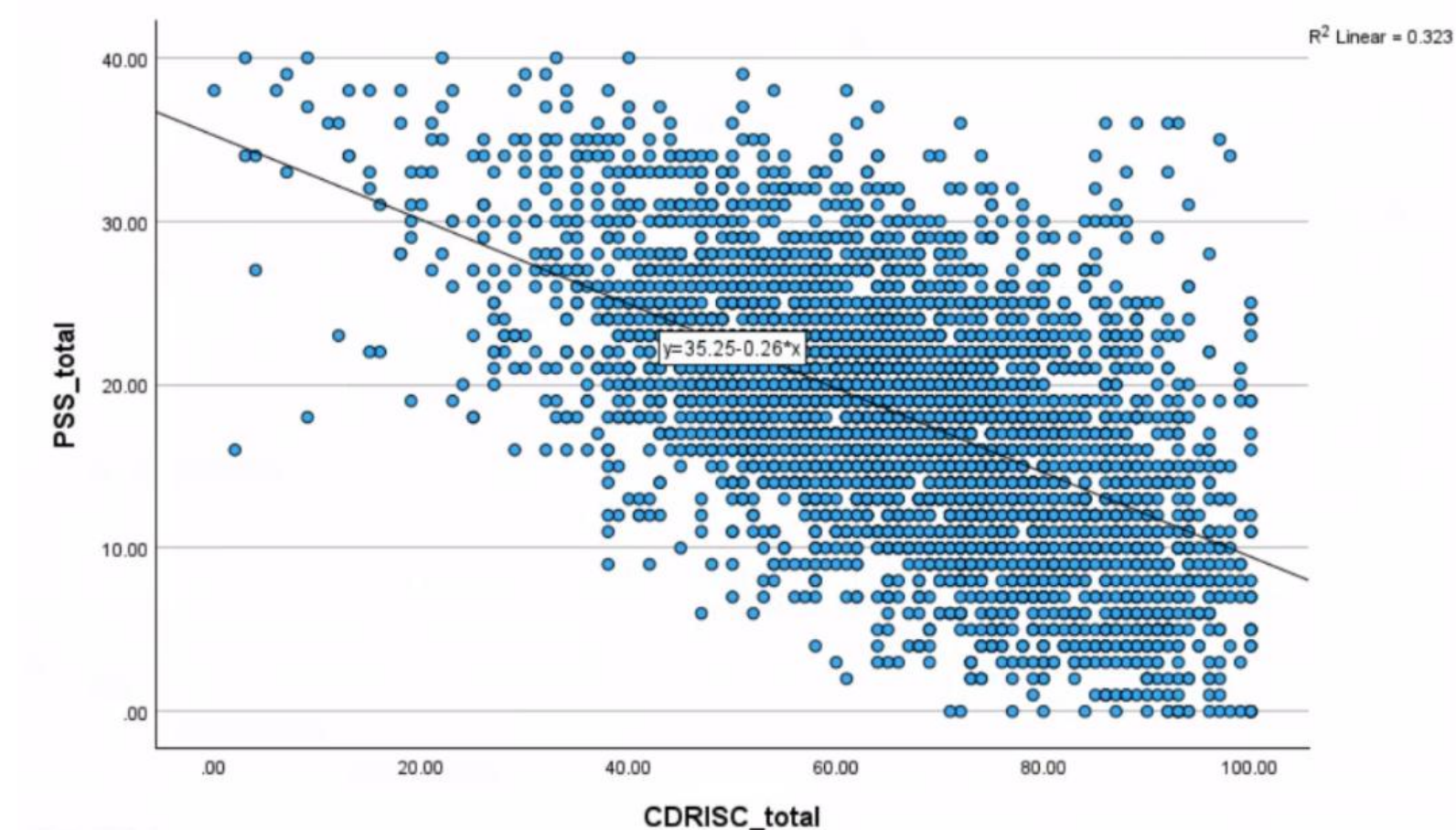
Demographic	Item	N	N%
Sex	Male	5120	42.4
	Female	6967	57.6
Education	Less than 9th Grade	18	0.1
	Some High School	60	0.5
	HS Graduate or Equivalent	1043	8.6
	Some College	2513	20.8
	Technical/Vocational Degree	375	3.1
	Associate's Degree	108	0.9
	Bachelor's Degree	1472	12.2
	Master's Degree	4675	38.7
	Doctorate	1823	15.1
Annual Income	<\$10,000	674	5.6
	\$10,001-\$25,000	1330	11
	\$25,001-\$50,000	3185	26.4
	\$50,001-\$75,000	2679	22.2
	\$75,001-\$100,000	1887	15.6
	\$100,001-\$150,000	1524	12.6
	\$150,001-\$200,000	499	4.1
	>\$200,000	309	2.6
Ethnicity	White	9572	79.2
	Hispanic/Latino	368	3
	Black/African America	1262	9.3
	Native American/American Indian/Native Alaskan	116	0.9
	Asian: Chinese	169	1.4
	Asian: Other Non-Chinese	566	4.2
	Native Hawaiian/Pacific Islander	34	0.3

1) Resilience Showed a Negative Correlation with Perceived Stress

In the fully adjusted model, there was a significant negative association ($p < 0.001$) between **CDRISC** and **PSS** scores.



2) Covariates Measured did not have significant predicting power



Several different covariates were also measured; age, sex, ethnicity, education and income. These did not significantly predict perceived stress score, together accounting for only an additional 2% of the variance.

Conclusions

- Amidst significant disruption to daily life, such as that experienced during the COVID-19 pandemic, increased resilience was a strong predictor of lower perceived stress
- Adjusting for demographics covariates did not significantly improve stress prediction
- These findings support the use of the **CDRISC** scale in predicting perceived stress among Service members
- Future research should explore the applicability of these instruments under other scenarios experienced by military Service members, as well as whether perceived stress can be improved via interventions that cultivate resilience skills

