

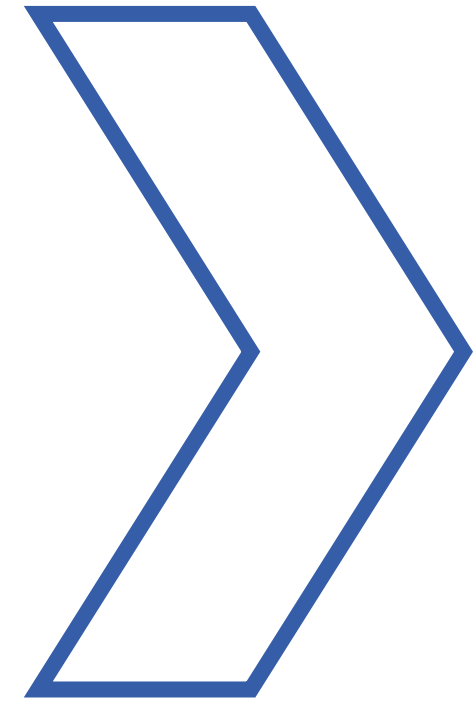
The physical and mental health benefits of touch interventions: A systematic review and multivariate meta-analysis

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Introduction

- Touch interventions have been shown to have a wide range of both mental and physical **health benefits**
- COVID-19 has reminded us how lonely we can feel with limited social physical contact, increasing the urgency to better understand the benefits of touch



A systematic **literature review** and two multi-level **meta-analyses** as the solution



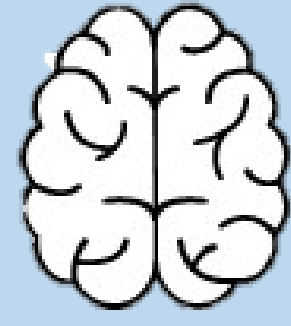
What are the effects of touch interventions on mental and physical health in adults, children and newborns?



Methods



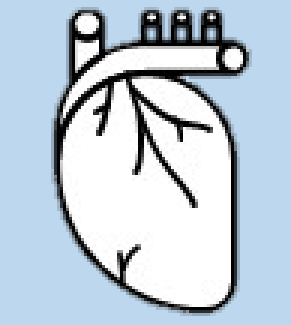
Adults & children



Mental health



Newborns

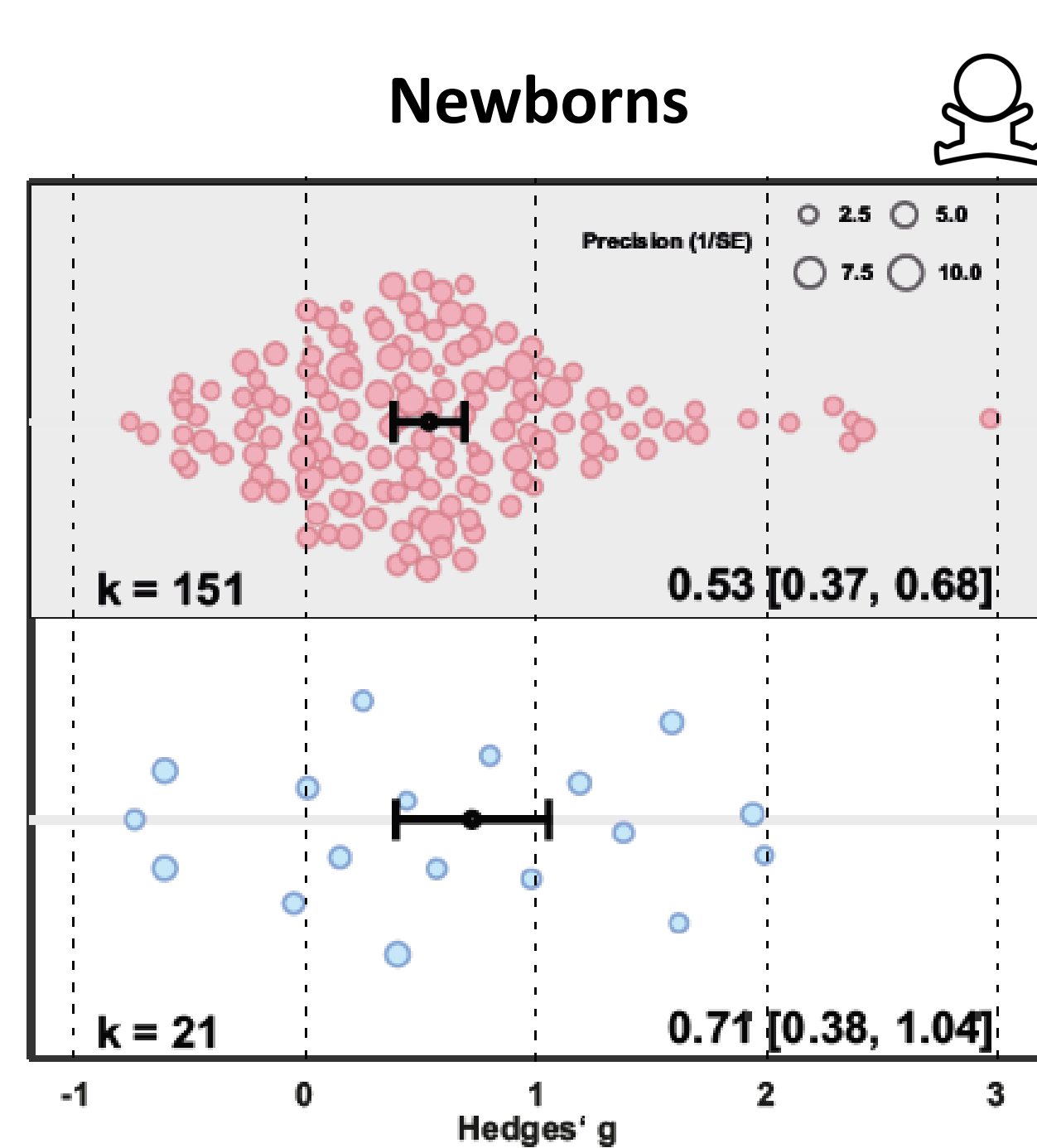
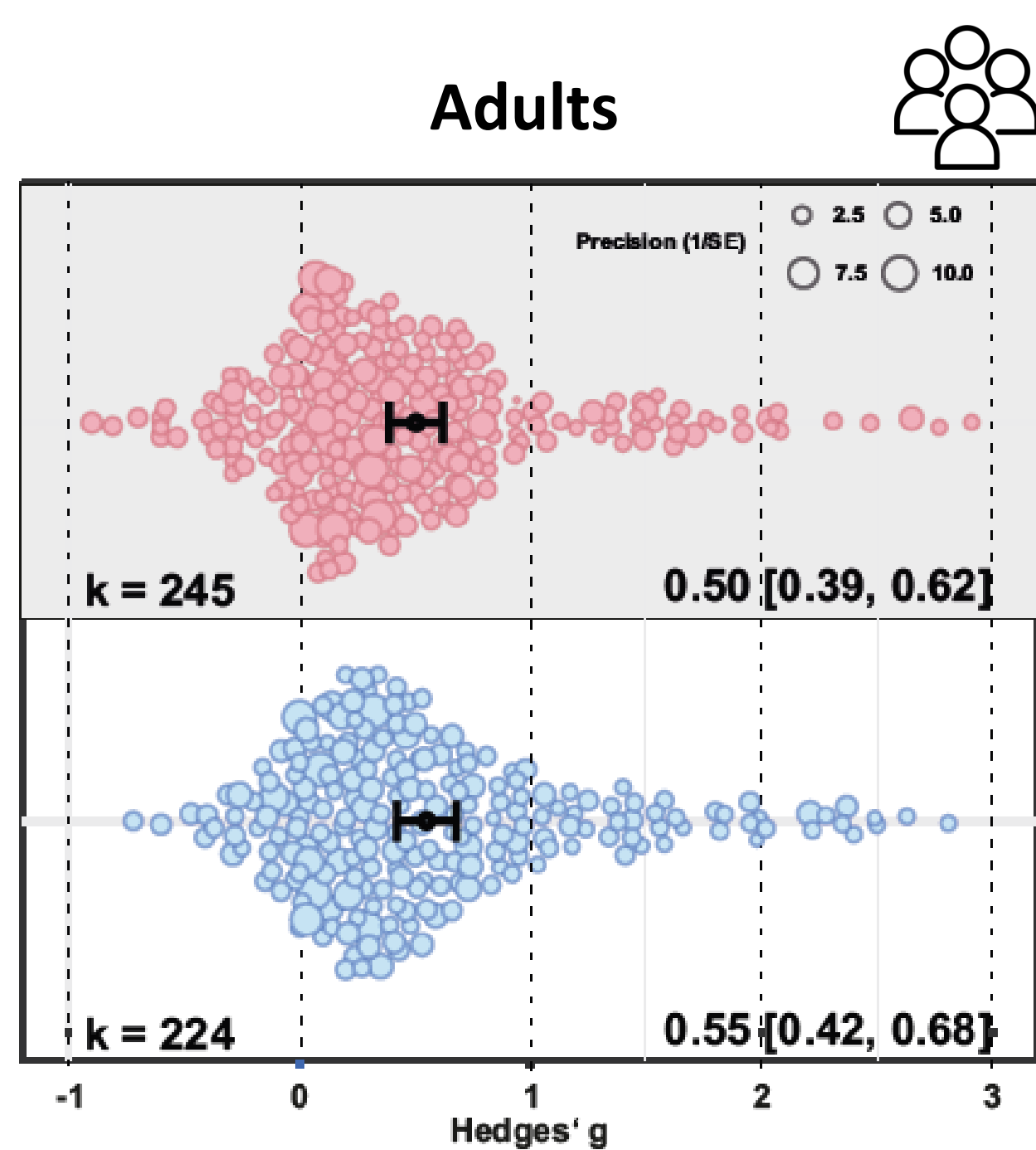


Physical health

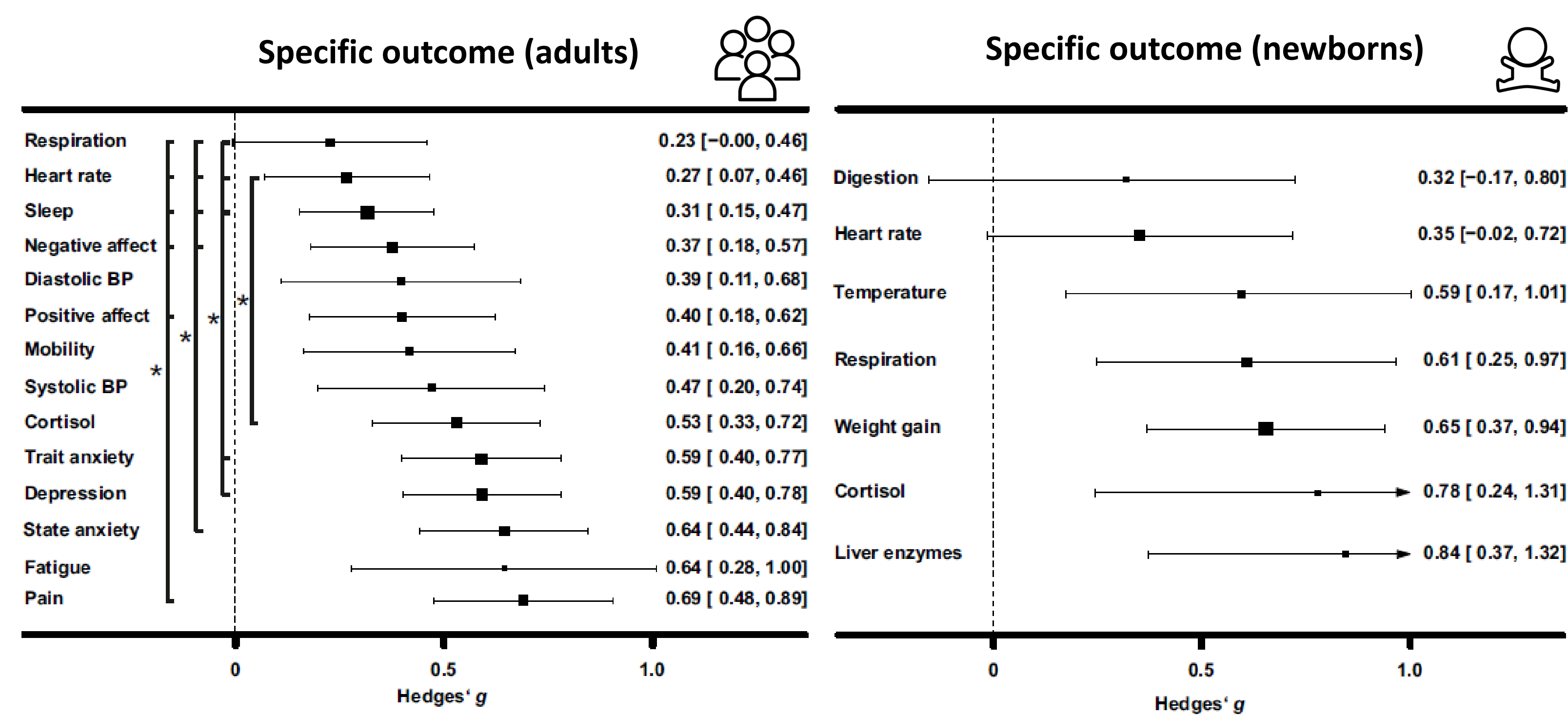
- Search on** Google Scholar, PubMed & Web of Science
- Systematic review** ($n = 81$ studies)
- Meta-analyses** ($n = 91/63$ RCTs for adults & children/newborns, $k = 700$ effects)
- Main variable of interest:** Health outcome
- Collected moderators:**
 - Type of touch (skin-to-skin, massage, kangaroo care, body part, ...)
 - Interaction dyad (human, robot, familiarity, ...)
 - Information on session (duration, amount, location, ...)

Overall Results

Touch interventions improve mental and physical health equally

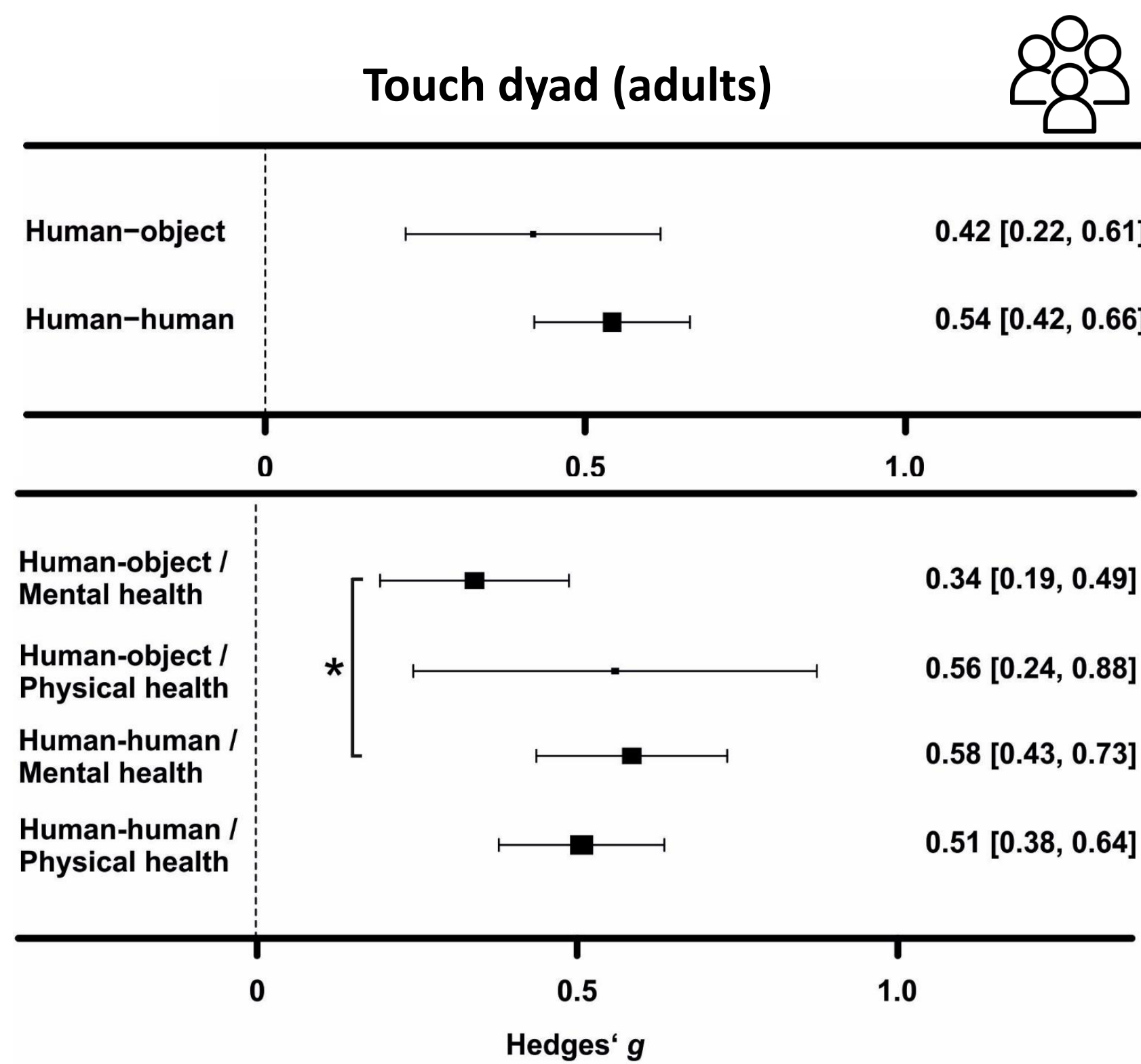


Most health outcomes benefit from touch interventions in adults and newborns

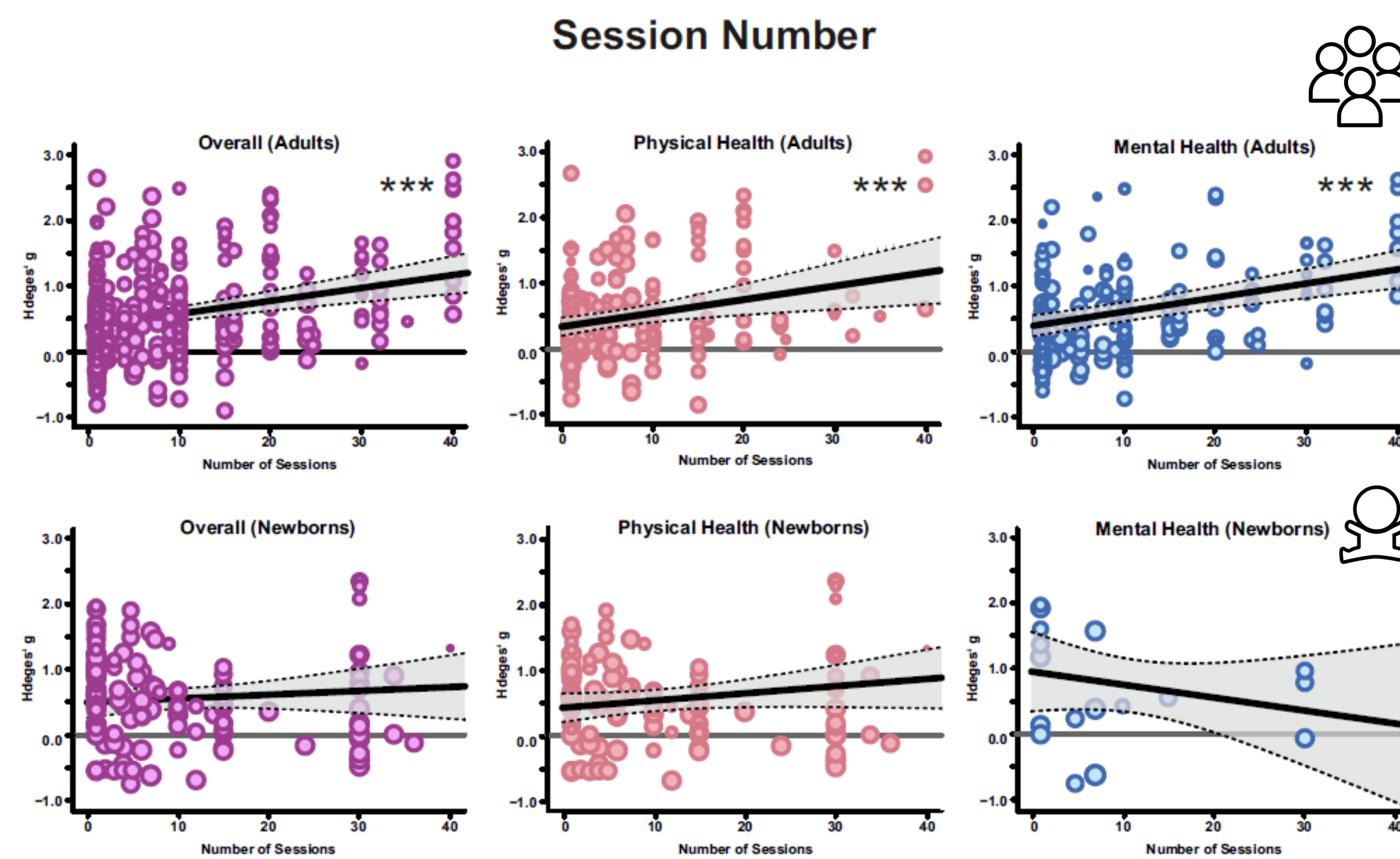


Moderators

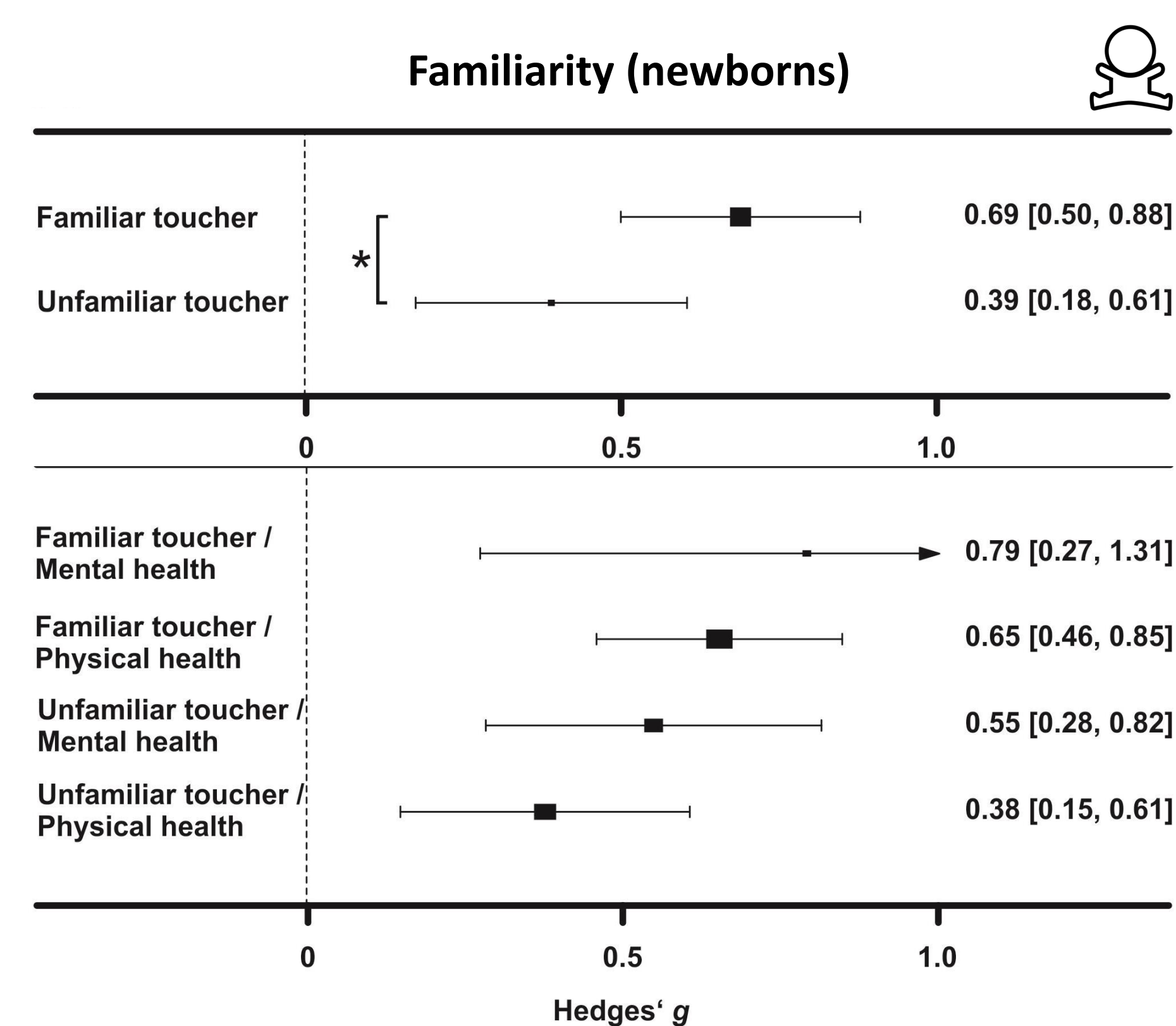
Touch interactions with robots and objects are effective but not equal to the benefits of human-human touch



The number of sessions positively correlates with increased mental and physical health in adults



Health benefits for newborns increase if touch is applied by the parents



Conclusion

Touch interventions are beneficial across a large number of mental and physical health outcomes but are dependent on moderating factors such as the touching dyad or the frequency of applied touch.

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