

week of life. Identification of causes of lactation failure can help to find susceptible neonates and to find suitable ways for reducing the incidence of this complication. The aim of this study was to determine causes of insufficiency of breast milk in neonates with hypernatremic dehydration.

Methods In a case control study possible maternal risk factors of lactation failure in 25 term infants who were admitted to the hospital for hypernatremic dehydration compared with a control group, 50 healthy full term neonates were selected. They were matched through data collection with interview, examination and filling questionnaire methods.

Results In this study the mean age of mothers with dehydrated cases in comparison with control group was less and the difference was statistically significant. Mean while mothers of dehydrated group had a high level of education, with high first experience of pregnancy, and had an unusual modes of delivery. In this group mothers had a low level knowledge in lactation and also anatomical problems of breast.

Conclusion Hypernatremic dehydration is a common preventable threat to exclusively breastfed neonates. Because of existence of multiple causes for occurrence of this event. The best way for prevention is meticulous observation of breastfeeding in the first few days of life. Until with advent of breastfeeding problem.

P1-510 RELIABILITY AND RELATIVE VALIDITY OF FOOD-FREQUENCY QUESTIONNAIRE BASED ON FOOD GROUPS DEVELOPED FOR CHILDREN, RIO DE JANEIRO/BRAZIL

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Introduction The evaluation of children food consumption is a challenge due to errors and bias of measurement, as well as due to the lack of efficient dietary assessment methods to estimate the intake among this age group. The objective of this study was to assess the reliability and relative validity of a food-frequency questionnaire (FFQ) designed to estimate food intake of children from metropolitan area in Rio de Janeiro/Brazil.

Methods This study enrolled 107 children, both genders, aged 2 to 5-years-old. The FFQ's food list included 73 food types and eight portion size options. Four 24 h dietary recalls were used as the reference method. Total energy intake and 14 food groups were estimated based on four 24 h dietary recalls and two FFQ. The reliability was estimated by Spearman and intra-class coefficients (ICC). Analyses included quartiles using weighted κ coefficient. The relative validation was assessment by Spearman coefficients and Bland-Altman method among estimated food groups.

Results The means of first FFQ were significant higher than 2nd FFQ for energy, cereals, sugar drinks, cookies, sweets, sausages, and meat. The Spearman coefficients ranged from 0.24 (bean) to 0.77 (infants foods). ICC ranged from 0.22 (bean) to 0.98 (lettuces). The weighted κ ranged from 0.20 (cereals) to 0.47 (fats). To relative validity, the Spearman coefficients ranged from 0.03 (meat) to 0.51 (infants foods).

Conclusion The FFQ evaluated may be a suitable instrument for evaluating children dietary intake based on food groups. However, the 24 h dietary recall provided the best estimation for young children.

P1-511 INCONSISTENCIES IN RACIAL CLASSIFICATION AND FOOD INSECURITY AMONG BRAZIL'S LOW-INCOME POPULATION

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Introduction Race has been widely used in studies on health and healthcare inequalities. Validity and reliability problems with race measurement are of concern in public health. This study investigated the agreement between self-assessment and observer's assessment of the skin colour classification, considering the influence of socioeconomic and demographic factors as well as food insecurity.

Methods A cross-sectional population-based study (1085 households) was carry out in 2005, in metropolitan area of Rio de Janeiro, Brazil. Food insecurity was estimated according Brazilian Scale of Food Insecurity. Race/skin colour was evaluated in five characteristics in according to Brazilian scale (white, black, mulatto, Asian and indigenous) by the interviewers and in an open-ended question answered by the respondent self-classified race spontaneously. The reliability between self- and interviewer-classification was estimated using agreement proportions and a weighted κ coefficient (k) for the full sample, stratified by socio-economic factors and food insecurity.

Results White individuals were classified most consistently, particularly those with more favourable socioeconomic conditions. Weighted κ values were higher at higher income levels ($k=0.79$; 95% CI 0.77 to 0.80) and higher levels of education ($k=0.79$; 95% CI 0.75 to 0.81). The most severe levels of food insecurity were strongly associated with low of socioeconomic strata. The consistency of classification of race/skin colour was higher among individuals with food security ($k=0.81$; 95% CI 0.78 to 0.83) and lowest among those with severe food insecurity ($k=0.69$; 95% CI 0.66 to 0.73).

Conclusion The results suggest a tendency towards the whitening of participants from families with food security by interviewers.

P1-512 HEALTH RELATED QUALITY OF LIFE ASSOCIATED WITH MAJOR DIETARY PATTERNS IN TUE SUN PROJECT

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Introduction The analysis of dietary patterns has become a valuable tool to examine diet-disease relations. However, little is known about the effects of dietary patterns on quality of life.

Objectives To ascertain the major dietary patterns in the SUN cohort and the association of the adherence to these dietary patterns with physical and mental health function.

Methods This analysis included 10 185 participants from the "Seguimiento Universidad de Navarra" (SUN) cohort. Dietary patterns were ascertained through a factor analysis based on 16 predefined food groups. Health related quality of life was measured after 4 years of follow-up with the Spanish version of SF-36 Health Survey. Generalised Linear Models were fitted to asses the mean scores and their 95% CIs (95% CI) of the 8 domains of the SF-36 according successive quintiles of adherence to the dietary patterns.

Results Two major dietary patterns were found. The "Western" dietary pattern (rich in fast food, high-fat dairy, red meats and processed pastries) and the "Mediterranean" pattern (characterised by fruits, vegetables, fish and olive oil). A high adherence to the Western pattern was associated with lower scores in vitality, general health and physical functioning with inverse dose response relationships ($p<0.05$). On the contrary, high adherence to the Mediterranean pattern was associated to higher scores in all of the physical domains, and in vitality and mental health with positive dose response relationships ($p<0.05$).

Conclusions Whereas the Western pattern seems to decrease vitality, the Mediterranean pattern increases vitality and physical wellness.