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Parental reporting of the feeding practices of infants in New Zealand

An observational study

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Abstract

Background: Term infants (≥ 37 weeks' gestation) have often been regarded as a homogenous group of neonates who do not have increased risks associated with their gestational age at birth. However there is growing evidence to suggest that infants born between 37 to 38 weeks and 6 days gestation (early term) are at increased risk of suboptimal short- and long-term health outcomes compared to infants born greater than 39 weeks' gestation. At present, a small number of studies have investigated the feeding practices of early term infants (ETIs) from birth until 12 months of age compared to full term infants (FTIs). The limited evidence available on the feeding practices of ETIs suggests that these infants are likely to have reduced breastfeeding durations. The reasons for the reduction in breastfeeding rates seen amongst ETIs have yet to be adequately explored.

Objective: The aim of this present study is to compare the feeding practices of ETIs and FTIs living in New Zealand during the first six months after birth in relation to recommendations, and determine the factors that influence their feeding practices.

Methods: Participants were eligible for inclusion into the study if they were born ≥ 37 weeks gestation and were aged between five and nine months at the time of recruitment. A total of 438 infants and their caregivers were recruited from across New Zealand. An online six month infant feeding questionnaire was administered which collected data on feeding in the first week after birth; feeding from two weeks to six months; current intake; problems with feeding; obstetric and demographic details.

Results: Early term infants were less likely to exclusively breastfeed during their hospital stay ($P=.013$), at week one ($P=.016$), week four ($P=.029$), week 17 ($P=.040$) and week 22 ($P=.014$) compared to FTIs. No differences were seen between the two groups at 26 weeks of age. Mothers of ETIs reported experiencing more breastfeeding difficulties during the first week after birth compared to FTIs ($P=.015$). Early term infants were more

likely to be born by elective caesarean birth ($P=.003$) compared to FTIs. More ETIs were born to mother's ≥ 35 years of age compared to FTIs (41.1% versus 33%). Infants born early term were more likely to be admitted under paediatric care ($P=.003$) and be admitted to a newborn care unit ($P=.007$) after birth compared to FTIs. The median (IQR) age of the introduction to solid foods was 22.8 (20.4-25.4) weeks, no differences were seen in the timing of the introduction of complementary foods between ETIs and FTIs. The most common first foods introduced to infants were vegetables (34.8%), followed by infant baby rice or cereal (33.0%) and fruit (20.0%), no infants were introduced to red meat as their first food.

Conclusion: Differences in infant feeding practices and health outcomes were identified between ETIs and FTIs. It is suggested that District Health Boards, health care professionals, and stakeholders in New Zealand adopt the definition of early term birth.

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Abbreviations

Abbreviation	Terminology
ACH	Auckland City Hospital
BLW	Baby led weaning
BMI	Body Mass Index
CI	Confidence Interval
DHB	District Health Boards
ESPGHEN	European Society for Paediatric Gastroenterology Hepatology and Nutrition
ETIs	Early Term Infants
FTIs	Full Term Infants
GA	Gestational Age
GUINZ	Growing Up in New Zealand
HDEC	Health Disability Ethics Committee
ID	Iron deficiency
IDA	Iron deficiency anaemia
NICU	Newborn intensive care unit
RDI	Recommended dietary intake
RR	Relative Risk
WHO	World Health Organisation
UNICEF	United Nations Children's Fund

