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ARTICLE REVIEWED

An indoor physical activity area for increasing physical activity in the early childhood education classroom: An experience for enhancing young children's movement

Segura-Martínez, P., Molina-García, J., Queralt, A., del Mar Bernabé-Villodre, M., Martínez-Bello, D. A., & Martínez-Bello, V. E. (2021). An indoor physical activity area for increasing physical activity in the early childhood education classroom: An experience for enhancing young children's movement. *Early Childhood Education Journal, 49*, 1125-1139. https://doi.org/10.1007/s10643-020-01125-6

THE PROBLEM

Young children are encouraged to participate in at least 180 minutes of physical activity per day doing activities of various intensities, including at least 60 minutes of moderate to vigorous physical activity (MVPA) (World Health Organization, 2020). However, research has shown that children spend most of their school day being sedentary (Dias et al., 2019). Perhaps if children's indoor classrooms included equipment to play with and had a designated space for physical activity, children would be more physically active.

Research Summary:

The purpose of this study was to evaluate the activities and social contexts of children during their indoor free play time. Researchers implemented a physical activity area and measured children's physical activity during their indoor play time, recess, and the entire school day. Children ages 3-4 from two schools were assigned to either control (N = 18) or intervention (N = 20) groups. The children's physical activity was measured with accelerometer devices, and researchers observed children's physical activity with the Observational System for Recording Physical Activity in Children-Preschool instrument. Both measurements were taken at baseline, one week post-intervention, and at six weeks follow-up.

Conclusion:

Boys spent most of their time at the sensorial, physical activity, and physical activity areas, while girls mostly visited the art and symbolic play areas. Both boys and girls spent most of their time in solitary play rather than group play throughout the study. When examining the play contexts, boys spent most of their time in the manipulative activities and gross motor activities area, while girls spent their time in the manipulative activities and symbolic play areas. The intervention group spent significantly more time in MVPA during indoor free play time after the intervention. Boys in both groups spent significantly more time in MVPA than girls.

Key Takeaway:

Including a physical activity area was beneficial for increasing physical activity of children in the intervention group. Having access to a physical activity space with equipment could enhance physical activity; however, boys spent more time in this area and accumulated more physical activity compared to girls. Educators can mediate this by supervising children and ensuring that all children have access to a physical activity space. More research is needed to understand the dynamics of children's indoor free play area patterns.

ADDITIONAL RESOURCES

Dias, K. I., White, J., Jago, R., Cardon, G., Davey, R., Janz, K. F., Pate, R. R., Puder, J. J., Reilly, J. J., & Kipping, R. (2019). International comparison of the levels and potential correlates of objectively measured sedentary time and physical activity among three-to-four-year-old children. *International Journal of Environmental Research and Public Health, 16*(11). https://www.mdpi.com/1660-4601/16/11/1929

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World Health Organization. (2020, November 26). *Physical activity*. https://www.who.int/news-room/fact-sheets/detail/physical-activity