

College Students' Perception of Control Relates to Depressive Symptoms During the COVID-19 Pandemic

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KEY CONSTRUCTS

Locus of Control

- Locus of control is a personality construct that describes an individual's perception of how much control they have over conditions in their life.
- External locus of control indicates attribution of life outcomes to environmental factors.
- Internal locus of control indicates attribution of life outcomes to one's own personal factors.

Depression & Stress

- Experiencing stressors is shown to produce an increase in depressive symptoms.
- The frequent occurrence of stressors during large-scale stressful life events, such as natural disasters or global health pandemics, is linked to adverse mental health outcomes.

INTRODUCTION

- Recent research has demonstrated that the COVID-19 pandemic produced adverse psychological outcomes among the general population including elevated psychological distress, impairments to sleep quality, greater health anxiety, financial worry, and loneliness.
- College students are especially vulnerable to adverse outcomes due to their increased risk for experiencing depression. The average prevalence of depression among college students is 30.6% (Ibrahim et al., 2013), compared to 9% (Edwards et al., 2010) for the general population in the United States.
- Research has not studied whether locus of control orientation may serve as either a risk or protective factor for depressive symptoms in college students during the COVID-19 pandemic.

METHODS

Participants & Procedures

- Participants were 341 undergraduate students at the University of Cincinnati who were recruited through an online research participation system.
- Inclusion criteria included being currently enrolled at the university, being 18-24 years old, and having lived in the United States for the duration of 2020.
- Participants completed a one-time online survey via REDCap in the Fall 2020 semester and were compensated with research credits that are required by some college courses.

Measures

- **Demographics:** A survey assessed participant demographic information (e.g., age, race, ethnicity, gender identity), if participants experienced stressors of changes to employment status, living situation, and educational experience during the pandemic, and perceptions of the pandemic's impact on overall mental health from 0 "very negative" to 5 "very positive".
- **Depression:** The *Center for Epidemiological Studies – Depression Scale (CES-D; Radloff, 1977)* assessed current depressive symptoms during pandemic via self-report. Symptom cut-offs used were minimal (scores 0-15), mild (scores 16-23) and moderate/severe (scores >24).
- **Locus of Control:** The *Levenson Multidimensional Locus of Control Scales (Levenson, 1973)* assessed participant locus of control orientation. Scores were computed for internal and external dimensions.

Data Analysis

- Pearson correlations were used to examine the relation between CES-D scores and locus of control orientation.

RESULTS

Participant Demographics

- Participants were aged 18-24 and were mostly female ($N = 224, 65.7\%$), White ($N = 243, 71.3\%$), and Non-Hispanic ($N = 326, 95.6\%$).
- Stressors assessed included changes in living situation ($N = 128, 37.5\%$), employment status ($N = 140, 41.1\%$), and educational experience ($N = 327, 95.9\%$) during the pandemic.

Overall Mental Health

- Most participants reported that they felt the pandemic negatively impacted their overall mental health ($N = 284, 83.3\%$).
- Average depressive symptom severity among participants during the pandemic was moderate to severe ($N = 174, 51\%$, $M = 24.81, SD = 8.62$).

Depressive Symptoms & Locus of Control

- The internal locus of control orientation was negatively correlated with depressive symptoms ($r = -0.16, p < 0.01$).
- The external locus of control orientation was positively correlated with depressive symptoms ($r = 0.28, p < 0.01$).

DEPRESSIVE SYMPTOM SEVERITY DURING THE COVID-19 PANDEMIC

MINIMAL (CES-D score 0-15)	MILD (CES-D score 16-23)	MODERATE/SEVERE (CES-D score >24)
42 (12.3%)	125 (36.7%)	174 (51%)

CONCLUSIONS

- Most college students experienced high amounts of depressive symptoms during the COVID-19 pandemic, which presents pressing concern to target mental health in this population.
- Internal locus of control was related to decreased depressive symptoms during the COVID-19 pandemic. This may serve as a protective factor as a result of perceived control over pandemic-related stressors and adaptive coping strategies among individuals higher in this orientation.
- External locus of control was related to increased depressive symptoms during the COVID-19 pandemic. This may serve as a risk factor as a result of perceived lack of control over pandemic-related stressors and maladaptive coping strategies among individuals higher in this orientation.
- An increased presence of mental health resources is needed on college campuses to account for the adverse impacts of the COVID-19 pandemic.
- Given that most students had moderate to severe symptoms, universal mental health screenings may be beneficial to identify students in need of psychological intervention.
- Clinical intervention should target locus of control by discouraging externally oriented responses to stressors, promoting an increased sense of personal control, and teaching adaptive coping strategies in response to stressors.