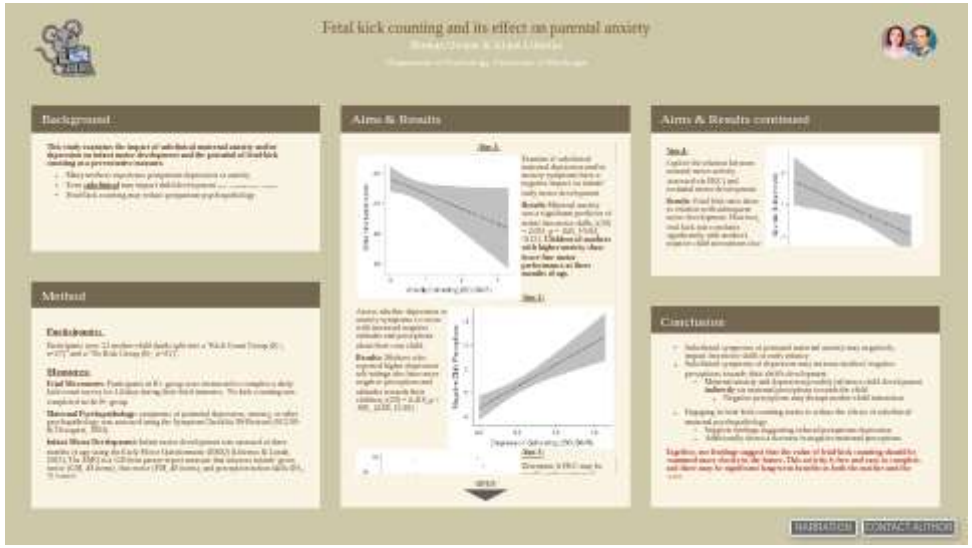
Fetal kick counting and its effect on parental anxiety



Brenna Owens & Klaus Libertus

Department of Psychology, University of Pittsburgh

PRESENTED AT:

SRCD
Society for Research in Child Development

2021 *Virtual* BIENNIAL MEETING

APRIL 7-9, 2021

BACKGROUND

This study examines the impact of subclinical maternal anxiety and/or depression on infant motor development and the potential of fetal-kick counting as a preventative measure.

- Many mothers experience postpartum depression or anxiety
- Even **subclinical** may impact child development (e.g., Cornish et al., 2005).
- Fetal-kick counting may reduce postpartum psychopathology

METHOD

Participants:

Participants were 52 mother-child dyads split into a "Kick Count Group (K+, *n*=27)" and a "No Kick Group (K-, *n*=25)".

Measures:

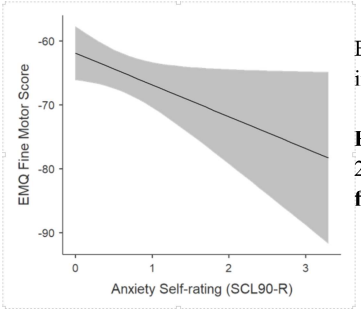
Fetal Movements: Participants in K+ group were instructed to complete a daily kick-count survey for 14 days during their third trimester. No kick counting was completed in the K- group

Maternal Psychopathology: symptoms of postnatal depression, anxiety, or other psychopathology was assessed using the Symptom Checklist 90-Revised (SCL90-R; Derogatis, 1983).

Infant Motor Development: Infant motor development was assessed at three months of age using the Early Motor Questionnaire (EMQ) (Libertus & Landa, 2013). The EMQ is a 128-item parent-report measure that assesses infants' gross motor (GM, 49 items), fine motor (FM, 48 items), and perception-action skills (PA, 31 items).

AIMS & RESULTS

Aim 1:



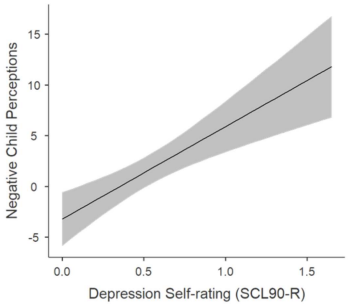
Examine if subclinical maternal depression and/or anxiety symptoms have a negative impact on infants' early motor development

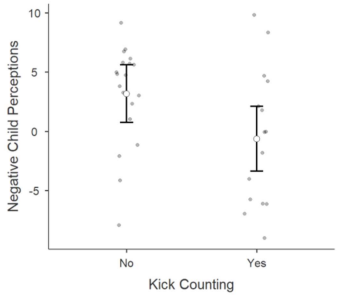
Results Maternal anxiety was a significant predictor of infant fine motor skills, t(30) = 2.091, p = .045, [-9.84, -0.12]. **Children of mothers with higher anxiety show lower fine motor performance at three months of age.**

Aim 2:

Assess whether depression or anxiety symptoms co-occur with increased negative attitudes and perceptions about their own child.

Results: Mothers who reported higher depression self-ratings also have more negative perceptions and attitudes towards their children, t(29) = 4.416, p < .001, [4.88, 13.30].





Aim 3:

Determine if FKC may be used to reduce maternal depression or anxiety symptoms.

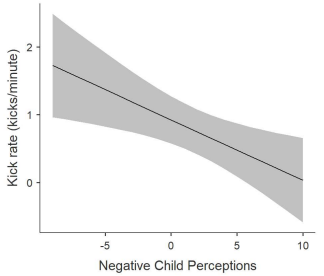
Results: There was no significant decrease in anxiety or depression symptoms. However, the K+ group shows overall lower maternal negative perceptions and attitudes towards their child compared to the K- group.

AIMS & RESULTS CONTINUED

Aim 4:

Explore the relation between prenatal motor activity (assessed via FKC) and postnatal motor development.

Results: Fetal kick rates show no relation with subsequent motor development. However, fetal kick rate correlates significantly with mother's negative child perceptions (see Aim 3).



CONCLUSION

- Subclinical symptoms of postnatal maternal anxiety may negatively impact fine motor skills in early infancy
- Subclinical symptoms of depression may increase mothers' negative perceptions towards their child's development
  - Maternal anxiety and depression possibly influence child development ***indirectly*** via maternal perceptions towards the child
    - Negative perceptions may disrupt mother-child interaction
- Engaging in fetal-kick counting seems to reduce the effects of subclinical maternal psychopathology
  - Supports findings suggesting reduced postpartum depression
  - Additionally shows a decrease in negative maternal perceptions

Together, our findings suggest that the value of fetal-kick counting should be examined more closely in the future. This activity is free and easy to complete, and there may be significant long-term benefits to both the mother and the child.