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## Abstract

The child development has been considered as a process that involves modification, transformation and interaction with the social environment. The trajectory of development, even before the birth, can be exposed to multiples and continuous adverse events, the risk factors, that cannot and, usually, happen together, increasing the severity of its consequences.

Among the studied risk factors, there are the nutritional deficiencies, focus of the present study, whose objectives were: 1 - to evaluate the mental and psychomotor development of children with nutritional deficiencies, through the Bayley Scales of Infant Development; 2 - to verify relationship among the results in the mental and psychomotor scales of the Bayley Scales, with some potential factors of risk to the child development.

The sample was constituted by 59 children of both gender, from 4 to 42 months of age, that have attended at two day care of the municipal district of Ribeirão Preto. Individual interviews were accomplished with the parents or responsible person, and the children were submitted to the evaluations clinical-nutritional, hematological, and of the child development, through Bayley Scales of Infant Development - Second Edition. In agreement with the clinical-nutritional and hematological evaluation, the children were distributed in two groups: Control and Nutritional Deficient, according to the z-score proposed by the World Organization of Health and hemoglobin values.

The analysis of the data showed that malnutrition and iron-deficiency anemia are common occurrences for a great proportion (46%) of these children. The statistical analysis demonstrated no significant difference among the medium indexes of the two groups, so much in the evaluation of the mental development, as psicomotor. The medium values of Mental Development Index (MDI) and Psychomotor Development Index (PDI), of both groups, met in the classification of normal development. However, in both groups, the children's half presented mildly delayed performance in the mental

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evaluation and, about a third, also presented delayed in the psicomotor evaluation. Among the antecedents selected for analysis (level of education of the parents; number of inhabitants in the house; number of children; order from birth of the child; the mother's age at the time of the gestation; problems during the gestation; the mother's alimentary conditions during the gestation; duration of the breast-feeding period; the child's alimentary conditions in its residence; conditions of the child's health), the children whose parents had larger level of education, presented values of larger MDI. The factor level of education can be related to the largest environmental stimulation, to the largest access to the information, also generating better cares offered to the children.

The obtained data, in the present study, they suggest that nutrition and environment are in interaction, and the probable effects of the nutritional insult are dependent of the social and environmental context in that happen. Furthermore, they demonstrate that several environmental and socioeconomic factors can, by itself, to take the damages of the child development. Such factors, associated to some nutritional lack, can be shown powerful confounders of the results in the evaluation of the child development.

**Key-words:** Child development evaluation; Nutritional deficiencies; Risk Factors