

Offspring of Nurses working on irregular shifts are more likely to be underweight and less likely to be obese compared to those working on a regular basis

Oya Adsiz Marasuna (1), Umut Mousa (2)

1: Burhan Nalbantoglu Hospital Department of Pediatrics, Nicosia, Cyprus

2: Burhan Nalbantoglu Hospital, Department of Endocrinology and Metabolism, Nicosia, Cyprus



OBJECTIVES

Similar to other hospitals, nurses work either on irregular shifts or on a regular basis in our center. Nurses are obliged to work at least 40 hours a week. Those working on regular basis work from 08 am to 16 pm weekdays. Those on shifts may work on either of 07-14; 14-21; 21-07 shifts irregularly and at any day of the week. Also the nurses education levels differ among them. Some have two years training, some have four years training and some have a masters degree. In this study we aimed to analyze the adiposity levels of the children of nurses working at our institution and determine some factors affecting this.

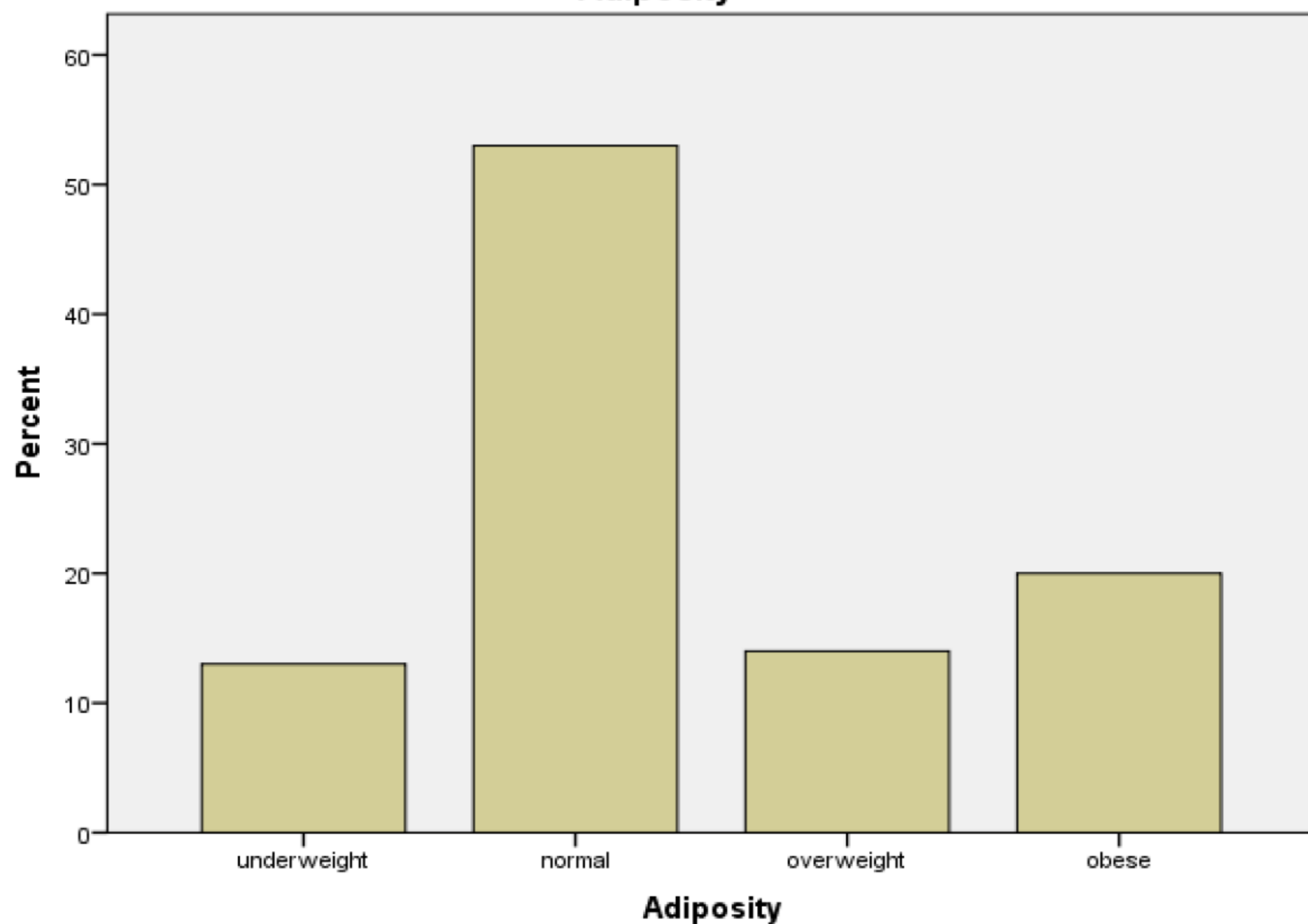
METHODS

We used a questionnaire consisting of questions which included information about her offspring's' birth weight, birth order, gender, type of delivery, time period for consuming breast milk, timing of initiation of supplemental food, height, weight, mothers education level, fathers education level, the childs' caretaker when the mother is at work, snacking habits, mother and fathers working status (regular basis or irregular shifts). We calculated the body mass index by dividing the weight in kilograms to the height in centimeters squared. We used standard percentile curves to calculate the height, weight and body mass index percentiles.

RESULTS

We included 100 children of female nurses on duty in our hospital. The ages ranged between 2 months and 17 years. According to standard body mass index percentiles, 13 (13%) were underweight, 53 were normal weight (53%), 14 were overweight (14%) and 20 were obese (20%). Fifty seven were the first child (57%), 38 (38%) were the second and 5 (5%) were the third child. Sixty eight children were born normally and 32 by caesarian section. Mothers of 42 children were working on regular basis compared with 58 working on irregular shifts. Out of the mothers of 13 underweight children 12 were working on irregular shifts and one on regular basis. Similarly out of the mothers of 20 obese children 12 were working on regular basis compared to 8 on irregular shifts. These findings were statistically significant ($p=0.016$). Children's adiposity were also positively associated with snack habits ($p=0.003$). There was no association between children's' adiposity and mothers' education level, fathers education level, fathers working status, duration of breast feeding, birth weight, children's gender, birth order, time of consumption of additional food and type of birth.

Adiposity



CONCLUSIONS

The main finding in our study was that underweight children were mainly children of mothers working on irregular shifts and that obese children were children from mothers working on a regular basis. This could be attributed to irregular working hours leading to irregular and possibly insufficient family feeding. The mother is generally not with the child at feeding hours. These findings need to be clarified in larger scale studies.

