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ASSESSMENT OF NUTRITION UNITS IN PRIMARY HEALTH CARE CENTERS IN BAGHDAD CITY

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ABSTRACT

Background: Nutrition is the science that interprets the interaction of nutrients and other substances in food in relation to maintenance, growth, reproduction, health and disease of an organism. It includes food intake, absorption, biosynthesis, catabolism and excretion.[1] Under nutrition involving major deficiencies in calories, protein, vitamin A, iron, folic acid and iodine presents one of the most important public health problems in the developing countries of the world.[2] The persons affected are mostly preschool children, pregnant women and lactating mothers. To prevent or minimize the problem, various nutrition intervention programmes have been introduced, from time to time, in different countries which connected with the primary health care services.[3] **Objective:** evaluate the qualification of knowledge about nutritional health care and its application and to determine the equipment and tools are used inside this units and assurance from existence records and services that are offered from this unit beside to make sure the specify certification of nutrition fit with their duties, and their participation in clinical training courses. **Subject and methods:** This study is a descriptive, cross-sectional study conducted at 50 randomly selected (multistage sample) primary health care centers (PHCC) in Baghdad governorate. The data collection continued for period starting from 7th November 2016 till 15th January 2017**,** daily and sometimes convenient**.** (PHCC) in Baghdad governorate the data collection continued for period starting from 7th November 2016 till 15thJanuary 2017**,** daily and sometimes convenient**.** The place of study was in Baghdad governorate (Al-Karkh and Al-

Russafa) 48 primary health centers**. Results:** The most common indicators show high level of assessment (66.7-100%) and moderate (33.4-66.6%) and just one indicator shows low level of assessment (0.00-33.3%). **Conclusion:** The average of assessment on nutrition unit was high.

KEYWORDS: Nutrition unit.

INTRODUCTION

Nutrition in Medicine: The process by which a living organism assimilates food and uses it Forgrowth, liberation of energy, and replacement of tissues; its successivestages include digestion, absorption, assimilation, and excretion. Or the science or study that deals with food and nourishment, especially in humans.[1]

Nutrition in Science

■The processes by which living organisms obtain food and use it forgrowth, metabolism, and repair.[2] The stages of nutrition includeingestion, digestion, absorption, transport, assimilation, and excretion.

■The scientific study of food and nourishment, including food composition, dietary guidelines, and the roles that various nutrients have in maintaining health.[15] This study focused on nutritional unit in primary health care center and its duties, it which concerned with the pregnant and lactating women, children and monitors the child's growth through special measures.[13]

Nutritional transition, characterized by coexisting nutritional deficiencies, which have declined, and by chronic non-communicable diseases (NCDs), which have increased, is one the biggest challenges for current public health policies because it requires an integrality-oriented model of health care and an approach focused on health promotion.[4]

In view of the need for new services arrangements, in addition to the restructuring of food and nutrition actions developed in the health care system, Primary Health Care (PHC), and especially the Family Health Strategy (FHS) are privileged spaces for actions of encouragement and support to healthy life habits, such as those relating to the regular practice of exercises and diet.[5] Access to food is a human right which constitutes the right to life itself, and food and nutrition allows for the achievement of the potential of human growth and development with quality of life and citizenship.[6]

Thus, the structuring of the primary care network still represents a huge challenge in the present days. The lack of human resources in health care with adequate technical capabilities and attractive work conditions has still been found in most of the municipalities, being a great obstacle to a good management performance.[7,9] In addition, it is not sufficient to re-dimension the training of family health teams only via a larger number of introductory courses or more hours of specific training, but to move it to a continuous educational/learning process, mediated and problematized, with the collaboration of diverse professionals.[8]

The inter-sectorial approach is one aspect of the activities of Food and Nutrition in PHC with integrated actions by the most diverse sectors existing in the territory, especially Education and Social Welfare[10], another issue to be addressed is concerned with the targeting of nutrition-related researches in the scope of PHC. Studies evaluating the professional practice, the perceptions and continuing education of the PHC staffs are very important, although the production of studies in the field is growing, those relating to the assessment of food and nutrition programs in general do not discuss the impact but only their implementation. It is also necessary the decentralization of researches as well as the enlargement of this scope.

Tasks and duties

Nutritional unit has many jobs as an independent unit or cooperates with other units, these are

1. Coordination with the nutritional unit in health circles around all of the programs and things related to nutrition.
2. Monitoring or follow up to the children of malnutrition and disease related to food illness.
3. Monitoring or follow up about the implementation of nutrition programs and recommendation of the nutritional unit in primary health care.
4. Monitoring or follow up of pregnant and lactating women with regard or related with nutritional action.
5. Nutritional education for mother's revision.
6. Coordination with the school health to follow the children in primary schools and spread awareness of nutrition within the geographical area.[14]

Through this study for the nutritional unit can highlight the most important obstacles and problems facing the nutritional program and know the most important illnesses of others and situations which are not appropriate to feed the mother and child and can therefore develop methods of prevention of these diseases and to find appropriate means to control it

AIMS OF THE STUDY

To evaluate the qualification of knowledge about nutritional health care and its application.

Methodology

Design of the study: This study is a descriptive, cross-sectional study conducted randomly selected (multistage sample) primary health care centers (PHCC) in Baghdad governorate from the period between 7th November 2016 till 15th January 2017.

Setting of the study: This study was performed in 48 primary health care centers in Baghdad city (Al-Karkh and Al-Russafa**)** districts.

The sample of the study

The study was conducted in Al-Karkh and Al-Russafa sectors for Primary Health Care Centers in Baghdad city.

For Al-Karkh and Al-Russafa districts there are eighteen sectors, nine in Al-Russafa and nine in Al-Karkh.

A random sample of eight sectors was obtained out of eighteen, four in Al-Karkh and four in Al-Russafa district (every other one).A random sample of PHCCs was obtained from each of eight sectors; the total number of selected health centers was (48) from both of health districts twenty two health centers from Al-Karkh sectors and twenty eight centers from Al-Russafa sectors.

Data collection

Data were collected using questionnaire form, which was designed for the study purpose.

Data analysis

Analysis of data was carried out using the available statistical package of SPSS-22 (Statistical Package for Social Sciences – version 22).

RESULTS

Table (1) shows that higher percentages of integrated unit was 91% and the lowest percentages 8.3% was in independent unit (not integrated).

Table (1): Distribution of nutritional units in PHC Centers according to Commitment & Membership.

Assessment's Items of Nutritional unit in PHCC	Resp.	No.	%	MS	SD	RS%	Ass. [*]
Commitment & Membership							
Is the unit is independent or integrated with other units	**No**	**44**	**91.7**	**0.17**	**0.56**	**8.5**	**L**
	Inconvenient	**0**	**0**				
	Yes	**4**	**8.3**				

[*] L: Low level of Assessment (0.00 –66.6)

Table (2) shows that the higher percentages 87.5% was in separate room and the lowest percentages was 12.5% to the same items, so the higher percentages 45.8% was in the item Record and weight room suitable for the number of patient and the lowest percentages 27.1% to the same item.

Table (4-2): Distribution of nutritional units in PHC Centers according to The Building.

Assessment's Items of Nutritional unit in PHCC	Resp.	No.	%	MS	SD	RS%	Ass. [*]
The Building							
A separate room	**No**	**42**	**87.5**	**0.25**	**0.67**	**12.5**	**L**
	Inconvenient	**0**	**0**				
	Yes	**6**	**12.5**				
Record and weight room suitable for the number of patient	**No**	**13**	**27.1**	**1.19**	**0.84**	**59.50**	**M**
	Inconvenient	**13**	**27.1**				
	Yes	**22**	**45.8**				

[*] L: Low level of Assessment (0.00 –33.3); M: Moderate level of Assessment (33.4 – 66.6

Table (3) shows that higher percentages was between 54.2% and 100% in most items and the lowest percentages was between zero to 45.8%

Table. (3): Distribution of nutritional units in PHC Centers according to Furniture and Supplies.

Assessment's Items of Nutritional unit in PHCC	Resp.	No.	%	MS	SD	RS%	Ass. [*]
Furniture and Supplies							
Binders Cards	No	0	0	2.00	0.00	100	H
	Inconvenient	0	0				
	Yes	48	100				
Patient Record	No	1	2.1	1.96	0.29	98.0	H
	Inconvenient	0	0				
	Yes	47	97.9				
Statistical form	No	0	0	1.98	0.14	99.0	H
	Inconvenient	1	2.1				
	Yes	47	97.9				
Record of vitamin A and Ferro Fole	No	4	8.3	1.79	0.58	89.5	H
	Inconvenient	2	4.2				
	Yes	42	87.5				
Training and nutritional education record	No	4	8.3	1.81	0.57	90.5	H
	Inconvenient	1	2.1				
	Yes	43	89.6				
Balance of weight measurement	No	0	0	1.88	0.33	94.0	H
	Inconvenient	6	12.5				
	Yes	42	87.5				
Wood panels for measuring length	No	0	0	2.00	0.00	100	H
	Inconvenient	0	0				
	Yes	48	100				
Nutritional unit Guide	No	0	0	2.00	0.00	100	H
	Inconvenient	0	0				
	Yes	48	100				
Ribbon to measure	No	22	45.8	1.08	1.01	54.0	M
	Inconvenient	0	0				
	Yes	26	54.2				
Growth Charts	No	0	0	1.94	0.24	97.0	H
	Inconvenient	**3**	**6.3**				
	Yes	**45**	**93.8**				

[*] H: High level of Assessment (66.7–100); M: Moderate level of Assessment (33.4 – 66.6)

Table (4) shows that high percentages between 93.8% to 100% and the lowest percentages Zero to 91.7%.

Table (4): Distribution of Nutritional unit in PHC centers according to Documentation.

Assessment's Items of Nutritional unit in PHCC	Resp.	No.	%	MS	SD	RS%	Ass. [*]
Documentation							
Sustain Record	**No**	**0**	**0**	**1.94**	**0.24**	**97.0**	**H**
	Inconvenient	**3**	**6.3**				
	Yes	**45**	**93.8**				
Fields filled in an arrangement and accurate	**No**	**0**	**0**	**1.94**	**0.24**	**97.0**	**H**
	Inconvenient	**3**	**6.3**				
	Yes	**45**	**93.8**				
Matching the monthly statistics with records	**No**	**0**	**0**	**2.00**	**0.00**	**100**	**H**
	Inconvenient	**0**	**0**				
	Yes	**48**	**100**				
Establishment of courses, seminars educational	**No**	**1**	**2.1**	**1.94**	**0.32**	**97.0**	**H**
	Inconvenient	**1**	**2.1**				
	Yes	**46**	**95.8**				
Usage of sophisticated devices in documentations like	**No**	**44**	**91.7**	**0.17**	**0.56**	**8.5**	**L**
	Inconvenient	**0**	**0**				
	Yes	**4**	**8.3**				

[*] H: High level of Assessment (66.7–100); L: Low level of Assessment (0.00 – 33.3)

Table (5) shows that high percentages for the most of items was 97.9% and the lowest percentages between Zero and 39.6%.

Table (5): Distribution of Nutritional unit in PHC centers according to Training.

Assessment's Items of Nutritional unit in PHCC	Resp.	No.	%	MS	SD	RS%	Ass. [*]
Training							
The doctor is trained on work in the unit	No	0	0	1.98	0.14	99.0	H
	Inconvenient	1	2.1				
	Yes	47	97.9				
Health staff is trained on nutritional program	No	0	0	1.98	0.14	99.0	H
	Inconvenient	1	2.1				
	Yes	47	97.9				
Medical staff is trained on nutritional program	No	0	0	1.94	0.24	97.0	H
	Inconvenient	3	6.3				
	Yes	45	93.8				
Is the number of staff is the same as the record number of existing staff	No	19	39.6	1.08	0.94	54.0	M
	Inconvenient	6	12.5				
	Yes	23	47.9				

[*] H: High level of Assessment (66.7–100); M: Moderate level of Assessment (33.4 – 66.6)

Table (6) shows that high percentages for the most of items was 100%, so there was moderate percentages was 66.7% and the lowest percentages was 2.1%.

Table (6): Distribution of Nutritional unit in PHC centers according to Technical Information.

Assessment's Items of Nutritional unit in PHCC	Resp.	No.	%	MS	SD	RS%	Ass. [*]
Technical Information							
Are weights and lengths measured correctly?	No	0	0	2.00	0.00	100	H
	Inconvenient	0	0				
	Yes	48	100				
Is the age of the child is calculated and their nutritional status correctly?	No	0	0	2.00	0.00	100	H
	Inconvenient	0	0				
	Yes	48	100				
Do follow the distribution of iron and folic acid pills to pregnant women	No	0	0	2.00	0.00	100	H
	Inconvenient	0	0				
	Yes	48	100				
Do follow the distribution of vitamin A capsules to children and lactating women	No	0	0	2.00	0.00	100	H
	Inconvenient	0	0				
	Yes	48	100				
Are the referral cards founded from the care centers to the lobby of nutritional rehabilitation?	No	1	2.1	1.96	0.29	98.0	H
	Inconvenient	0	0				
	Yes	47	97.9				
Do hold meeting health, education and nutrition with pregnant and lactating women	No	1	2.1	1.94	0.32	97.0	H
	Inconvenient	1	2.1				
	Yes	46	95.8				
Are there common activities with the other center section	No	12	25	1.50	0.88	75.0	H
	Inconvenient	0	0				
	Yes	36	75				
Is the implementation of the activities had done outside the center	No	16	33.3	1.33	0.95	66.5	M
	Inconvenient	0	0				
	Yes	32	66.7				
Are there obstacles or problems at work	No	5	10.4	1.79	0.62	89.5	H
	Inconvenient	0	0				
	Yes	43	89.6				
Is it the follow up of pointing the growth cards in children under age of five ?	No	0	0	2.00	0.00	100	H
	Inconvenient	0	0				
	Yes	48	100				
Are there program for educational subjects during the year?	No	17	35.4	1.27	0.96	63.5	M
	Inconvenient	1	2.1				
	Yes	30	62.5				
Is there a stimulus for the staff like Acknowledgment to do this activity and commitment to do this table?	No	38	79.2	0.40	0.79	20.0	L
	Inconvenient	1	2.1				
	Yes	9	18.8				

[*] H: High level of Assessment (66.7–100); M: Moderate level of Assessment (33.4 – 66.6); L:Low level of assessment (0.00 – 33.3).

Table (7) shows that high percentages was 100% and the lowest percentages was 39.6%.

Table (7): Distribution of Nutritional unit in PHC centers according to Breast Feeding.

Assessment's Items of Nutritional unit in PHCC	Resp.	No.	%	MS	SD	RS%	Ass. [*]
Breast Feeding							
Nutritional advices to lactating and pregnant	No	0	0	2.00	0.00	100	H
	Inconvenient	0	0				
	Yes	48	100				
Nutritional advices to children	No	0	0	2.00	0.00	100	H
	Inconvenient	0	0				
	Yes	48	100				
Is there an awareness material on breast feeding	No	1	2.1	1.94	0.32	97.0	H
	Inconvenient	1	2.1				
	Yes	46	95.8				
Are there posters on breast feeding?	No	13	27.1	1.13	0.82	56.5	M
	Inconvenient	16	33.3				
	Yes	19	39.6				

[*] H: High level of Assessment (66.7–100); M: Moderate level of Assessment (33.4 – 66.6)

Table (8): Distribution of an (Overall Assessment) of Nutritional unit in PHC centers Distributed according to sectors.

Sector	No. and Percent	Overall Assessment		Total	C.S. [*] P-value Odds Ratio
		Under	Upper		
Al-Rusafa	No.	18	8	26	CC=0.350 P=0.0097 HS Odds Ratio (1 : 4.821) 95% C.I. (1.418 – 16.399)
	% Overall Assessment	72.0%	34.8%	54.2%	
Al-Karkh	No.	7	15	22	
	% Overall Assessment	28.0%	65.2%	45.8%	
Total	No.	25	23	48	
	% Overall Assessment	100%	100%	100%	

[*] HS: Highly Sig. at P<0.01; Testing based on contingency coefficient test.

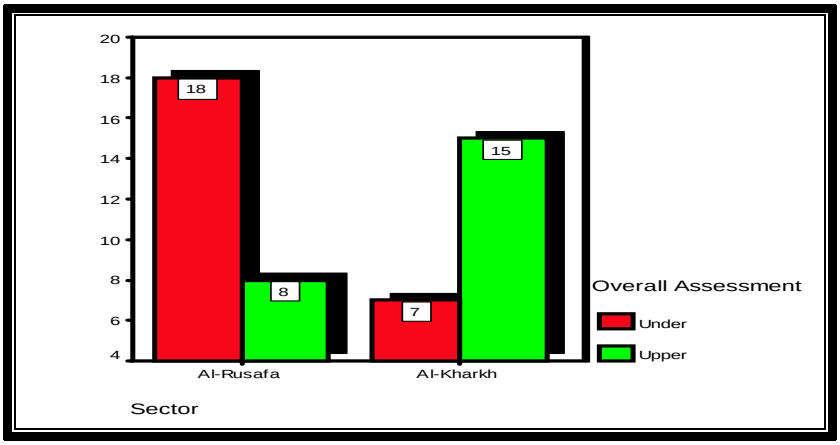

Figure. (1): Cluster Bar Chart for redistribution of studied Sectors according to (Overall Assessment).

DISCUSSION

The most common indication for nutrition assessment which show high responses. In Commitment & Membership which was (91.7%). This result is in agreement with study that done in India that showed (72%).[135] And according to Building has moderate reaction between (33.4- 66.6%), when the other indicators Furniture and Supplies, Documentation, Training, Technical Information and Breast Feeding[140] show high response over (66.6-100%) these results closed to other results done in many countries like India, Bangladesh and Uganda.[1,4,3]

CONCLUSION

This study can give a good idea about nutritional unit and its willness summary that those who work in this unit understand their duties and faithfully work in spite of their extra work, and in the event of providing all means that contribute to the success of the work in the unit like balance, adequate health staff and other inputs may be able to get an excellent result.

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