

Author (year)	Type of study	Country / context	Sample Size	Trimester	Focus/ theme	Key findings
Al-Taiar (2025)	Umbrella review	Multicenter	>100.000	All	Neonatal outcomes	Mixed effects on birth weight and preterm birth
Abassi (2024)	Systematic narrative review	Multicenter	n/a	All	Long-term outcomes	Possible effect on metabolic health and stature
Kasap (2023)	Observational study	Turkey	92	2nd	Maternal oxidative stress	↓ (TAC) and ↑ (MDA) with fasting >15 days
Shahawy (2023)	Clinical review	USA	n/a	All	Obstetric counseling	Individualized approach recommended
Kana (2025)	Observational study	Nigeria	400	2nd–3rd	Nutrition and neonates	Birth weight influenced by post-fasting diet quality
Gur (2015)	Observational study	Turkey	65	All	Maternal metabolic parameters	Non-significant metabolic variations
Pradella (2023)	Cross-sectional study	Italy	240	1st	Neonatal outcomes	Slight reduction in birth weight
Savitri (2020)	Cohort study	Netherlands	1.300	1st	IUGR e Ramadan	↑ risk of IUGR in vulnerable subgroups
Oosterwijk (2021)	Systematic review	Multinational	n/a	Various	Neonatal outcomes	Modest effects, dependent on fasting duration
Petherick (2014)	Cohort study	United Kingdom	n.d.	All	Preterm birth	No significant correlation
Mirghani (2004)	Clinical study (ultrasound)	Sudan	38	2nd	Fetal movements	↓ Fetal breathing movements
Mirghani (2005)	Clinical study (CTG – Cardiotocography)	Sudan	44	2 nd	Fetal well-being	↓ Fetal heart rate variability
van Ewijk (2013)	Longitudinal study	Indonesia	>20.000	1 st	Adult outcomes	↓ Height and school performance
Pradella (2024)	Meta-analysis	Multinational	n/a	All	Long-term outcomes	Associations with growth and metabolism
Afandi (2019)	Observational study	EAU	27	3rd	Gestational diabetes mellitus (GDM) and continuous glucose monitoring (CGM)	Better glycemic control with CGM
Ibrahim (2020)	Practical study	EAU	n/a	All	Diabetes e Ramadan	Recommended use of CGM
Alkhalefah (2021)	Experimental animal study	Saudi Arabia	mice	Mid-to-late	Placenta	↓ Placental amino acid transport
Alkhalefah (2022)	Animal study	Saudi Arabia	mice	All	Placental metabolism	Lipid alterations and fetal growth

Yin (2023)	Animal study	China	mice	Late	Hepatic metabolism	↓ mTORC1 and liver function in the offspring
Yin (2021)	Epigenetic study	China	mice	Pre-gestation	Epigenetics	Altered fetal DNA methylation
Liang (2023)	Animal study	China	mice	All	Gut microbiota	Dysbiosis and intestinal inflammation

Author (year)	Country	N (fasting)	N (non-fasting)	Medium weight(g) fasting ± SD	Medium weight (g) non-fasting ± SD	LBW <2500 g fasting (n/N)	LBW <2500 g non-fasting (n/N)	Trimester	Note
Pradella (2023)	Italy	98	207	3307 ± 511	3373 ± 540	4/98 (4%)	10/207 (5%)	1°:117 , 2° : cross-sectional study, 92 , 3° : 116 BMI-adjusted analysis	dichotomous LBW data reliable for meta-analysis; very small mean weight differences
Savitri (2020)	Netherlands	116,01	1,219,606	3420.3±582.7	3464.3±599.7	6,491 / 116,010	72,829 / 1,219,606	Any trimester	Significantly lower mean weight in fasting; lbw data non reported
Kana (2025)	Nigeria	1158	212	3005.96 ± 472.78	3206.74 ± 514.82	n.d.	n.d.	2°–3°	Combined fasting; no significant difference between fasting and non- fasting; Fasting ≥20 days; no significant difference in birth weight, gestational age, or delivery type; reduced AFI in the fasting group
Ziaee et al., 2010	Iran	123	66	3043 ± 577	3010 ± 500	–	–	1°	Prospective study of Muslim women; fasting not associated with significant differences in birth weight, lbw, or preterm birth
Seckin et al., 2014	Turchia	82	87	3089 ± 300	3450 ± 352	–	–	≥20 fasting days	
Pheterick et al., 2014	UK	128	172	3219.3 ± 534.4	3133 ± 467.4	8/128 (6.3%)	14/172 (8.1%)	1°: 42, 2°: 74, 3°: 11	