

SHORT COMMUNICATION

KAMEL OMAR AREF OMAR

**THE INFLUENCE OF FOOD CONSUMPTION LEVEL ON BODY GROWTH
OF SCHOOL CHILDREN (7-10 YEARS OLD) IN EGYPT**

**WPŁYW POZIOMU ŻYWIENIA NA ROZWÓJ DZIECI W WIEKU SZKOLNYM
(7-10 LAT) W EGIPCIE**

Ain Shams University
Faculty of Specific Education
365 Ramses str., Cairo, Egypt

INTRODUCTION

The nutritional status of children greatly depends upon the food they consume. One of the most important causes of malnutrition is consuming the unbalanced meals, in relation to quality and quantity [6].

Their nutrition status and health are the outputs of many reactions and factors [3]. Among them is income as well as food expenditures, family size educational and cultural levels [2]. In addition to that the family selection of meals is influenced by many others factors: the family environment its nutritional habits, traditions and the availability of different kind of foods. This influence the consumption patterns of the school meals delivered to children [5]. The selection of the meals is based on the prices of different kinds of foods, and their appeal in relation to different holidays and seasons [8].

This study was aimed at:

- Assessing the effect of nutritional status on body growth at school children (7-10 years old).
- Assessing the statistical difference in nutritional status according to family income, family size.
- Evaluating the nutritional status of the children in 5 elementary schools in Cairo (3 different areas).

Therefore this study was designed to answer the following questions:

- 1) Is there the effect of nutritional status on body growth of children?
- 2) Does the social-economic level of the family affect the children's nutritional status?

MATERIALS AND METHODS

The study was designed to answer the above questions involved several steps. Basing on the previous researches [4] concerning nutrition in Egypt four types of questionnaires (forms) were developed: child anthropometric data, social-economic data, 24 hours recall method and family meal planning.

The main study was followed by a pilot feasibility trial where the suitability of questionnaires was tested on a small pilot subsample of children. Moreover, the questionnaires were renewed by the recognised specialists.

The main study involved 418 children (209 boys and 209 girls) within the age from (7–10 years old).

The previous research sample was chosen among five elementary schools in Cairo government, which they represent variable social-economic levels in three different educational areas as follow: A – Nacre city educational area, B – Elsabtuho educational area and C – Shoubra educational area.

The results were statistically analysed and following findings and recommendations are presented as resulting from the study.

RESULTS AND DISCUSSION

There is no doubt that growth of children is considered a good indicator of their health and nutritional status. *Silver* [7] indicated that social rapid changes in families forcing women to work showed a negative effect on children care. The needs of children were then neglected at very critical period of their life [6].

Children need small concentrated meals which should be given to them repeating at short intervals. Such meals should contain not only all the nutrients (proteins, fat, carbohydrates, vitamins, and minerals) but also their amounts should be properly balanced.

In this study the significant effect of nutritional status on body growth of school children (7–10 years old) was observed. The results are showed in the figure 1.

A statistically significant relationship between nutritional status and body growth was observed at significance level of 0.01 at $p < 0.01$. The results of *T-test* showed that the difference in body growth of children of good nutritional status was in favour to children whose nutritional status was in favour to children whose nutritional status was worse.

There was no relationship between the body growth and breakfast meal at significance level (0.01), but a significant relationship at level 0.05 was observed. Using *T-test* the intrinsic difference in body growth between children who had breakfasts and those deprived these meals was shown in favour of the first case.

The results of the *T-test* showed that there is statistically significant relationship between the children nutritional status and social economic level at significance level (0.01) (at $p < 0.01$) and between the children with good nutritional status children and those with bad ones. It could be found that there is a difference between the cases in favour of the children with higher social-economic level.

Ryc. 1

K. Omar Aref Omar

THE INFLUENCE OF FOOD CONSUMPTION LEVEL ON BODY GROWTH OF
SCHOOL CHILDREN (7–10 YEARS OLD) IN EGYPT

Summary

The nutritional status of children (7–10 years old) depends to great extent on the type of food they eat. The natural growth of children is considered as an indicator of their nutritional status in addition to that children are considered the building blocks of healthy societies. This paper presents the results of questionnaire studies of nutrition of school children in Egypt with the special emphasis given to social-economic status in the families. The results show the effect on nutritional status on body growth of school children (7–10 years old) in Egypt and relationship between difference social-economic level in the families.

K. Omar Aref Omar

WPLYW POZIOMU ŻYWIENIA NA ROZWÓJ DZIECI W WIEKU SZKOLNYM (7–10
LAT) W EGIPCIE

Streszczenie

Poziom stanu odżywienia dzieci w wieku 7–10 lat jest uzależniony w dużym stopniu od rodzaju pożywienia. Naturalny wzrost dzieci stanowiący podstawę zdrowego społeczeństwa, uwzględnia ich status żywieniowy. W pracy przedstawiono wyniki badań ankietowych dotyczących żywienia dzieci w wieku szkolnym w Egipcie, ze szczególnym uwzględnieniem poziomu ekonomicznego rodzin. Wyniki wpływu poziomu ekonomicznego na wzrost dzieci w wieku 7–10 lat w Egipcie i zależności pomiędzy różnicami socjalno-ekonomicznymi w rodzinach.

REFERENCES

1. *Berger S.*: Human nutrition science in the food chain. In: Nutrition Sciences for Human Health. Fifth European Nutrition Conference. *S Smith-Gordon*, London 1988.
2. *Linde Man A.*: Assessment of breakfast habits and social emotional behaviour of elementary-school children. *Journal of Nutrition b Education* 22 (5) 226–223, Indian University 1990.
3. *Negussie B.*: Health and nutrition: preconditions for education achievement paper presented at the International Meeting of a UNESCO Project 1989.
4. *Omar K.A.O.*: Meal planning and its relation to the nutritional status of pre-school children (2–4 years old) in Egypt. *Roczn. PZH* 2000, 51, 163.
5. *Read M.S.*: The National institute of child healthy and human development. *Malnutrian and Behavioral Appl. Res. Ment. Retard.*, 1982, 3, 279–290.
6. *Sayed G.M.*: Nutritional status and impact on health. Intellectual development and scholastic achievement in pre-school and primary d school children in Cairo. International conference and food far special s dietary and medicinal uses. 19–22 March 1990, International Agric. Centre Dokki Gizu, Egypt 1990.
7. *Silver H.K.*: Growth and development in current paediatric diagnosis and treatment. Edited by *Kempe C.H., Silver H.K.*, Middle East a Edition Lebanon 1980, p. 86.
8. *Whitney H.R.*: Understanding nutrition. 5th West Publishing camp. San Francisco p. 464, 1990.

Otrzymano: 2000.07.10

Komunikat

Fundacja na Rzecz Dzieci Zagłębia Miedziowego we współpracy z International Network on Children's Health, Environment and Safety (Euro – INCHES) zaprasza na:

X Jubileuszową Międzynarodową Konferencję Naukową
w dniach 1–2 czerwca 2001 r. w Legnicy
„Uwarunkowania środowiskowe zdrowia dzieci”

Ramowy program

1. Epidemiologia cywilizacyjno-środowiskowych zagrożeń w wieku rozwojowym.
2. Profilaktyka środowiskowych zagrożeń zdrowotnych z uwzględnieniem alkoholizmu i narkomanii.
3. Żywność i aktywność ruchowa w profilaktyce zagrożeń cywilizacyjnych.
4. Wybrane problemy zdrowia dzieci niepełnosprawnych.
5. Sesja plakatowa.

Wykłady i plakaty uczestników z kraju i zagranicy (w tym członkowie Euro-INCHES).

Osoby zainteresowane uczestnictwem w Konferencji proszone są o przesyłanie zgłoszeń.

Adres Komitetu Organizacyjnego:

Fundacja na Rzecz Dzieci Zagłębia Miedziowego
59–220 Legnica, ul. Okrzei 10,
tel. (076) 852–21–23, fax (076) 862–10–23, e-mail: office@fundacja.pl

Serdecznie zapraszamy do udziału w Konferencji.

Prezes Fundacji na Rzecz Dzieci Zagłębia Miedziowego

dr n. med. Halina Strugała-Sławik