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الدراسة المسائية

عنوان البحث :

Evaluating the information of students of the Technical Institute,
Department of Community Health, about the vaccine protocol used in Iraq

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

(هُوَ الَّذِي بَعَثَ فِي الْأُمِّيِّينَ رَسُولًا مِّنْهُمْ يَتْلُو عَلَيْهِمْ آيَاتِهِ وَيُزَكِّيهِمْ وَيُعَلِّمُهُمُ الْكِتَابَ وَالْحِكْمَةَ وَإِن كَانُوا مِن قَبْلُ لَفِي ضَلَالٍ مُّبِينٍ)

سورة الجمعة- الآية 2.

الاهداء

إلى صاحب السيرة العطرة، والفكر المُستنير؛

فأفقد كان له الفضل الأَوَّل في بلوغي التعليم العالي

(والدي الحبيب).

إلى من وضعتني على طريق الحياة، وجعلتني رابط الجأش،

وراعتني حتى صرت كبيراً

(أمي الغالية).

إلى إخوتي ؛ من كان لهم بالغ الأثر في كثير من العقبات والصعاب.

إلى جميع أساتذتي الكرام ؛

ممن لم يتوانوا في مد يد العون لي وبالخصوص الاستاذ (هاني البديري)

أهدي إليكم بحثي

شكر وتقدير

أول مشكور هو الله عز وجل، ثم والداي على كل مجهوداتهم منذ ولادتي إلى هذه اللحظات، أنتم كل شيء أحبكم في الله أشد الحب.

يسرني أن أوجه شكري لكل من نصحتني أو أرشدني أو وجهني أو ساهم معي في إعداد هذا البحث بإيصالي للمراجع والمصادر المطلوبة في أي مرحلة من مراحلها، وأشكر على وجه الخصوص استاذي الفاضل (هاني البديري) على مساندي وإرشادي بالنصح والتصحيح حول موضوع البحث .

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1. Chapter one

1.1. Introduction

The immune system refers to a collection of cells and proteins that function to protect the skin, respiratory passages, intestinal tract and other areas from foreign antigens, such as microbes (organisms such as bacteria, fungi, and parasites), viruses, cancer cells, and toxins. The immune system can be simplistically viewed as having two “lines of defense”: innate immunity and adaptive immunity. Innate immunity represents the first line of defense to an intruding pathogen. It is an antigen-independent (non-specific) defense mechanism that is used by the host immediately or within hours of encountering an antigen. The innate immune response has no immunologic memory and, therefore, it is unable to recognize or “memorize” the same pathogen should the body be exposed to it in the future. Adaptive immunity, on the other hand, is antigen-dependent and antigen-specific and, therefore, involves a lag time between exposure to the antigen and maximal response. The hallmark of adaptive immunity is the capacity for memory which enables the host to mount a more rapid and efficient immune response upon subsequent exposure to the antigen. Innate and adaptive immunity are not mutually exclusive mechanisms of host defense, but rather are complementary, with defects in either system resulting in host vulnerability. (1)

World Health Organization (WHO) defined immunization as a key health service that maintains and protects the health and wellbeing of populations, and so becomes critical for the effective functioning of governments and

economies. Immunization activities should be maintained to ensure optimum continuity during periods of major disruption in the supply of services or consumption(2).

It is a method for eradicating and controlling infectious diseases that threaten life, affecting an estimated two to three million children deaths to be avoided every year. Routine vaccination is cost-effective .In Iraq, public the health measure for "Expanded Program on Immunization" was founded in 1985 and has been providing vaccination services for its target groups since that time. Measures of health status have been increasing for two decades, particularly in terms of controlling Vaccine Preventable illnesses, and this represents the high standards of the EPI program's successes(3)..

1.2. Importance of study

Vaccinations have significantly enhanced world health by limiting the transmission of infectious diseases. Worldwide health organizations such as the World Health Organization (WHO), place a high value on developing and implementing effective immunization programsDespite a large drop in vaccine-preventable diseases in the country, there is a huge opening in vaccination rates and an impressive percentage related to the children who are not vaccinated below one year of age in Iraq, raising the danger of transmission and maintenance of infectious illnesses .Despite evidence indicating that vaccination is among the most successful strategies for avoiding mortality and morbidity from diseases that can be prevented by vaccines throughout the world, vaccination percentages in several countries continue to be low due to the lack of complete knowledge, incorrect beliefs,

concerns about side effects, along with vaccine caution among the general public(4). Vaccinations are normally safe, although they can carry certain risks, and negative reactions to immunization can occur on a few occasions. The public's trust in the safety of vaccinations is seen as vital to the success and efficacy of any immunization programs(5)

1.3. Statement of the Problem

Evaluating the information of students of the Technical Institute, Department of Community Health, about the vaccine protocol used in Iraq.

1.4. Objective of study

The study aims to:

evaluate the knowledge of pupils studying in the alkut technical institute in community department about immunization protocol used in Iraq

Chapter two (Review of literature)

2. Review of literature

2.1. Definition of vaccine

. Patterns of Infectious Processes Vaccines are designed as a prophylactic measure to induce a lasting immune response so that on subsequent exposure to the particular infectious agent, the extent of infection is reduced to such an extent that disease does not occur . There is also increasing interest in designing vaccines that may be effective as a therapeutic measure, immunotherapy.(6)

Vaccination is a powerful method of disease prevention that is relevant to people of all ages and in all countries, as the Covid-19 pandemic illustrates. Vaccination can improve people's chances of survival, protect communities from new and re emerging health threats, and enhance societal productivity. But achieving the promise of vaccination requires much more than the vaccines themselves. It requires appropriate incentives to encourage the timely discovery and development of innovative, effective, safe, and affordable products; effective financing and delivery programs; and credible scientific leaders who can provide evidence-based policy recommendations and reassure the public about the value of the vaccines(7)

2.2. Mechanism of action for vaccines

Researchers are constantly looking for new vaccines which will provide protection from many infectious diseases. Probably the first “vaccine trial” was completed many centuries ago by Middle-Eastern populations to protect themselves against cutaneous Leishmaniasis through the inoculation of the pus from the active lesions into the skin of the foot of an uninfected infant to prevent further persistent scarring on important areas of the body such as the face. Despite the fact that these “early vaccines” had created the concept of “immunity,” it took quite some time for us to understand what was really happening in the body. From the last several decades of microbiology, immunology and medical research, we have learnt that successful vaccines should produce adequate and persistent humoral and/or cellular immune responses against the pathogen derived, protective antigen, which is mostly protein. In particular, in the last decade, researchers from the field of innate immunity have emphasized the importance of adjuvants in vaccine formulation as an essential component of successful vaccines. Modern microbiology, immunology and vaccine technology has opened new doors of understanding about the protection and treatment of not only infectious diseases, but also non-infectious diseases such as cancer and allergy. Here, we will comment on the recent advances on the mechanisms of action of DNA vaccines and their future consequences for human use(8)

Methodology

This chapter presents the research design that has been used in this study. It included the sample selection, instrument construction , methods of data collection and data analysis.

2.3. Design of the Study.

A descriptive analytical study is carried out on 50 student .

2.4. Seting of the Study.

The sample of 50 student selected at random in wasit Province alkut technical institute .. Period of the study The data collection began on 2nd january , 2024, and to february 2nd, 2024.

2.5. Sample of the Study.

A purposive (Nan probability) sample of (50) student

2.6. Instrument Construction

The instrument was constructed through the review of the literature which is consists of three parts:

Part I: The demographic data includes student ' characteristic (4 Items) which as age, gender, and marital status

Part II: questionnaire that included information from the guideline of Expanded Program Immunization of "World Health Organization" and "The Ministry of Health in Iraq", as well as the advice

References

1. Warrington, R., Watson, W., Kim, H. L., & Antonetti, F. R. (2011). An introduction to immunology and immunopathology. *Allergy, Asthma & Clinical Immunology*, 7, 1-8.2. Organization WH. Immunization as an essential health service: guiding principles for immunization activities during the COVID-19 pandemic and other times of severe disruption, 1 November 2020. 2020;

3. Hossain SMM, Hilfi RA, Rahi A, Jabbar F, Garcia C, Teleb N, et al. Annual cost savings of US \$70 million with similar outcomes: 23 Kufa

Medical Journal Vol. 19, No. 2, 2023 vaccine procurement experience from Iraq. *BMJ Glob Health*. 2022;7(2):e008005.

4. della Polla G, Napolitano F, Pelullo CP, de Simone C, Lambiase C, Angelillo IF. Investigating knowledge, attitudes, and practices regarding vaccinations of community pharmacists in Italy. *Hum Vaccin Immunother*. 2020;16(10):2422–8.

5. Santangelo OE, Provenzano S, Grigis D, Migliore CB, Firenze A. SHORT PAPER Adverse events following immunization and vaccine perception in nursing students. *Ann Ig*. 2021;33(2):123–30.

6. Ada, G. (2005). Overview of vaccines and vaccination. *Molecular Coban*, C., Koyama, S., Takeshita, F., Akira, S., & Ishii, K. J. (2008).

7. Gerberding, J. L., & Haynes, B. F. (2021). Vaccine innovations—past and future. *New England Journal of Medicine*, 384(5), 393-396.

8. Molecular and cellular mechanisms of DNA vaccines. *Human vaccines*, 4(6), 453-457. *biotechnology*, 29, 255-271.

