Systematic review and meta-analytic review of longitudinal studies on the association of substance use in breastfeeding women with maternal lactation and child development.

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Introduction and Aims: National data indicate that substance use is common among breastfeeding women in Australia, specifically alcohol, cannabis, nicotine and caffeine(1-5). There is growing evidence that each of these substances may have adverse associations with child development and maternal lactation, however there is notable inconsistency in results across studies. The aim of this review is to synthesise the available literature and conduct a meta-analysis of study results to improve understanding of the association substance use among breastfeeding women with maternal lactation and child development outcomes.

Design and Methods: A systematic search was conducted in the following databases: CINAHL, Embase, MEDLINE Complete, and PsycINFO. Studies were included if they were published in English, had a human sample, quantitative data, a longitudinal design, and an association between maternal substance use during breastfeeding and child development between birth and 18 years. Substances of interest were alcohol, nicotine, cannabis and caffeine. Child development outcomes included physical, socio-emotional, cognitive, language, adaptability and motor skills. Lactation outcomes were also considered, including duration and exclusivity. Prospero registration: CRD42020207430.

Results: Of the 1,629 articles identified, 92 were eligible for inclusion. Preliminary results suggest that all substance use classes (except caffeine) were associated with poorer maternal lactation and/or child development outcomes, albeit effects sizes were generally small.

Discussions and Conclusions: Findings suggest clear guidelines are required for lactating women regarding the intake of these substances during this critical period of infant development.

Disclosure of Interest Statement:
No conflicts of interest.

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