

## Introduction

- Emotion regulation (ER): an interactive set of processes that modulate the experience, expression, and timing of emotion.<sup>1</sup>
- Parent's ER likely affects their socialization of emotion, which may, in turn, affect the child's ER development.<sup>2</sup>
- Little research has examined the role of adult ER on their negative emotional expression while interacting with a distressed infant.
- The current study examines the effect of ER difficulties and reported distress tolerance on the expression of frustration during a simulated parenting task.

## Hypotheses

- It was anticipated that participants reporting more difficulties with emotion regulation and lower tolerance of distress would display more behavioral signs (e.g., facial expressions and vocalizations) of frustration during a simulated parenting task wherein they interacted with a distressed, inconsolable simulated infant.

## Method: Participants

- 77 non-parent college students
- Mean age = 19.36 years (range = 18 –25 years)
- Most participants self-identified as Caucasian American (59.7%), African American (22.1%), or Hispanic/Latino (11.7%).

## Method: Measures

- Participants completed self-report measures:
  - Distress tolerance (Distress Tolerance Scale<sup>3</sup>)
  - Emotion regulation (Difficulties with Emotion Regulation Scale<sup>4</sup>)
- Participants interacted with a simulated infant:
  - The simulator (a life-like, and sized doll, 3 month old infant), is programmable to a variety of user specifications (RealCare® Baby II-plus<sup>5</sup>)

## Method: Behavioral Coding

- Frustration was coded in 10s epochs by an RA trained to a Kappa reliability of .80 or higher using Noldus 10.0 software.<sup>6</sup>
- Verbal Indicators: Sharp, abrupt tone; use of relevant emotional words (i.e. "I'm upset"); harsh, sharp sighs/grunts
- Behavioral indicators: facial expression; rough handling of props; hands on face/head in exasperated manner
- Frustration scale: 1 (no frustration) - 4 (high frustration)
- Mean frustration was derived by averaging frustration scores across all 10s epochs.

## Method: Procedure

- Prior to interacting with the simulated distressed infant, participants completed self-report measures and other tasks.
- Infant simulator paradigm (ISIM)
  - Participants were given a description of the ISIM followed by a demonstration, using a standard script, showing that the ISIM could be calmed when distressed.
  - After the demonstration, an RA located in a separate control room reprogrammed the ISIM to be inconsolable.
  - During the ISIM procedure, participants interacted with the ISIM for up to 6, 255s cycles of recorded infant cry, with a 10s no-cry period between cycles. Cry intensity varied during each cycle, but generally started at a low level and peaked towards the end of the cycle.
  - A high chair, rocker glider, and changing table with multiple shelves holding a bottle, diaper, blankets, and various infant toys were available for participants to use during the ISIM.
  - Gender of the ISIM was counterbalanced within participant gender; all participants were debriefed at the end of the task.



## Results

Table 1

Hierarchical Multiple Regression Analyses Predicting Participant Frustration from Individual Aspects of Emotion Regulation/Dysregulation.

DV	Predictor	ΔR <sup>2</sup>	β
Frustration	Gender	0.00	-0.12
	Prior Caregiving Experience (PCE)	0.00	0.04
	Distress Tolerance	<b>0.12*</b>	<b>0.36*</b>
Frustration	Gender	0.00	-0.04
	PCE	0.00	0.03
	DERS Impulsive	<b>0.13*</b>	<b>0.36*</b>
Frustration	Gender	0.00	0.05
	PCE	0.00	-0.05
	DERS Strategies	<b>0.07*</b>	<b>0.26*</b>

\* p < .05

## Conclusions

- Participants who expressed more frustration reported having:
  - A lower distress tolerance
  - More difficulty remaining in control their behavior while experiencing negative emotion
  - More difficulty using strategies flexibly to regulate themselves in lieu of experiencing negative emotion
- Methodological Implications:
  - Findings illustrate that prolonged exposure to infant distress is challenging, because participants who reported ER difficulty or a low distress tolerance magnified their emotional reactions during this task.
- Implications for child ER and socio-emotional development:
  - Parents with poor regulation who magnify their emotional response in reaction to their child's anger or sadness are more likely to have children with internalizing problems.<sup>7</sup>
  - Future work should examine these variables in actual parents and measure the long-term effects on child development.

## References

- Chen, C. L., Lewis, L. J., Leach, A. C., & Quirk, J. A. (2018). Misapplied emotion regulation: Children's awareness that changing thoughts and goals can alleviate negative emotions. *Emotion, 18*(4), 488-497. doi:10.1037/emo0000432
- Malik, A. D. A., J. S. Delsing, L. Wang, S. S. B. Robinson, L. (2015). The role of the family context in the development of emotion regulation. *Social Development, 24*(2), 241-260. doi:10.1111/socdev.12072
- Strong, J. S., & Cohen, E. M. (2003). The Distress Tolerance Scale: Development and validation of a self-report measure. *Motivation and Emotion, 27*(3), 84-102. doi:10.1023/1:102348576623
- Gray, K. L., & Bering, L. (2004). Multi-informant assessment of emotion regulation and dysregulation: Development, factor structure, and interrelations of the Difficulties with Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment, 24*(4), 41-54. doi:10.1023/B:JOBA.0000029482.08139.94
- RealCare® Baby II-plus. (2010). San Diego, CA: RealCare, Inc.
- Noldus (2010). Noldus Information Technology, 2010.
- Hastings, P. D., & Daley, D. (2000). Parental emotion regulation and parental socialization of emotion: Biopsychosocial processes of adjustment in preschoolers. *Social Development, 17*(2), 217-238. doi:10.1111/j.1467-8624.2007.00422.x

## Corresponding Author

- These authors wish to gratefully acknowledge the Ronald E. McNair Post-Baccalaureate Achievement Program, the St. Norbert College psychology department, and the St. Norbert College Office of Undergraduate Research, whose contributions made this research project and poster presentation possible.
- Corresponding author: Sarah VanSchyndel (sarah.vanschyndel@snc.edu).