Evaluation of the Nutritional Status of Children Aged (1-20) Months-Old In Hilla City (Comparative Study)

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Abstract

The present study aimed to evaluate the nutritional status of children aged (1-20months - old) and compared the study with three other studies done in 1952, 1962, and 1982.

The study was conducted in Primary Health Care Center of Babylon Quarter in Hilla City throughout the period of March 2000 to the end of March 2001.

The sample was comprised of 2000 child aged 1-20 months old.

Data was collected through the use of Weight-for-Age indicator depending on the study of UNICEF (1997) at the Primary Health Centers through Polio National Immunization Days (PNID) in Iraq.

Analysis of data was performed through the application of descriptive and inferential statistics.

The study result revealed that there were no significant differences among the present study and the other three studies during the lst six months of age, but there is a significant difference after the six months of age.

The study also indicated that insuficient milk was the main reason for stopped breast feeding among mothers shared in the present study.

The study recommended that mothers must be attended a nutritional education programs in order to increase their knowledge and practices, also breast feeding may be encourage in all Iraqi P.H.C.

Keywords: nutional status, children, primary health care, breast feeding

الخلاصة العربية

يهدف البحث القائم الى دراسة الحالة التغذوية للاطفال تتراوح اعمارهم بين (1–20) شهراً ومقارنتها بثلاث دراسات سابقة للاعوا (1952، 1962، 1983).

اجريت الدراسة للفترة من اذار لغاية نهاية اذار 2001 في مركز الرعاية الصحية الاولية في حي بابل في مدينة الحلة.

تم جمع عينة البحث بصورة عشوائية لتشمتل على (2000) طفل تتراوح اعمارهم بين (1–20) شهر.

تم قياس نمو الاطفال باستخراج متوسط اوزان الطفل بالنسبة الى اعمارهم ورسم منحني الوزن ومقارنته بالمنحنيات الخاصة بالدراسات السابقة معتمدين على دراسة منظمة الصحة العالمية (1997) التي اجريت في مراكز الرعاية الصحية الاولية فيجميع محافظات القطر.

اشارت نتائج البحث الى عدم وجود فرق ذات دلالة معنوية او احصائية بين الدراسة الحالية والدراسات السابقة خلال الشهر السادس من العمر لتصل الفروق في نهاية الشهر العشرين الى حوالي 3كغم اقل من الدراسة الحالية عنه في الدراسات السابقة.

كما اشارت الى ان السبب الرئيس للتوقف عن الرضاعة الطبيعية بين الامهات هو عدم كفاية حليب الام.

اوصى الباحث ضرورة القيام بالتثقيف التغذوي لجميع الامهات اللاتي لديهن اطفال دون عمر خمس سنوات فضلاً عن زيدة تشجيع الرضاعة الطبيعية بين الامهات كما تقترح الدراسة اجراء تقويم الحالة الغذائية للاطفال في عموم القطر لمعالجة الوضع المتفاقم في حالتهم الصحية جراء الحالة الغذائية السيئة.

الكلمات المفتاحية: الحالة التغذوية، الاطفال، الرعاية الصحية، الرضاعة الطبيعية.

Introduction

Today's indicators of choice to assess mild or moderate protein energy malnutrition PEM which reflected the children nutritional status in pre-school period is a given community are based on anthropometric measurements of weight, height, and age (Battacharyya, 1996; Waterlow 1977; WHO, 1993)

l- Weight- for - age (W/A) : The weight - for - age indicator is often used in nutritional evaluation by employing growth monitoring records. Early classification of malnutrition, such as Gomez and jellify, are based on weight as a

percentage of the accepted weight - for - age. A deficit in the W/A indicator signifies under nutrition and is manifested by reduce body weight orunderweight.

This condition usually results from insufticient energy intake or utilization. (Ahmad and Sa'ad 1999) .

2- Weight - for - Height (W/H) : Weight - for- height indicator is either for wasting or obesity. A deficit in weight relative to height designates wasting, while excess denotes obesity.

Wasting usually occurs. Under food emergency conditions (e.g. famine) or under conditions of impaired food utilization (e.g. famine). This indicator is especially effective during an acute famine.(Verster, 1992) .

3-Height - for -Age (H/A) :A deficit in this indicator is identitied by shortness of stature, usually referred to as stunting, and attributed to chronic malnutrition. (WHO/FAO, 1992)

"Populations in which 20-25% of children under five years old have height - for - age below the median minus 2 SD. Are commonly considered to be moderately affected, while those with more than 50% are considered to be severely aftected" (Wl-lO/ FAO, 1992).

The above - mentioned indicators can be used for the monitoring,surveillance and evaluation of local nutrition status and health programs (Ahmad and Sa'ad, 1993).

It is widely accepted that vulnerable group of children (6-36 month - old) can be used as a relatively accurate representative sample of the nutritional status of the general population. A sharp decline in food availability and the resulting nutritional deficiencies will most easily be measurable by another pometry at first (Fidanza, 1999).

Aims of the Study

The present study aimed to achieve the following objective.

1- To evaluate the nutritional status of children age (1-20months - old).

2- To compare results of the present study with other three studies done in 1952, 1962 arid1982.

Material and Method

The study was carried out in Babylon Primary Health Care Center which is the old and the main center in Hilla city. Duration of study started from March 2000 to the end of March 2001. The total sample was 2000 infants and young children aged (1-20 months-old) chosen randomly, where females totally 880 (44%) and male 1120 (56%)

$$\text{Mean} = \frac{\sum n}{n}$$ (Munro and Page, 1996)

An interviewing tools was developed and composed of two parts,the first part eals with the main subject ofthe study (Anthropometric measurement) included measurement of mean (Weight - for - Age)indicator and the other part comprised of a questions related to the feeding pattern.

Every child was exposure to (Weight - for - Age) indicator (W/A).

Data analysis was performed through the application of descriptive and inferential statistics (frequency, percentage, and mean).

Result and Discussion

Table (l) presents the mean of the indicator for each months which was estimated separately and the result is given the graph and is indicted the main (W/A) for children aged (1-20 months- old) in Babylon Quarter.

Primary Health Care Center. These results was compared with that of Demarchi (1952), Deniarchi *et al* (1962) and Rafa and Soad (1982), The graph shows that there was led no significant differences between the present study and the other three studies during the six months but the growth curve decreased gradually until the differences in growth at 20th month of life become (about Bkgs). This could be explained on the following basis :-

1- The tradition of breast feeding still a majority during the lst six months and declining by the period more than six months olds of children.
2- The economic sanctions caused the decrease in the income of families in general, this help to deficient intake or improper utilization of dietary energy and protein, to both mother and infant,then this leads to bad nutrition with bad feeding and administration of additional proper food to the baby at 6"` months-olds.
3- Absence of the nutrition education programmers especially to those attendances goes ofBabylon. Quarter Primary Health Care Center leads as we think a lot of differences. »

Dietary Pattern

Breast feeding provides the kind of nourishment that can make the difference between life and death for infant in developing countries, which is rich in protein, carbohydrates, fatty acid, mineral, between the present study and the other three studies during the Ht six months but the growth curve decreased gradually until the differences in growth at 20"" month of life become (about Bkgs). This could be explained on the following basis :-

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Dietary Pattern

Breast feeding provides the kind of nourishment that can make the difference between life and death for infant in developing countries, which is rich in protein, carbohydrates, fatty acid, mineral, and vitamins. This milk contain immunological properties against allergies, bacterial and viral attacks and also protect new born during first weeks of life (Nancy and Julie 1997).

In regard to the type of feeding (42%) were bottle fed babies, (41%) were breast fed babies and (17%) were mixed fed babies.(Table 2)

In developing countries a decline in breast-feeding began at 19th century. In the course of the 20th and 21st century, artificial feeding became the common practice (Carlos *et al.,* 1997),

Generally speaking that the practices of mothers relative to the artificial feeding was an important cause to develop growth failure among children aged (1-20 months) old.

The study also shows that mothers for stopped breastfeeding as shown in (table 3) gave different causes.

The reason most frequently given by mothers was insufficient milk (49.2%) Such finding was supported by WHO (1993) during a study conducted on infant feeding in nine countries of various level of industrialization and modemization that insufficient milk was the most common reason given by mothers for stopped breast feeding.

Mary, *et al* (1996) reported that it is not surprising that not having enough milk is often the reason given by women for stopping breast feeding or for supplementing their feeding, They also mentioned that some studies had found that many as 75 percent of the women who stopped breast feeding do so because they feel do not have enough milk to feed a baby and only probably a bout 1 percent are truly not able to produce enough milk to feed their babies.

Ahmad and Sa'ad (1999) mentioned that causes of insufficient milk are most likely to be problems with positioning or problems with milk flow, both correctable problems.

The other reasons given by mothers for stopping breast feeding are illness of the mother (l0.6%) illines of the child (11.7%), sore nipple (76%), worldng of mother (7.8%) and another pregnancy (l3.l%).

The study also revealed that breast feeding continued for six month among (65%) of mothers, while (17%) of the sample continue for 3-4 moths and another (18%) continue for less than 3 months. Such finding provide that mothers in this area not still successful breast feeder (table 4).

Nancy and Julie (1997) mentioned that mothers rnillt is the best food for babies and meet all their requirements for the lst few months of their lives if they have enough of it. They also claimed that duration of breast feeding varies from few weeks to several months and may be even prolonged from on to two years according to circumstances and accepted custom in particular communities.

Mary *et al* (1996) mentioned that the baby is used receiving all of food from her mother thus weaning must be started gradually in order to prevent causes of refusal to eat, there mothers must be patient and creative with her babies especially during this importantperiod, the best guide for weaning the baby is her response to new foods.

Table (1): Distribution of sample according to mean weight-for-age
Mean W/A in Kgs

Age in Months	1952	1962	1982	2001
1	4.00	4.00	3.97	3.6
2	4.80	5.00	4.96	3.7
3	5.25	5.50	5.92	4.4
4	5.75	6.00	6.18	5.3
5	6.40	6.30	7.28	6.2
6	7.10	6.70	6.96	6.3
7	7.45	7.00	8.20	7.0
8	7.59	6.95	8.74	7.2
9	7.65	7.10	8.32	7.3
10	7.75	7.50	9.80	7.2
11	8.00	8.00	9.28	7.4
12	8.10	8.25	10.10	7.6
13	8.57	8.20	10.50	7.4
14	8.20	8.25	10.80	7.8
15	8.30	8.10	10.20	7.7
16	8.80	8.50	10.70	7.7
17	8.50	8.80	11.20	7.9
18	9.00	8.60	11.80	8.0
19	NA	NA	10.77	8.1
20	NA	NA	12.19	9.2

Table (2): Distribution of the sample according to the type of feeding

Age in Months	Breast feeding	Bottle feeding	Mixed feeding	Total
1	34	43	16	93
2	36	28	19	83
3	39	45	15	99
4	44	40	18	102
5	28	57	23	108
6	56	37	14	107
7	34	56	21	111
8	50	39	17	106
9	38	51	19	108
10	55	35	14	104
11	41	42	18	101
12	59	33	18	110
13	35	26	17	78
14	30	60	18	108
15	54	36	21	111
16	46	32	13	91
17	42	55	10	107
18	25	47	12	84
19	32	43	21	96
20	42	35	16	93
Total	820 (41%)	840(42%)	340 (17%)	2000

Table (3): Distribution of the sample according to causes given for stopping breast feeding

Causes	NO.	%
Insufficient Milk	580	49.2
Another Pregnancy	155	13.1
Child Illness	138	11.7
Illness of Mother	125	10.6
Work of Mother	92	7.8
Sore Nipple	90	7.6
TOTAL	1180	100%

Table 4 Distribution of the sample according to the duration of breast feeding

AgeLmonths	No.	%
3months	147	18
3-4 months	140	17
6months	533	65
Total	820	100%

Recommendation

Based on the previously stated constructions, the present study make issue to the following, recommendations:

l- Breast-feeding should be encouraged always and under any circumstances considering the absolute contraindications are very few.

2- The Ministry of Health decision-malter cans iegislateman dietary roles to obligate mothers to attend a nutrition education program.

3- Collaborative planning can be determined between the ministry of health and the General Agencies of Iraqi Women to conduct nutrition education campaigns through their centers cross the nation for Women who have children under age of tive especially those of families at risk of malnutrition.

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