NVEO
Natural Volatiles &
Essential Oils

Evaluation of the Routine Childhood Immunization Program Structure at Primary Health Care Centers in Salah Al-Dean Governorate

Majid Mohammed Hassoon, MScN.[1] **Mohammed Fadhil Khalifa, PhD** [2]

[1] *Academic Nursing Specialist, Salah Al-Dean Health Directorate, Ministry of Health and Environment, Iraq*
e-mail: majid1balad@gmail.com
[2] *Professor, Community Health Nursing Department, College of Nursing, University of Baghdad,*
e-mail: mh.hala2013@gmail.com

Abstract

Objective: The study aims at evaluating the Routine Childhood Immunization Program Structure at Primary Health Care Centers in Salah Al-Dean Governorate

Methodology: A descriptive design, which is using the evaluation approach, is carried throughout the current study to evaluate the Routine Childhood Immunization Program Structure at Primary Health Care Centers from January 10th to November 1st, 2021. A multistage sample "non -probability" convenient sample of (32) primary health care centers (16 main and 16 sub main) distributed in Salah Al-Dean Health Directorate. An instrument is developed of the Pan American Health Organization and World Health Organization for the purpose of the present study (PAHO &WHO, 2013). The study instrument is consisted of the evaluation of Routine Childhood Immunization Program Structure at Primary Health Care Centers. Content validity of the instrument is ascertained throughout the use of committee consisting of (18) experts and internal consistency reliability is employed for the evaluation instrument, is obtained throughout Cronbach alpha correlation coefficient. Data are gathered throughout the utilization of the study instrument and the structured interview technique as methods of data collection. Data are analyzed throughout the application of descriptive statistical data analysis approach of frequencies, percentages, ranges, and total scores.

Results: The study results reveal that all of the main primary health care centers and some of the sub primary health care centers have good level of overall evaluation of the Routine Childhood Immunization Program Structure (100%), (68.75%) respectively.

Conclusion: The study concludes that the Routine Childhood Immunization Program structure is adequately employed at all of the Main Primary Health Care Centers and some of the Sub Primary Health Care Centers in Salah Al-Dean Governorate.
Recommendation: The Routine Childhood Immunization Program Structure should be monitored and valued periodically.
Keyword: Evaluation, Routine Childhood Immunization Program, Structure, Primary Health Care Centers

Introduction

Routine Childhood Immunization is one of the most important process that starts after the child is exposed to a vaccine (killed or weakened antigen), and the child body beginning building resistance to that contagious diseases or vaccine–preventable diseases. Vaccine–preventable diseases have a costly effective, resulting in health care personnel visits, hospitalizations, and even death (Adefolalu et. al., 2019).

In the developed world, the immunization program has played a major role in improving people's lives, as it is unprecedented in human history. Significant progress has also been made in the developing world, where life expectancy has risen from an average of (40) years to more than (80) years. Moreover, vaccines are the most effective health intervention. Likewise, it is estimated that vaccines will save about (25) million mortalities over ten decades from 2010 to 2020, which is equivalent to saving five lives per minute (Ozawa et. al., 2016).

In 2020, the World Health Organization launched the Immunization Agenda 2030 strategy, which aims to save the lives of millions of children and society by accelerating progress towards equitable access to vaccines. In addition to using and benefiting from them during the new decade and thus reducing the rate of diseases and deaths that can be prevented by vaccines. It also aims to improve the quality of primary health care services that have a direct impact on the immunization program and reduce efforts on health institutions and health workers, thus creating a safe environment free from diseases (WHO, 2020).

Primary health care institutions play a fundamental role in promoting the health of children and community in general. The application of the routine immunization program, especially among children under five years of age, is one of the main indicators that indicate the continuity, success, effectiveness, and efficiency of the health institution, especially during the outbreak of the Corona pandemic, which affects all aspects of life. Health institutions provide vaccination services that aim to prevent diseases that can be prevented with vaccines (Alsuhaibani & Alaqeel, 2020; Bednarek & Klepacz, 2020).

Methodology

A descriptive design, which is using the evaluation approach, is carried throughout the existing study to evaluate the Routine Childhood Immunization Program Structure at Primary Health Care Centers from January 10th to November 1st, 2021.

The study has been carried out at Salah Al-Dean Health Directorate in Salah Al-Dean Governorate. A multistage "non -probability" convenient sample of (32) primary health care centers (16 main and 16 sub main) distributed in Salah Al-Dean health directorate.

The study instrument is developed of the Pan American Health Organization and World Health Organization to evaluate the Routine Childhood Immunization Program Structure at Primary Health Care Centers (PAHO &WHO, 2013).

Items of the instrument are measured through (3) levels type Likert scale of good = (96.7-116), fair = (77.4-96.6), and poor = (58-77.3). It is comprised of the following:

1. Priority and Legal Frameworks:

This section includes (3) items relative to priority and legal frameworks. This section is measured through (2) level dichotomous scale of Yes = 2 and NO = 1. Except item (3) which are measured as Yes = 1and NO =2.

2. National immunization program manual:

This section is comprised of (4) items are measured through (2) level dichotomous scale of Yes = 2 and NO = 1.

3. Financing:

This section includes (8) items relative to financing. This section is scored through (2) level dichotomous scale of Yes = 2 and NO = 1. Except item (8) which are measured as Yes = 1and NO =2.

4. Human resources (immunization program Personnel):

This section consists of (12) items relative to human resources (immunization program personnel). This section is measured on (2) level dichotomous scale of Yes = 2 and NO = 1. Except item (3) which are measured as Yes = 1and NO =2.

5. Information System:

This section includes (13) items relative to information system. This section is measured on (2) level dichotomous scale of Yes = 2 and NO = 1.

6. Material and Resource:

This section includes (18) items relative to material and resource. This section is scored on (2) level dichotomous scale of Yes = 2 and NO = 1.

Content validity of the instrument is ascertained throughout the use of committee consisting of (18) experts and internal consistency reliability is employed for the evaluation instrument which is obtained throughout split-half technique and computation of Cronbach alpha correlation coefficient.

Data are gathered throughout the utilization of the study instrument and the structured interview technique as methods of data collection.

Data are analyzed throughout the application of descriptive statistical data analysis approach of frequencies, percentages, ranges, and total scores.

Results

Table (1): Overall Evaluation of the Routine Childhood Immunization Program Structure at Main Primary Health Care Centers in Salah Al-Dean Governorate

List	Overall Evaluation of the Structure

	Scale	F	%
1	Poor (58-77.3)	0	(0.0%)
2	Fair (77.4-96.6)	0	(0.0%)
3	Good (96.7-116)	16	(100%)
	Total	16	(100%)

F: Frequency, %: Percentage

Results, out of this table, reveal that the all Main Primary Health Care Centers in Salah Al-Dean Governorate have good level of overall evaluation of the Routine Childhood Immunization Program Structure (100%).

Table (2): Overall Evaluation of the Routine Childhood Immunization
      Program Structure at Sub Primary Health Care Centers in
      Salah Al-Dean Governorate

List	Overall Evaluation of the Structure		
	Scale	F	%
1	Poor (58-77.3)	0	(0.0%)
2	Fair (77.4-96.6)	5	(31.25%)
3	Good (96.7-116)	11	(68.75%)
	Total	16	(100%)

F: Frequency, %: Percentage

Results, out of this table, present that the overall evaluation of the Routine Childhood Immunization Program Structure is good at some of the Sub Primary Health Care Centers (68.75%) in Salah Al-Dean Governorate.

Discussion

Part I: Discussion of Overall Evaluation of the Routine Childhood
      Immunization Program Structure at Main Primary Health Care
      Centers in Salah Al-Dean Governorate

The findings of Table (2) indicate that the all Main Primary Health Care Centers in Salah Al-Dean Governorate have good level of overall evaluation of the Routine Childhood Immunization Program

Structure (100%). Such findings present empirical evidence to support that the Routine Childhood Immunization Program Structure is sufficiently qualified at Main Primary Health Care Centers' in Salah Al-Dean Governorate.

Galvão and others (2019) conduct an evaluative research based on structure- process-outcome triad. A sample of (89) immunization rooms of six Regional Health Coordination in the Primary Health Care Unit is selected to evaluate of vaccination rooms in the Fortaleza City, Ceará, Northeast of Brazil. The finding of the study shows that the structure of the public aspects/technical procedures and cold chain elements has reported well classification.

Another study is carried out in Gondar Town, Amhara Region, North West Ethiopia in 2017, to evaluate of child immunization service quality at Governmental Health Centers. The finding of the study shows that the overall evaluation of quality of child immunization program structure is good at the Governmental Health Centers (Woretaw, 2017).

Part II: Discussion of Overall Evaluation of the Routine Childhood

Immunization Program Structure at Sub Primary Health Care

Centers in Salah Al-Dean Governorate

In accordance to the overall evaluation of Routine Childhood Immunization Program Structure at the Sub Primary Health Care Centers in Salah Al-Dean Governorate, the study reveals that the overall evaluation of the Routine Childhood Immunization Program Structure is good at some of the Sub Primary Health Care Centers. A rationale for this finding can be provided to justify that the Routine Childhood Immunization Program Structure is appropriately qualified at Sub Primary Health Care Centers in Salah Al-Dean Governorate.

A related an institution based cross-sectional study carried out in six health centers and twelve health posts, in Jigjiga Zone Somali Region, Eastern Ethiopia, assessing the goodness of Expanded Program on Immunization (EPI) service provision at primary health care establishments. The finding of the study depicts that the structure of the quality of Expanded Program on Vaccination service is adequate qualified (Salah et. al., 2015).

Conclusion

1. The study concludes that the Routine Childhood Immunization Program structure is adequately employed at all of the Main Primary Health Care Centers in Salah Al-Dean Governorate.

2. The study concludes that the Routine Childhood Immunization Program structure is adequately employed at some of the Sub Primary Health Care Centers in Salah Al-Dean Governorate.

Recommendations

1. The Routine Childhood Immunization Program Structure should be monitored and valued periodically.

2. Further research can be carried out on a national scale with variety of settings and samples.

References

1. Adefolalu, O. A., Kanma-Okafor, O. J., & Balogun, M. R. (2019). Maternal knowledge, attitude and compliance regarding immunization of under five children in Primary Health Care centres in Ikorodu Local Government Area, Lagos State. *Journal of Clinical Sciences, 16*(1), 7.

2. Ozawa, S., Clark, S., Portnoy, A., Grewal, S., Brenzel, L., & Walker, D. G. (2016). Return on investment from childhood immunization in low-and middle-income countries, 2011–20. *Health Affairs*, *35*(2), 199-207.

3. World Health Organization (WHO). (2020). Immunization agenda 2030: a global strategy to leave no one behind. retrieved from:
   https://www.who.int/immunization/immunization_agenda_2030/en

4. Alsuhaibani, M., & Alaqeel, A. (2020). Impact of the COVID-19 Pandemic on Routine Childhood Immunization in Saudi Arabia. *Vaccines*, *8*(4), 581. Retrieved from:
   https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7711657/.

5. Bednarek, A., & Klepacz, R. (2020). A Review of Recommendations for Routine Immunization Services During COVID-19 Pandemic That are Relevant for Nursing Personnel Involved in the Implementation of Immunoprophylaxis. *Journal of multidisciplinary healthcare*, *13*, 1099. Retrieved from:
   https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7548331/

6. Pan American Health Organization and World Health Organization (PAHO &WHO). (2013). *Methodology for The International Evaluation of the Expanded Program on Immunization. Comprehensive Family Immunization Unit (IM) Family, Gender and Life Course Department*. Washington, D. C. 2013.

7. Galvão, M. de F. P. S., De Almeida, P. C., Lopes, M. do S. V., Coutinho, J. F. V., Martins, M. C., & Barbosa, L. P. (2019). Evaluation of vaccination rooms in primary health care units. *Revista Da Rede de Enfermagem Do Nordeste*, *20*, e39648. Doi:
   https://doi.org/10.15253/2175-6783.20192039648.

8. Woretaw, M. (2017). *Evaluation of Child Immunization Service Quality at Governmental Health Centers in Gondar Town, Amhara Region, North West Ethiopia*. Master's thesis, Jimma University.

9. Salah, A. A., Baraki, N., Egata, G., & Godana, W. (2015). Evaluation of the quality of Expanded Program on immunization service delivery in primary health care institutions of Jigjiga Zone Somali Region, Eastern Ethiopia. *European Journal of Preventive Medicine, 3*(4), 117-123.