Evaluation of the performance, knowledge among IMCI Trained Health Workers in Primary Health Care Centers in Baquba City

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Abstract

Background: Conventional routine is not enough to improve child survival. The remedy of sick children is by controlling specific diseases. A strategy that was issued to control these diseases is integrated management of illness (IMCI) like those targeted at acute respiratory infection and diarrhea.

Objective: To study aimed evaluation of the quality of IMCI Assessments among IMCI trained health workers program in primary health Care Centers in Baquba City.

Patients and Methods: A cross sectional study was conducted in two sectors that cover health services in Baquba city from the period of 15 December 2015 to 1st June 2016. A convenient sample of 150 cases to evaluated performance of health workers was included in the study from the age of 2 month to 5 years and 55 from health workers to evaluated knowledge about IMCI program. Data collected by special designed questionnaire that adopted from world health organization (WHO).

Results: The Result showed that 78.4 %of health providers were trained on IMNCH program. The performance of health workers were poor 33.3% of them checking temperature ,70% Checking the Weight of child ,24.6% asking for danger singes,71% asking about cough or difficult breathing ,30.6% asking for diarrhea ,72.6%asking for fever,22% evaluated ear problem,34%checking weight against growth chart ,20% looking for edema ,24.6% checking for sever wasting , 24% looking for palmer pallor ,88.6% asked about breastfeeding ,47% give advice on frequency of feeding 29.3% give instruction to bring back the child .while 69.2% of health workers answer correctly.

Conclusion: Performances of health workers about program were poor while knowledge of health workers about IMNCH program was fair.

Key words: IMCI, diseases ,health, childhood.

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Introduction

Annual more than 10 million children in worldwide die before they reach five years of old .and this high rate in death is due to respiratory infection [1]. Large numbers of death are from diseases can be preventable and treatable [2].Most of death in developing countries [3].More than half of global child death can be prevented by affordable intervention that available [4]. This condition will continue if we not control them.

Every day millions of parents take children to the first level health facilities such primary health care center or hospitals and most sick children related to more they one indicate that a single diagnosis may not be possible or appropriate so we need to combine therapies for several condition [5].

Integrated management of childhood illness (IMCI) is very important strategies to child survival it developed by world health organization (WHO) and united nation children's fund (UNICF)[6].

The main principals of (IMCI) is training health worker and provide essential equipment and to develop skills to be able to manage children with combination illness and to provide the essential requirement such as urogenital referrer, appropriate treatment, provide information to child careers.

And should be follow _up this worker through visited from IMCI supervisor after training to assist them in workplace [6].

To implementation of IMCI should be improve the quality of management of sick children [7][8][9] .

In order to improve the quality of health services of IMNCH program trainers in child health care in Ministry of Health in Iraq is the establishment of a special protocol to ensure the application in Iraq [10].

And this study aim to evaluate the performance of health workers in IMNCH program and to evaluate knowledge of health workers about IMNCH program.

Materials and Methods

A cross sectional study conducted in two sectors that cover health services in Baquba city from the period 15 December 2015 to 1st June 2016 .

And sample size were (150) case from children at age from 2 month_5 years and (51) health workers. And data collected by special questionnaire was designed by investigator and his supervisor a structure questionnaire was adopted from (WHO). Which include dose the health worker record the weight, check the temperature of the child, ask about the child's problems, diarrhea, ear problem ….ect. And quack exam to health workers and include Training on IMNCH program, true method to measure temperature….. *ect*.

Statistical analysis

Data was carried out using the available statistical package of SPSS-22 (Statistical Packages for Social Sciences- version 22).

Data were presented in simple measures of frequency, percentage. The score was applied as Yes=2 points & No=1 point, or Done=2 points & Not done=1 point, while Correct answer=2 points & Incorrect answer=1 point, then summation of score to be classified into poor< median score "<50" (below second quartile), fair "50---74" (third quartile), and good "=>75" (fourth quartile) of the score.

Scoring

Assessment score of health workers knowledge. (15 questions):

The score assessment for knowledge of health workers was determined according to the quartile status where those below second quartile (<median i.e <15 score) considered as poor. While those on third quartile (15_>22) considered as fair and those about third quartile (22_25) considered as good.

Assessment of health workers performance. (25 questions):

The score assessment for performance of health workers was determined according to the quartile status where those below second quartile (<median i.e <25 score) considered as poor. While those on third quartile (25score_>38score) considered as fair as those about third quartile (38_50) considered as good.

Result

A total number of 150 child that undergo IMNCH program were enrolled in this study from two sectors that cover health services in Baquba city / Diyala governorat. Table (1) showed that 80.6% of health workers were

trained on IMNCH program in first Baquba health sector while 75% in second baquba health sector and percent of trained heath workers were 78.4% in both sectors.

Table (1): The stats of training about IMNCH program for health workers.

Heath workers	First Baquba heath sector		Second Baquba heath sector		Total	
	N	%	N	%	N	%
Trainers on IMNCH program	25	80.6	15	75	40	78.4
Not trainers on IMNCH program	6	19.3	5	25	11	21.6
Total	31	60.7	20	39.3	51	100

Assessment of Health workers performance:

Table (2) showed that 33.3% of health workers were checking temperature and 70% of health workers checking the weight of child and 25.3% of health workers asked for ability of child to drink or breastfeeding and 26.6 of health workers asked if the child vomits every think and 22% of health workers asked if the child have convulsion.

Table (2): Checking for weight, temperature and general danger signs.

Health provider activity	N	%
Checking temperature	50	33.3
Checking the Weight of child	105	70
Ability to drink or breastfeed	38	25.3
Vomits everything	40	26.6
Have convulsion	33	22

Table (3) showed that 88.6% of health workers asked about breastfeeding while 35.7% of health workers asked whether the child takes any other fluids or foods and 44.7 of health workers asked whether feeding changed during illness while 38.2% of health workers give advice on the frequency of feeding.

Table (3): Performance of health workers about breastfeeding and other fluids for child below two years of age.

Activity of health workers	N=123	%
Asked about breastfeeding	109	88.6
Asked whether the child takes any other fluids or foods	44	35.7
Asked whether feeding changed during illness	55	44.7
Give advice on the frequency of feeding	47	38.2

Table(4) showed that 24.6% of health workers was checking for visible sever wasting and24% of health workers was looking for palmer pallor and 20% of health workers look for edema of both feet while 34% of health workers cheek weight against growth chart.

Table (4): Screening and assessment of nutritional status of children.

Health workers activity	N	%
Checking for visible sever wasting	37	24.6
Looking for palmer pallor	36	24
Looking for edema of both feet	30	20
Checking Weight against growth chart	51	34

Table(5) showed that 71.3% of health workers asked for cough or difficult breathing. While 72.6% of health workers were asking for fever and 30.6% 0f health workers was asking for diarrhea and 22% of health workers evaluated ear problem and 83.3% of health workers was checking the child immunization stats and 23% of health workers asking at least one question about mothers health while only 29.3 % of health workers give instruction to bring back the child to primary health care center.

Table (5): Assessment and screening for other problem.

Heath workers activity	N	%
Cough or difficult breathing	107	71.3
Asking or feel for fever	109	72.6
Asking for diarrhea	46	30.6
Evaluated ear problem	33	22
Checking the child immunization stats	125	83.3
HW asked or cheek child vaccination card	110	73.3
HW inquire about child problem	116	77.3
Asking at least one question about mothers health	35	23
Give instruction to bring back the child	44	29.3

Figure(1) demonstrated that 70.5% of health workers performance was poor and 22.8% of health workers performance was faire and 7.3% of health workers performance was good .

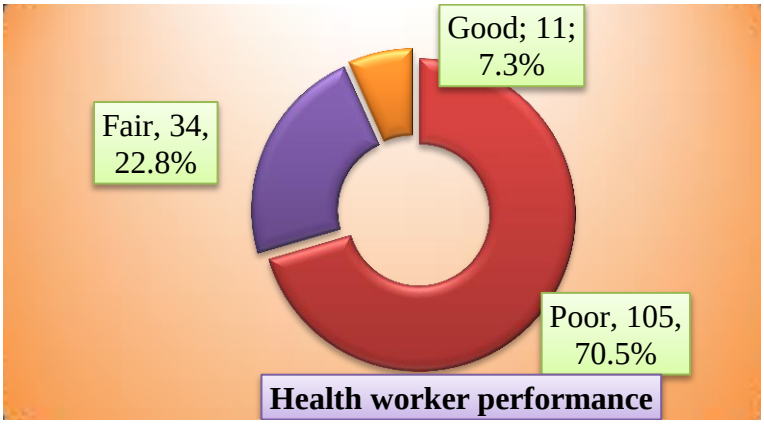

Figure (1): Scoring of health workers performance.

Assessment of health workers knowledge about IMNCH program:

In the table 6: showed that 56.9% of health workers did not know that they must put the thermometer for three minute when they measured the temperature under the axilla.

And in order to measure the weight of fully clothed child is by subtraction 500gms from recorded weight was answered correctly by 58.8% of health workers.

The dose of vitamin A for children less than one year is (50000) IU was answered correctly by 29.4% of health workers.

About three quarter 74.5 of health workers answered that fever is an increase of temperature up to 38 degree and majority of health workers 84.4% know that treatment of diarrhea with some dehydration is not plan A. But 19.6% of health workers did not know that dehydration is the most serious complication of diarrhea. As regard preparing of ORS it was answered correctly by 80.4% of health workers.

Table (6): The results of health workers knowledge exam.

Health Worker Exam	Correct answer		Incorrect answer	
	No	%	No	%
The temperature is measured by putting thermometer under the axillary for one minute with the addition of half a degree.	22	43.1	29	56.9
To measure the weight of fully clothed is by subtraction 500gm from recorded weight.	30	58.8	21	41.2
The dose of vitamin A for children less than one year is (50000) IU.	15	29.4	36	70.6
Treatment of diarrhea with some dehydration is Plan - A -	43	84.3	8	15.7
Fever is the increase of temperature up to 38 degree or more	38	74.5	13	25.5
Fast breathing in children less than one year is 40 times in a minute	26	51.0	25	49.0
Wheeze is an audible whistling with breathing during inspiration.	32	62.7	19	37.3
The mother is given one bag of ORS when she went home to complete treatment for child having diarrhea.	39	76.5	12	23.5
Supplementary food should be given to the child at fourth month of age	38	74.5	13	25.5
Can give a little of water to the child who suckles exclusive breastfeeding in the summer	16	31.4	35	68.6
Increased fluid is one of three basic advices that should be given to the mother from health worker for any sick children under two years of age	37	72.5	14	27.5
The appropriate time to start breastfeed is within half hour after delivery	25	49.0	26	51.0
Appropriate age to start supplementary foods is before 6 months of age.	38	74.5	13	25.5
Dehydration is the most serious complications of diarrhea, which threatens a child's life	41	80.4	10	19.6
To prepare ORS you should use 1 liter (5 glasses of 200 ml capacity) clean and secure water	41	80.4	10	19.6

Figure(2) demonstrated that 80.4% of health workers passed the exam, 51% of them were scored as fair and 29.4 % were good.

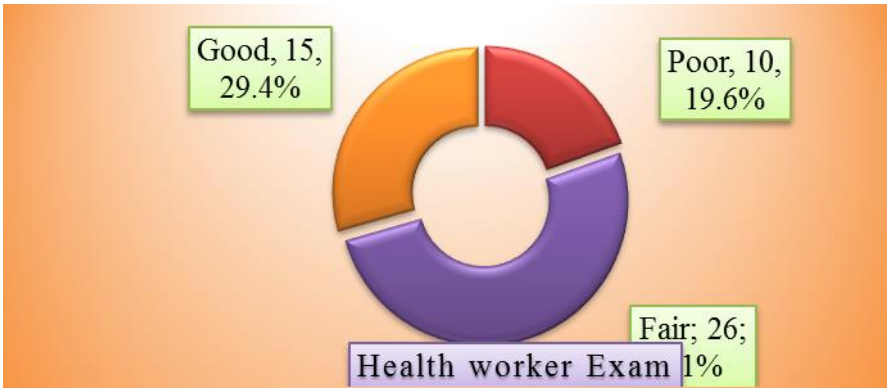

Figure (2): Health workers score in the exam

Discussion

The most interesting finding was that high percentage 76.6% of health workers was trend about IMNCH program which seems to be consistent with other studies that done in India [11] , in Malawi [12] , south Africa [13] .Which found that 76%,70% and74% of health worker were training on IMNCH program respectively . Small percentage of health workers (33.3%) was checking temperature and asked for ability of child to drink or breastfeeding and if the child vomits everything and if the child have convulsion.

Those results will now be compared to the finding of previous work done in Baghdad in [14]. There is disagreement which shows that 100% of health workers checking temperature and checking weight and check the danger sing.

A possible explanation of this result may be that the program is newly applied at that time and theirs more supervision from health directorate .

This result differs from some published studies that done in Moldova [15]. And in Rwanda [17] .Which found that studies 87.3% and 85% of health workers cheek danger sings respectively.

There are two likely causes for the difference the first one is lack of motivation and the other on is poor follow up.

The current study found that about three quarters of health workers recording or checking the weight of child and this is higher than the study that done in Ethiopia [18]. Which found that 47% of health workers weighed the children.

Current study shows that high percentage (88.6%) of health workers asked about breastfeeding this result is in agreement with other studies that in Baghdad in [14] , in rural Malawi [19] . Which shows that studies 100% of health worker ask about breast feeding and more of health workers inquire about feeding.

The result obtained from the current study agreed with findings of other studies such as that of Bulawayo city Zimbabwe[16] which finding about 82% of health workers assessment feeding practice .

The current study Show about 31.1% of health worker give advice on the frequency of feeding this result disagreement with other study that done in Rwanda [17]which shows 81% of health workers give advice and were assessed the feeding this difference may be crowding in health care centers in Baquba city .

The current study show that about one quarter of health workers was checking for visible sever wasting and looking for palmer pallor and look for edema of both feet.

These results are consistent with other study that done in Malawi [12] which found that 17%of health workers check sever wasting.

While this results is disagreement with other study that done in Baghdad [14] and in Egypt [20] which viewing that approximately all of health worker checking for palmer pallor and sever wasting and edema.

It is difference to explain this results but it might be related to health workers lack incentive and motivation and maybe due to neglecting.

The current study finding that 13% of health workers checking weight against growth chart this result is in agreement with other studies that done in Ethiopia [18], in Malawi [12] which found that studies 25%, 9% of health workers checking weight against growth chart respectively.

Current study finding that 83% of health workers were checking the child immunization status this result is in agreement with other studies that done in Baghdad [14], in Rwanda [17] which shows

about all health workers checking child immunization status.

But it disagreed with other study that done in Malawi [12] which shows that about half of health workers check vaccine statues.

The current study found that about three quartier of health workers asked for cough and fever, and about one quarter of health workers was asking for diarrhea and evaluated ear problem.

These results were less than other studies that done in Malawi [12], in South Africa[13] found that 98.5%, 90% of health workers ask for cough, fever respectively.

About giving instruction to bring back the child to primary health care centers the present finding 28% are in consistent with other study that done in South Africa in 2002 [21]which found that study 28.5% of health workers give instruction to bring back the child to primary health care centers .

While this result is disagreement with other study that done in[17] which found 71% oh health workers give instruction to bring the child.

As regard diarrhea, about 30% of health workers in the study asking about diarrhea which is disagreed with the study that done in South Africa [13] which found about three quarter of health workers asking for diarrhea. This difference may due to high incidence of diarrhea diseases in South Africa.

Current study show that main of health workers knowledge were scored as fair this result disagree with other study done in Tikret [22] and show this study 71.1 % have a good knowledge about IMNCH program this different may due to health workers in Tikret get training and follow up more than in Baquba city

Conclusions

The performance of health workers were poor in all field of IMNCH program except checking weight of child , checking immunization stats, checking temperature and asking about breastfeeding ,cough or difficult breathing ,fever, vaccine card . And knowledge of health workers about IMNCH program as regard measuring weight ,classification of dehydration , define of fever ,fast breathing, wheezing , ORS instruction , supplementary food , three basic advices that should give to mother were fair.

Recommendations

This study recommended that:

1-Strengthen supervision in the primary health care centers where IMNCH program is implemented to improve the performance of health workers in order to achieve a high level of compliance with IMNCH guidelines.

2-Increase educational session about the importance of program to all health workers in primary health care center.

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