

Healthy caregivers-healthy children: Promoting pediatric nutrition in preschool children

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Background: There is a need for pediatric nutrition based programs that target young children in an effort to reduce the obesity epidemic. Obesity in children associates with elevated cholesterol and elevated blood pressure and tracks from childhood to adulthood. Currently, the science needed to promote successful implementation of primary prevention practices, under naturally occurring conditions, is poorly developed. We describe here the outcomes of "Healthy Caregivers, Healthy Children (HC2)" an obesity prevention program with young children.

Methods: A randomized controlled trial was conducted with 1101 children ages 2 to 5-years-old. The intervention focused on three components to support and encourage cardiovascular health: environmental changes related to food consumption and physical activity in the centers, a classroom curriculum, and family and teacher education regarding healthy role modeling behaviors. The primary outcome was the child's body mass index (BMI).

Results: At 6 months post-intervention, children in the intervention centers were significantly more likely to consume fresh vegetables fruits (p.006) and vegetables (p.001) as compared to the control centers. 91% of parents who increased buying vegetables had children whose BMIs either stayed the same or improved (p=0.01), and 92% of parents who increased buying fruits had children whose BMI either stayed the same or improved (p=0.03).

Conclusions: The goal of this project was to develop and evaluate a multifaceted obesity prevention intervention targeting lowincome, multiethnic children ages 2 to 5. These findings support efforts to implement healthy weight programs in the childcare setting as a means of primary prevention.

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Predictive factors about spontaneous fracture in VLBWI

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Background: We occasionally experience spontaneous fractures of VLBWI in NICU. It occurs mainly in preterm infants with feeding intolerance. So, we thought nutrition-related predictive factors about spontaneous fracture in VLBWI.

Objective: The purpose of this study is to find the nutrition-related predictive factors associated with spontaneous fractures in VLBWI.

Method: We retrospectively investigated clinical characteristics and outcomes of VLBWI in our NICU from Jan 2013 to Nov 2016. Total 108 of VLBWI were included in this study. 103 of VLBWI were excluded because of data loss and death within 1 month after birth. We collected the data about vitamin level, parathyroid hormone (PTH) and trace elements at 1 month after birth.

Result: 98 of 108 VLBWI showed non-fractures (group A) and 10 VLBWI showed fractures (group B). The clinical characteristics, trace elements and outcomes in two groups were not significantly different. But 25 Vitamin D and PTH levels were significantly higher in group B than group A.

Conclusion: We have to pay close attention to caring of VLBWI with high level of 25 vitamin D and PTH to prevent spontaneous fracture in NICU. We need more patients to find cut-off values of 25 vitamin D and PTH.

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