The purpose of present study is to consider the effect of body massage by mothers on the trend of growth of physical parameters (weight, height, and head circumference) in LBW infants.

Findings

Because of such problems as measurement error, registration error, discharge from hospital and inhibiting more participation, some samples have missing data. In regard to weight data, only 44 subjects have completed this study. In regard to average birth weight, mother’s age and the number of their abortions, gestational age, APGAR score, gender (male to female ratio), delivery mode and mother’s usual medication, it was not observed a meaningful difference among these groups (P>0.05) with regard to natural weight loss in 20 days after birth and having less than 10% natural weight loss in 30 days after stopping body massage in these groups. The weighing scale and infant meter were made by Germany, Saws, with precision 50. To assess the reliability of this device, for every infant, measurement was done by one person through one unit. At the end of study, weight, height, and head circumference changes were evaluated in three groups.

Limitations

Infants’ appetite is diverse and their received milk is subjected to their appetite. Regardless of training and evaluating the validity of this strategy, it must be said that its validity was not controllable in consecutive days, as samples gradually were discharged from hospital.

Conclusions

The regression equation to estimate weight in the 10th day (dependent variable) with respect to weight at the beginning of this study (independent variable) for these groups is as following.

Weight in 10th day = weight at the beginning of this study + x

Also, regression equation to estimate weight in 30th day (dependent variable) with respect to weight at the final day of body massage (independent variable) for individual groups is as following.

Weight in 30th day = weight in 10th day + x

To consider concomitant increase of growth parameters weight, height, and head circumference size, it was used the following researcher-made index. Using Kruskal-Wallis one-way analysis of variance and Mann-Whitney U-tests, it was observed a meaningful difference at confidence interval 0.05 by comparing average weight, height and head circumference changes, we concluded higher velocity in the deep body massage group.

Body massage, both deep and surface, would affect the velocity of weight gain in LBW infants. Also, deep body massage has a positive effect on increasing growth velocity (weight, height, and head circumference). Therefore, body massage could be used as an effective and safe nonmedical intervention to increase growth velocity in LBW infants.