Assessment of Nurses knowledge regarding Integrated Management of Childhood Illness at Primary Health Care Centers in Al- Amara City

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ABSTRACT:
Background: In low- and middle-income countries, over 11 million children die before reaching the age of five, with a large number of these deaths occurring during the first year of life. Diarrhea, Pneumonia, Malaria, Measles, and starvation are the leading causes of deaths in the United States, 70% of these deaths, often in combination (Prosper et al., 2009).

Aims of the study: The study aims to assess the nursing knowledge level about Integrated Management of Childhood Illness at Primary Health Care Centers in Al- Amara City.

Methodology: A descriptive study design was conducted in A descriptive study design was conducted in 18 primary health care centers inside of Amara City / Iraq during the period from 20 \ October 2020 until 30 \ May 2021. The study sample consists of (50) nurse’s. The questionnaire data was filled by the nurse's in a face to face direct interview. Different statistical processing was done by the use of version 20 SPSS statistical package.

Results: The result showed 72.2 % of nurse's have moderate knowledge regarding Integrated Management of Childhood Illness and there is no statistically significant relationship with the socio-demographical variables and knowledge level.

Conclusion: The study found that nurses at primary health care centers in Amara’s first health sector had a moderate level of knowledge about integrated management of childhood illness and there was no statistical significant association between nursing characteristic and their general information.

Recommendations: Modern educational facilities for nursing team at IMCI unit should be provided to enhance health care providers’ knowledge.

Keywords: IMCI, nursing, Knowledge.

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INTRODUCTION

In low- and middle-income countries, over 11 million children die before reaching the age of five, with a large number of these deaths occurring during the first year of life. Approximately 70% of these deaths are caused by diarrhea, pneumonia, measles, malaria or malnutrition, often in combination (1).

Integrated Management of Newborn and Childhood Illness (IMNCI) is a strategy developed in the mid-1990s by the World Health Organization (WHO), the Pan American
Health Organization (PAHO) and the United Nations Children's Fund (UNICEF) to improve the health status of children worldwide, and includes interventions to reduce childhood mortality in health care centers and homes. It offers a comprehensive description of the management of common neonatal and childhood diseases (2).

The Newborn and Childhood Illness Integrated Management Program involves educating healthcare providers in the management of common childhood diseases with an emphasis on infections of the respiratory system, in particular pneumonia, malaria, measles, diarrhea, and malnutrition. In addition, funding for health programs associated with the prevention of specific diseases and the promotion of health was also included. The IMNCI training course initially lasted 11 days, but the course was shortened to seven or eight days in a variety of countries and locations (3).

The advantages of the IMNCI protocol in health facilities are that it facilitates the early detection of childhood diseases in outpatient environments, ensuring that sufficient medication is prescribed and delivered for all major diseases, improves caregiver therapy and speeds up referral procedures for severely ill children (4).

Integrated management of childhood illness' core values are the training of health staff, the provision of health essential services, the development of expertise such that children with mixed diseases can be treated, the provision of basic criteria such as urogenital referral, proper treatment and the provision of information on child careers. This worker should be accompanied by a visit to assist him in the workplace by an IMNCI supervisor after training. The level of management of sick children must be strengthened in order to introduce IMNCI (5).

AIMS OF THE STUDY
The study aims to assess the nursing knowledge level about Integrated Management of Childhood Illness at Primary Health Care Centers in Al- Amara City.

METHODOLOGY
- Design of the study
A descriptive study design was conducted in 18 primary health care centers inside of Amara City / Iraq during the period from 1 \ October \ 2019 until 30 \ May \ 2020.

- Method of data collection
A formal administrative approval to conduct this study was obtained from Misan Health directorate and also obtained from each nurses through direct interviews.

- Sample of the study
During the study period, a total of (50) nurses served in IMCI units in primary health care centers and met the study requirements and agreed to participate.

- Study Instrument
The study instrument was prepared by the researchers after reviewing related literature and books that focus on the topic of the study. A structured-questionnaire was divides into two parts: The first part concerns the socio-demographic data of the nurses such as age, gender, level of education, years of employment in health field, years of employment in primary health care centers, type of primary health care center. The second part includes questions about nurses' knowledge regarding integrated management of childhood illness was composed of (20) Items divided into (3) sub items as multiple choice questions ,one sub item of multiple choice questions correct and other incorrect foe each main items.

- Validity of the study
The content of the validity for the early instrument and program was determined through the panel of experts who has had more than 5 years of experience in their specialty.
field (IMCI). A preliminary copy of the questionnaire and program were designed and presented to (8) experts.

- **Reliability of the study**
  
  A pilot study was carried out on (10) nursing who was excluded from the study samples.

**Results:**

**Table (1): Reliability of the questionnaire Coefficients for Knowledge test**

| Method of Reliability | Reliability Coefficients | Standard lower bound | Actual values | Assessment |
|-----------------------|--------------------------|----------------------|---------------|------------|
| Cronbach’s Alpha      | Knowledge                | 0.67                 | 0.82          | Acceptance |

Table 1 showed statistical representation of the reliability coefficient for the current study's instrument. Its findings show a strong degree of support for the questionnaire's Alpha Cronbach's' significance, indicating that the instrument was constructed to test the phenomena on the same population at some point in the future.

**Table (2): Distribution of demographic data for nursing at primary health care centers in Al-Amara city (n=50)**

| Socio-demographical Characteristics | Total (n = 50) |
|-------------------------------------|---------------|
| **Variables**                       | F   | % |
| **Age(Years)**                      |     |   |
| ≤ 29                                | 5   | 10.0 |
| 30-39                               | 17  | 34.0 |
| 40-49                               | 17  | 34.0 |
| ≥ 50                                | 11  | 22.0 |
| **Gender**                          |     |   |
| Male                                | 30  | 60.0 |
| Female                              | 20  | 40.0 |
| **Level of Education**              |     |   |
| Secondary School                    | 26  | 52.0 |
| Diploma                             | 22  | 44.0 |
| Bachelor                            | 2   | 4.0 |
| **Years of Experience in the Health field** |     |   |
| 2-4 years                           | 5   | 10.0 |
| ≥ 4 years                           | 45  | 90.0 |
| **Years of Experience in the Primary Health Care Centers** |     |   |
| < 2 years                           | 7   | 14.0 |
| 2-4 years                           | 6   | 12.0 |
| ≥ 4 years                           | 37  | 74.0 |
| **Type of Primary Health Care Center** |     |   |
| Typical                             | 15  | 30.0 |
| Atypical                            | 35  | 70.0 |

Table 2 showed that the most of age group were 34.0% of participants in the study within (30-39 years) and (40-49 years), According to the study's results, the majority of nurses (54.3 %) were between the ages of 40 and 49. The most of gender 30 (60%) of nurses in the study
were male while 20 (40.0%) of nurses were female. Concerning the level education, the more half of nurses 25 (52%) in the study have secondary school. In relation to the years of experience in the health field 45 (90.0%) nurses of the study sample have (≥4 years) Regarding years of experience in the primary health care centers, the majority of nurses (74.0%) have years of expert (≥ 4 years). Concerning type of primary health care center the most of participants were work in atypical health care center (70%).

Table (3): Total nursing knowledge regarding integrated management of childhood illness (n = 50).

| Levels of Knowledge | F   | %   |
|---------------------|-----|-----|
| Deficit             | 14  | 28.0|
| Moderate            | 36  | 72.0|
| Good                | 0   | 0.0 |

Levels of Evaluation = Deficit (0 - 0.33): 1; Moderate (0.34 – 0.67): 2; Good (0.68 – 1.00): 3

Table 3 showed the knowledge of nurses about integrated management of childhood illness within moderate level for 36 (72.0%) nurses of the study sample.

Table (4): Correlation between the socio-demographical variables of nursing and total knowledge levels

| Socio-demographical Characteristics             | P-value | Sig. |
|-------------------------------------------------|---------|------|
| Age                                             | 0.084   | NS   |
| Gender                                          | 0.881   | NS   |
| Educational levels                              | 0.287   | NS   |
| Years of Experience in the Health field         | 0.793   | NS   |
| Years of Experience in the Primary Health Care Centers | 0.397   | NS   |
| Type of Primary Health Care Center              | 0.307   | NS   |

Correlation is significant at the ≤ 0.05 level, S (Sig=Significant); NS (Not Significant)

Table 4 demonstrates that there is no statistical difference between the nurses socio-demographical variables and knowledge levels about integrated management of childhood illness.

DISCUSSION

Part I: Distribution of demographic data for nursing at primary health care centers in Al-Amara city

Table (2) showed that the most of age group were 34.0% of participants in the study within (30-39 years) and (40-49 years) respectively, this finding is consistent with Abd-Al-Wahed (6) According to the study's results, the majority of nurses (54.3 %) were between the ages of 40 and 49.

The most of gender 30 (60%) of nurses in the study were male while 20 (40.0%) of nurses were female. this finding agrees with Al-Hreshawi (7) who found that more than half of the nurses in his study sample were male (65.7 %). Concerning the level education, the more half of nurses 25 (52%) in the study have secondary school, this result disagree with Al-Hreshawi (7) who stated in his research sample that the majority of the study sample was technical institute (Technical Diploma) graduates (47.2 %).

In relation to the years of experience in the health field 45 (90.0%) nurses of the study sample have (≥ 4 years) This result agrees with Abd-Al-Wahed (6), in relation to his study most of the study sample in relation to years of experience were (61.4%), also Al-Hreshawi (7) mentioned that study sample were more than half of his study (52.9%) more than 4 years.
Regarding years of experience in the primary health care centers, the majority of nurses (74.0%) have years of expert (≥ 4 years). Concerning type of primary health care center the most of participants were work in atypical health care center (70%).

**Part II: Total nursing knowledge regarding integrated management of childhood illness (n = 50).**

Table (3) shows the knowledge of nurses about integrated management of childhood illness within moderate level for 36 (72.0%) nurses of the study sample. This result supported by Grace (8) stated in them study as 48 (44.04%) respondents had fair knowledge to IMCI while 35 (32.11%) respondents had poor knowledge to IMCI. also Kagoda (9) mentioned health worker are found to have poor knowledge to IMCI but will be bitter if they are trained.

**Part III: Correlation between the socio-demographical variables of nursing and total knowledge levels.**

Table (4) demonstrates that there is no statistical difference between the nurses socio-demographical variables and knowledge levels about integrated management of childhood illness.

**CONCLUSION**

The study found that nurses at primary health care centers in Amara's first health sector had a moderate level of knowledge about integrated management of childhood illness and there was no statistical significant association between nurses characteristic and their general information.

**RECOMMENDATIONS**

Modern educational facilities for nursing team at IMCI unit should be provided to enhance health care providers’ knowledge.

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