

# Anxiety Sensitivity, Rumination, and Suicide Risk in Mexican-Heritage Individuals

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## BACKGROUND

Research has found that rumination (Rogers et al., 2021) and anxiety sensitivity (AS) (Stanley et al., 2018) are important factors in predicting suicidal behavior. For example, Capron et al. (2012, 2016) found that suicide behavior is associated with greater cognitive AS concerns combined with lower physical AS concerns, suggesting that individuals who fear losing cognitive control while not fearing physical anxiety reactions are at risk for suicide (reflecting the interpersonal theory of suicide). Limited research however has examined how rumination and AS work together to influence mental health. Given the trait-like nature of AS, we conjectured that individuals with greater AS would be more susceptible to problems with rumination and we thus expect that rumination serves as a mediator between AS and suicide behavior. Although researchers have found that rumination mediates the relationships between AS and Anxiety (Yang et al., 2023) and AS and depression (Brown et al., 2016), little to no research has examined whether rumination mediates the relationship between AS and suicide behavior and no research has examined the relationship between these variables in Latino/a individuals.

## PURPOSES AND HYPOTHESES

The main purpose of the present study was to examine how AS and rumination act in concert to predict suicide behavior. A secondary purpose was to examine whether Capron et al.'s findings generalize to a Mexican-Heritage cultural group.

In specific, we expected:

- Levels of cognitive AS, physical AS, rumination, depression, hopelessness, and suicide behaviors would be significantly associated with each other.
- The association between cognitive AS and rumination, depression, hopelessness, and suicide behavior would be stronger than those for physical AS.
- Rumination would significantly mediate the relationships between cognitive AS and suicide behavior, physical AS and suicide behavior, and the cognitive AS and physical AS interaction and suicide behavior.
- The interaction between cognitive AS and physical AS would significantly predict suicide behavior such that high cognitive AS and low physical AS would yield the greatest suicide behavior.

## METHODS

### Participants & Procedure

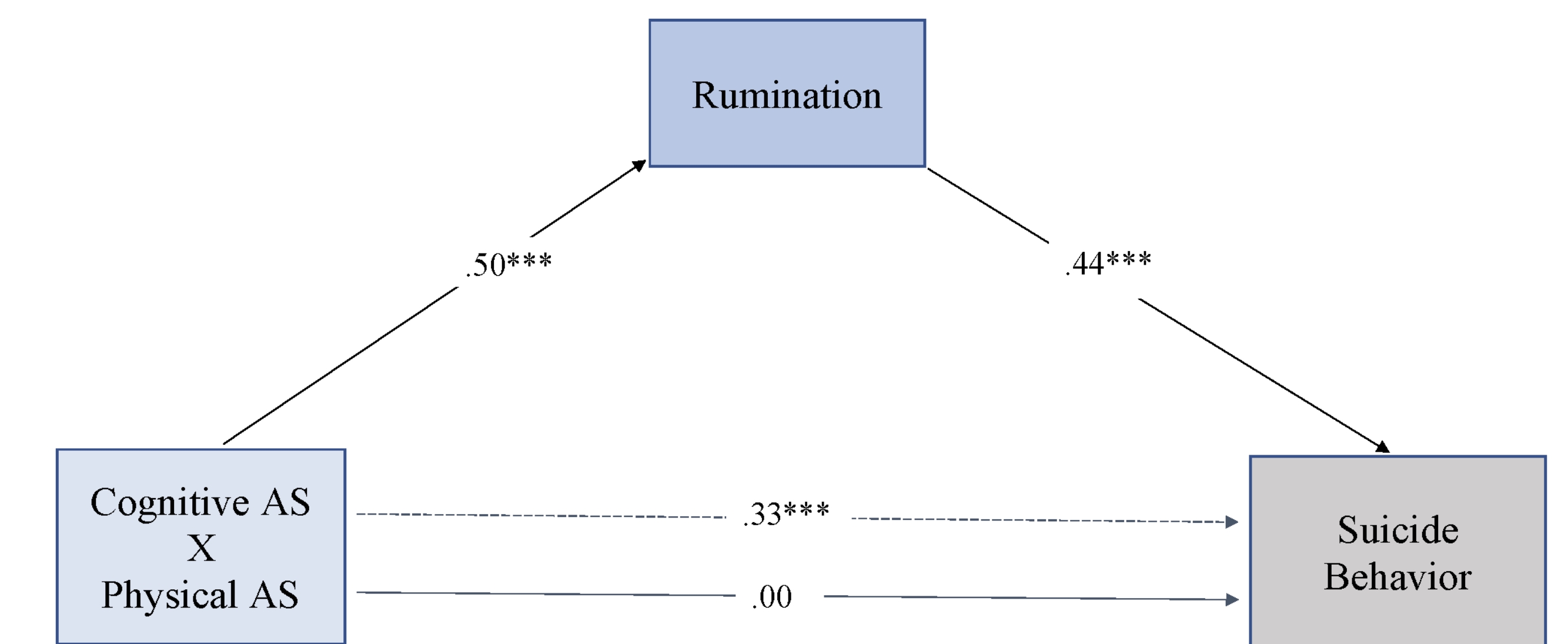
• 486 undergraduate students (69% females) of Mexican heritage from south Texas. *M* age = 20.5 (*SD* = 3.3). Data collected through Qualtrics. Students received course credit for their participation.

### Measures

- **Anxiety Sensitivity Index-Revised:** Assesses fear of anxiety-related sensations. Utilized 6-item cognitive anxiety sensitivity subscale and 19-item physical anxiety sensitivity subscale (Taylor & Cox, 1998).
- **Ruminative Response Scale:** 22-item measure of one's tendencies to focus on the meaning, potential causes, and consequences of one's negative mood, as opposed to its solutions (Nolen-Hoeksema & Morrow, 1991).
- **Beck Hopelessness Scale:** Assesses a person's negative attitudes about the future (Beck, 1988).
- **Beck Depression Inventory-II:** Measures depressive symptom severity (Beck et al., 1996).
- **Suicidal Behaviors Questionnaire-Revised:** History of suicide attempts, frequency of suicide ideation, communication of suicide intent, likelihood of future attempts (Osman et al., 2001).

## RESULTS CONTINUED

### Rumination as a Mediator between Cognitive Anxiety Sensitivity and Physical Anxiety Sensitivity Interaction and Suicide Behavior



Notes: Above values are standardized beta coefficients. \*\*\**p* < .0001. The interaction between cognitive anxiety sensitivity and physical anxiety sensitivity had a significant indirect effect on suicide behavior through rumination (standardized coefficient = .22, 99% *CI* = .10, .39). The dotted arrow represents the direct effect of the cognitive anxiety sensitivity and physical anxiety sensitivity interaction on suicide behavior prior to bootstrapping. A plot of the interaction showed that individuals with low physical anxiety sensitivity and high cognitive anxiety sensitivity reported greater suicide behavior compared to individuals with high physical anxiety sensitivity and high cognitive anxiety sensitivity.

## RESULTS

### Correlations, Means and Standard Deviations of Variables

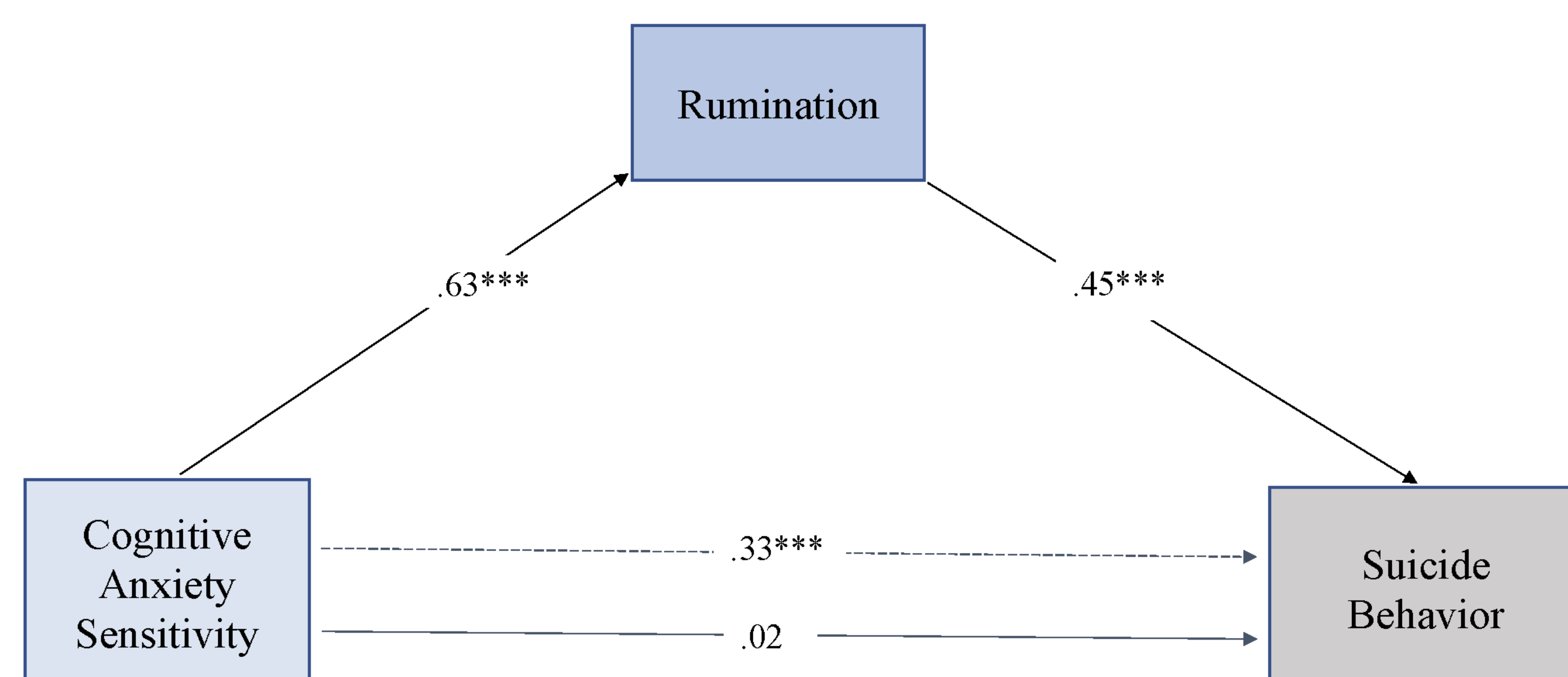
	Physical Anx Sensitivity	Rumination	Depression	Hopelessness	Suicide Behavior	<i>M (SD)</i>
Cognitive Anx Sensitivity	.72***	.63***	.49***	.33***	.34***	5.82 (6.47)
Physical Anx Sensitivity	--	.55***	.44***	.27***	.25***	19.7 (17.6)
Rumination	.55***	--	.70***	.45***	.48***	25.0 (16.8)
Depression	.44***	.70***	--	.55***	.53***	12.9 (10.9)
Hopelessness	.27***	.45***	.55***	--	.34***	3.61 (3.82)
Suicide Behavior	.25***	.48***	.53***	.34***	--	4.67 (2.42)

Note: \*\*\**p* < .001

## SUMMARY & CONCLUSIONS

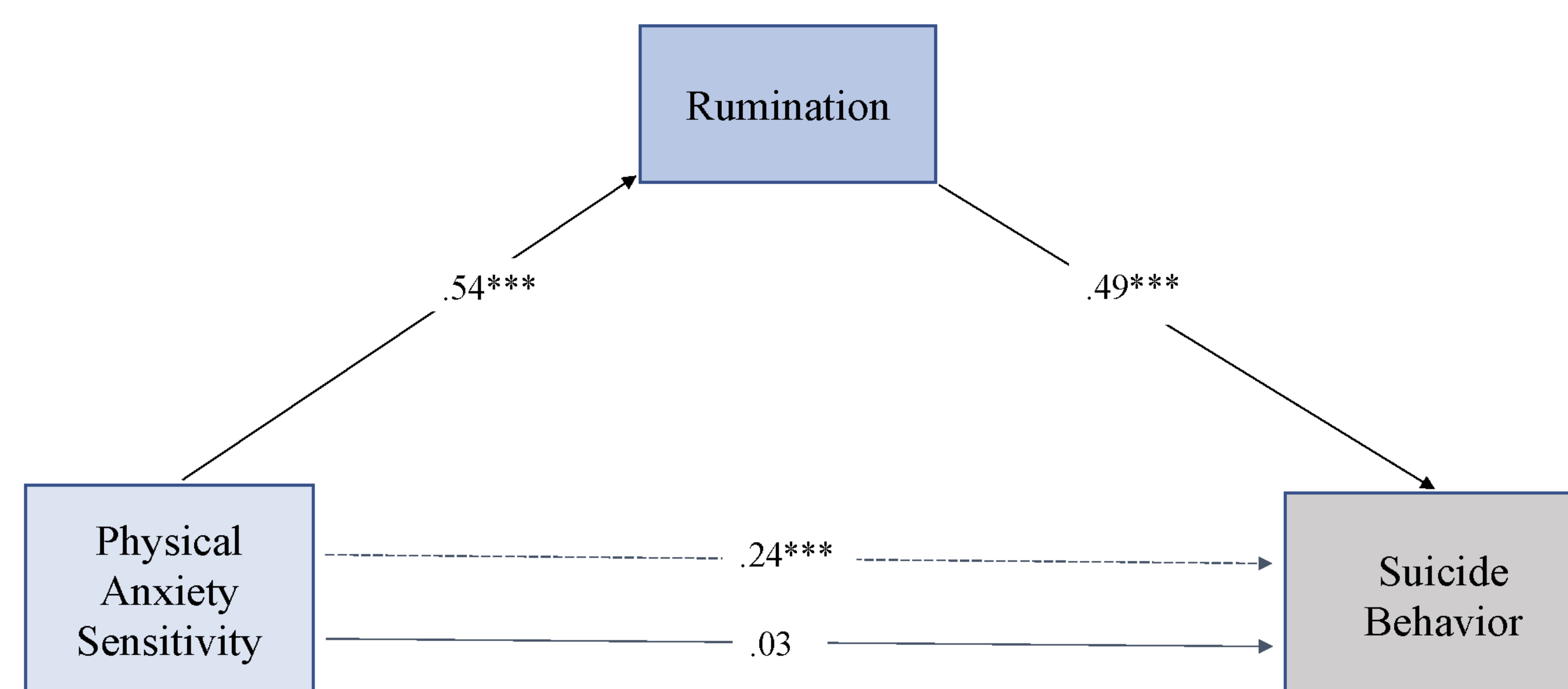
- All mental health variables were significantly intercorrelated, as expected.
- As expected, rumination strongly mediated the relationships between cognitive AS and suicide behavior, physical AS and suicide behavior, and the cognitive AS and physical AS interaction and suicide behavior.
- As expected, given that cognitive AS and rumination both represent cognitive vulnerabilities, cognitive AS was a stronger overall predictor than physical AS.
- The moderation findings replicated those from Capron et al., thus suggesting that the interactive influence of cognitive AS and physical AS on suicide behavior cuts across cultures.
- Given that in the last decade, suicide has increased by 39% among young Latino/a adults (CDC, 2023), it is imperative to closely examine suicide risk and protective factors within this group. This study contributes to this effort.
- The present findings have applied implications. For example, clinicians and college counselors who work with young Mexican-heritage adults should be aware of the importance of AS and rumination in contributing to suicide risk.
- Our overall findings suggest that individuals who experience elevated AS may be susceptible to experiencing rumination which, in turn, may lead to increased depression, hopelessness, and suicide behavior. Not surprisingly, brief interventions for anxiety sensitivity have indeed been shown to reduce suicide behavior (e.g., Schmidt et al., 2017).
- Additional research should generalize the present findings to other cultural, ethnic, and age groups.
- Prospective research is necessary to examine the precise directionality and interactive nature of the variables.

### Rumination as a Mediator between Cognitive Anxiety Sensitivity and Suicide Behavior



Notes: Above values are standardized beta coefficients. \*\*\**p* < .0001. Cognitive anxiety sensitivity had a significant indirect effect on suicide behavior through rumination (standardized coefficient = .28, 99% *CI* = .19, .38). The dotted arrow represents the direct effect of cognitive anxiety sensitivity on suicide behavior prior to bootstrapping.

### Rumination as a Mediator between Physical Anxiety Sensitivity and Suicide Behavior



Notes: Above values are standardized beta coefficients. \*\*\**p* < .0001. Physical anxiety sensitivity had a significant indirect effect on suicide behavior through rumination (standardized coefficient = .27, 99% *CI* = .19, .36). The dotted arrow represents the direct effect of physical anxiety sensitivity on suicide behavior prior to bootstrapping.

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