INFANT FORMULA STANDARDISATION NEEDED TO REDUCE RISK OF ERRORS

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STANDARDISATION of infant formula reconstitution ratios and improvements in manufacturer feeding guides may reduce risks of under- and overfeeding, according to the authors of a Perspective published online today by the Medical Journal of Australia.

Under the Infant Formula Products in the Australia New Zealand Food Standards Code, and while the Code specifies the mandatory nutrient content for infant formula and follow-on formula to ensure that nutrition requirements are met, they do not adequately ensure accuracy of formula preparation and provision.

"In particular, potential for error remains around formula powder reconstitution, given multiple differing brands with variable scoop to water ratios, and volume of feed for differing ages and body weights," wrote the authors, led by Shelley Farrent, Senior Paediatric and Neonatal Dietitian at Flinders Medical Centre in Adelaide.

"In Australia, there are more than 10 brands of infant formula from which to choose.

"There is currently no unbiased, freely available source of information to help parents choose a formula and this is often the first point of confusion," Farrent and colleague wrote.

"[We] frequently encounter parents swapping formulas in response to their infant’s behaviour, believing that another formula may offer benefit."

While the Standards Code mandates the inclusion of the powder to water reconstitution ratio on the label, it does not dictate scoop size.

"Consequently, the scoop to water reconstitution ratio is determined by the manufacturer, although the powder weight to water ratio is relatively constant between manufacturers," Farrent and colleagues wrote.

"In Australia, there is significant variation in reconstitution ratios across brands. Australian infant formula dilution reconstitution ratios are most commonly either one scoop per 30 mL water, per 50 mL water or per 60 mL water.

"The choice between a smaller or larger ratio is manufacturer-specific. Explanations company representatives have provided for choosing a smaller scoop to water ratio include being able to make up smaller quantities of formula, greater accuracy, and a reconstitution method that yields rounded number volumes of 100 mL.

"In contrast, companies with larger scoop to water ratios propose reduced risk of error in sleep-deprived parents who might lose count of scoops.

"However, none of these justifications are evidenced-based. While there is a general expectation that parents use the formula label instructions or community advice, brand changes enhance potential for parental miscalculation of formula concentration."
The authors suggested that standardisation of reconstitution ratios was “an opportunity to minimise error”.

Farrent and colleagues were also critical of feeding guides provided by formula manufacturers.

“Formula feeding guides provided by companies on formula tins vary between companies and by not accounting for weight, differ from NHMRC recommendations, which may lead to over- or underfeeding,” they wrote.

“Standardisation of formula feeding guides in line with NHMRC feeding guidelines, with clearer warning statements, may help reduce these risks.

“The absence of evidence as to the effectiveness and risks of current food and nutrition policy with respect to infant formula feeding is a significant gap in ensuring the safe care of infants both in our community and worldwide,” they concluded.

“We propose that this area becomes a future focus of public health research and advocacy for child health.”

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