

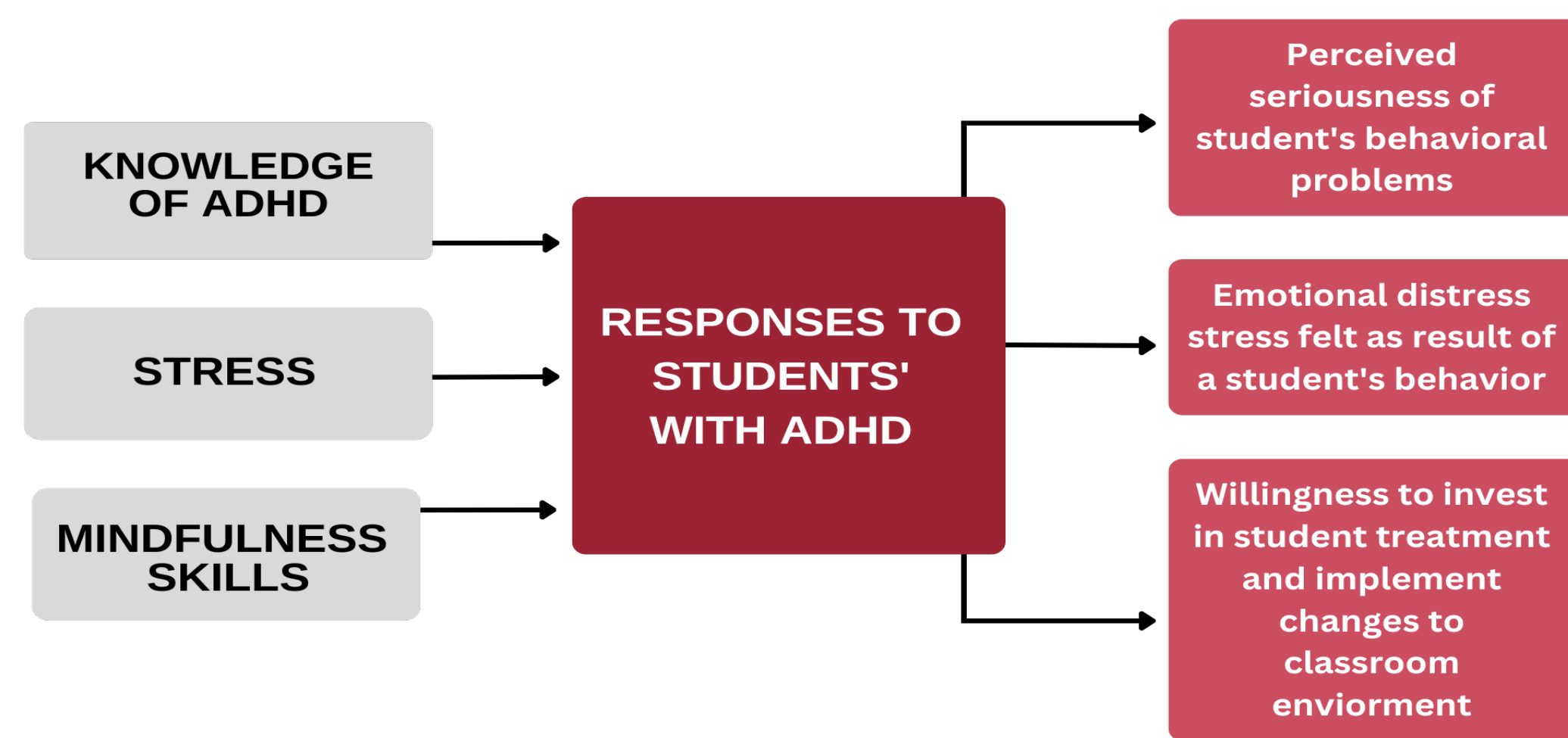
# The Role of Knowledge of ADHD, Stress, and Mindfulness Skills in Predicting Pre-Service Teachers' Responses to Students with ADHD



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## Introduction

- Approximately one child in every U.S. general education classroom has ADHD (Wolraich et al., 2014)
- Teachers should enter the classroom with knowledge of ADHD and the skills to support these students' development
- Teachers can support students with ADHD by:
  - Perceiving student's behavioral problems as less serious
  - Managing emotional distress
  - Investing in student treatment and classroom practices
- Teachers' background may influence their responses to students with ADHD
  - Knowledge of ADHD: Pre-service teachers lack an understanding of ADHD (Poznanski et al., 2018)
  - Stress: Negatively impacts teachers' capacity to support students (Jennings & Greenberg, 2009)
  - Mindfulness skills: Theorized to be related to supportive interactions with students (Jennings & Greenberg, 2009)



## Research Questions

**RQ<sub>1-3</sub>**: Are 1) knowledge of ADHD, 2) stress, and 3) mindfulness skills associated with teachers' responses to students with ADHD?

**RQ<sub>4</sub>**: Do mindfulness skills moderate the association between stress and teachers' responses to students with ADHD?

## Method

101 pre-service teachers completed an online survey on demographic variables and four constructs of interest

- KNOWLEDGE OF ADHD**  
Knowledge of Attention Deficit Disorders Scale (36 Items)  
Sample Item: "ADHD children are frequently distracted by extraneous stimuli."  
(Scuito et al., 2000)
- STRESS**  
Perceived Occupational Stress Scale (4 Items)  
Sample Item: "At work I feel under pressure"  
(Marcatto et al., 2021)
- MINDFULNESS SKILLS**  
Five Facet Mindfulness Questionnaire (15 Items)  
Sample Item: "I'm good at finding words to describe my feelings."  
(Gu et al., 2016)
- RESPONSES TO STUDENTS W/ ADHD**  
Ohan et al. (2011) Vignette Measure (11 Items)  
Sample Item: "How serious are Eric's behavior problems?"  
1 = not at all, 9 = extremely

## Analyses

**RQ<sub>1-3</sub>**: Are 1) knowledge of ADHD, 2) stress, and 3) mindfulness skills associated with teachers' responses to students with ADHD?

- Multiple linear regression models
- Main effects for knowledge of ADHD, stress, and mindfulness skills
- Controlling for personal diagnosis of ADHD, experience teaching children with ADHD, and current semester
- Models 1a-c: Knowledge of ADHD to outcomes
- Models 2a-c: Stress to outcomes
- Model 3a-c: Mindfulness to outcomes

**RQ<sub>4</sub>**: Do mindfulness skills moderate the association between stress and teachers' responses to students with ADHD?

- Main effect of stress and interaction of stress\*mindfulness skills were added to Model 3

## Results

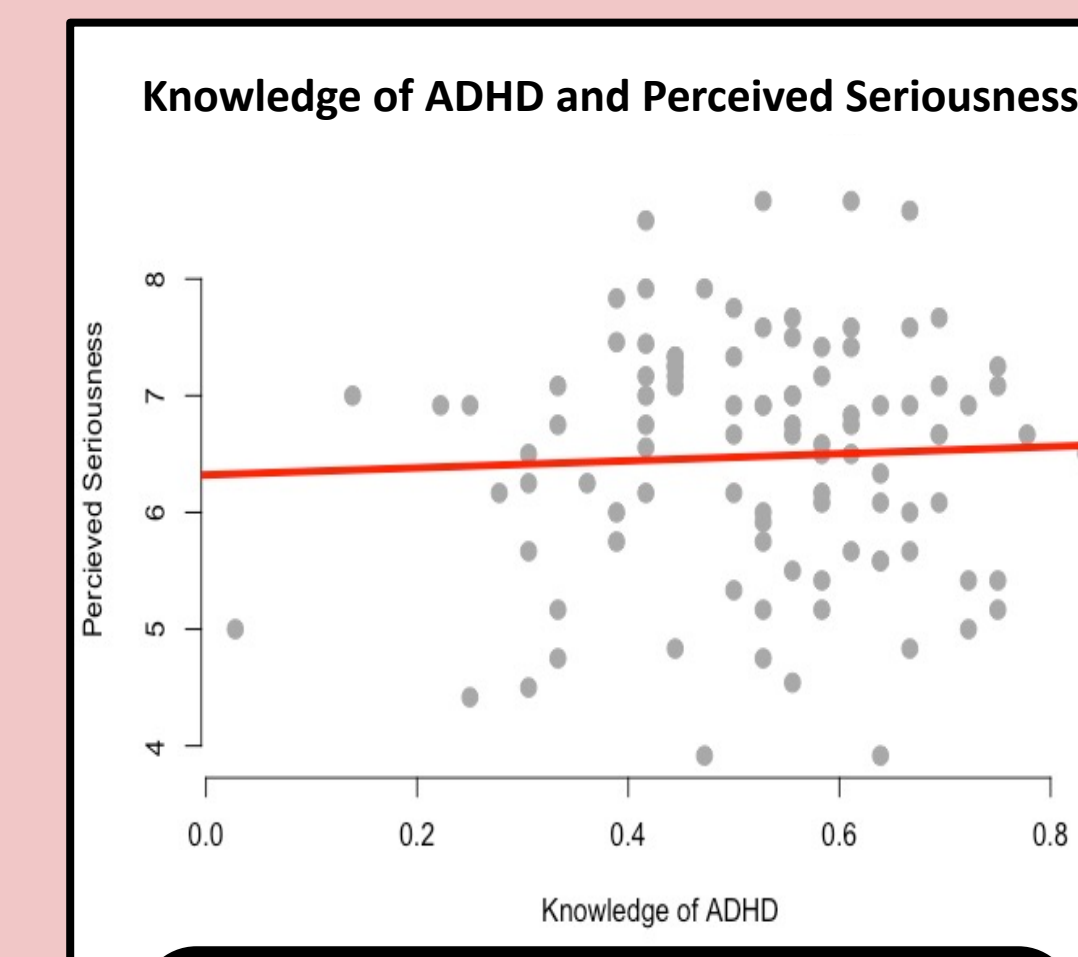
**RQ<sub>1-3</sub>**: Are 1) knowledge of ADHD, 2) stress, and 3) mindfulness skills associated with teachers' responses to students with ADHD?

- No significant associations were found between predictors and outcomes

**Table 1.** Regression Models (1a-c) Testing Knowledge of ADHD

	Perceived Seriousness		Distress		Investment	
	B	SE	B	SE	B	SE
Intercept	6.36 *	0.27	5.49 *	0.24	7.46 *	0.23
<b>Covariates</b>						
Diagnosis of ADHD	0.12	0.26	-0.11	0.30	0.27	0.28
Experience Teaching Student with ADHD	0.51 *	0.24	-0.04	0.28	0.32	0.26
Semester in Training	-0.13	0.10	-0.21	0.12	-0.10	0.11
<b>Main Effects</b>						
Knowledge of ADHD	0.42	0.70	-0.13	0.81	0.44	0.77
Adjusted R-Square	0.02		0.00		-0.01	

\* = p < .05



**Figure 1.** Association between knowledge of ADHD and perceptions of seriousness

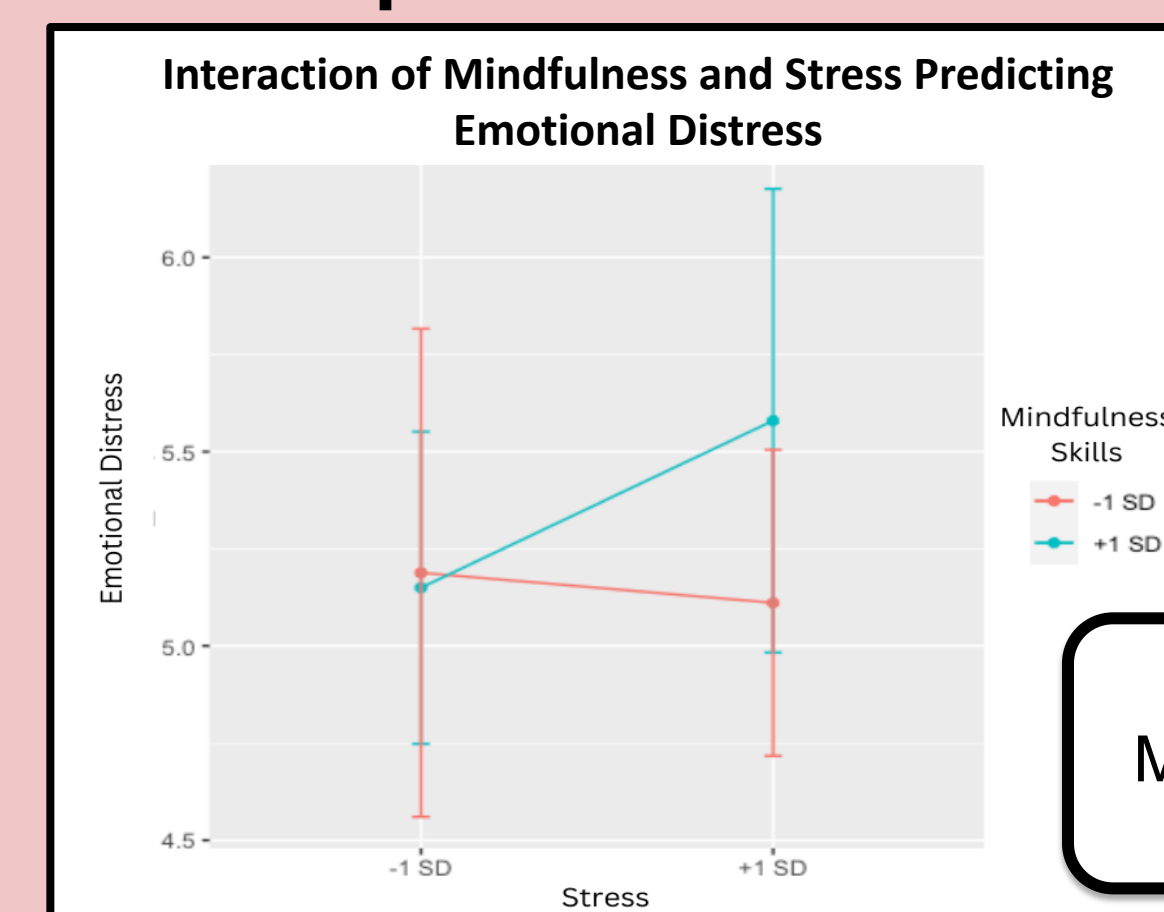
**RQ<sub>4</sub>**: Do mindfulness skills moderate the association between stress and teachers' responses to students with ADHD?

- Mindfulness did not moderate the association between stress and outcomes

**Table 2.** Regression Models (4a-c) Testing Moderation

	Perceived Seriousness		Distress		Investment	
	B	SE	B	SE	B	SE
Intercept	6.28 *	0.23	5.52 *	0.26	7.39 *	0.24
<b>Covariates</b>						
Diagnosis of ADHD	0.14	0.27	-0.03	0.31	0.25	0.29
Experience Teaching Student with ADHD	0.46	0.25	-0.05	0.28	0.40	0.27
Semester in Training	-0.10	0.11	-0.20	0.12	-0.14	0.12
<b>Main Effects</b>						
Stress	0.00	0.15	0.11	0.17	0.21	0.16
Mindfulness Skills	-0.09	0.24	0.22	0.28	0.25	0.26
<b>Interaction Effect</b>						
Stress*Mindfulness Skills	0.17	0.26	0.31	0.29	-0.35	0.28
Adjusted R-Square	0.00		0.00		0.00	

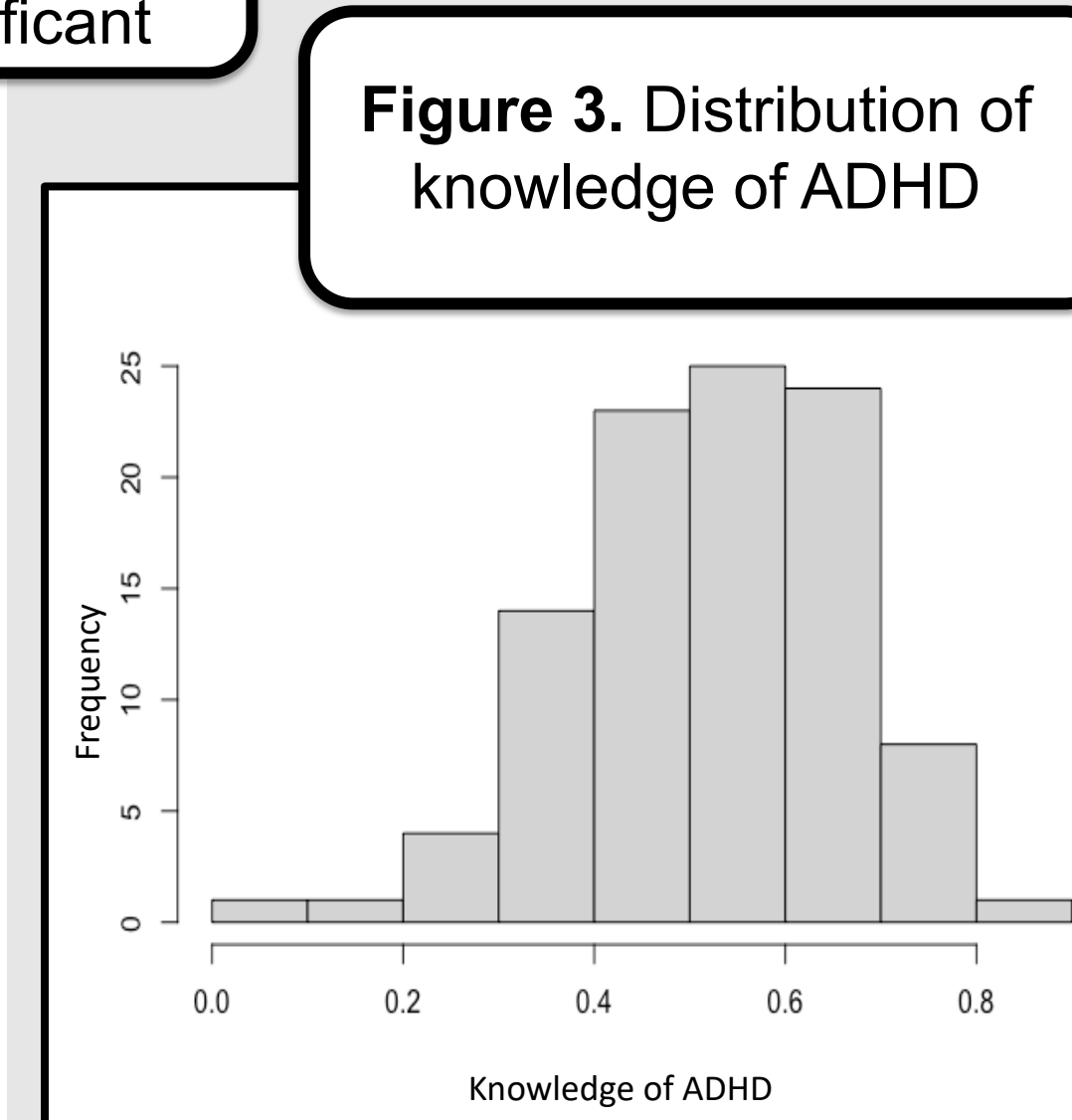
\* = p < .05



**Figure 2.** Moderation was not significant

## Pre-Service Teachers' Knowledge of ADHD

- On average, pre-service teachers correctly answered 52% of items (SD = 0.15)



**Figure 3.** Distribution of knowledge of ADHD

## Discussion

- Teachers' knowledge of ADHD was consistent with literature indicating that there are gaps in pre-service teachers' understanding of ADHD (Poznanski et al., 2018)
- Knowledge of ADHD, stress, and mindfulness skills did not predict:
  - How serious pre-service teachers perceive the student's behavior problems to be
  - Level of emotional distress pre-service teachers feel as a result of a child with ADHD's behavior
  - Pre-service teachers' willingness to help implement learning assistance and changes to the classroom environment for students with ADHD
- Previous experience teaching students with ADHD predicted pre-service teachers' perceiving students' behavioral problems as more serious
- Findings are inconsistent with studies in Australia that found a relationship between knowledge of ADHD and responses to students with ADHD (Ohan et al., 2008; Ohan et al., 2011)
- Limitations
  - Sample size
  - Pre-Service teachers vs. in-service teachers
  - Pre-Service teachers from the same institution
  - Use of vignettes

## Implications

- Understanding pre-service teachers' knowledge of ADHD is vital to identifying training deficits in teacher education programs
- Still need to identify the construct impacting teachers' responses to students with ADHD
- Results provide insight for interventions to facilitate teachers' supportive responses when working with these vulnerable students

## References

Scan the QR code for references



## Acknowledgements

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Scan the QR code for more info on the WITY Lab!

