# Nurses' Knowledge about MCH Services at Primary Health Care Centers in Rural Areas of Babylon Governorate - Iraq

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## Abstract

**Background**: If you truly believe that every mother and every child deserve the best possible care, whether or not the newborn comes into this world or during that time or after, that means that you are with us on the same train. The study aims to assess nurses' knowledge about MCH; and determine the relationship between nurses' knowledge and their demographic characteristics.

**Methods**: A descriptive study was used to guide this study. The study included a convenience sample of (98) nurses.

Data were collection using a self-report questionnaire. Data were analyzed using the statistical package for social science. The descriptive and inferential statistical measures were used.

The study results revealed that nurses have a moderate knowledge. Nurses' education, years of experience, and training courses significantly correlate with their knowledge.

**Conclusion :** Nurses' knowledge about maternal and childcare were moderate and their knowledge were influenced by educational level, years of experience, and training. Longer years of experiences in maternal and childcare and more training on MCH program help to increase their knowledge.

***Keywords:*** *Knowledge; Maternal and Child Health Services; Nurses*

## Introduction

Maternal wellbeing in most developed countries is a giant project. With the loss of 673/100,000 and 19,000 maternal deaths each year from mother's lives, it makes the largest contribution to the death of all mothers around the world [(1)]. Under the country's reproductive health coverage, maternal health is among the six most significant problem areas. A point out about the rise in women who from time to time receive maternal fitness treatment preferences. Nevertheless, the maternal health care searching for lady's stuff to do is then again low down. One reason for terrible health penalties among women is the lack of the use of up-to-date health care providers with the assistance of a significant proportion of women in the country's way of traveling [(2)]. Around 1,200 girls face fatal pregnancy and birth problems every 12 months in the United States and 60 fatal problems - the cost of birth care in the United States reaches 60 billion in 2012 [(3)]. "Globally, over 90% of births and infants die in developing countries, depending on the highest number of deaths due to population distribution. No contact or inability of maternal health priorities will increase the risk of pregnancy and childbirth problems, which may impact the high cost of maternity and death, reducing the chances of the unborn child. In Asia, the health care system does not meet the needs of women

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in healthcare. The maternal mortality rate in Asia remained inappropriately high, with more than 510 maternal deaths per 100,000 live births [4]. Iraq as one of the developing countries has been subjected to some of the most complex emergencies, conflict and security situations in the world today". Poor birth practices are the main causes behind this high rate; insufficient referral or availability of emergency obstetric care, a high level of anemia among pregnant women (35%), especially affecting rural women and those in the Central and Southern regions, and the lack of adequate health professionals and structural damage to facilities [5].

Verify the awareness, mindset, and practice of these women during the time of pregnancy about maternal and child health services. Awareness of complications of pregnancy, educational history and belief in women, providers of prenatal health care, transport and postnatal health care, and person, institutional, social and cultural qualitative data were established to determine a mean [6]. Therefore, this study amid to assess nurses' knowledge towards MCH; and determine the relationship between nurses' knowledge and their demographic characteristics.

**Materials and Methods:**

A descriptive design was used to guide this study. The study included a convenience sample of (98) nurses who were recruited from five health sectors which are Hilla First, Hilla Second, Al-Musayyib, Al-Mahaweel, and Al-Hashimya for primary health care sector in Babylon Governorate, Iraq. Data were collected using a questionnaire constructed by the researchers which includes socio-demographic sheet and nurses' knowledge.

## Data Analyses/Statistics

Data were analyzed using the statistical package for social science (SPSS) for windows, version 26. The descriptive statistical measures of frequency, percent, and mean of score (MS), and inferential statistical measure "Chi-square test" was used.

## Results and Discussion

**Table 1. Nurses' demographic characteristics (N = 98)**

| Variables | Rating | Frequency | Percent |
|---|---|---|---|
| Age (year) | 20-29 | 49 | 50.0 |
| | 30-39 | 21 | 21.4 |
| | ≥ 40 | 28 | 28.6 |
| Mean + Sd.= 32.85+9.146 | | | |
| Gender | Male | 43 | 43.9 |
| | Female | 55 | 56.1 |
| Marital Status | Single | 27 | 27.6 |
| | Married | 65 | 66.3 |
| | Divorced | 6 | 6.1 |
| Educational attainment | Secondary school of nursing graduate | 23 | 23.5 |
| | Diploma graduate | 64 | 65.3 |
| | Bachelor's graduate | 11 | 11.2 |
| Current job title | Technical nurse | 20 | 20.4 |
| | Medical assistant | 51 | 52.0 |
| | Skilled nurse | 27 | 27.6 |

***Cont...*** **Table 1. Nurses' demographic characteristics (N = 98)**

| | | | |
|---|---|---|---|
| Years of experience | Less than 1 year | 13 | 13.3 |
| | 1-4 | 42 | 42.9 |
| | 5-9 | 39 | 39.8 |
| | 10-14 | 4 | 4.1 |
| Years of experience in primary healthcare center | 1-4 | 51 | 52.0 |
| | 5-9 | 42 | 42.9 |
| | 10-14 | 2 | 2.0 |
| | 15-19 | 3 | 3.1 |
| Training course | None | 52 | 53.1 |
| | One session | 32 | 32.7 |
| | Two sessions | 9 | 9.2 |
| | More than two sessions | 5 | 5.1 |

The descriptive statistics of the socio-demographic details of nurses are described in this table in terms of frequency and percentage. Of the (98) subjects that participated in this research.

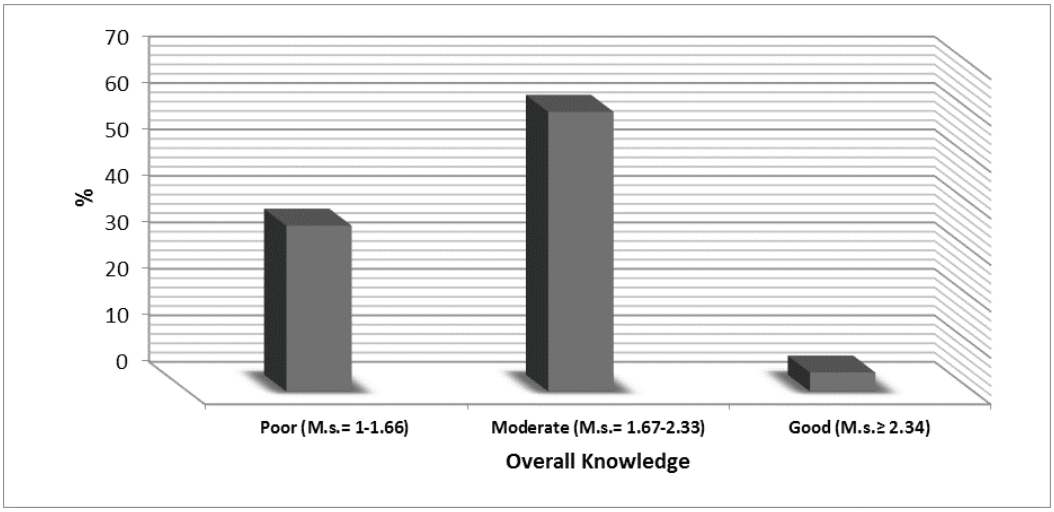


**Figure1. Overall Knowledge towards MCH**

Taking into account the statistical cut-off point, this figure indicates that the majority of nurses (60.2%) had moderate awareness at an average of + Std.= 1.68+ 0.5499.

**Table 2. Relationship between nurses' knowledge and their demographic characteristics**

| Variables | Rating | Knowledge | | | Total | df | *Sig.* | |
|---|---|---|---|---|---|---|---|---|
| | | Poor | Moderate | Good | | | | |
| Age | 20-29 years old | 17 | 30 | 2 | 49 | 4 | $\chi^2$obs.= 2.006<br>$\chi^2$ crit.= 9.488<br>P-value=0.735 | NS |
| | 30-39 years old | 7 | 14 | 0 | 21 | | | |
| | 40 and older | 11 | 15 | 2 | 28 | | | |
| | Total | 35 | 59 | 4 | 98 | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Gender | Male | 17 | 26 | 0 | 43 | 2 | $\chi^2$obs.= 3.441<br>$\chi^2$ crit.= 5.991<br>P-value=0.179 | NS |
| | Female | 18 | 33 | 4 | 55 | | | |
| | Total | 35 | 59 | 4 | 98 | | | |
| Marital status | Single | 10 | 17 | 0 | 27 | 4 | $\chi^2$obs.= 6.187<br>$\chi^2$ crit.= 9.488<br>P-value=0.186 | NS |
| | Married | 25 | 36 | 4 | 65 | | | |
| | Divorced | 0 | 6 | 0 | 6 | | | |
| | Total | 35 | 59 | 4 | 98 | | | |
| Education attainment | Secondary school | 8 | 13 | 2 | 23 | 4 | $\chi^2$obs.= 12.136<br>$\chi^2$ crit.= 9.488<br>P-value=0.016 | S |
| | Diploma graduate | 26 | 38 | 0 | 64 | | | |
| | Bachelor's | 1 | 8 | 2 | 11 | | | |
| | Total | 35 | 59 | 4 | 98 | | | |
| Job title | Technical nurse | 8 | 12 | 0 | 20 | 4 | $\chi^2$obs.= 2.835<br>$\chi^2$ crit.= 9.488<br>P-value=0.586 | NS |
| | Medical assistant | 20 | 29 | 2 | 51 | | | |
| | Skilled nurse | 7 | 18 | 2 | 27 | | | |
| | Total | 35 | 59 | 4 | 98 | | | |
| Years of experience | Less than 1 year | 9 | 4 | 0 | 13 | 6 | $\chi^2$obs.= 106.289<br>$\chi^2$ crit.= 12.592<br>P-value=0.000 | HS |
| | 1-4 years | 16 | 26 | 0 | 42 | | | |
| | 5-9 years | 10 | 29 | 0 | 39 | | | |
| | 10-14 years | 0 | 0 | 4 | 4 | | | |
| | Total | 35 | 59 | 4 | 98 | | | |
| Years of experience in PHC | 1-4 years | 22 | 27 | 2 | 51 | 6 | $\chi^2$obs.= 8.480<br>$\chi^2$ crit.= 12.592<br>P-value=0.205 | NS |
| | 5-9 years | 11 | 29 | 2 | 42 | | | |
| | 10-14 years | 2 | 0 | 0 | 2 | | | |
| | 15-19 years | 0 | 3 | 0 | 3 | | | |
| | Total | 35 | 59 | 4 | 98 | | | |
| Training course | No trained | 19 | 33 | 0 | 52 | 6 | $\chi^2$obs.= 43.559<br>$\chi^2$ crit.= 12.592<br>P-value=0.000 | HS |
| | One session | 10 | 22 | 0 | 32 | | | |
| | Two session | 3 | 2 | 4 | 9 | | | |
| | More than two | 3 | 2 | 0 | 5 | | | |
| | Total | 35 | 59 | 4 | 98 | | | |

"χ^2 obs.= Chi-square observer, χ^2 crit. = Chi-square critical, df = Degree of freedom, P-value= Probability value, S= significant, NS= non-significant, S= significant, HS= high significant".

Findings indicate that there was no substantial association between maternal and childcare nursing expertise and demographic characteristics at p-value > 0.05, but that nursing education at p-value < 0.05 was significantly related. Their knowledge at p-value <0.01 has been closely correlated with years of experience and training courses.

## Discussion

Knowledge tests, such as the one we performed in this report, may be a helpful complement to surveys on service availability and readiness evaluation to assess where and on what topics training is most needed. Where it is difficult to maintain routine training, treatment may be best concentrated in larger, better resourced facilities. If such an approach is to be considered, appropriate referral structures would need to be in place and existing overcrowding and staff shortages in larger primary health care centers in Babylon should be resolved to accommodate a larger number of customers.

Of the (98) subjects who participated in this study, their age ranged from (20-29) years of age and constituted (50 percent) of the study sample, as young workers, especially MCH, must be the primary health care staff to cover all duties. Our results come from research findings conducted at the Ibadan Primary Health Centre. The findings indicate that the majority of nurses are young adults [7].

It is evident from our findings that more than half of the study sample are female nurses. It represented (56.1 percent) of the total number of the study population, since most of the health care reviewers are women, so it includes female health workers, as in our findings. In our community, it is also normal for women nurses to be more than male nurses, since it is considered a feminine occupation by Iraqi society. These results are in line with the research conducted in Erbil City and address the expertise of nurses in primary health care. The majority of his research sample is stated to be females (59 percent) [8].

The distribution between married and single research samples. Where the proportion of married couples was the majority, the total amount accounted for 66.3 percent. It's also, the small proportion of those divorced among those results, since most of these age groups are the marriage age. These results consist of a cross-sectional design carried out in Oman. Most of the participants were married and made up 92.0 out of 199 subjects in total. [9].

Regarding work variables, most of them medical assistants and graduates have 1-4 years of experience without training sessions, due to the diploma degree, due to the large number of institutions that graduate such degrees, the main proportion of staff nurses in health organizations are considered to be the diploma degree. The majority of nursing staff in primary health centers graduated with diplomas and lack of interest in training sessions were reported in the results of standard precautions among nurses in health facilities [10].

In order to minimize maternal and infant mortality, maternal and child health care is just as important. According to our study, the majority of nurses (60.2 percent) were moderately competent at mean + SD.= 1.68 + 0.5499. These results are in line with the findings of a study conducted in Nepal dealing with the awareness of rural areas of primary health centers in the Midwest. The results indicate that the participants were almost aware of maternal and child health due to the few years of work and discrepancies in educational levels [11]. As well as serving in maternal and childcare, the Egyptian nurses wanted an effective educational program because of a lack of information about those programs [12].

"Another study also found that nurses interviewed showed a good to fair level of knowledge of maternity and routine newborn care management guidelines, but knowledge of small and sick newborn care guidelines was weaker and gaps in knowledge were reported". Given the key role of nurses in providing day-to-day

treatment for maternal and newborn patients and the frequent shortage of specialist medical staff in the environment, it is important that nurses have appropriate expertise and skills to provide quality care [13].

In addition, nurses ranked highest for awareness of active mother management after birth and immediate routine neonatal treatment. In infant resuscitation, checking signs and symptoms of sick newborns, and controlling hypertension in pregnancy, output was worse. There was a particularly low overall awareness of treatment for sick newborns (score 0.62 of 1). Nurses who had undergone training after qualifying performed better than those who had not, in all areas evaluated. In contrast with better-resourced and busier facilities, poorly resourced and low case load facilities had lower overall information ratings [14]. Several studies have shown that low resource environments have also found deficiencies in the expertise of health workers for maternal and newborn care [15][16][17].

At p-value <0.05, nursing education was significantly related. Their awareness at p-value <0.01 has been strongly correlated with years of experience and training courses. Nurses with a longer duration of work experience tended to understand more. Bases on findings of Al-Busaidi and others (2019), confirmed that those with less clinical nursing experience should be supported by potential educational initiatives and programs[9].

The importance of the total years of nursing experience and expertise was also established, as the knowledge increased with more years of experience. Also, Murphy and others (2019), Nurses with more years of experience and those who have undergone additional training since qualifying appeared to have higher awareness scores, confirmed in their results [14].

## Conclusion

This research found knowledge in terms of maternal and childcare, nurses were moderately competent, and their knowledge was influenced by educational achievement, years of experience and training. More years of maternal and childcare experience and more training of MCH program workers by local officials help to increase the knowledge of nursing practitioners. Providing health services and the manipulation of young nurses' energies, which actually helps to improve their skills.

**Conflict of Interest**: The researchers confirm that there is no any conflict of interest.

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**Ethical Clearance**: The researchers obtained the ethical approval from the University of Baghdad, College of Nursing

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