Mediation analysis of the relation between math anxiety, worry, test anxiety, and cognitive control

ANALYSES AND RESULTS

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Mediation analysis

- Indirect effect of cognitive control on math anxiety through worry
  $b=-.32$, percentile bootstrap 95% CI [-.54 - .09]
- Indirect effect of cognitive control on math anxiety through test anxiety
  $b=-.52$, percentile bootstrap 95% CI [-.80 - -.31]

CONCLUSIONS

- Spanish-speaking young adults with higher self-reported cognitive control tend to significantly reduce math anxiety by decreasing worrying thoughts and test-related anxiety.
- The development of interventions aimed to reduce math anxiety should focus on how cognitive control is mediated by thoughts of worry and anxiety towards test taking.

METHODS

Participants
- 152 Spanish-speaking young adults (18-29 y.o., 108 females) of the San Juan, Puerto Rico metropolitan area were recruited.

Self-report measures: Spanish versions of
- Control subscale of the Cognitive Flexibility Inventory³ (CFI-C, $\alpha=.86$, 7 items)
- Penn State Worry Questionnaire² (PSWQ, $\alpha=.90$, 16 items)
- Westside Test Anxiety Scale³ (WTAS, $\alpha=.87$, 10 items)
- Shortened Mathematics Anxiety Rating Scale⁴ (SMARS; $\alpha=.95$, 25 items)

Procedure
- English-Spanish translation, back-translation, and panel of judges.
- Cultural adaptation of items’ language.
- Orientation to participants and assent/consent.
- Administration of scales and demographic data form.

References