Kaitlyn Rae

Bio: https://research-repository.uwa.edu.au/en/persons/kaitlyn-rae/

Kaitlyn is a second year PhD candidate at The University of Western Australia investigating breast milk metabolomics, chrononutrition, and the links between milk composition and infant sleep. She holds an Honours degree in Human Reproductive Biology from UWA, where her research focused on neonatal opioid withdrawal syndrome. Prior to commencing her PhD, Kaitlyn worked as a scientist in molecular immunology, specialising in DNA extraction and PCR for organ transplantation. Kaitlyn's current work integrates LC-MS method development with infant feeding and sleep data to examine how nutritional and hormonal patterns in breast milk influence early-life physiology. Her research aims to advance understanding of infant sleep regulation and support evidence-based guidance for breastfeeding families.

Title: *"Does the Volume and Energy of Breast Milk Consumed, Impact the Timing and Duration of Infant Sleep?"*

Sleep in early life supports neurodevelopment, yet the role of feeding in shaping infant sleep remains unclear. Despite limited evidence, feeding strategies such as providing larger, "filling", or more energy-dense feeds are commonly used to encourage longer sleep. In this session, I will examine whether the volume and energy content of breast milk feeds, influence the timing and duration of infant sleep. Using detailed feed-level intake data and milk composition alongside prospective sleep recordings, this work investigates whether short-term variations in intake are associated with infant sleep outcomes. The findings challenge common assumptions around feeding and sleep and have important implications for breastfeeding guidance. They also highlight the need to explore bioactive components of breast milk, such as hormones, in shaping infant sleep-wake patterns.