

عنوان مقاله:

Trends of Growth Rate among Iranian Infants: Comparison Exponential Model and Points Average Model and Related Factors

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خلاصه مقاله:

Background Childhood growth factors play an essential role in the process of child development. Providing an accurate measurement for determining the growth rate predictors longitudinally has an advantage over a growth chart that only measures cumulative growth. This study aimed to determine the trends in growth rate and its effective factors among infants using two different methods. Materials and Methods: This longitudinal study was conducted on 181 infants referred to healthcare centers of Zanzan, Iran, from April 2017 to April 2019. The growth rate using 9-time points was estimated for participants via Point Average Weighting (PAW) model and the exponential model. The generalized estimating equation (GEE) method was used to estimate predictors of infant's growth rate. The coincident and parallelism test was used to compare the growth rate between models. Results: The mean growth rate of children in the PAW model and the exponential model in the first month were 298.2 ± 109.2 and 299.4 ± 115.6 gr/kg per month. The results showed that the two models growth rate prediction ability is almost identical over time. The trend of growth rate was decreased significantly (AAPC=22.46% per month, $P < 0.0001$) with a change-point in month ninth. The estimated growth rates based on two models coincided ($P=0.885$), and parallel ($P=0.898$) across 24 months. The associations between growth rate with variables mother job ($B=9.4$, $P=0.005$), breastfeeding ($B=-9.3$, $P=0.005$), and multi-fetal pregnancy ($B=-18.9$, $P=0.005$) were significant. Conclusion There was no difference between the two models when pediatricians apply them in office or other clinical settings. The multi-fetal pregnancy, job of mother, and exclusion breastfeeding were the most important predictor of growth rate, especially at the first nine months of age.

کلمات کلیدی:

Breastfeeding, Growth rate, Growth trend, Infants

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