

عنوان مقاله:

Effect of Light and Noise on Physiological Parameters in a Sample of Preterm Neonates in the Neonatal Intensive Care of Cairo University Teaching Hospital

محل انتشار:

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خلاصه مقاله:

Background: Some of the neonatal intensive care units (NICUs) partially lack the standard protocols for controlling noise and light. The healthy physical environment of NICUs is crucial for the continued normal development of preterm neonates. The present study aimed to assess the physiological changes (including heart rate, respiratory rate, blood pressure, temperature, and oxygen saturation) induced by noise and ordinary light often existing in NICUs in a sample of preterm neonates admitted to the private ward of NIUCU due to their low-birth weights. Methods: The present study included 100 preterm neonates, 50 neonates were exposed to noise which is often induced in the open ward of NICU, and the other 50 newborns were exposed to cyclical light. Results: During noise exposure, neonates in the private ward displayed a significant increase in heart rate, respiratory rate, as well as systolic and diastolic blood pressure. Moreover, they showed a marked decrease in oxygen saturation in the first and second days in the NICU. Furthermore, the neonates exposed to dim light demonstrated a significant decrease in heart rate, respiratory rate, systolic and diastolic blood pressure, as well as a significant increase in oxygen saturation, compared to those exposed to ordinary light on the first and second days. Nonetheless, body temperature did not show any significant change with noise or light exposure either on the first day or the second one. Conclusion: As evidenced by the obtained results, exposure to excessive light and noise was associated with significant changes in preterm neonates' vital signs. Moreover, the findings highlighted the inadequacy of the current conditions in a sample of Egyptian NICUs for ideal neonatal care. In order to create a favorable environment to help better growth and prevent prematurity complications, it is recommended to devote more assiduous attention to the care conditions of neonates in NICUs in Egypt.

کلمات کلیدی:

blood pressure, Heart rate, Neonatal Intensive Care Unit, Respiratory rate

لینک ثابت مقاله در پایگاه سیویلیکا:

