Studies on some children foods

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In Egypt most of the children foods mainly consisted of mixed cereals, which might be considered inadequateto supply the needed requirements of some essential nutrients recommended for children in this stage of growth.The aim of this study was to formulate ready and easy I to prepare protein-rich mixtures in powder form, from locally available and cheaper sources. As well as, cereals (wheat, corn and rice); legumes (broad bean, chickpea, dried peas and lentil); vegetable (carrot and potato) in addition to skim milk powder. Ten mixtures were formulated, analyzed and evaluated by various methods. The obtained results could be summarized as follows:- 1- The obtained data of the moisture content of the raw items showed that the vegetables (carrot and potato) had the highest values, 86.50 and 78.50%, respee tively. While it ranged between 2.32 and 10.86% for skim milk powder ,legumes group and cereals group.The skim milk powder showed the highest value of protein content (36.29%), followed by peanut (28.88%), while - 148 - the sesame had the highest value of fat content (55.92%). Skim milk powder also showed the highest value of ash content. Meanwhile, the rice showed the highest value of total carbohydrate and available carbohydrate (84.12 and 83.42%, respectively), followed by corn, wheat and chickpea (74.05 & 72.05, 73.50 & 72.00 and 64.40 & 62.90%respectively). The sesame showed the highest value of fiber con ten t (4.23%), followed by peanut and driedpeas (3.55 and 3.35%, respectively). 2- The moisture content of the formulated children food mixtures ranged between 2.05 to 4.56%. The mixtures No.6, 1 and 2 had the highest value of protein con tent (23.19, 22.97 and 22.95%, respectively). While, it ranged from 18.38 to 22.31% for the other mixtures.The fat content for all mixtures ranged between 3.17 to 4.95%. The ash content for all mixtures ranged between 1.66 and 2.98%. Meanwhile, the fiber content ranged between 1.22 and 2.00% for all mixtures. The highest value of both total carbohydrate and avialable carbohydrate were obtained for mixture No.3. 3- The calculated calorific values of the formulated mixtures r anged ’ between 385.93 and 396.48 K cal. /100· g. 4- The mineral contents of the prepared mixtures, showedthat, the mixture No. 2 had the highest value of calcium content (675.29 mg/100 g), it had also the highest valueof phosphorus content 617.14 mg/100 g).5- The fatty acid contents of the formulated mixture. showed that the mixture No. 2 had the highest value of oleic acid 70.025%, Meanwhile, mixture No.8, had the highest value of 1ino1ic acid (43.033%). 6- All the formulated mixtures, had highe r quan ti ties ofthe essential amino ’acids as compared with fresh hen I S egg protein except for methionine. All the mixtures had also higher quantities of the non-essential amino acids than those of fresh hen’s egg protein, except for serine in mixtures No.8, 10, 9, 4 and 5, respectively. 7- The chemical that in all scores of the formulated mixtures showed mixtures, methionine might be considered as the most and first limiting amino acid. therionine was the second limiting amino mixtures except mixtures No. 7 and 9, in was the second limiting amino acid. While theacid in all which valine.