

1 Maternal Emotion Dysregulation and its Association with Child Internalizing and
2 Externalizing Behaviors and Heart Rate Variability

3 Jackie O'Brien¹, Jenn Lewis¹, & Yoel Everett¹

4 ¹ University of Oregon

5 Author Note

6 Correspondence concerning this article should be addressed to Jackie O'Brien, Postal
7 address. E-mail: my@email.com

Abstract

One or two sentences providing a **basic introduction** to the field, comprehensible to a scientist in any discipline.

Two to three sentences of **more detailed background**, comprehensible to scientists in related disciplines.

One sentence clearly stating the **general problem** being addressed by this particular study.

One sentence summarizing the main result (with the words “**here we show**” or their equivalent).

Two or three sentences explaining what the **main result** reveals in direct comparison to what was thought to be the case previously, or how the main result adds to previous knowledge.

One or two sentences to put the results into a more **general context**.

Two or three sentences to provide a **broader perspective**, readily comprehensible to a scientist in any discipline.

Keywords: emotion regulation, parenting, child outcomes

Word count: X

Maternal Emotion Dysregulation and its Association with Child Internalizing and
Externalizing Behaviors and Heart Rate Variability

Observations: 97

Variables: 6

\$ family_id <dbl> 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008,...

\$ cbcl_int <dbl> 10, 4, 15, 9, 10, 10, 5, 4, 3, 6, 3, 10, 13, 5,...

\$ cbcl_ext <dbl> 13, 12, 20, 14, 18, 16, 7, 12, 3, 6, 0, 7, 17, ...

\$ ders <dbl> 54, 59, 87, 75, 48, 65, 55, 53, 54, 48, 40, 68,...

\$ child_baseline <dbl> 7.038787, 5.819146, NA, 5.684124, NA, NA, 6.111...

\$ child_lego <dbl> 5.952458, 5.132448, 6.669899, 4.372479, 5.04177...

Observations: 136

Variables: 6

\$ family_id <dbl> 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008,...

\$ ders <dbl> 54, 59, 87, 75, 48, 65, 55, 53, 54, 48, 40, 68,...

\$ child_baseline <dbl> 7.038787, 5.819146, NA, 5.684124, NA, NA, 6.111...

\$ child_lego <dbl> 5.952458, 5.132448, 6.669899, 4.372479, 5.04177...

\$ cbcl_subtype <chr> "int", "int", "int", "int", "int", "int", "int"...

\$ cbcl_score <dbl> 10, 4, 15, 9, 10, 10, 5, 4, 3, 6, 3, 10, 13, 5,...

Observations: 136

Variables: 10

\$ family_id <dbl> 1001, 1002, 1003, 1004, 1005, 1006, 1007, 10...

\$ ders <dbl> 54, 59, 87, 75, 48, 65, 55, 53, 54, 48, 40, ...

\$ child_baseline <dbl> 7.038787, 5.819146, NA, 5.684124, NA, NA, 6....

\$ child_lego <dbl> 5.952458, 5.132448, 6.669899, 4.372479, 5.04...

\$ cbcl_subtype <chr> "int", "int", "int", "int", "int", "int", "i...

```

50 ## $ cbcl_score      <dbl> 10, 4, 15, 9, 10, 10, 5, 4, 3, 6, 3, 10, 13,...
51 ## $ reactivity      <dbl> -1.086328857, -0.686697786, NA, -1.311645429...
52 ## $ ders_c          <dbl> -16.102941, -11.102941, 16.897059, 4.897059,...
53 ## $ reactivity_c     <dbl> 0.014032141, 0.413663212, NA, -0.211284431, ...
54 ## $ ders_x_reactivity <dbl> -0.22595873, -4.59287831, NA, -1.03467229, N...

```

Results

```

56 ## Warning: Removed 4 rows containing non-finite values (stat_smooth).

```

```

57 ## Warning: Removed 4 rows containing missing values (geom_point).

```

```

58 ## 'data.frame':    136 obs. of  10 variables:
59 ## $ family_id      : num  1001 1002 1003 1004 1005 ...
60 ## $ ders           : num  54 59 87 75 48 65 55 53 54 48 ...
61 ## $ child_baseline : num  7.04 5.82 NA 5.68 NA ...
62 ## $ child_lego     : num  5.95 5.13 6.67 4.37 5.04 ...
63 ## $ cbcl_subtype   : chr   "int" "int" "int" "int" ...
64 ## $ cbcl_score      : num  10 4 15 9 10 10 5 4 3 6 ...
65 ## $ reactivity      : num  -1.086 -0.687 NA -1.312 NA ...
66 ## $ ders_c         : num  -16.1 -11.1 16.9 4.9 -22.1 ...
67 ## $ reactivity_c    : num  0.014 0.414 NA -0.211 NA ...
68 ## $ ders_x_reactivity: num  -0.226 -4.593 NA -1.035 NA ...

```

DERS_mean	DERS_SD	Reactivity_mean	Reactivity_SD
70.10294	22.33027	-1.100361	0.6520285

cbcl_subtype	cbcl_mean	cbcl_SD
ext	16.28333	9.492662
int	11.17318	7.539277

Methods

We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study.

Participants

Material

Procedure

Data analysis

We used R (Version 3.5.1; R Core Team, 2018) and the R-packages *bindrcpp* (Version 0.2.2; Müller, 2018), *dplyr* (Version 0.7.6; Wickham, François, Henry, & Müller, 2018), *forcats* (Version 0.3.0; Wickham, 2018a), *ggplot2* (Version 3.0.0; Wickham, 2016), *here* (Version 0.1; Müller, 2017), *kableExtra* (Version 0.9.0; Zhu, 2018), *papaja* (Version 0.1.0.9842; Aust & Barth, 2018), *purrr* (Version 0.2.5; Henry & Wickham, 2018), *readr* (Version 1.1.1; Wickham, Hester, & François, 2017), *rio* (Version 0.5.10; C.-h. Chan, Chan, Leeper, & Becker, 2018), *stringr* (Version 1.3.1; Wickham, 2018b), *tibble* (Version 1.4.2; Müller & Wickham, 2018), *tidyr* (Version 0.8.1; Wickham & Henry, 2018), and *tidyverse* (Version 1.2.1; Wickham, 2017) for all our analyses.

Discussion

References

- Aust, F., & Barth, M. (2018). *papaja: Create APA manuscripts with R Markdown*. Retrieved from <https://github.com/crsh/papaja>
- Chan, C.-h., Chan, G. C., Leeper, T. J., & Becker, J. (2018). *Rio: A swiss-army knife for data file i/o*.
- Henry, L., & Wickham, H. (2018). *Purrr: Functional programming tools*. Retrieved from <https://CRAN.R-project.org/package=purrr>
- Müller, K. (2017). *Here: A simpler way to find your files*. Retrieved from <https://CRAN.R-project.org/package=here>
- Müller, K. (2018). *Bindrcpp: An 'rcpp' interface to active bindings*. Retrieved from <https://CRAN.R-project.org/package=bindrcpp>
- Müller, K., & Wickham, H. (2018). *Tibble: Simple data frames*. Retrieved from <https://CRAN.R-project.org/package=tibble>
- R Core Team. (2018). *R: A language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing. Retrieved from <https://www.R-project.org/>
- Wickham, H. (2016). *Ggplot2: Elegant graphics for data analysis*. Springer-Verlag New York. Retrieved from <http://ggplot2.org>
- Wickham, H. (2017). *Tidyverse: Easily install and load the 'tidyverse'*. Retrieved from <https://CRAN.R-project.org/package=tidyverse>
- Wickham, H. (2018a). *Forcats: Tools for working with categorical variables (factors)*. Retrieved from <https://CRAN.R-project.org/package=forcats>
- Wickham, H. (2018b). *Stringr: Simple, consistent wrappers for common string operations*.

Retrieved from <https://CRAN.R-project.org/package=stringr>

Wickham, H., & Henry, L. (2018). *Tidyr: Easily tidy data with 'spread()' and 'gather()' functions*. Retrieved from <https://CRAN.R-project.org/package=tidyr>

Wickham, H., François, R., Henry, L., & Müller, K. (2018). *Dplyr: A grammar of data manipulation*. Retrieved from <https://CRAN.R-project.org/package=dplyr>

Wickham, H., Hester, J., & François, R. (2017). *Readr: Read rectangular text data*. Retrieved from <https://CRAN.R-project.org/package=readr>

Zhu, H. (2018). *KableExtra: Construct complex table with 'kable' and pipe syntax*. Retrieved from <https://CRAN.R-project.org/package=kableExtra>

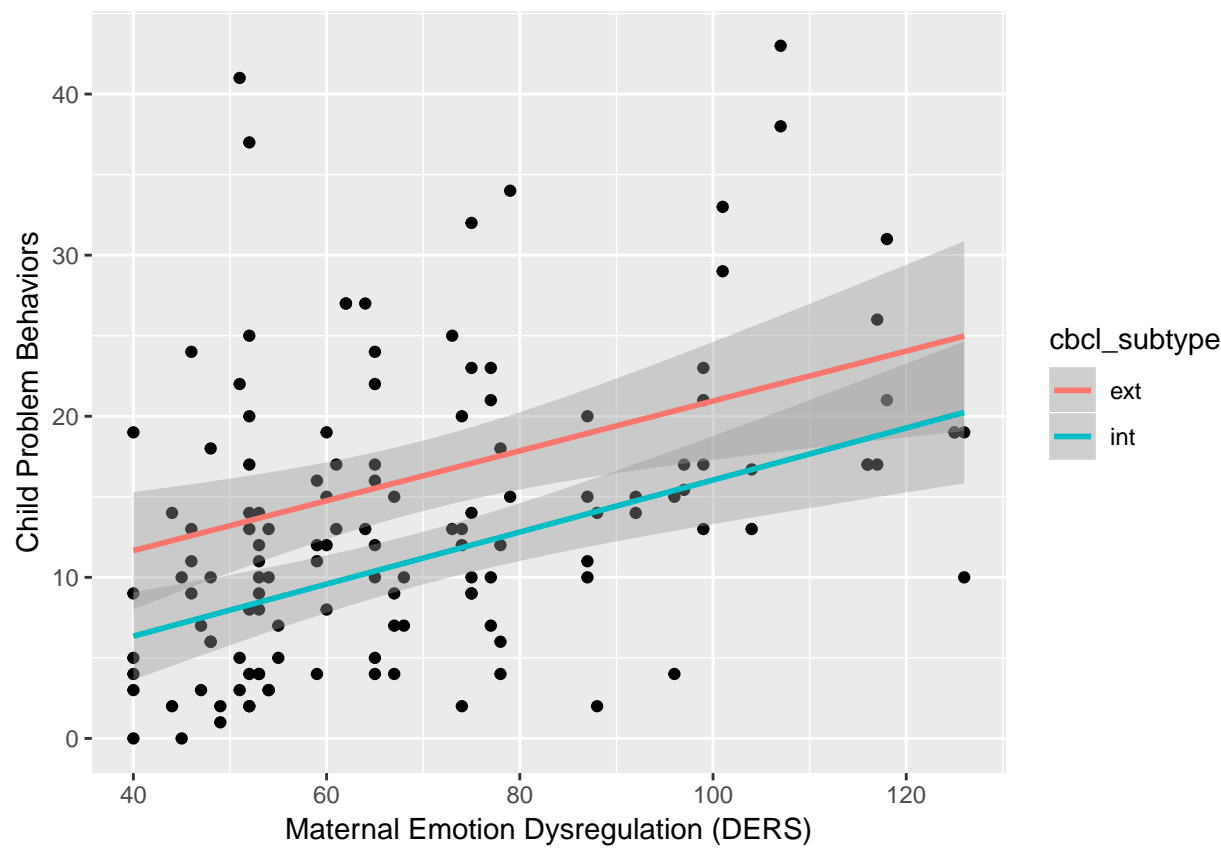


Figure 1