Attachment-keeping NICU Infants Safe

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Abstract

Child maltreatment is a risk for graduates of the newborn intensive care unit (NICU). Infants represent the highest child maltreatment victimization group and parents, particularly mothers, are significantly represented as perpetrators. The challenges of a NICU environment along with the care burdens associated with NICU infants increase child maltreatment risks. Medical providers can reduce the risk of child maltreatment by fostering attachment bonds between mother and infant in the NICU.

Keywords: Maltreatment; Infants; NICU; Attachment; Mothers

Child Maltreatment and Infants

Child maltreatment is a public health concern [1,2]. Child maltreatment warrants a public health concern due to the systemic adverse outcomes (i.e., physical harm, aggression, psychological disturbances, and delinquency). Child maltreatment is estimated to cost society approximately $80 billion [3]. The costs associated with child maltreatment are considered conservative estimates because it is difficult to ascertain the full scope of the problem. Presently, the Department of Health and Human Services (2012) reports that neglect comprises a majority (75%) of child maltreatment cases, followed by physical abuse (18%), and sexual abuse (9%).

Child maltreatment is significantly under-reported and this limits the full scope of the problem. Many victims do not report child maltreatment due to factors that include failure to recall, denial, misinterpretation, and embarrassment [4]. Betrayal trauma also contributes to under-reporting of child maltreatment [5]. Betrayal trauma is defined as a child's psychological denial of abuse in order to maintain attachment to caregivers. Children exposed to multiple abuses based on a lack of parental response and protection also suffer from cumulative trauma [6]. Cumulative trauma occurs in the absence of parental response and protection and increases a child's risk of being a victim of multiple maltreatment (poly-victimization) incidents [6].

Parents are overwhelmingly represented as perpetrators of neglect with maternal neglect exceeding paternal neglect at 37% and 19% respectively [7]. In 80% of child fatality cases, the identified perpetrators are parents and more than half (54%) of abuse and neglect perpetrators are women (DHHS, 2012). Child neglect and fatal neglect perpetrators are predominantly female and biologically related to the victim [8].

Infants (defined as children under one year of age) have a unique victimization rate of 21.9 per 1,000 and this represents the highest victimization group rate in the nation (DHHS, 2012). In addition, infants are cited as the highest abuse and fatality group [4,9-11]. The risk factors for physical abuse of infants include a child under the age of 18 months, prematurity, and twinship [11]. Additional risk factors include positive toxicology results at birth, fetal alcohol effects (FAE), developmental delays, disabilities (i.e., physical, cognitive, development), and attachment issues [12].

In terms of infant related child welfare investigations, factors that contribute to a report are caregivers between the ages of 20 and 30, domestic violence, caregivers with minimal supports, and mental health issues [12]. The statistics related to the child maltreatment and risk to infants increase the concern for infants in the newborn intensive care unit (NICU).

NICU Families and Risk

Based on child maltreatment data there is major cause for concern for infants born and discharged from the NICU. The NICU experience produces high levels of stress for parents [13]. The high levels of stress that parents experience are related to infant appearance, inability to provide care, and limited intimacy with their infant. In addition, trauma related stress occurs when parents perceive the NICU admission as a disruption to their perception and change in the anticipated norm [14]. Stress related trauma contributes to parent's feelings of ongoing, enduring uncertainty, and lack of agency in the parenting role [14]. Melnyk et al. (2005) believes that long-term poor parenting outcomes are due to negative parent-child interaction trajectories that begin in the NICU [15]. Stress, feelings of helplessness, absence of parenting knowledge, and negative child-interaction contribute to misperceptions about the infant, resulting in difficult parent-child interactions [15].

NICU parents experiencing a NICU admission have an increase in psychological stress that may endure well after discharge [16]. NICU parents have increased symptoms of intrusion and avoidance and higher risk of post-traumatic stress disorder (PTSD) for untreated stress. Jotzo and Poets believe that the emotional impairments of NICU parents have long-term, adverse impact on parental self-confidence and parenting [16].

Post-partum depression is a significant risk for mothers with infants in the NICU [17]. There is a correlation between maternal depression and attachment with maternal depression being associated with diminished parenting skills and later behavioral difficulties in children. Adolescent are particularly vulnerable to adverse parenting outcomes related to mental health problems [17].
The effects of PPD in mothers continue to be a concern after discharge from the NICU. Mothers in the NICU can experience PPD for up to 4 months post discharge [18]. In a study, single mothers were at higher risk for experiencing PPD at 4 months post discharge, mothers with a history of depression had an increased risk of experiencing PPD at 1 month post discharge, and mothers who felt depressed in the pregnancy experienced PPD at 1 and 4 months post discharge [18].

NICU parents are unable to establish the necessary attachments to their infant. Mothers express stress, anxiety and loss due to a premature birth [19]. Furthermore, these mothers feel physically and mentally rushed into motherhood without the time need for adjustment to the circumstances. NICU mothers report being anxious and unable to form an intimate attachment due to a fear of death and loss [19]. A parent's inability to psychologically adjust to the NICU contributes to the disruption in the attachment bond. Furthermore, these parents never build the confidence to execute caretaking tasks and may have poor parenting outcomes post-discharge.

A study found that out of 2,463 NICU graduates, 523 (21%) received at least one report for child maltreatment between 2-6 years post discharged. There is a pattern of abuse with children being at higher risk during the first year of life and the first month of life is the highest reporting period. There is a correlation between caregiver burden and increased child welfare reports with higher caregiver burden increasing risks for received child welfare reports [20].

Attachment

Attachment bonds are crucial for mothers and infants in a NICU setting. There is an identified “sensitive period” to develop an attachment for very low birth weight, preterm infants [21]. Infants who are able to see their mothers within three hours after birth developed a secure attachment pattern at 12-18 months of life [21]. The best way to establish maternal attachment with their infant is through holding and skin-to-skin [19].

The time-period following the delivery of an infant is important for bonding. In addition, the time-period following delivery can also be damaging for attachment bonds since it is a crucial time for establishing them particularly for low birth-weight infant [21].

The first three hours after birth is considered a “sensitive-period” with the potential to establish secure attachment patterns that endure through 12 and 18 months of life [21]. Skin-to-skin contact and holding an infant is considered to be the best way for a mother and infant to develop attachments [19]. However, in the NICU the removal of a low-birth weight infant for admission into a NICU can disrupt and damage attachment formation.

The attachment bond is a development goal. Attachment between mother and infant provides security and promotes exploration for the infant [22]. The close proximity of the mother provides protection and safe base for the infant [22]. It is the safety and protection provided by the attachment bond that promotes exploration and development. The safe base offered to the infant through quality interpersonal contacts with the mother has profound implications for long-term health, developmental and safety outcomes. The attachment bond developed between mother and infant influences development and interpersonal relationships later in life.

The NICU hospital course can erode the attachment bond between mother and infant. An infant's NICU course can vary from a few days to several months. During this time a mother remains unaware of the health outcomes of the infant. The mother's NICU experience involves high levels of concern for death and loss [19]. In addition, these concerns of death prevent mothers from developing intimate bonds with their infant [19]. The factors that can mitigate disrupted attachments during a lengthy admission include the reduction of stress [13,16], NICU staff support of mother-infant bonding [23,24], and NICU policies that encourage and support parent involvement and interaction [24,25].

When an infant is admitted into the NICU, complete care of the infant is transferred to the medical team. In favor of focusing primary attention to the medical needs of the infant, the parenting role is often overlooked in the NICU environment. The clinical routines in the NICU serve to further distance parents from developing attachment bonds and providing care to their infant. The medical team inadvertently contribute to parental doubts about parenting competencies by removing decision-making abilities, requiring permission in order for mothers to hold and provide care to their infant, and withholding complete and accurate information about their infants [26]. The medical priorities and routine practices further compromise attachment.

The NICU environment prevents parental attunement with infant. Alexander (2013) identifies affect communication as the cause for disorganized attachments [27]. A mother’s misattunement (i.e., inappropriate responses and contradicting communications) results in a disorganized attachment [27]. Mothers who do not attune to their infant offer reduced protection to their infant, and contribute to subsequent trauma for the infant [27]. Child abuse is associated with disorganized attachment resulting from maternal trauma, loss, and low mentalization [28]. Disorganized attachment from childhood often continues through adolescence and adulthood, and can lead to mental health problems [28].

NICU children are a special group and their families have unique needs and risks. While the hospital can address the medical needs, NICU parents have communication needs [29], and display “information behavior” while in the NICU [30]. De Rouck and Leys (2011) assert that parents’ “information behavior” occurs when the disease course for NICU infants triggers parent information-seeking behavior. The infant's sickness-trajectory influences a parent's informational needs and the frequency of information required [30].

The literature recommends an assessment of overall parent needs in the NICU [31]. Studies advocate for the support of parenting in the NICU to ensure successful health outcomes [32-34]. Similarly, studies emphasize the need to prepare caregivers for transition from the NICU to home [35], and overcoming the cultural barriers to preparing NICU families for successful outcomes post-discharge [36].

Role of Medical Providers

More awareness is needed for the child maltreatment risks associated with disabled children [37]. NICU children are similar as they have special medical needs and may have subsequent impairments. Direct services that are tailored for special needs children are needed. Social service, mental health, and medical service providers are key intervention sources in preventing child maltreatment of children with special needs [38].

The role of the medical provider is crucial in preventing child maltreatment [10,11,37,39-41]. The medical community has taken
more responsibility for the identification of children in need of protection. Subsequently, there is a need to develop child maltreatment interventions at the medical provider level and a need for specialized child welfare services to address the unique needs of special needs NICU children. It is also essential to develop evidenced-based maltreatment prevention strategies for the special needs of NICU graduates.

The role of the NICU provider is expanding to encompass medical needs and long-term developmental outcomes. Bader (2012) states that the NICU provider’s role is not just to save an infant’s life and recommends proprioceptive input, positive touch and infant massage, and minimizing infant stress. Medical providers need to encourage and motivate parents to touch their infant and educate parents about the connection between interaction with their infant and the development of the infant brain [23]. NICU parents should also be taught how to read their infant cues and appropriately respond [23]. In receiving education and support from NICU providers, parent's stress can be reduced and their confidence increased when completing care activities for their infant [23].

NICU staff can influence parenting trajectory. Medical staff can impact the parenting experience in the NICU both positively and negatively. NICU nursing behaviors can limit parental interaction with their infant [26].

Based on workflow assignments in the NICU, mothers can feel that their infant's needs are not met [26]. In addition, due to the complicated NICU environment mothers can feel that they are not provided with complete, comprehensible, and consistent information and they are often excluded from the decision making process [26].

Family Centered Care (FCC) is a health system model of care that can address NICU parenting concerns and support their unique needs. FCC can increase parental competence through involvement in infant care, and participation in the decision making process [24, 25]. It can also provide a foundation to mend disrupted parent-child attachments resulting from the NICU setting [24]. As FCC is an inclusive, family support model it can help reduce a parent stress and support mental health in the NICU.

Increasing communication between medical providers and parents can foster the parents’ abilities to provide care to their babies (Gooding, Cooper, Blaine, Franck, Howse and Berns, 2011). Parental participation can be improved by scheduling infant care needs according to parents’ schedules [24]. NICU parents can also participate in daily care rounds and this promotes their inclusion in the feedback loop and care planning [24]. NICU policies should be instituted that promote full parental access to infant and medical information [24]. FCC initiatives support parent's needs and educates parents on how to be successful caregivers post discharge [24].

Research Implications

There is a need to provide education on optimal parenting methods to prevent maltreatment of NICU graduates. Currently, NICU literature focuses on establishing adjustment and improving mental health outcomes for parents [13, 14, 18, 19, 26, 41-45]. Also, medical providers are encouraged to support parents when they transition from the NICU to home [32-34]. In terms of NICU child maltreatment prevention, efforts focus on shaken baby syndrome and safety promotion efforts address sudden infant death syndrome (SIDS). It appears that more needs to be done to foster attachment in the NICU to improve post-discharge outcomes.

Research is needed to examine child maltreatment in the NICU population. Research should explore the effects of disrupted attachment between mother and NICU infants. In addition, child maltreatment prevention efforts should examine the outcomes of bonding for mothers and NICU infants. There is a need for evidenced-based interventions with a primary focus to improve mother-infant interaction in order to reduce infant related child maltreatment.

Conclusion

NICU infants need to be identified as a high-risk maltreatment group. Current child maltreatment statistics indicate that NICU children are vulnerable to abuse and fatal neglect based on their age group. The NICU infant's current and future clinical needs increase their vulnerability. In addition, the NICU parent's inability to care for the medical needs of NICU infants also poses risks to maltreatment. NICU parents are at risk for disrupted attachment due to the NICU course and this may trigger negative, ongoing parenting trajectories. The stress that results from a NICU admission, parental mental health concerns, and inability to adjust to stay in the NICU impairs a parent's ability to learn and perform parenting functions. More research is needed in the area of child maltreatment of NICU children. NICU medical providers must take a more active role in researching maltreatment of NICU children. Exploring interventions that utilize attachment-based frameworks are ideal for NICU families. It is recommended that NICU medical providers conduct evidence-based research for child maltreatment and work to develop interventions that keep NICU children safe at home.

References


