

Are NICU Stays at Birth Linked to Higher Risks of Mental Health Concerns Later in Childhood?



Tennessee Wesleyan
UNIVERSITY

Bailey Satterfield, OTR; Robert J. Mullaney, OTD, DBA, MBA-HSA, OTR/L;
Adrienne Whitelaw, MBA, OTR/L

Abstract

According to March of Dimes (2019), 1 in 10 babies born in the United States required Neonatal Intensive Care for a multitude of reasons. Overall, advancements in medical care have afforded children within the NICU greater outcomes than what was once the norm. "The long-term mental health of these individuals is important given the impact of poor mental health on school, social, and family functioning" (Chiorean et al., 2020, p.684). The present study examined childhood mental health outcomes following NICU stays at birth in comparison to those who did not experience NICU stays. This topic is relevant to occupational therapy (OT) in that research will allow for increased awareness for infant mental health services within OT practice, initiation of the development and implementation of OT mental health programming within NICU facilities, and creation of transitional OT mental health programs for children graduating from the NICU. Current research trends within the realm of NICU care and mental health place heavy focus on the parents instead of the children, so this study bridges this gap by providing insight into the effects of NICU stays at birth on mental health outcomes later in childhood for NICU graduates regardless of term and birth weight.

Background

Based on the vast amount of information provided, there is a great need for the gap in NICU mental health research to be filled. Most research focuses on the mental health of the parents and families when the main focus should be the children given the fragile state they are in at such an early stage of life. The information provided in these articles gave a well-encompassed insight into how occupational therapy practice can apply to mental health programming to ultimately provide positive outcomes for NICU graduates.

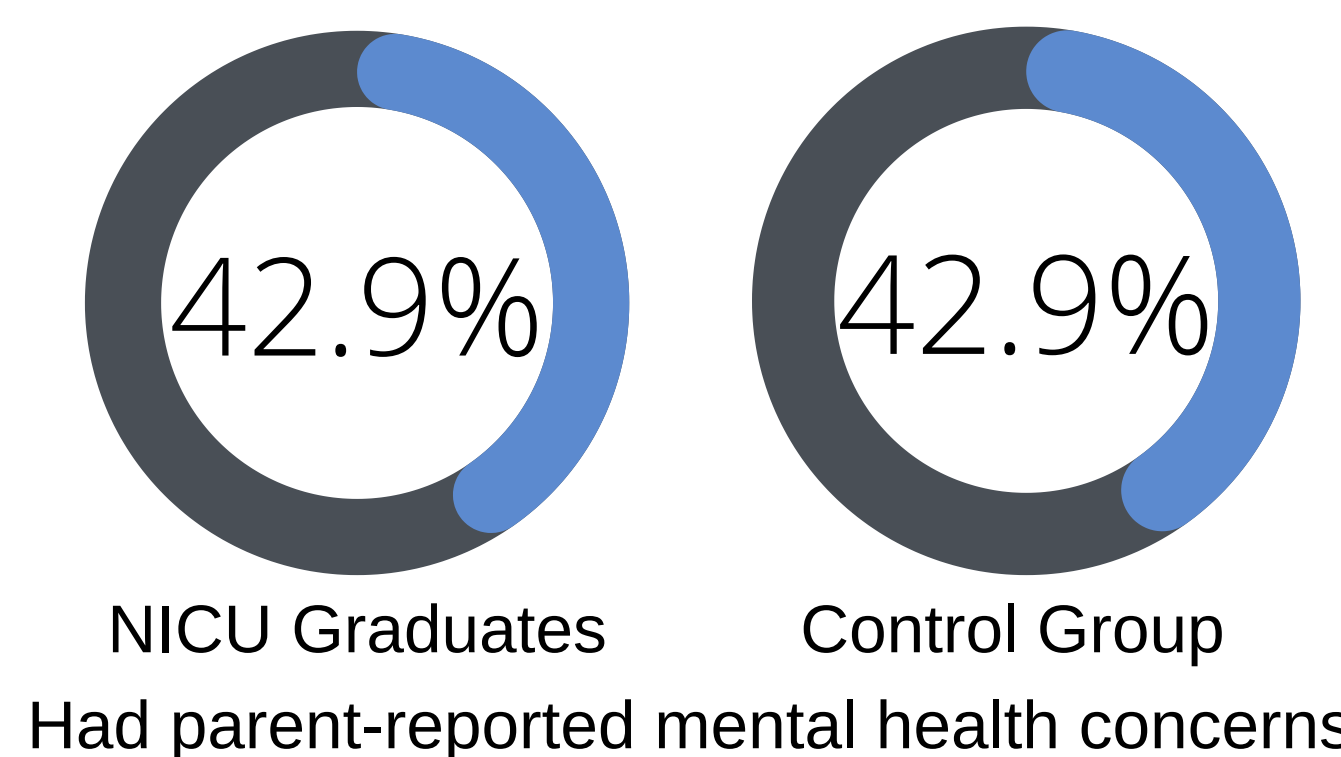
Methodology

Participants: 14 subjects (7 parents of children ages 4-11 who received NICU services and 7 parents of children who did not) were systematically selected from private Facebook support groups for NICU parents and general parenting support.

Procedure: Participants were asked to fill out an electronic survey consisting of 10 open-ended questions regarding variables related to their child's mental health concerns (voiced or observed), potential diagnoses, prevalence of mental health care services, etc

Measures: An independent t-test analysis was conducted to determine the statistical significant between variable 1 of NICU stays at birth and variable 2 of prevalence of mental health concerns.

Results



- Findings were inconsistent with the reported rates of mental health diagnoses of 32.4% in NICU graduates and 27.6% in the control group within a previous study (Chiorean et al., 2020).
- The most common mental health concerns noted were anxiety disorder, depression, stress, ADHD, and withdrawal behavior which were consistent with prior research.
- It was also determined that 28.6% (NICU n= 1, control n =3) had been seen by a mental health professional. Of those, 50% of them had received an official diagnosis.

Discussion / Conclusion

- Given the nature of the literature previously reviewed, it was hypothesized that the children who received NICU services at birth would have a greater prevalence of mental health concerns as obtained through parent reports. Surprisingly, the findings determined that there was no difference in the prevalence of mental health concerns as both the NICU graduate and control group had 42.9% occurrence of reported concerns during the childhood stages (ages 4-11 years). An independent t-test analysis revealed a p-value of .3586 which indicates no statistical significance between variable 1 of NICU stay at birth and variable 2 prevalence of mental health concerns.
- Although the results showed no statistical significance, themes of early life trauma, caregiver bonding/attachment, and long-term behavioral effects were consistent within the findings of this study and many of those reviewed previously. Despite the insignificance within this study, there is still great need for further research on the effects that NICU stays at birth have on mental health within the childhood years.
- Further research will allow for increased awareness on these mental health concerns and a positive step in the direction of mental health program development within NICU facilities for OT and other therapeutic disciplines.

References:

- Chiorean, A., Savoy, C., Beattie, K., El Helou, S., Silmi, M., & Van Lieshout, R. J. (2020). Childhood and adolescent mental health of NICU graduates: An observational study. *Archives of Disease in Childhood*, 105(7), 684–689. <https://doi.org/10.1136/archdischild-2019-318284>
- March of Dimes. (2019). A Profile of Prematurity in United States. <https://www.marchofdimes.org/Peristats/tools/prematurityprofile.aspx?reg=99>