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Letter to the Editor

Substance exposed infants need for attachment

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Substance exposed infants often experience withdrawal symptoms shortly after birth due to exposure to drugs of addiction while in utero (Oei and Lui, 2007). Symptoms may include; irritability, metabolic disturbances, feeding difficulties, seizures and excessive crying (Bagley et al., 2014). Treatment of these infants often necessitates admission to intensive and special care units (Haduk and Tan, 2012). Extant research into the care of this vulnerable population focuses on symptom management and the promotion of physiologic health (eg. Abbett and Greewood, 2012; Bagley et al., 2014). However, there is a scarcity of literature regarding promotion of mental health in this vulnerable group of infants (Marcellus, 2007, p. 37).

The period after birth is known for rapid neurological development and is the time of greatest neuroplasticity (Balbernie, 2013). It is during this time that the circuitry of the brain is “wired”, laying the foundations for life-long neurologic function. It is well established that during this period of time, infant brain development is experientially and environmentally dependant (Zeanah, 2009). For an infant, experience and environment are relationally based. Therefore, optimal brain development is reliant on the infant's primary attachment relationship (who is most often the biological mother) (Sullivan et al., 2011). Within this relational context, the structure and functioning of the child's neurological system is shaped. Absence of this relational context is known to have long-term deleterious outcomes including higher incidence of emotional, behavioural and psychological difficulties (Vela, 2014).

Extant literature regarding the care of substance exposed infants discuss interventions that are known to promote attachment, such as; breast-feeding, kangaroo care and rooming in (Kearvell and Grant, 2010). When used with substance exposed infants, these interventions have also been found effective in decreasing length of hospital stay, minimising the need for pharmacological intervention, and reducing agitation (for summaries, see Abbett and Greewood, 2012; Artigas, 2014; Bagley et al., 2014; Casper and Arbour, 2014; MacMullen et al., 2014). What is difficult to ascertain is whether the intervention itself (i.e. kangaroo care) or the resulting attachment (between mother and infant) is the determining factor in the positive outcomes.

Although current health and social policy generally recognise the significance of the primary attachment relationship to the infant's health and well-being, the reality is many substance exposed infants have limited to no interaction with their biological mothers while hospitalised. The reasons for this lack of interaction may include; poor maternal physical or mental health, maternal issues of addiction and, most commonly, the intervention of child protection services (Canfield et al., 2017). In the absence of the biological mother, more often than not it is the nurse or midwife who provides the majority of day to day care to substance exposed infants during withdrawal and hospitalisation (Murphy-Oikonen, Brownlee, WMontelpare, & Gerlach, 2010). These health professional report caring for substance exposed infants to be arduous and time-consuming (Fraser et al., 2007; Maguire et al., 2012). Given the rotating rosters associated with nursing and midwifery work, substance exposed infants experience a change in caregiver every 8–12 hours. Such inconsistency is not conducive to the development of a healthy attachment relationship. Moreover, the development of a primary attachment relationship with a patient (even an infant) is considered professionally inappropriate.

The nurses and midwives caring for substance exposed infants in the hospital setting are expected to provide holistic care. Such care addresses psychosocial and spiritual needs in addition to the physiological (Daly and Watson, 1996). Therefore, the nurses and midwives caring for substance exposed infants have a responsibility to assist the infant to develop a healthy primary attachment relationship (Franklin, 2006; Pajulo et al., 2001). But what happens if the biological mother is absent? How is the infant's need for attachment satisfied?

The use of volunteer ‘baby cuddlers’ has been observed to reduce symptoms and length of hospital stay in substance exposed infants (Kraynek et al., 2012). These volunteers provide human contact and comfort by holding, rocking, and soothing the infant. Although these volunteer programs are effective in managing the symptoms associated with withdrawal (i.e. irritability or excessive crying), they are not able to provide the individual time and consistency necessary to develop a healthy primary attachment relationship.

In cases where child protection services become involved and assume care of the infant, there is an expectation that a foster or kinship carer will be identified to serve as the infant's primary caregiver (either temporarily or ongoing). However, there is anecdotal evidence which suggests these alternate primary caregivers are not identified until the infant is ready for discharge from the hospital (Blythe, 2015). The duration of hospitalisation for this vulnerable group of infants varies and can range from days to months (Pritham et al., 2012). In this instance, the infant may be left with no primary caregiver for a significant period of time during a crucial neurodevelopmental stage. One may argue such circumstances correlate with institutional neglect, where the

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physiological needs of the infant are met, but psycho-social needs are not. Such care-giving is known to have long-term negative outcomes (Vorria et al., 2006).

There is emerging research that indicates nurses and midwives struggle to promote attachment for substance exposed infants in the absence of their biological mothers (Shannon et al., 2016). This is most concerning given the consistent evidence demonstrating persons with a compromised or absent primary attachment relationship during infancy, develop significant long-term behavioural, psychological and emotional difficulties (McLean, 2016). Given this understanding, there is a clear need to identify evidence based interventions which promote and protect the mental health of hospitalised, substance exposed infants in the absence of their biological mother.

This paper aims to raise awareness of the importance of the attachment relationship for this vulnerable group of infants. It hopes to begin discussions amongst clinicians and researchers regarding ways to support nurses and midwives to facilitate the attachment relationship for substance exposed infants, even in the absence of the biological mother. Such discussions will likely lead to innovative thinking, further discussion and research, and ultimately better outcomes for the infants.

Conflicts of interest

None.

Appendix A. Supplementary data

Supplementary data related to this article can be found at http://dx.doi.org/10.1016/j.jnn.2018.06.005.

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