

Associations between peer counseling and breastfeeding initiation and duration among WIC participants: a meta-analysis

Yarisbel Melo Herrera - University of Rhode Island, ymelo@uri.edu

Background

The Special Supplemental Nutrition Program for Women, Infants and Children (WIC) provides nutrition education via Peer Counseling (PC) to encourage and support initiation and continuation of breastfeeding. To date, no meta-analysis has evaluated the overall association of PC with breastfeeding behaviors. The objective of this study was to investigate the associations between PC and breastfeeding (BF) initiation and duration among WIC participants using a meta-analysis.

Methods

Literature was searched from inception to April 2021, using PUBMED, EMBASE, SCOPUS, CINAHAL, and ProQuest.

Eligibility criteria included:

- Studies reporting BF initiation or BF duration, not necessarily exclusive, until 12 months post-partum.
- Participants: WIC recipients, either pre- or post-natally.
- Intervention: PC programs in the antenatal or post-natal period or both.
- Comparison group: women who did not receive PC services.
- No study design, dates, or language restrictions were applied.

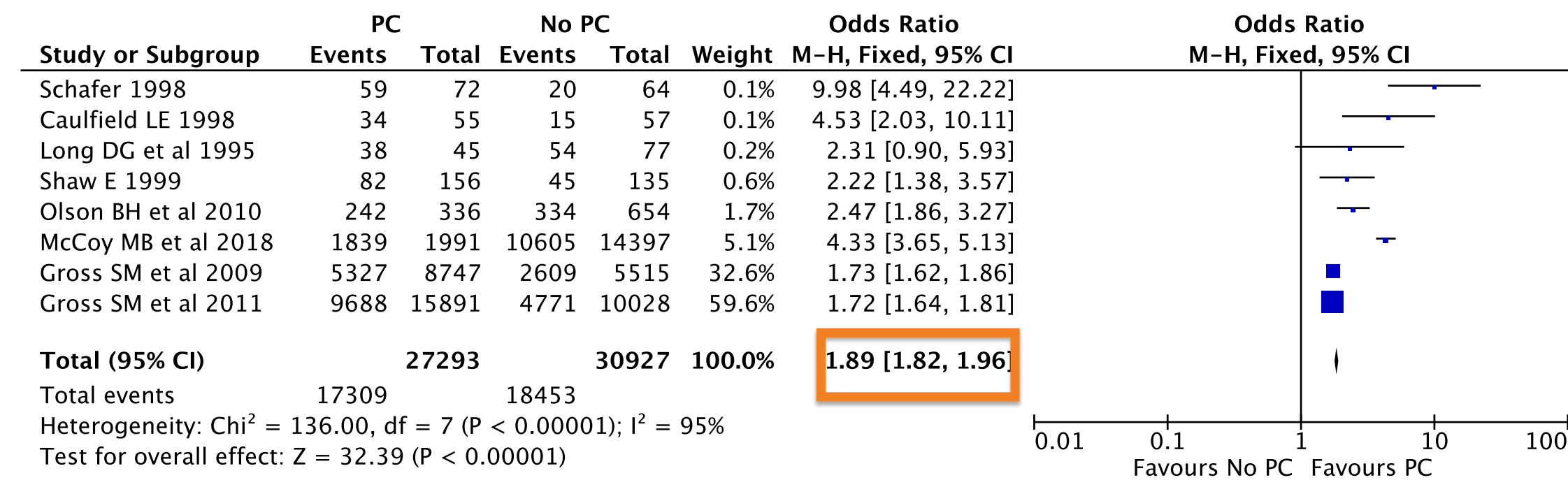
Included manuscripts were assessed for quality using the Newcastle-Ottawa Scale.

Results

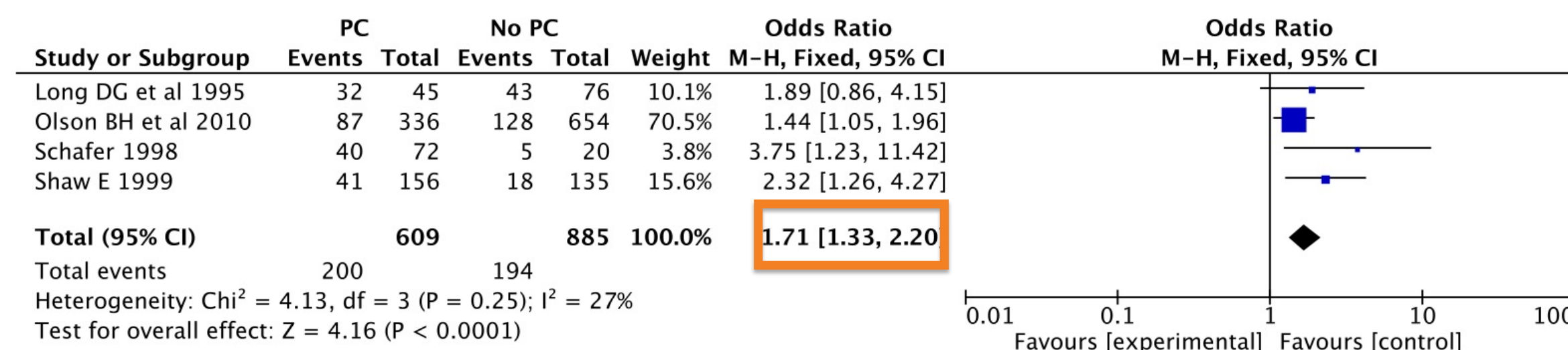
- Nine studies (n=58,398) that evaluated BF initiation (any BF) or BF duration (range 0-12 months) were included.
- Eight studies (n= 58,220) reported BF initiation. Those who received PC were 89% more likely to initiate BF vs. those who did not.
 - The high heterogeneity ($I^2=95\%$) could be attributed to differences in race/ethnicity in study populations, study location/region, study design, and delivery of PC services in terms of timing, intensity, and mode of communication
- Four studies reported breastfeeding duration ≥ 1 month (n=1494). Those who received PC were 71% more likely to continue BF one-month post-partum vs. those who did not.

Data Visualization

Breastfeeding Initiation



Breastfeeding Duration $\geq 1\text{mo}$



Implications

WIC participants who received PC services had significantly higher odds of breastfeeding initiation and duration. These results may inform future policy changes and continued support for WIC PC programs.

Limitations of this study include:

- Large statistical heterogeneity for the outcome breastfeeding initiation, and;
- Evidence of publication bias through inspection of funnel plots.
- No differentiation of PC services by duration, intensity, timing, and mode of communication in the analyses.

Future meta-analyses could explore how breastfeeding behaviors are impacted by timing, duration, and intensity of PC.

Acknowledgements

Thanks to Dr. Amy Vyas for providing her expertise and guidance in conducting meta-analyses; and Dr. Alison Tovar for her continued support and mentorship. Support for this study was provided in part by Cooperative Agreement Number (5U48DP00498-05) funded by the Centers for Disease Control and Prevention's Division of Nutrition, Physical Activity, and Obesity (DNPAO) and Prevention Research Centers Program, which includes the Nutrition and Obesity Policy Research and Evaluation Network (NOPREN). The findings and conclusions in this product are those of the author(s) and do not necessarily represent the official position of the CDC or DHHS.