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We plan to do a paper.

Option 1

Description:

Do stressful birthing experiences and delivery method (i.e., cesarean vs. vaginal delivery) predict postpartum parenting stress in first-time mothers and fathers? Prior research (Sellery et al., poster, 2021) has shown that stressful birthing experiences significantly predict paternal postpartum depression. However, this research did not include a multilevel model and did not take into account mothers' experiences or predict maternal stress/depression.

Data Structure:

The data (time series) is nested within participants which are in turn nested within Couples. Each couple has one male and one female partner, and each partner was tested during the prenatal, perinatal (birth), and postpartum periods. BEQ and delivery method were collected at the perinatal time point and parenting stress was collected at the postpartum time point (see network graph below).

Statistical Analyses:

Parenting stress ~ time + birth experience + delivery method + delivery method*birth experience

Level 3 - couple

Level 2 - person

Level 1 - time

Level 1 Outcome: PSI-SF (parenting stress) -- repeated measures from 3, 6, 12 month PP

Level 1 predictor: time (3, 6, 12 month)

Level 2 predictor: BEQ (birth experiences)

Level 3 predictors:

- BEQ_cm (couples' mean birth experience)
- Delivery Method
- BEQ_cm*DM (interaction)

Covariates:

Gender (person)

Age (person)

Health conditions (person)

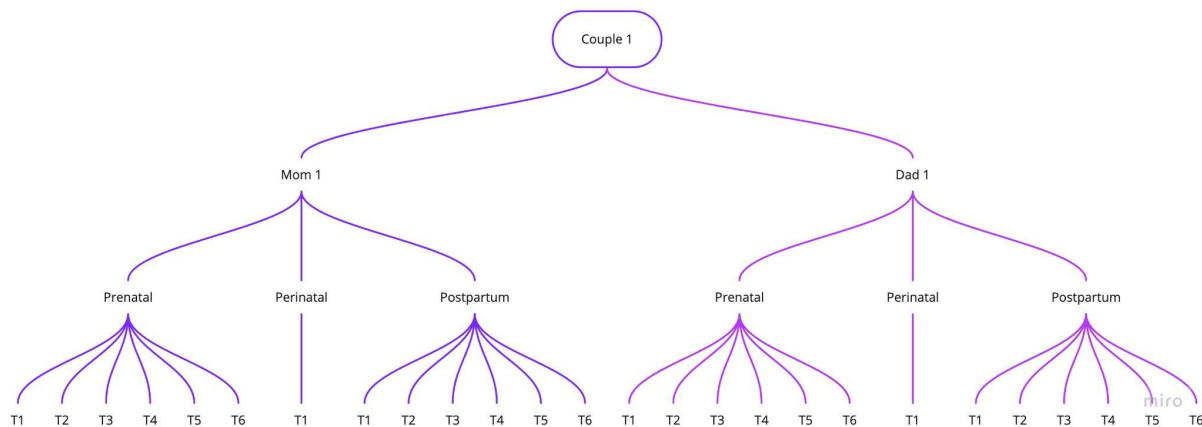
Race (person)

Gestational age (couple)

Baby.sex (couple)

Further Considerations

Moderation might be worth including. Mediation would make sense if we were thinking about a causal relationship over time (e.g., delivery method changes birthing experience) but in this case, since they're both referring to the same time point, it makes moderation makes more sense.



The data analytic scripts and supplemental materials for this project will be available at <https://github.com/goytoom/psyc575.git>

References

- Bos, P. A., Hechler, C., Beijers, R., Shinohara, K., Esposito, G., & de Weerth, C. (2018). Prenatal and postnatal cortisol and testosterone are related to parental caregiving quality in fathers, but not in mothers. *Psychoneuroendocrinology*, 97, 94–103. <https://doi.org/10.1016/j.psyneuen.2018.07.013>
- Mehta, P. H., & Prasad, S. (2015). The dual-hormone hypothesis: A brief review and future research agenda. *Current Opinion in Behavioral Sciences*, 3, 163–168. <https://doi.org/10.1016/j.cobeha.2015.04.008>