



# Effects of Simulated and Trait Alexithymia on Negative Emotionality and Frustration in Undergraduate Students

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## INTRODUCTION

### Alexithymia

- “No words for emotions” (Sifneos, 1972).
- Three components: difficulty identifying feelings, difficulty describing feelings, and externally-oriented thinking (Taylor et al., 1992).
- Linked to psychopathology (Silvestri et al., 2018).

### Emotionality

- Processing emotion is essential because emotions can be adaptive (Darwin, 1872; Foa & Kozak., 1986).
- Negative emotions, especially frustration, can be distressing and may obstruct organisms from reward (Plutchik et al., 1980).

## METHOD

### Materials:

- Perth Alexithymia Questionnaire** (Preece et al., 2018): 24-items, measures trait alexithymia on a 7-point Likert scale from 1 (*Strongly disagree*) – 7 (*Strongly agree*).
- Positive and Negative Affect Schedule** (Watson et al., 1988): a 20-items, measures trait negative ( $\alpha = .82$ ) and positive ( $\alpha = .83$ ) emotionality on a 5-point Likert scale from 1 (*Very slightly or not at all*) – 5 (*Extremely*).
- Word Problem solving task** (Lyons & Beilock, 2012): filler word task. Not scored.
- Multiple-Choice Task** (Adapted from Harmon-Jones et al. (2016) and Wingenbach et al. (2019)): eight vignettes, each representing a target emotion. Participants asked to match an emotion word to each vignette.
- Discrete Emotions Questionnaire** (Harmon-Jones et al., 2016): 32-items, measures the emotionality on a 7-point Likert scale 1 (*Not at all*) – 7 (*An extreme amount*).
- Adapted Subjective Units of Distress Scale** (Wolpe, 1969): participants rated their frustration from 1 (*totally relaxed*) to 100 (*highest frustration that you have ever felt*).

### Procedure:

- Participants completed self-report measures (PAQ, PANAS)
- Participants completed the filler Word Problem Solving Task
- Pretest (DEQ, SUDS)
- Multiple-Choice Task for the simulated alexithymia condition: Participants identified how the narrator of each vignette was feeling. Participants were given incongruent word choices
- Multiple-Choice Task for the control condition: Given congruent word choices
- Posttest (DEQ, SUDS)

Multiple Choice Task

**Vignette 4 - Happiness**  
 “I really like drawing and decided to make a portrait as a present to my friend. When she saw the drawing, she grinned brightly and her eyes filled with tears. She hugged me several times.”

Simulated alexithymia condition word choices	This person is feeling... (A) Depressed (B) Mad (C) Devastated	This person is feeling... (A) Happy (B) Mad (C) Lonely	Control condition word choices
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## HYPOTHESES

If alexithymia is simulated by providing word choices that are incongruent with target emotions, those with simulated alexithymia may report more negative emotionality and frustration from pretest to posttest than those in a control condition.

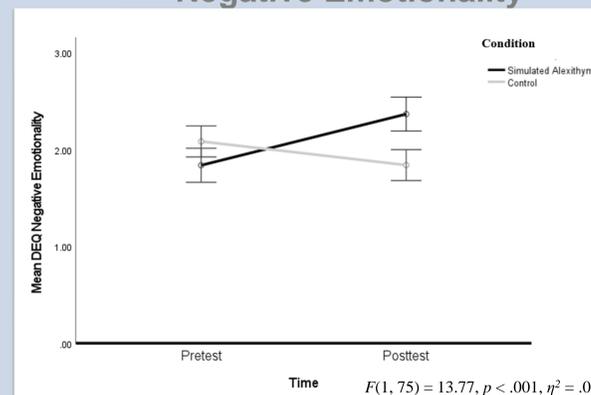
Trait alexithymia may be associated with greater trait negative emotionality.

## RESULTS

### Descriptive Statistics (Cronbach’s alpha and average scores) for the PAQ and PANAS

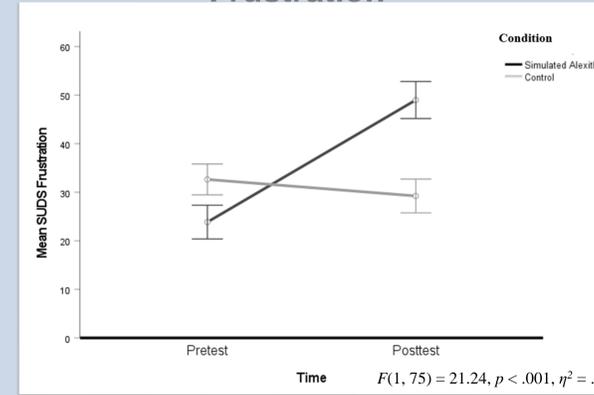
Measure	Scale	$\alpha$	Total Sample	Simulated Alexithymia	Control
PAQ	Total	.93	82.26 (26.67)	79.09 (29.38)	84.83 (24.31)
	Negative	.83	30.44 (7.24)	30.11 (5.75)	30.71 (8.35)
PANAS	Positive	.82	27.60 (7.75)	27.60 (8.10)	27.60 (7.54)

### Negative Emotionality



Posttest negative emotionality was greater in the simulated alexithymia condition than in the control condition,  $t(75) = 2.23, p = .03, d = .51$

### Frustration



Posttest frustration was greater in the simulated alexithymia condition than in the control condition,  $t(75) = 3.82, p < .001, d = .88$

### Correlations Between PAQ Scores, PAQ Subscales, and PANAS Subscales

	1	2	3	4	5	6
1. PAQ Total	-	-	-	-	-	-
2. PAQ G-DIF	.88**	-	-	-	-	-
3. PAQ G-DDF	.88**	.82**	-	-	-	-
4. PAQ G-EOT	.80**	.51**	.48**	-	-	-
5. PANAS Positive	-.17	-.07	-.19	-.14	-	-
6. PANAS Negative	.44**	.44**	.41**	.33**	-.18	-

Alexithymia subscales are correlated with negative (but not positive) trait emotionality

\* = significant at .05  
 \*\* = significant at .01.

## PARTICIPANTS

Seventy-seven undergraduate students ( $M_{age} = 20.50$ ). Participants identified as 78% White, 10% Black, 12% other/no response. 78% were female, 19% were male, 3% were non-binary. 17% were Hispanic. Participants were randomly assigned to the simulated alexithymia condition ( $n = 35$ ) or the control condition ( $n = 42$ ).

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For a reference list, please scan the QR code:



## DISCUSSION

### Simulated Alexithymia on Negative Emotionality

- Simulated alexithymia increased negative emotionality and frustration
- Trait alexithymia, DIF, DDF, and EOT is related to trait negative emotionality, consistent with past research (Dubey & Pandey., 2003)

### Treatment Considerations

- Acceptance and Commitment Therapy (ACT) suggests importance of acknowledging feelings (Hayes & Smith, 2005)

### Future Research

- Seek more empirical support for simulated alexithymia.
- Examine the relationship between trait alexithymia and simulated alexithymia.

### Conclusion

- Trait and simulated alexithymia are related to negative emotionality.
- An exploratory analysis found that alexithymia is related to depression, anxiety, and stress.
- Limitations: online platform, unclear if negative emotions resulted from simulated alexithymia or “incorrect” prompt.