



James Isbister

Warmth, Milk, Bonding and Hygiene: How an Australian Paediatrician Shaped Neonatal Care in the 1950s

Oxytocin plays a crucial role in physiological and psychological processes, including childbirth, lactation, social bonding, and emotional behaviours. Clair Isbister's groundbreaking research 70 years ago reshaped newborn care. She published the first detailed observational human studies on the draught reflex, including her own breastfeeding experiences and the links to oxytocin. She established that stress or pain could impact milk flow, while comfort and connection boosted flow. Oxytocin's role in bonding wasn't yet understood, but Clair Isbister hinted at its power; mothers who felt calm and supported nursed more successfully.

Today, we recognise oxytocin as a multitasking neuropeptide responsible for the induction of labour, contractions during birth, breast milk release, and the primal bond between mother and infant. In 1909, Henry Dale coined the term "oxytocic" to describe substances that stimulate uterine contractions. In 1928, Oliver Kamm at Park Davis Co, isolated posterior pituitary extracts, leading to the commercial preparation, Pitocin®, used to induce labour. Clair Isbister's 1954 publication on the draught reflex was one year prior to Vincent du Vigneaud being awarded the Nobel Prize for discoveries on sulphur compounds and the synthesis of oxytocin.

Clair Isbister's insights and clinical research extended deeper into neonatal care. Along with her landmark epidemiological research on hospital cross-infection and the development of NHMRC guidelines. With physician husband she also addressed thermoregulation challenges for newborns by developing electric heating pads adapted from "greyhound" dog heating blankets. Newborns rely on brown adipose tissue for generating heat, enhanced by oxytocin through receptor signalling.

Clair Isbister's "Sleeping Beauty" publications are eloquently insightful and eerily modern, and calling for re-awakening. Her neonatal breastfeeding, thermoregulation and hygiene research foreshadowed today's "kangaroo care." Her empathetic studies, rooted in both subjective and objective observations, remind us that medicine's greatest advances often begin by listening to a mother's natural instincts.

Reference

Isbister C. A clinical study of the draught reflex in human lactation. *Arch Dis Child*. Feb 1954;29(143):66-72.