International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 10, 2020
ISSN: 1475-7192

# Integrated Management of Childhood Illness Guideline Application at Primary Healthcare Centers in Al Hillah City

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***ABSTRACT--****Integrated Management of Childhood Illness is a guideline developed by the 'World Health Organization' during the last two decades to reduce the mortality and morbidity of under five years children in order to achieve the millennium development goal. Studies on this issue are very scarce in IraqTo evaluate the capacity in the application of IMCI of Iraqi primary health care providers and to identify the main barriers facing them during their daily activities.This was a cross-sectional study conducted on a convenient sample of (130) health providers working in Integrated Management of Childhood program, the sample was selected randomly from (8) primary health care centers in Al Hilla City-Babylon province-Iraq. The duration of the study started from November 2019 through February 2020 .A pretested semi-structured questionnaire was adopted from (WHO) technical documents and was used to interview and checking the performance of the participating health care providers enrolled in this study after obtaining their verbal consents.The questionnaire includes questions about demographic characteristics of health care workers and the regular activities that the health worker should do to provide proper care for under-five children who attended primary health care centers.Our findings showed that performance of about (60%) the staff was poor , about (27%) had fair practice while of them (13%) had good practice. About one fifth (21.5%) check child temperature,( 47%)used to measure the body weight, ( 46.2%) were asking regarding cough or respiratory problems,(49.2%) asked for diarrhea, (31.5%) were asking for fever,(30.8 %) were assessing ear problems,only(18.5 % ) were seeking palm pallor,( 70.7%) asked about breastfeeding,(33.8%). About three quarter of health care workers (73%) had not trained in this field. The findings of this study identified that one of the main barrier of applying this approach was the time pressure due to patients overloadThis study showed that the majority of healthcare personnel had poor Practical*

***Keywords--*** *Integrated Management of Childhood Illness Guideline Application at Primary Healthcare Centers in Al Hillah City*

## I. INTRODUCTION

Developing countries suffer from a high mortality rate of children, about eleven million deaths of under five years occurred in these countries , morbidity of this age group due to the high prevalence of the following main diseases diarrhea associate with dehydration, malaria, respiratory diseases, and more complicated malnutrition due to poverty (1). Statistical projections expected that most infant diseases will be the leading cause of child mortality and morbidity by 2022(2). A global effect, cost, and effectiveness evaluation of the IMCI was carried

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**Received: 05 Apr 2020 | Revised: 21 May 2020 | Accepted: 05 June 2020** 

out in several LMICs and verified the importance of the strategy. It revealed that the IMCI could minimize under-five mortality and boost their nutritional health, well implemented. Investment in the procedure has also been successful, as IMCI is six times cheaper than the conventional approach if it does (3). One of the individual health matters that confirmed its strength to reduce mortality for children under five years of age is breastfeeding, providing vaccination in a way that offers full coverage, providing oral aids, and treating respiratory infections(4), which motivated the policy to create a strategy with multiple aspects aimed at linking good health services with a more beneficial skill for managing cases and community health practices to reduce child morbidity and mortality (5). Published studies in this issue are very scarce.

This study was conducted to evaluate the capacity in the application of IMCI of Iraqi primary health care workers(HCWs) and to identify the main barriers facing them during their daily activities.

## II. MATERIALS AND METHODS

This was a cross-sectional study, which was conducted on a convenient sample included 130 health workers working in arandomly selected(8) primary health care centers in Al Hilla city-Babylon province Iraq. The duration of the study started from November 2019 through January 2020. A pretested semi-structured questionnaire was adopted from (WHO), which was used to interview HCWs after obtaining their verbal consents, a check list was used by the investigator which involvesobservation and recording the following activities regarding IMCI done by the health care workers: weighting the child, testing the child's temperature, asking about the problems of the child, diarrhea, ear infection, etc. It consisted of sections (sociodemographic dataand practice domain [25 questions]. The practical skill domain consists of 25 questions. The practical skill score was applied as yes = 3 points, sometimes = 2 points and no=1 point. Hence, the score assessment of the practical skill of healthcare personnel was determined according to the quartile status where those below the second quartile (median<42 scores) considered as poor, those in the third quartile (43-59) considered as fair, and those about third quartile (60–75) thought as good.

**Statistical analysis** Data is made using available statistical packages Statistical Packages for Social Sciences( SPSS version 23),quantitative data were presented in graphs and tables, frequencies and percentages.

## III. ETHICAL CONSIDERATIONS

The Ethical Committee of the University of Babylon, College of Nursing was obtained after reviewing the protocol of the study .Approvals of all health authorities including the permission of the Ministry of Health – Babel Health Directorate and Primary Health Care Centers were taken. Verbal consents were obtained from all participants after explaining the purposes and methodology of the study. Participant names have been replaced by identification codes to keep data confidential.

## IV. RESULT:

A total number of 130 from HCWs that undergo IMCI program were enrolled in this study from 8 primary Healthcare Centers in Al Hillah City.

Table (1): Frequency distribution of HCWs by the status of training on IMCI program

| No | Training program (IMCI) | N | (%) |
|---|---|---|---|
| 1 | Attending the previous IMCI training course | 35 | (73.0) |
| 2 | Not attending the previous IMCI training course | 95 | (27.0) |
| 3 | Total | 130 | (100%) |

Table(1) shows the frequency distribution of health care providers by their exposure to not training courses in this field 73% attending the previous IMCI training program.

**Table (2) Frequency distribution of HCWs by the status ofchecking for wight, temperature and general danger signs**

| No | HCWs activity | N | (%) |
|---|---|---|---|
| 1- | Checking temperature | 28 | (21.5) |
| 2- | Checking the Weight of the child | 62 | (47.7) |
| 3- | Vomits everything | 67 | (51.5) |
| 4- | Have convulsion | 21 | (16.2) |
| 5- | The ability of the child to drink or to breastfeed | 61 | (46.9) |

**Table (2)** shows(21.5%) of HCWs were checking temperature and (47.7%) measure the weight of child while (46.9%) health care staff asked about the child's capacity to drink or breastfeed and (51.5%) of them asked if the child was vomiting, and (16.2%)healthcare providers have wondered whether the child is having a convulsion.

**Table (3)** Frequency distribution of health care workers by the status of checking for advice feed, difficulty swallowing.

| No | The activity of health care providers | N | (%) |
|---|---|---|---|
| 1 | Asked whether the child takes any other fluids or foods | (23) | (17.6) |
| 2 | Advise on the feeding duration | (44) | (34.3) |

**Table (3)** shows that (33.8%) of health care providers give advice on how often the mothers feed their children and (17.6%) of care providers asked about difficulty in swallowing.

**Table (4)** Frequency distribution of HCWs according to their monitoring and determining children's health status.

| No | HCWs activity | N | (%) |
|---|---|---|---|
| 1 | Checking for visible severe wasting | (31) | (23.8) |
| 2 | Looking for palmer pallor | (24) | (18.5) |

Received: 05 Apr 2020 | Revised: 21 May 2020 | Accepted: 05 June 2020

| | | | |
|---|---|---|---|
| 3 | Checking Weight against a growth chart | (43) | (33.1) |

**Table(4)** shows that (23.8%) of HCWs were checking for visible sever wasting and (18.5%) of HCWs were looking for palmer pallor while(33.1%) of health workers, cheek weight against growth chart.

**Table (5)** Frequency distribution of HCWsby the screening and assessment of other problems.

| No | Screening activities | N | (%) |
|---|---|---|---|
| **1** | The health care provider asks why the child was brought to the health facility | **(69)** | **(53.1)** |
| **2** | Cough or difficult breathing | **(60)** | **(46.2)** |
| **3** | Asking or feel for fever | **(13)** | **(10.0)** |
| **4** | Asking for diarrhoea | **(64)** | **(49.2)** |
| **5** | Evaluated ear problem | **(40)** | **(30.8)** |
| **7** | Health Workers' take or cheek child vaccination card | **(68)** | **(52.3)** |
| **8** | Asking at least one question about the mother's health | **(28)** | **(21.5)** |
| **9** | Instruct to bring back the child | **(56)** | **(43.1)** |

**Table (5)** reveals that(53.1%) the HCWs ask why the child has been brought to the health care facility and (10%) of were HCWs asking or feel for fever while (30.8%) of HCWs assessed ear problems while (52.3%) of HCWs were scanning the child's immunization status and (43.1%) of HCWs give instruction to bring back the child to the primary health care center and (21.5%) of HCWs asking at least one question about mothers health while (46.2%) of HCWs asked for cough or difficult breathing and (49.2%) of HCWs was asking for diarrhoea..

**Table (6)** Frequency distribution of participants according to the level of skill practice status of HCWs.

| Health workers, performance | | N | (%) |
|---|---|---|---|
| **1** | **Poor** | **(76)** | **(58.5)** |
| **2** | **Fair** | **(36)** | **(27.7)** |
| **3** | **Good** | **(18)** | **(13.8)** |
| | **Total** | **(130)** | **(100%)** |

**Table (7)** explains that 58.5% of health workers have poor skill practice, and 27.7% of health workers, the practice was fair but only 13.8)% of health workers showed good IMC practice..

## V. DISCUSSION

A lack of practice on the different aspects of childhood illness has been demonstrated in the few studies conducted. The present study is one of the assessment to evaluate the practice of.PHC workers about IMCI in Hilla city-Iraq. The current study found that the majority of study participants have poor performance skills in applying IMCI activities 58.5%. Their performance was poor while 27.7 their performance was fair, and only 13% was a good performance. This finding is similar to the finding reported by other local study conducted in Baquba cit- Iraq (6), where thepoor performance rate was high and 22.8 of the health care workers had fair performance, while 7.3% is the rate of good performance, and this may be explained by the fact of lack of motivation and follow-up and paying attention to this important program from the health authority managers and decision makers in our country.

The current study showed that 73% of health workers are lack moving towards the IMCI through training program, and this unappears to be in line with previous studies in Babel (7) in India (8), in Malawi (9), South Africa (10) who found that 76%, 70%, and 74% of health workers were trained in a program IMCI respectively .

Approximately 21.5 per cent of HCWs use to check the temperature. In comparison, 46.9 per cent of HW asked for the child's ability to drink or breastfeeding, and 51.5 per cent of health workers asked if the child vomits everything, and 16.2 per cent of health workers asked If the infant suffered a convulsion. Such results are supported by findings from previous research performed in Baghdad in (11).

This result differs from other previous studies conducted in Moldova (12). In Rwanda (13), who found that 87.4% and 85% of health workers care about risk, respectively, and there are two possible reasons for the contradiction. Firstly, there is a lack of motivation. The second is an insufficient Health care staff follow-up.

A current study found that about (found that about 47% of HCWs recording or checking the weight of a child, and this is the same as the survey done in Ethiopia (14). It did notice that 47% of health workers weighed the children. The Current study shows that high percentage70.7%) of HCWs asked about breastfeeding this result agrees with other studies in Babel (7) in Baghdad (11), in rural Malawi (15). That indicates that 100 per cent of health care staff is concerned about breastfeeding, and more health workers inquire about feeding. The result obtained from the current study agreed with the findings of other studies. The present study Shows about 33.8 of health workers adviseson the frequency of feeding this result is in disagreement with another study that was done in Rwanda (6) which shows 81% of health workers give advice and were assessed the feeding. This disparity may be due to the congestion of auditors and the shortage of primary health care providers in health centres in the Hilla city.

The current study shows that about 18.5% of health workers were looking for palmer pallor and 15.3% of health workers look for oedema of both feet. These results are disagreement with another study that was done in Baghdad (11) and in Egypt (16) which revealed about all health workers checking for palm pallor and oedema. This may be related to a lack of incentives, and lack of motivation for health workers and perhaps to negligence and lack of monitoring and auditing of the primary health care services.

The current study found that 52.3% of health workers reviewed the child's immunization status. Still, this result differs from other studies conducted in Baghdad (11), in Rwanda (6) Health staff reviewed the child's immunization status. However, this agreed with another study in Babel (7) in Malawi (12) that showed about 1/2 Health staff were investigating for the state of the vaccine.

We found in the current study, about 46.2% of health care providers asked about the condition of coughing in children, while it was found that 30.8% of health workers evaluated ear problems. These results were similar to the study conducted in Babylon. In contrast, other studies opposed results of 98.5% of health workers.They ask for a cough, and regarding giving instructions to return a child to primary health care centres, the current score is 53.1% higher than another study conducted in Babylon(7) where it was a 26% and in South Africa in 2002(17) which found that the study 28.6 % of health workers give instructions to return the child to primary health care centres. Whereas, this result is less than another study that one is in (6) which found that 71% of health workers provide instructions to bring a child.

About (49.2)% of health workers in the study asking about diarrhoea which disagrees with the survey that was done in South Africa (13) which present about three-quarters of health workers asking for diarrhoea. This disparity may be due to the high incidence of South African diarrheal diseases.

## VI. CONCLUSION

The overall performance of health workers was poor in all areas of the IMCI, except for examining the child's weight, checking immunization statistics, asking about breastfeeding, coughing or difficulty breathing, fever, and the vaccine card. About one in six of the studied health workers' with good knowledge and skills about the IMCI program.

## VII. RECOMMENDATIONS

This study recommended the following:

1-Increase the number of courses for the (IMCI) training program and follow-up and continuous supervision to increase the quality of health workers' performance and optimize the application of the program.

2- Moral support and a constant motivation for workers in the implementation of this program by health officials in the Babble Health Department3- Increasing the number of scientific meetings in health centres to demonstrate the importance of implementing the program (IMCI) to reduce morbidity and mortality among children under five years of age

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