



Exploring psychological Inflexibility, perceived discrimination, and psychosocial outcomes among college students

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- According to a recent report from APA (2016), almost seven in 10 adults in the U.S. experience some form of discrimination.
- Discrimination: the experience of unfair treatment by individuals and social institutions based on personal characteristics such as, race, age, gender, sexual orientation, physical disability, religion, education/income, ancestry or national origins, or physical appearance (Williams & Mohammed, 2009).
- Perceived discrimination is known for its negative association with various negative physical and psychological outcomes (Kressin, Raymond, & Manze, 2008; Paradies, 2006; Pascoe & Smart Richman, 2009; Williams & Mohammed, 2009).
- Discrimination may be particularly detrimental among college students considering this is a well-known time of stress and increases in the incidence of psychopathology also occur (Schulenberg & Zarrett, 2006).
- Psychological inflexibility are known for its negative contribution in a broad range of psychological problems such as such as anxiety and OCD spectrum disorders, mood disorders, eating disorders, and substance use (Bluett, Homan, Morrison, Levin, & Twohig, 2014; Levin, MacLane, et al., 2014; Ruiz, 2010).
- In addition, several studies have already linked between psychological inflexibility and stigma, including stigma toward others(Levin, Luoma, Lillis, Hayes, & Vilardaga, 2014; Masuda & Latzman, 2011) and self-stigma (Lillis, Luoma, Levin, & Hayes, 2010; Luoma et al., 2013).
- A recent meta-analytic review concluded that effects of stigma can be reduced by targeting psychological flexibility (Krafft, Ferrell, Levin, & Twohig, 2018).
- However, further investigation is needed to examine underlying mechanisms that explain the link between perceived discrimination and psychosocial outcomes, because stigma and discrimination are distinct constructs.

The current study sought to examine whether psychological inflexibility accounts for the negative effects of perceived discrimination on psychological outcomes. Specifically, the present study hypothesized that:

- (1) Psychological inflexibility would serve as a mechanism linking perceived discrimination to Time 2 psychological outcomes
- (2) Psychological inflexibility would serve as a mechanism linking perceived discrimination to Time 2 Social functioning, including student role and social/leisure.

Participants and Procedures

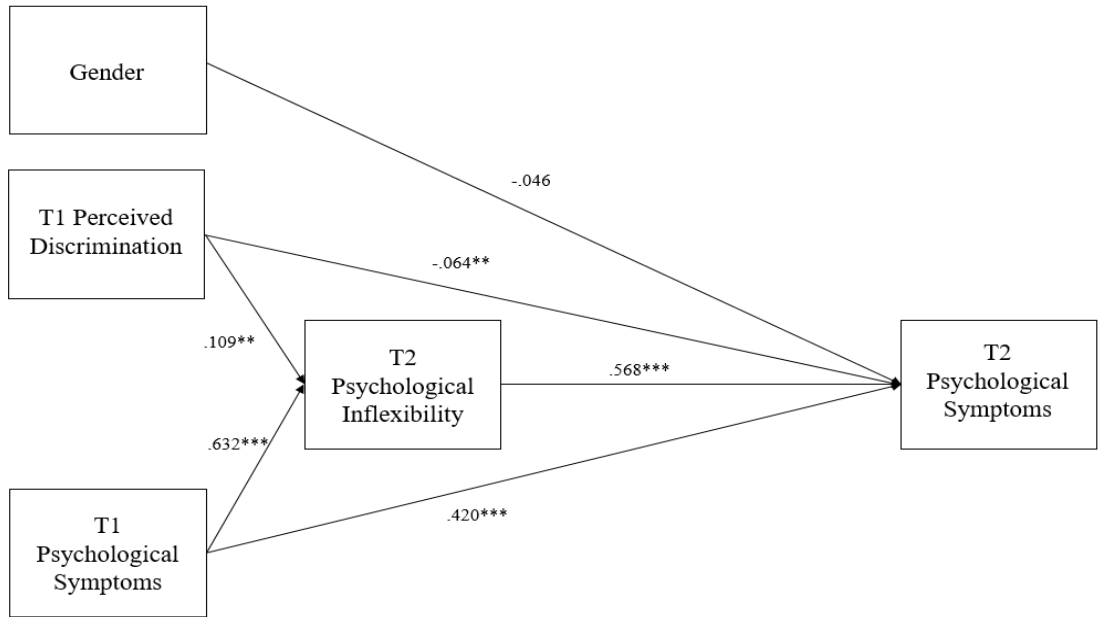
- Of the 400 participants, 354 completed measures of psychosocial outcomes at both survey time points and were included in the present analyses.
- The final sample was 31.1% male and 68.9% female with a mean age of 20.08 (SD= 3.48, Range = 18-45). The majority was White (89.5%), and the remaining participants were Latino/a (4%), Asian (2.5%), African American (1.1%), and others (2.8%). The sample was 95.4% heterosexual, 3.1% bisexual, 0.5% gay or lesbian, and 1.1% others. In terms of years, 62.7% were freshmen, 22.1% were sophomores, 10.5% were juniors, and 4.6% were senior or higher.

Measures: Acceptance and Action Questionnaire-II (AAQ-II), Counseling Center Assessment of Psychological Symptoms (CCAPS-34), Social Adjustment Scale-Self Report (SAS-SR), and Everyday Discrimination Scale (EDS).

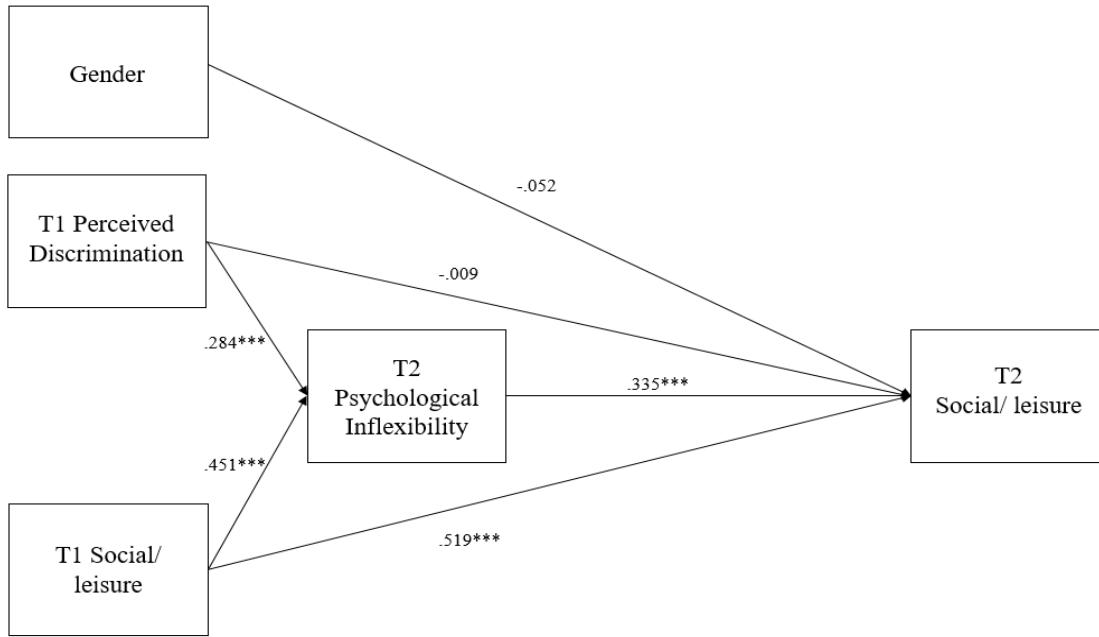
Data Analysis: Path analyses were used in Mplus to explore whether psychological flexibility mediated the link between perceived discrimination and psychosocial outcomes.

- The direct effect of Time 1(T1) discrimination on Time 2 (T2) psychological symptoms was estimated while controlling for gender.
- The indirect effect of discrimination on psychological symptoms via psychological flexibility was also estimated while controlling for gender.

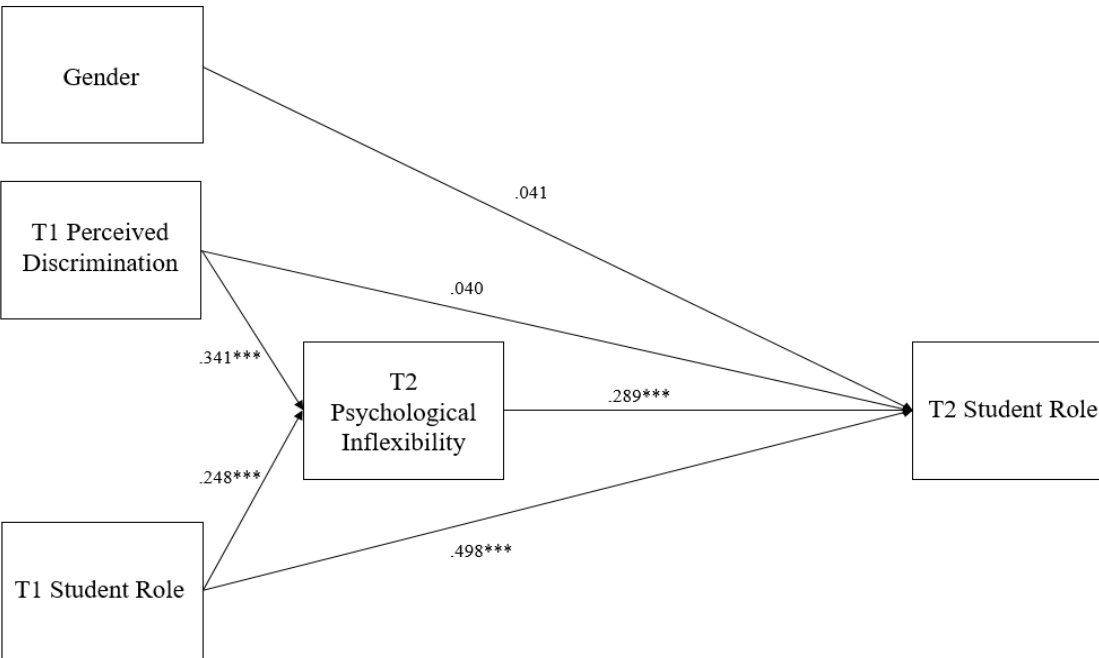
1. T1 perceived discrimination and psychological symptoms significantly predicted T2 psychological inflexibility, $\beta = .11$, $p < .05$ and $\beta = .63$, $p < .001$ respectively. T2 psychological inflexibility significantly predicted T2 psychological symptoms, $\beta = .57$, $p < .001$. While T1 psychological symptoms was positively associate with T2 psychological inflexibility, $\beta = .42$, $p < .001$, T1 perceived discrimination was negatively associated with T2 psychological inflexibility, $\beta = -.64$, $p < .05$.



2. T1 perceived discrimination and social/leisure significantly predicted T2 psychological inflexibility, $\beta = .28$, $p < .05$ and $\beta = .45$, $p < .001$ respectively. T2 psychological inflexibility significantly predicted T2 social/leisure, $\beta = .34$, $p < .001$. T1 social/leisure significantly predicted T2 social/leisure. $\beta = .52$. $p < .001$.



3. T1 perceived discrimination and student role significantly predicted T2 psychological inflexibility, $\beta = .34$, $p < .001$ and $\beta = .25$, $p < .001$ respectively. T2 psychological inflexibility significantly predicted T2 student role, $\beta = .29$, $p < .001$. T1 student role significantly predicted T2 student role, $\beta = .50$, $p < .001$.



| Indirect Paths | Std. Est. | Std. Est./SE | 95 % Confidence Interval | |
|--|-----------|--------------|--------------------------|-------------|
| | | | Lower bound | Upper bound |
| From T1 Perceived discrimination to T2 Psychological symptoms through T2 Psychological inflexibility | .06 | 2.51** | .01 | .11 |
| From T1 Perceived discrimination to T2 Social role through T2 Psychological inflexibility | .10 | 5.20*** | .06 | .13 |
| From T1 Perceived discrimination to T2 Student Role through T2 Psychological inflexibility | .10 | 4.12*** | .05 | .15 |

The findings from the current study suggest that psychological inflexibility is a significant predictor of psychological symptoms and social functioning over time in college students. Notably, this association was found after accounting for prior perceived discrimination, prior psychological symptoms, and prior social functioning.

Implications for Practices

Targeting psychological inflexibility as a transdiagnostic approach that is treating multiple disorders with a single intervention may be promising. In these circumstances, Acceptance and Commitment Therapy (ACT) may particularly be a potential option based on the plenty of existing studies about its efficacy. ACT has been already introduced as a transdiagnostic approach (Hayes, Pistorello, & Levin, 2012; Levin, MacLane, et al., 2014).

Limitation and Future Research

- 1) Generalizability issues: White predominant sample
 - future replications are needed with culturally diverse and clinical populations
 - 2) Insufficiency: two-time points within the four-week interval may not be sufficient
 - longer intervals would be better to understand how these variables change over time.
 - 3) Self-reported measures for psychological inflexibility, psychological symptoms, and social functioning.
- Additional research is needed to explore the potential benefits of targeting psychological inflexibility in clinical intervention that can reduce the negative effects of discrimination and promote better health and well-being.

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