Benefits of Prenatal Kick Counting Part 2: Examining Postnatal Reaching and Parent Talk

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Background

- Fetal kick counting (FKC) is used for monitoring fetal well-being during pregnancy
- Few studies have examined the impact of FKC on maternal mental health with mixed results_{1,2,3}
- Recent findings suggest FKC may improve subsequent mother-infant engagement₄

The current study examines whether engaging in FKC alters subsequent parental engagement and infant manual exploration.

Method

- 25 parent-child dyads participated and were matched using propensity scores
- 13 mothers completed in fetal kick counting (**KC**)
- 12 mothers did not (NKC)

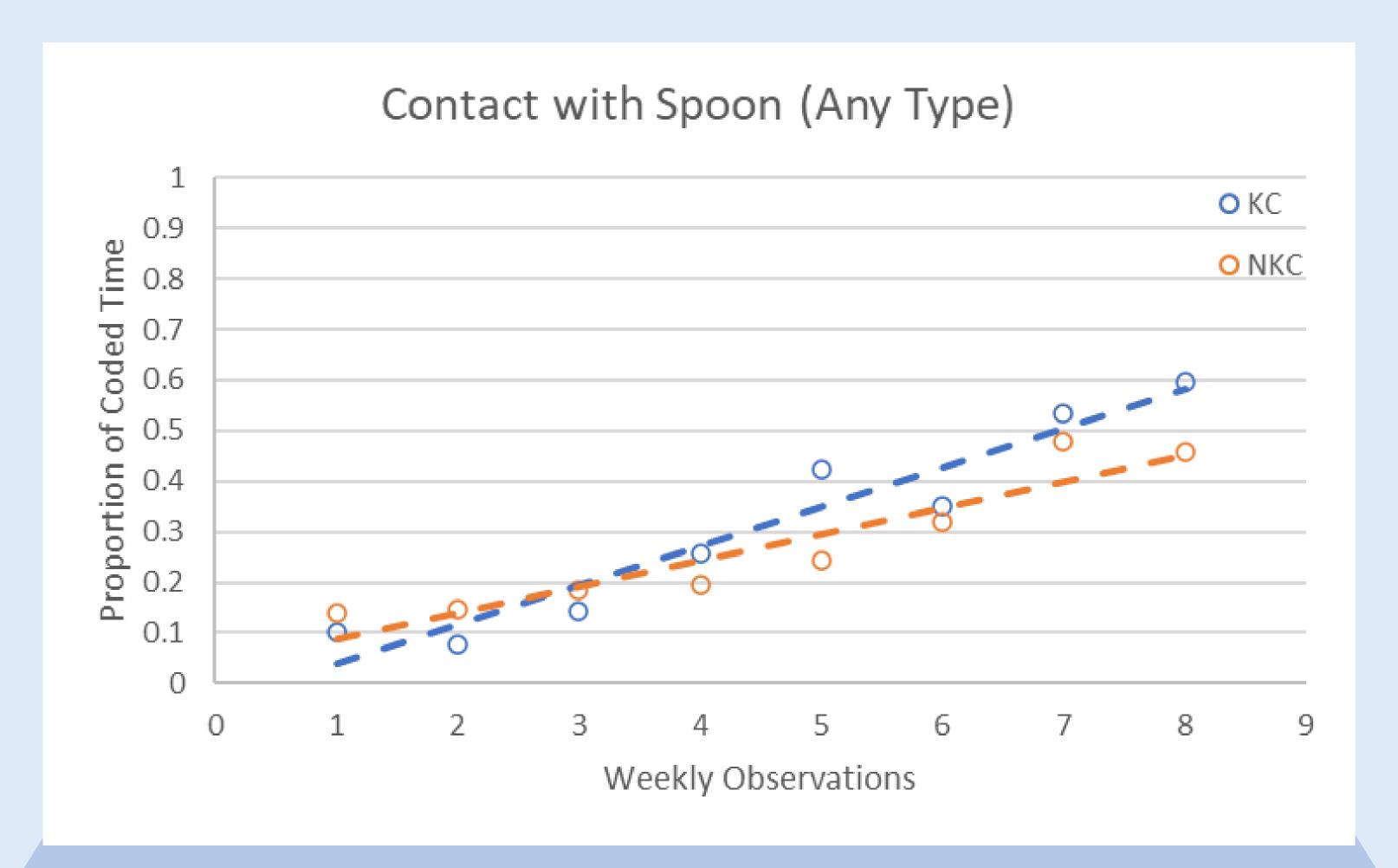
Sample Demographics Used for Propensity Score Matching

	KC		NKC	
	Μ	SD	Μ	SD
N	13 (7 male)		12 (6 male)	
Age in Days	158.08	14.18	155.83	16.03
Mother Education	5.00	0.68	4.83	1.07
Father Education	4.62	1.08	4.58	1.11
Household Education	9.62	1.39	9.42	1.80
Income	10.62	1.73	10.08	2.10

- Self-report measures:
- SCL-90R for maternal signs of depression and anxiety
- EMQ for child's **gross motor**, **fine motor**, **and perception-action** development
- Mother-child interaction measures
- Manual exploration
- Quantity of parent talk



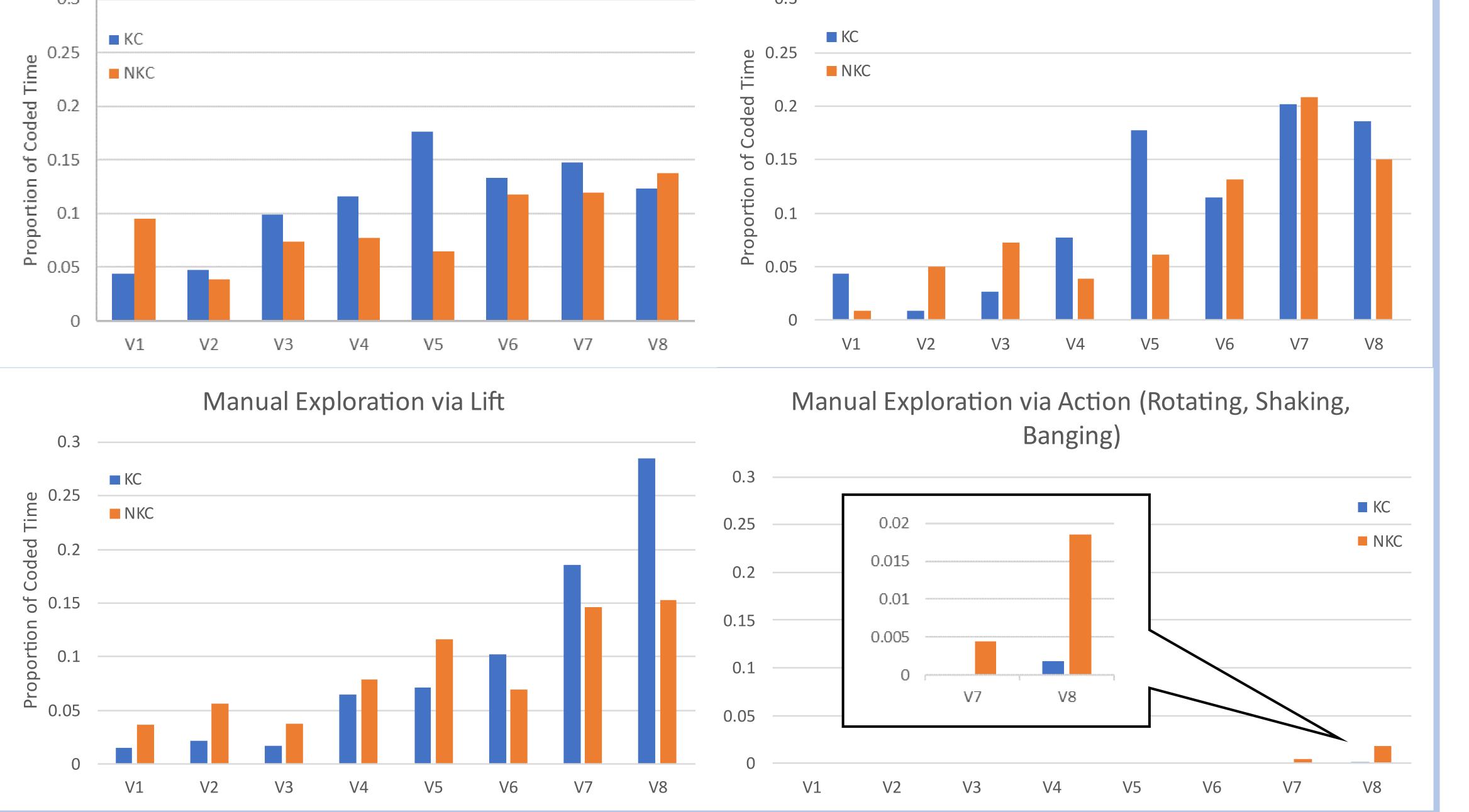
Kick counting during the third trimester did not increase child's manual exploration postpartum...



...but manual exploration strategies did increase in complexity over the 8-week period surrounding average grasping onset.

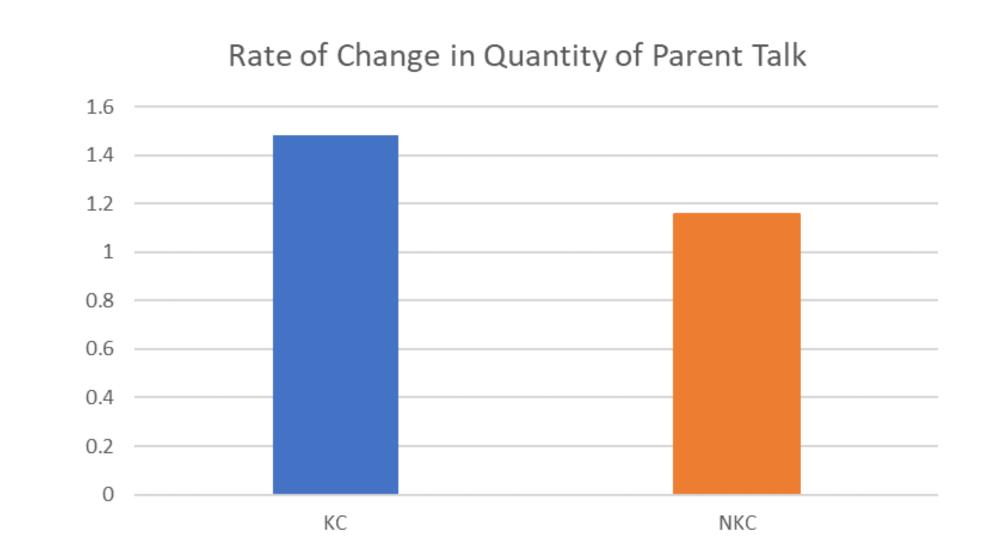
Manual Exploration via Grasp

Manual Exploration via Touch



Results

- KC and NKC groups did not differ in:
 - Maternal subclinical symptoms of depression and anxiety [F(1,24)=0.13, p=.723]
- Parent-reported infant gross motor [F(1,24)=0.63, p=.435], fine motor [F(1,24)=0.85, p=.365], or perception-action scores [F(1,24)=0.16, p=.690]
- Quantity of **parent talk** [F(1,24)=0.19, p=.668]



Discussion

- Engaging in fetal kick counting did **not** affect the quantity of parent talk or child manual exploration.
- Fetal kick counting may not have impact on postpartum **parent or child behavior**.
- Future research is needed to examine more subtle differences such as whether FKC alters mother's awareness of their child's movement and motor capabilities postpartum.

References

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- 2. Saastad, E., Winje, B. A., Israel, P., and Frøen, J. F. (2012). Fetal Movement counting—maternal concern and experiences: a multicenter, randomized, controlled trial. Birth 39, 10–20. doi: 10.1111/j.1523-536X.2011.00508.x
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- 4. Owens, B., & Libertus, K. (2022). Are There Postnatal Benefits to Prenatal Kick Counting? A Quasi-Experimental Longitudinal Study. Frontiers in Psychology, 13, 64.

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