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Title	Targeting the perinatal diet to modulate the gut microbiota increases dietary variety and prebiotic and probiotic food intakes: results from a randomised controlled trial
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Appendix 1. DGI-13 component score calculations

To calculate the DGI-13 component scores[1], daily servings for each food group were calculated by mapping individual food items on the Dietary Questionnaire for Epidemiological Studies, version 2 (DQES)[2] to their food group and dividing the total g/day consumed for each food group by the grams per serve advice in the Australian Dietary Guidelines (ADG)[3]. Criteria for scoring limiting saturated fat (rule 9a), and limiting salt (rule 11) were modified because the DQES did not survey meat preparation nor added table salt. Instead, for rule 9a, five points were given if unsaturated oils or spreads were used instead of saturated oils. For rule 11, 10-points were given if less than 120mg of salt per 100g of food was consumed (as per the ADG[3]). The DQES did not measure water intake, hence water consumption (ml/day) from the Simple Dietary Questionnaire (SDQ)[4] was used to score rule 7. To score water consumption as a proportion of total fluid intake (7b), the total fluid intake was the sum of the drinks surveyed in the DQES (including alcohol), plus a custom cordial and soft drink (ml/day) measurement.

References

1. Thorpe MG, Milte CM, Crawford D, et al. (2016) A revised Australian dietary guideline index and its association with key sociodemographic factors, health behaviors and body mass index in peri-retirement aged adults. *Nutrients* **8**, 160.
2. Giles G & Ireland P (1996) *Dietary Questionnaire for Epidemiological Studies (Version 2)*. Melbourne.
3. National Health and Medical Research Council (2013) *Australian Dietary Guidelines*. Canberra: Australian Government.
4. Parletta N, Zarnowiecki D, Cho J, et al. (2019) A Mediterranean-style dietary intervention supplemented with fish oil improves diet quality and mental health in people with depression: A randomized controlled trial (HELFIMED). *Nutr. Neurosci.* **22**, 474–487.

Appendix 2. Intervention participation and engagement

Supplementary table 1: Exposure and participation rates for the intervention program

Activity	Program element	Duration (minutes)	Gestation week	Participants exposed (%)
Workshop activities	Teaching, practical activities, action planning, food demonstration	160	26 - 29	22 (100%)
	Set SMART dietary goals	20	26 - 29	22 (100%)
Monitoring	Questionnaires: dietary intake, motivation and readiness to change	15-25 15-25	31 36	20 (90%) 21 (95%)
Monitoring and support	Telephone calls with scripted questions for goal adherence and re-evaluation	10-20 10-20	31 36	22 (100%) 21 (95%)

Appendix 3. Participant-reported dietary advice received

Supplementary Table 1. Reported dietary advice received by practitioner type.

Reported advice	No (%)	Yes (%)	Doctor	Obstetrician	Midwife	Others*
Control	12 (66.7%)	10 (38.5%)	3	4	3	2
Intervention	6 (33.3%)	16 (61.6%)	13	5	9	1
Total	18	26	16	9	12	3

*Others included naturopath, nurse or diabetes educator

Supplementary Table 2. Frequency of dietary advice messages received by group

Dietary advice topic area	**Doctor**		**Obs.**		**Midwife**		**Dietician**		**Other**		
Group	**C**	**I**	**C**	**I**	**C**	**I**	**C**	**I**	**C**	**I**	**Total**
Food safety	2	9	3	2	0	6	0	0	0	0	22
Alcohol avoidance	0	5	0	0	0	2	0	0	0	0	7
Maintain a balanced diet (general advice)	0	2	1	0	0	3	0	0	0	0	6
Increase dietary variety	0	1	0	2	1	1	0	0	0	0	5
Caffeine avoidance	1	1	0	1	0	1	0	0	0	0	4
Iron-rich foods	0	1	1	0	1	1	0	0	0	0	4
Protein increase intake	0	1	1	0	1	0	1	0	0	0	4
Diabetes-related advice	0	2	0	1	0	0	0	0	0	0	3
Handout pregnancy dietary recommendations	0	1	0	1	0	1	0	0	0	0	3
Reduce sugar	1	0	0	0	1	0	0	0	0	1	3
Calcium-rich foods	0	1	0	1	0	0	0	0	0	0	2
Carbohydrate intake times	0	0	0	0	0	0	0	0	0	2	2
Increased fibre, water	0	0	0	2	0	0	0	0	0	0	2
Caffeine safe	0	1	0	0	0	0	0	0	0	0	1
Carbohydrate increase intake	0	0	0	0	0	1	0	0	0	0	1
Carbohydrate reduce intake	0	0	0	0	0	0	0	0	0	1	1
Drinks increase intake	0	0	0	0	0	0	1	0	0	0	1
Eat low GI foods	0	0	0	0	1	0	0	0	0	0	1
Eat often	0	0	0	1	0	0	0	0	0	0	1
Exercise	0	0	0	0	1	0	0	0	0	0	1
Magnesium containing foods	0	1	0	0	0	0	0	0	0	0	1
Pregnancy dietary recommendations (detailed advice)	0	0	0	0	0	0	1	0	0	0	1
Reflux-specific advice	0	1	0	0	0	0	0	0	0	0	1
Vitamin D sources	0	1	0	0	0	0	0	0	0	0	1
Total	4	28	6	11	6	16	3	0	0	1	78

C, Control group; I, Intervention group; Obs., Obstetrician; Other includes Naturopath/ Diabetes educator/ diabetes nurse.