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SOCIOCULTURAL FACTORS AND ADEQUATE NUTRITIONAL STATUS IN A FOLLOW UP STUDY. Alvear, J.; Vial, M.; Artaza, C. INTA, Universidad de Chile, Chile.

Undernutrition is associated to low sociocultural environment. It has also been described a clear relationship between undernutrition early in life, and poor growth and development afterwards, that can be reverted with an adequate treatment. Interested in this problem we studied 283 families of extreme poverty whose infants were treated before two years of age in a closed nutritional recovery center (CNR). They all were severely undernourished according to WHO standards W/A 63.05 ± 8.4 at admission and stayed 133.7 ± 45 days in the center being discharged and recovered to a relation W/A 81.64 ± 9 . This group has been followed up during nine years by the same professional team. After 8 years of follow up we study 37 socioeconomic items known to be important to discriminate socioeconomic level, so we could separate the sample in four groups. Once separated in groups we correlated socioeconomic level with anthropometric characteristic of the infants during the follow up period and we found that mothers' scholarship, environmental sanitation and stability in the organization of the family correlated positively with a good nutrition evolution during the follow up ($p < 0.05$, < 0.01 , < 0.02 , respectively). Instead, the presence of another malnourished infant in the family, father's alcoholism were related to a bad prognosis. This study let us conclude that an adequate nutritional treatment must include the family. Otherwise all that is gained during CNR treatment is lost afterwards, specially if there is another malnourished infant at home and if the head of the family is an alcoholic.

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HEALTH AND POVERTY IN FAMILIES WITH CHILDREN. Alvarez, M.L.; Wurgaft, F.; Salazar, M.E. INTA. U. of Chile. Casilla 15138. Stgo. 11, Chile.

Family health status and its management by the mother in families living in poverty conditions were studied. The hypothesis is that there should be more sick people in families with family conflicts than in those without these. The sample was made up of 30 slum families. Fifteen of these were stressed because health problems (A) and 15 had no problems. The first group had to have consulted to the health system (endogenous or exogenous) in the 3 months prior to selection of the sample whereas the other 15 did not need to. The families were visited, at home, once a week for a period of 6 months. Results indicate that the families of Group A shows significantly more respiratory disease ($p < .0001$) or other as digestive, skin, etc. ($p < .05$) as well as in the total amount of illnesses ($p < .0001$) than families from Group B. In both groups it is the mother who mainly take care of family health and they do not differ in how they deal with symptoms or seek help from a general practitioner. Nevertheless, more Group A mother were of urban origin ($p < .03$) had no secondary school education ($p < .02$), were less understood by their husbands (or mate) ($p < .02$) and had discussions ending in fights ($p < .02$) than those of Group B. Therefore, these results agreed with the postulate.

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FECAL-ORAL CYCLE AND HYGIENE HABITS IN FAMILIES OF SCHOOL CHILDREN WHO HAD TYPHOID FEVER. Alvarez, M.L.; Wurgaft, F.; Espinoza, J. INTA - Univ. of Chile, Casilla 15138. Santiago, Chile.

The fecal-oral cycle of children of low and high socio-economic (SES) level who had had typhoid fever was studied to discover what behaviours might facilitate contagion. The sample was made up of 80 families: (A) 20 of low SES and 20 of high SES who had had typhoid fever at most 6 months prior to beginning the study; (B) 20 low SES and 20 high SES, who had not had the disease and had not been vaccinated against it, used as controls. All the children had been in the school system for one or two years and were matched according to school and class. A structured interview was applied at home to observe the hygiene of the toilet, kitchen and the preparation of foods. The data was analyzed through indexes. The results indicate that the hygiene of the toilet bowl and accessories, general bathroom and of the dish-washer was significantly poorer in Group A than in B ($p < .02$, $p < .01$ and $p < .003$, respectively). They differ in the preparation of foods in that the handlers of Group A washed their hands after touching something dirty less ($p < .03$) and showed a general food preparation index that was significantly lower ($p < .02$) than those of Group B. These results would indicate that the families with a school child who had had typhoid fever had poor hygiene habits which could facilitate the transmission of diseases of the fecal-oral cycle, independently of the SES.

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A RE-EVALUATION OF CHILDREN HOSPITALIZED FOR ACUTE DIARRHEA AND DEHYDRATION. Roessler, J.L.; Araya, M.; Espinoza, J.; Pacheco, I.; Brunser, O. Hospital Felix Bulnes, Gastroenterology Unit, INTA, University of Chile, Chile.

The charts of the 159 children under 2 years of age admitted in 1985 for acute diarrhea and dehydration to a pediatric hospital in Santiago were evaluated retrospectively. Infants less than 6 months of age and those born with less than 3000 grams required more frequent hospitalization ($p < 0.0001$). Only 7.3% of those under 3 months were breast fed in contrast to 80% of their non-hospitalized peers. On admission, Weight/Age was below 83% of the NDS standard in 43.7%; this increased to 53% at the time of discharge. Hemoglobins under 11 g/dl were found in 63% of cases. Disaccharide intolerance was diagnosed in 26.8% of the patients; this was more frequent among the children whose Weight/Age was below 83% of the standard and among those whose diarrhea lasted for more than 15 days ($p < 0.005$). Four children (2.5%) were not dehydrated on admission; they were hospitalized for social reasons. In 17% of cases dehydration was mild with normal sodium and potassium levels. These patients stayed in hospital for $\bar{x} 16.9$ days, received i.v. fluid for $\bar{x} 1.5$ days and lost an $\bar{x} 3.5\%$ of their W/A adequacy. In addition, they suffered 11 intercurrent infectious episodes while in the hospital. These children would have benefitted from an ORT program, reducing their need for admission, the risk of intercurrents and the cost of their treatment. These results underline the need for a wide coverage ORT program in our milieu.

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GENOME VARIATIONS OF ROTAVIRUS ISOLATED FROM AMBULATORY AND HOSPITALIZED CHILDREN. Fernández, J.; Matamala, I.; Spencer, E. y Avendaño, L.F. Laboratorio Virología INTA y Depto. Microbiología y Parasitología. Fac. Medicina Norte, Univ. Chile, Chile.

Variations in the electrophoretic pattern (electrophoretype) of rotavirus RNA has been described. The clinical significance of this finding is not clear. The frequency of different electrophoretotypes detected on stool samples from children under two years old with RV infection was studied. Forty eight different electrophoretotypes were detected among 280 RV isolated, without predominance of any electrophoretype for severe diarrhoea cases. RV mixed infections, i.e. two different electrophoretotypes during one infectious episode, were found in 29/168 patients (17%) with four or more serial stool samples. 6/16 cases were admitted with mixed infection and 10/16 cases acquired it at the hospital. Among 13 ambulatory cases, the mixed infection was detected in the first stool sample on 8 and after the third sample on 5 cases. The mixed infections were not more severe and they resulted from association of electrophoretotypes long-long (10), long-short (16) and short-short (3). The great variety of electrophoretotypes discard the presence of an "hospital reservoir" of RV. There is no relationship between simple or mixed electrophoretype and severity of RV infection.

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EFFECT OF AN ACIDIFIED MILK ON DIARRHOEAL DISEASE AND THE CARRIER STATE IN INFANTS OF THE LOW SOCIO-ECONOMIC STRATUM. Brunser, O.; Araya, M.; Espinoza, J.; Guesry, P.R.; Secretin, M.C.; Pacheco, I. Gastroenterology Unit, Institute of Nutrition and Food Technology,

University of Chile, Santiago, Chile, and Nestec, S.A., Vevey, Switzerland.

The effect of an acidified, modified powdered cow's milk infant formula on diarrhoeal disease and on asymptomatic carriers was evaluated for six months. The acid taste of the milk was rejected during the first week of study by 39.7% of infants older than 6 months. The experimental group (G1) was formed by 82 infants, and 104 infants, who received the same formula although non acidified, served, as controls (G2). Weight/Age was above 83% of the standard for age (NDS) in all children at the beginning of the study and remained so throughout it. The incidence of diarrhoea was lower in G1 ($p < 0.001$). The proportion of days in which children suffered from acute diarrhoea, and the duration of the episodes were also decreased in the children who were fed acidified milk ($p < 0.001$). The rate of detection of enteropathogens and the species identified were comparable in both groups. Carrier rates for bacterial enteropathogens decreased along time in the group receiving acidified milk while they increased in the controls ($p < 0.001$). Carrier rates for enteroparasites increased with age. These results suggest that acidified milk exerts a protective effect against the bacterial contamination of the environment.