

Examining relationships between acceptance and commitment therapy model techniques and anger in college students

Hannah M. Johnson, B.S.
Jennifer Krafft, M.S.
Woolee An, Ph.D.
Michael E. Levin, Ph.D.

Contextual Behavioral Science Lab
Utah State University, Logan, Utah

ABSTRACT

Preliminary research suggests that Acceptance and Commitment Therapy (ACT) may be a successful treatment for problematic anger (Berkout, et al., 2019). Past studies have shown that ACT may be able to reduce aggression (Donahue, et al., 2017) and domestic violence (Zarling, et al. 2017). However, research is needed to examine the relationship between anger and specific facets of psychological flexibility.

The present study examined correlations between anger and components of psychological flexibility in order to identify the processes most relevant to mindfulness and acceptance-based treatment of anger.

METHODS

Participants

- N=386, 66.93% female, 32.55% male, 0.26% non-binary, 0.26% other

- Mean age 20.33 (SD=4.39) years

- 3.39% Hispanic or Latino; 92.19% White, 0.78% Asian, 0.26% American Indian/Alaska Native, 1.3% Native Hawaiian/Pacific Islander, 1.3% Black, 0.52% other

- Inclusion criteria: Age 18+ and current college student

- Participants completed a series of self-report measures through a secure online platform in exchange for research participation credit

- Self-report measures were completed at baseline and an 8-week follow-up timepoint.

Measures

- Dimensions of Anger Reactions-5 Scale* (DAR-5; Forbes, et al., 2014)

- Cognitive Fusion Questionnaire* (CFQ-7; Gillanders et al., 2014)

- Awareness and acceptance: Philadelphia Mindfulness Scale* (Cardaciotto, Herbert, Forman, Moitra, & Farrow, 2008)

- Values progress: Valuing Questionnaire Progress subscale* (VQ-Progress; Smout, Davies, Burns, & Christie, 2014)

ANALYSIS

- Bivariate correlations were calculated for anger and components of psychological flexibility

- Correlation coefficients were compared using a z-test (Meng, et al., 1992).

- Longitudinal analyses were tested using linear regressions controlling for outcome at baseline.

- Multiple imputation by chained equations was used to account for missing data in longitudinal analyses.

RESULTS

- Correlation coefficients for this study were small. The correlation between anger and cognitive fusion ($r=-0.22, p<.001$) was larger than the correlation between anger and values progression ($r=-0.18, p<.01$) and both were larger than the correlation between anger and acceptance ($r=0.13, p<.05$). The correlation between anger and awareness were not significant ($r=-0.09, p=.103$).

- When comparing correlation coefficients, only the anger-awareness correlation and the anger-values progress correlation were significantly different ($z=-2.25, p<.05$)

- There was a nonsignificant trend for the anger-awareness correlation being larger/smaller than the anger-cognitive fusion correlation when comparing correlation coefficients ($z=-1.96, p=.0505$)

- The anger-awareness and anger-acceptance correlations were not significantly different when comparing correlation coefficients ($z=0.9054, p=0.3652$).

- There was a nonsignificant trend for cognitive fusion predicting anger at follow-up when controlling for baseline anger ($\beta=1.78, p=.08$) and acceptance approached significance as well ($\beta=-1.69, p=.09$).

DISCUSSION

These results show that specific facets of psychological flexibility including acceptance, cognitive fusion, and values progress are closely related to anger. These results support the utility of ACT as a treatment for problematic anger. In addition, techniques focusing on acceptance and cognitive fusion may be the most useful treatment.

Future research is needed to determine the effectiveness of ACT techniques on reducing problematic anger. Further research could examine ACT as an intervention for problematic anger and could also examine specific facets of psychological flexibility that change during treatment. In addition, ACT may be improved by focusing more on acceptance, cognitive fusion, and other aspects of psychological flexibility that have shown to be more effective.

There were a few limitations to this study. First, the sample is primarily made up of Caucasian students from one university. Greater demographic diversity could lead to more generalizable results.

Second, the data was gathered using self-report measures which are easily susceptible to social desirability bias. Future research could consider identify problematic anger behaviors using face-to-face evaluations.

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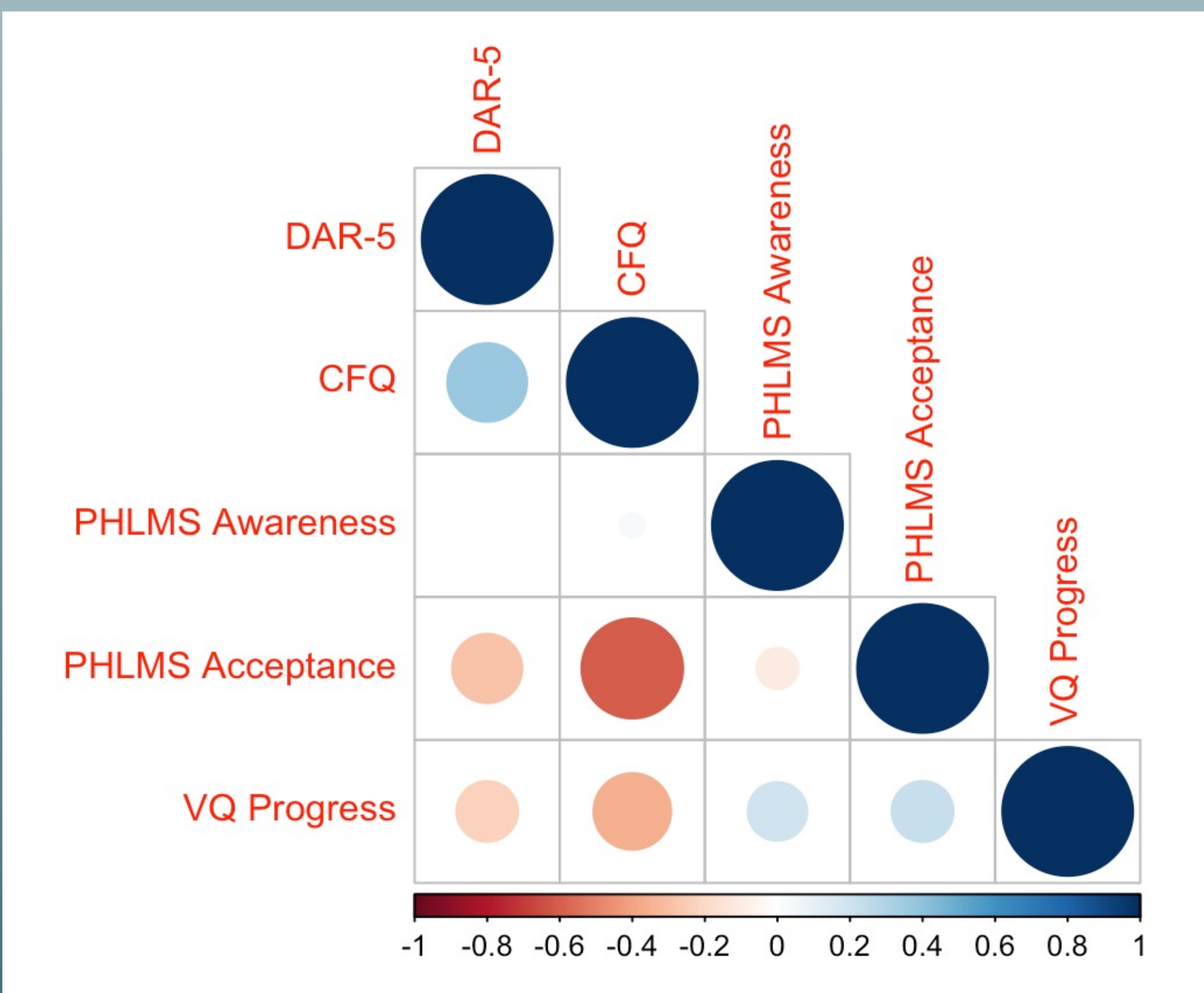


Figure 1: Zero-order correlations