

## Assessing Nurses' Knowledge about Vaccination: A Survey Study

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**Abstract: - Background:** Vaccination of infants and young children against serious infectious diseases is the most successful and cost-effective intervention in preventative health care. However, vaccination occasionally leads to undesirable effects including adverse reactions that are referred to as adverse events following immunization.

**Material and methods:** Descriptive study was used to adopted current study. The study extended from (1-2-2021) to (1-7-2021). The sample of the study consists of (39), (20) male and (19) female from different primary health care centers at left side in Mosul City. A questionnaire was developed based on the previous study related to the research problem. Data were analyzed by using SPSS version 26.

**Results:** the main results of the present study showed that the majority of nurse's knowledge about adverse effects following immunization were good (30.24), and the practice slightly less than acceptance (23.69).

**Conclusion:** The researcher concluded that the nurse's knowledge about adverse effects following immunization were good, but nurses' practice was slightly less than acceptance.

**Keywords:** Vaccination, Awareness, Adverse effects.

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**Supplementary information** The online version of this article (<https://doi.org/xx.xxx/xxx.xx>) contains supplementary material, which is available to autho-rized users.

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### Introduction:

Immunization of infants and young children against serious infectious diseases is the most successful and cost-effective intervention in preventative health care <sup>(1)</sup>. However, vaccination occasionally leads to undesirable effects including adverse reactions that are referred to as adverse events following immunization (AEFI) <sup>(2)</sup>. Any untoward medical occurrence that occurs after immunization, which is not necessarily due to the usage of the vaccine, is considered an adverse event following immunization. Immunization is believed to be the source of the adverse events, which is why they're of concern. Adverse events that are more commonly reported following vaccination include redness, swelling, and pain at the injection site. Fever, rash, excessive crying, convulsions, anaphylaxis, encephalitis, drowsiness, or irritability are the typical characteristics of the other conditions<sup>(3)</sup>. Global Advisory

Committee on Vaccine Safety (GACVS) was established in 1999 with the goal of consulting with WHO on vaccine safety issues of global importance. Monitoring systems for vaccine-related adverse events have been implemented in many countries, but they are not standardized<sup>(4)</sup>. The World Health Organization found that 53% of all WHO member countries have a national AEFI monitoring system. This rather contradicts the statement above, in which it is said that most countries are able to detect serious AEFI that causes death and hospitalization<sup>(5,6)</sup>.

## Methods and Materials:

Descriptive study was used to adopted current study. The study extended from (1-2-2021) to (1-7-2021). The sample of the study consists of (39), (20) male and (19) female from different primary health care centers at left side in Mosul City. The study was conducted at vaccination units in three primary health care centers in the left side in Mosul city includes (Al-Quds primary health care center, Al- Zahraa primary health care center and Al Sharqee primary health care center). A questionnaire was developed based on the previous study related to the research problem, and validity tested by presenting it to a group of experts in the several fields includes nursing, medicine and medical statistics. The collected data was arranged analyzed and presented in tables by using frequency and percentage by using SPSS version 26<sup>(7-133)</sup>.

## Results:

*Table (1): Distribution of the study sample according to their demographic variables.*

Variables				
Age	No.	%	Mean	SD
Less than 26 years	15	38.5	2.25	1.371
26-29 Years	11	28.2		
30-34 Years	6	15.4		
35-39 Years	2	5.1		
40 Years or more	5	12.8		
<b>Total</b>	<b>39</b>	<b>100%</b>		
Gender	No.	%	Mean	SD
Male	20	51.3	1.48	0.50
Female	19	48.7		
<b>Total</b>	<b>39</b>	<b>100%</b>		
Educational level	No.	%	Mean	SD
School	12	30.8	2.02	0.81
Institute	14	35.9		
college	13	33.3		
<b>Total</b>	<b>39</b>	<b>100%</b>		
Workplace	No.	%	Mean	SD
Al-Qudas PHC	12	30.8	17.6	0.58
Al-Zahraa PHC	24	61.5		
Al-Sharqee PHC	3	7.7		
<b>Total</b>	<b>39</b>	<b>100%</b>		
Experience	No.	%	Mean	SD
Less than 1 Years	2	5.1	2.79	0.92
1-4 Years	15	38.5		
5-10 Years	11	28.2		
More than 10 years	11	28.2		
<b>Total</b>	<b>39</b>	<b>100%</b>		

This table indicated that the majority of the study sample was less than 26 years (**38.5%**), and more than half was male (51.3%), the majority of them was (1-4) years' experience (38.2%).

*Table (2): Distribution of the study sample according to their score of Awareness*

Score of Awareness	No	%	Mean of score
Poor K (12-less 24)	5	12.82	30.24
Accepted K (24-29)	8	20.52	
Good K (More than 30)	26	66.66	

Total	39	100%	
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This table indicated that the majority of the nurse's knowledge regarding adverse effects following immunization are good, (66.66%), and the mean of knowledge score (30.25).

## Discussion:

A critical role is played by nurses in influencing and protecting public confidence in vaccine safety by implementing AEFI<sup>(134-138)</sup>. Direct involvement in the processes of AEFI detection, investigation, reporting, and management is a role of this position. Although there is limited knowledge, perceptions, and practices surrounding of AEFI, the issue is understudied<sup>(139,140)</sup>. Although it was unknown whether nurses in Iraq were trained and knowledgeable in AEFI, it was clear that they weren't. Much of what they believed and did regarding AEFI remained unknown to others. Table(1) indicated that the majority of the study sample was less than 26 years (38.5%), and more than half was male (51.3%), the majority of them was (1-4) years' experience (38.2%). Table 2:indicated that the majority of the nurse's knowledge regarding adverse effects following immunization are good, (66.66%), and the mean of knowledge score (30.25).

## Conclusion:

Based on the study results the researchers concluded that the nurse's knowledge about adverse effects following immunization were good and the nurses practice related adverse effects following immunization were slightly less than acceptance.

## Reference:

- 1.Saha B, Mani S. Assessment of Knowledge and Practices Regarding Adverse Events Following Immunization (AEFI) Among Community Health Nurses In Alipurduar District. *J West Bengal Univ Health Sci.* 2020;1(1):31-40.
2. Bisetto LH, Cubas MR, Malucelli A. Nursing practice in view of adverse events following vaccination. *Revista da Escola de Enfermagem da USP.* 2011;45:1128-34.
3. Afolaranmi TO, Hassan ZI, Sodipo OY, Gwomson D, Ugwu OJ, Ofakunrin AO, Ige OO, Tagurum YO, Bupwatda PW. Knowledge of adverse events following immunization, its prevalence and actions of mothers of children aged 0–23 months in a tertiary health institution in Jos, North Central Nigeria. *Journal of Medicine in the Tropics.* 2020 Jan 1;22(1):57-64.
4. Abdullah MK, Younis NM. Barriers to quitting smoking among nursing students in Iraq. *Journal of Holistic Nursing Science.* 2025 Sep 9;12(2):262-71.
5. Idress NH, Ibrahim RM, Younis NM. Mode of delivery and its influences on neonatal morbidity among newly born babies at maternity teaching hospitals in Mosul City: A comparison study. *Journal of Education and Health Promotion.* 2025 Nov 1;14(1):470.
6. Ahmed SS, Alkaisy MS, Ahmed MM, Younis NM. Evaluation of Audit Electroconvulsive Therapy Service in Psychiatric Unit at Mosul City.2021.
7. Mohammed AJ, Younis NM. Efficacy of an Training Program Based Intervention in Changing Knowledge Nurses Concerning Medication Dosage Errors in Pediatric ward in Mosul City, Iraq. *Bahrain Medical Bulletin.* 2025 Jun 1;47(2).
8. Younis NM, Ahmed MM, Ibrahim RM. The impact of Playing Video Games on Elementary School Pupils of Mosul City. *Current Clinical and Medical Education.* 2025 May 6;3(5):39-49.
9. Bura'a LN, Younis NM. Inspection of Nurses Techniques to Phototherapy in Neonatal Intensive Care Units: A cross-Sectional Study. *Current Clinical and Medical Education.* 2025 Mar 2;3(03):01-10.

10. Younis NM, Ahmed MM, Ibrahim RM. Evaluation of the Internal Areas' Standard of Living for University of Mosul Students. *Current Clinical and Medical Education*. 2025 May 6;3(5):29-38.
11. Ibrahim RM, Ahmed MM, Younis NM. Apply the Health Beliefs Model among students to Enhancing Intentions: Randomized Control Trail. *Journal of Current Medical Research and Opinion*. 2024 Sep 1;7(09):3505-14.
12. Ibrahim RM, Ahmed MM, Younis NM. Using the Behavioral Motivation to Enhancing Behavior of Students Towards Addiction. *Journal of Current Medical Research and Opinion*. 2024 Jul 22;7(07):3337-44.
13. Younis NM, Ahmed MM, Dhahir NM. Knowledge and Attitude toward older adults among Nursing Students. *Signal*. 2012;84:70.
14. Mohammad FH, Noori LK, Younis NM. Assessment of Nutritional habits among Mosul University Students regarding breakfast. *Rawal Med J*. 2023 Mar 3;48(1):96.
15. Ibrahim RM, Ahmed MM, Younis NM. Mental health problems with aging: Across Sectional Study. *Journal of Current Medical Research and Opinion*. 2024 Aug 17;7(08):3454-61.
16. Younis NM, Ahmed MM, Ibrahim RM. Application the Beliefs Model to change the Beliefs Concerning the drug Abuse. *Journal of Current Medical Research and Opinion*. 2024 Aug 17;7(08):3445-53.
17. Ahmed MM, Younis NM, Abdulsalam RR. Assessment of changes in sleep habits in elementary students during covid\_19 lockdown. *International Journal of Medical Toxicology & Legal Medicine*. 2022;25(1and2):76-80.
18. Adea MK, Lefta RM, Younis NM. Impact of psychosocial aspect parameters on psoriasis patients' quality of life at outpatient clinic in Al-Dewania City, Iraq. *Rawal Med J*. 2022 Dec 11;47(4):892.
19. Ibrahim RM, Ahmed MM, Younis NM. Modifications in Sleep Patterns During the COVID-19: Review of Subject. *Journal of Current Medical Research and Opinion*. 2024 Jul 25;7(07):3354-62.
20. Taher AK, Younis NM. Effect of a trans theoretical model in improving behaviors of health care workers related to electronic hookah in Mosul, Iraq. *Rawal Medical Journal*. 2023 Mar 3;48(1):228-.
21. Ibrahim RM, Idrees NH, Younis NM. Epidemiology of leukemia among children in Nineveh Province, Iraq. *Rawal Med J*. 2023 Mar 3;48(1):137.
22. Ali HA, Abbas FF, Younis NM. Mothers' knowledge and attitudes towards breastfeeding in Thi-Qar City, Iraq. *Rawal Med J*. 2023 May 27;48(2):514.
23. Ahmed MM, Ibrahim RM, Younis NM. Perceived Susceptibility toward Smoking among Students. *Journal of Current Medical Research and Opinion*. 2024 Jul 12;7(07):3217-25.
24. Ahmed MM, Younis NM, Dhahir NM, Hussain KN. Acceptance of Covid-19 vaccine among nursing students of Mosul University, Iraq. *Rawal Medical Journal*. 2022 Apr;47(2):254.
25. Abbas AS, Younis NM. Efficacy of Pender's Health Promotion-based Model on Intervention for Enhancing University of Mosul Hypertensive Employees' Eating Behaviors: A randomized Controlled Trial. *Revis Bionatura*. 2022;7(3):35.
26. Younis NM, Mahmoud M, Ahmed A. University Students' Attitude Towards E-Learning. *Bahrain Medical Bulletin*. 2021;43(2):460-2.
27. Younis NM, Taher AK. Efficacy of Trans Theoretical Model Intervention for Improving Behaviors related to Electronic Hookah Smoking among Healthcare Workers in Mosul Hospital: A Randomized Control Trail. *Int J Membrane Sci Tech*. 2023 Jul 2;10(2):1433-9.
28. Younis NM. Epidemiology of Hepatitis B-virus in Nineveh province: Retrospective Study. *Int J Membrane Sci Technol*. 2023 Jul 2;10(2):1440-4.
29. Abbas AS, Younis NM. Assessing the effect Pender's Model in changing employees' Eating Behaviors suffer hypertension at Mosul University Iraq. *Pakistan Journal of Medical & Health Sciences*. 2022 Jul 29;16(06):476-.
30. Ayed AY, Younis NM, Ahmed MM. Comparison of infection severity of vaccinated and unvaccinated health workers with Corona Virus: A cohort study. *Journal of Education and Health Promotion*. 2023 Sep 1(1):336.
31. Younis N. Assessment of healthy lifestyle habits among Mosul university students. *Int J Adv Nurs Stud*. 2014 Jul 1;3(2):69-73.

32. Hussein AA, Younis NM, Ahmed MM. Health Promoting Lifestyle profile Among Nursing Students in Mosul University. *International Journal of Psychosocial Rehabilitation*. 2020;24(09).
33. Younis NM, Naji AB. Assessing the effect of an educational intervention based on health belief model on preventive behaviors of addiction. *Pakistan J Med Health Sci*. 2021;15(3):813-7.
34. Younis NM, Naji AB. Evaluation of preventive behaviors of addiction among students: Application of health belief model. *Indian J Forensic Med Toxicol*. 2021 May 17;15(4):1273-8.
35. Bura'a LN, Younis NM. Educational Program of Nurses Practices Towards to Phototherapy at Neonatal Care Units. *Pakistan Journal of Medical & Health Sciences*. 2023 Jun 9;17(04):530-.
36. Younis NM, Naji AB. The effect of health education based on the health belief model about changing the belief related to substance use among university students in Mosul city-Iraq. *Annals of the Romanian Society for Cell Biology*. 2021 May 4:14687-98.
37. Younis NM, Hussein AA, Ahmed MM, Younis NM. Quality of life and occupational hazards among cement factory workers in Mosul city. *QoL and Occupational Hazards among Cement Factory Workers*. 2021;24(2):1-8.
38. Younis NM. Assessment for Mortality Rate Children Under Five Years in Mosul City. *Journal of Kufa for Nursing Science Vol*. 2014;4(1).
39. Jasem WM, Younis NM. Assessment of Nurses' Performance Regarding Nursing Documentation in Pediatric Wards at Mosul Hospitals. *Journal of Current Medical Research and Opinion*. 2024 Apr 12;7(04).
40. Ahmed AS, Younis NM. Assessment of Nurses Knowledge Regarding Blood Exchange Transfusion at Mosul Neonatal Care Units. *Journal of Current Medical Research and Opinion*. 2024 Apr 12;7(04):2285-8.
41. Younis NM, Naji A. Efficacy of Health Belief Model-Based Training in Changing the Beliefs about Substance use. *Kufa Journal for Nursing Sciences*. 2021 Jun 25;11(1):221-9.
42. Ahmed MM, Younis NM, Hussein AA. Association between Internet Addiction and Sleep disturbance Among Nursing Students. *International Journal of Psychosocial Rehabilitation*. 2020;24(09).
43. Younis NM, Salih YH. Nursing Students' Knowledge about Caring for the Elderly. *Journal of Current Medical Research and Opinion*. 2024 Apr 15;7(04):2320-7.
44. Abed SM, Suleiman AA, Ahmed SS, Younis NM, Ahmed MM. Road Traffic Accident Characteristics And Injury Outcomes Among Victims In Mosul City. *Journal of Pharmaceutical Negative Results*. 2023 Sep 15:4102-8.
45. Saad WI, Kumait AS, Younis NM. Workplace challenges and violence against nurses: subject review. *Pakistan Journal of Medical & Health Sciences*. 2023 Mar 2;17(01):509-.
46. Taher AK, Younis NM. Evaluation Of Processes Of Change Related To Trans Theoretical Model Of Enhancing Behaviors Of Healthcare Workers User Electronic Hookah. *Journal of Pharmaceutical Negative Results*. 2023 Mar 16:3190-3.
47. Alkaisy MS, Ahmed SS, Alsydan MS, Suleiman AA, Younis NM, Ahmed MM. Post-Traumatic Stress Disorder Following Wars and Repression at Mosul City-Iraq. *Indian Journal of Forensic Medicine & Toxicology*. 2021 May 17;15(3):1240-5.
48. Younis NM, Ali MT, Hasan MK, Khalaf MS, Abdullah MN, Ahmed YL, Abdulkadir MN. Knowledge and attitude of collegians at university in Mosul towards the prevention and control of COVID-19. *Turkish Journal of Physiotherapy and Rehabilitation*. 2021:7975-8.
49. Younis NM, Ahmed MM. Knowledge and Compliance with Standard Precautions among Nursing Students in Mosul University. *Assiut Scientific Nursing Journal*. 2014 Jun 1;2(3):152-9.
50. Younis NM, Ahmed MM, Hussein AA. Epidemiology Of Deaths From Injuries In Nineveh Governorate (2008\_2012). *kufa Journal for Nursing sciences*. 2014;4(2).
51. Younis NM, Ahmed MM. knowledge and Attitude of Nursing Students' towards Palliative Care. *Journal of Current Medical Research and Opinion*. 2024 Apr 20;7(04):2345-53.
52. Younis NM, Ahmed MM. Road Traffic accidents in Nineveh Province (2017\_2021): A retrospective study. *Journal of Current Medical Research and Opinion*. 2024 Apr 20;7(04):2354-62.

53. Ibrahim RM, Younis NM, Ahmed MM. Knowledge and Attitude of University Students Regarding Rhinoplasty. *Journal of Current Medical Research and Opinion*. 2024 May 1;7(05):2411-9.
54. Hussein AA, Younis NM, Ahmed MM. Assessment of Diabetic Self-Management among Patients with Diabetic Type II. *Journal of Current Medical Research and Opinion*. 2024 May 1;7(05):2402-10.
55. Ahmed MM, Ibrahim RM, Younis NM. Nursing Students' Attitudes about Organ Donation in University of Mosul/Iraq. *Journal of Current Medical Research and Opinion*. 2024 May 1;7(05):2430-7.
56. Ahmed MM, Ibrahim RM, Younis NM. Assessment of Sleep Habits among Nursing Students in Mosul City/Iraq. *Journal of Current Medical Research and Opinion*. 2024 May 1;7(05):2420-9.
57. Ahmed MM, Ali Hussein A, Youns NM. Knowledge, attitude, and practice (KAP) of voluntary blood donation among nurses in Mosul Teaching Hospital. *Mosul Journal of Nursing* (Print ISSN: 2311-8784 Online ISSN: 2663-0311). 2017 Jul 1;5(1):24-32.
58. Ahmed MM, Ibrahim RM, Younis NM. Assessment of Nursing Students' Attitudes Toward Obese Individuals. *Journal of Current Medical Research and Opinion*. 2024 May 4;7(05):2468-76.
59. Younis NM, Ibrahim RM, Ahmed MM. Apply Health Beliefs Model Towards of Substance Abuse. *Journal of Current Medical Research and Opinion*. 2024 May 4;7(05):2460-7.
60. Ibrahim RM, Ahmed MM, Younis NM. Prevalence of COVID-19 among Students in Mosul University. *Journal of Current Medical Research and Opinion*. 2024 May 4;7(05):2477-88.
61. Younis NM, Ahmed MM, Dhahir NM. Knowledge and Attitude toward older adults among Nursing Students. 2021. *PJM HS*.;15(3).
62. Ahmed MM, Ibrahim RM, Younis NM, Ahmed SS. Nurses Knowledge and Practice about adverse Effects Following Immunization at Primary Health Care Centers in Mosul City. *Journal of Current Medical Research and Opinion*. 2024 May 15;7(05):2536-42.
63. Hussein AA, Ahmed MM, Younis NM, Ibrahim RM. Apply Pender's Health Promotion Towards Hypertension of Employees in Mosul City/Iraq. *Journal of Current Medical Research and Opinion*. 2024 May 15;7(05):2529-35.
64. Ibrahim RM, Ahmed MM, Younis NM. Benefits and Challenges of Healthy Dieting among Nursing Students. *Journal of Current Medical Research and Opinion*. 2024 May 15;7(05):2521-8.
65. Allawi RH, Ahmed MM. Assessment of Nurse's Knowledge Towards Diabetic Ketoacidosis among children in Mosul City/Iraq. *Rawal Medical Journal*. 2023 Apr;48(2).
66. Allawi RH, Ahmed MM. Assessment of Nurses' Practices Towards Children with Diabetic ketoacidosis. *Pakistan Journal of Medical & Health Sciences*. 2023 Jun 2;17(04):444-.
67. Kaleel MI, Mahmoud MA. Assessment of Mothers' Knowledge about Breastfeeding Premature Infants in Mosul city. *Journal of Current Medical Research and Opinion*. 2024 Apr 19;7(04):2328-33.
68. Mahmoud MM, Ahmed MM. Assessment of Self-Management Behavioral Skill among Patients with Diabetic type II in Mosul City. *Journal of Current Medical Research and Opinion*. 2024 Apr 19;7(04):2334-9.
69. Ibrahim RM, Al Hafidh NM. Acute Diarrhea in Exclusively Breast Fed Infants in relation to Zinc Level. *Pak J Med Health Sci*. 2021;15:1431-5.
70. Younis NM, Ahmed MM, Abdulsalam RR. Assessing quality of life in palliative care. *International Journal of Medical Toxicology & Legal Medicine*. 2021;24(3and4):115-8.
71. Muwfaq YN, Ahmed MM, Abdulsalam RR. Assessing Quality of Life in Palliative Care. *Bahrain Medical Bulletin* 2021;43(3):594-6.
72. Ahmed MM, Younis NM, Hussein AA. Prevalence of tobacco use among health care workers at primary health care centers in Mosul City. *Pakistan Journal of Medical and Health Sciences*. 2021;15(1):421-4.
73. Younis NM, Ahmed MM, Hussein AA. Nurses' knowledge, attitude and practice towards preparedness of disaster management in emergency of mosul teaching hospitals. *Medico-Legal Update*. 2020 Jul 1;20(3):775-9.
74. Naji AB, Ahmed MM, Younis NM. Adherence the preventive measure against for covid-19 among teachers at university of mosul. *International Journal of Medical Toxicology & Legal Medicine*. 2021;24(3and4):273-7.

75. Ibrahim RM, Ahmed MM, Younis NM. Correlations Between Health Beliefs Model and substance use among University students. *Journal of Current Medical Research and Opinion*. 2024 Jun 12;7(06):2810-8.
76. Ahmed MM, Ibrahim RM, Younis NM. Enhancing Weight Control Behaviors among University Employees: Health Beliefs Model. *Journal of Current Medical Research and Opinion*. 2024 Jun 12;7(06):2801-9.
77. Younis NM, Ahmed MM, Ayed AY. HIV knowledge and preventive Standards Precautions Among Healthcare Workers in Blood Transfusion Centers.
78. Younis NM, Ibrahim RM, Ahmed MM. Health Problems Related to Quality of Life among Aging in Iraq. *Journal of Current Medical Research and Opinion*. 2024 Jun 24;7(06):3015-24.
79. Younis NM, Ibrahim RM, Ahmed MM. Independency Domains Among Old Age in Mosul City/IRAQ. *Journal of Current Medical Research and Opinion*. 2024 Jun 24;7(06):3025-33.
80. Ayed AY, Younis NM, Ahmed MM. Teachers' knowledge about communicable disease control at primary schools in Mosul City: A cross-sectional study. *International Journal of Academic Medicine*. 2024 Apr 1;10(2):75-9.
81. Younis NM, Ibrahim RM, Ahmed MM. Life of adaption among Old Adults in Nineveh Governorate. *Journal of Current Medical Research and Opinion*. 2024 Jul 1;7(07):3099-106.
82. Younis NM, Ibrahim RM, Ahmed MM. Personal Hygiene Towards Old Age. *Journal of Current Medical Research and Opinion*. 2024 Jul 1;7(07):3107-113.
83. Younis NM, Ahmed MM, Dhahir NM. Knowledge and Attitude toward older adults among Nursing Students. 2021.
84. Ibrahim RM, Ahmed MM, Younis NM. Physical activity among Elderly in Mosul City/IRAQ. *Journal of Current Medical Research and Opinion*. 2024 Jul 5;7(07):3149-54.
85. Ibrahim RM, Ahmed MM, Younis NM. Psycho-Social Aspects Among Elderly in Nineveh Governorate. *Journal of Current Medical Research and Opinion*. 2024 Jul 5;7(07) : 3155-63.
86. Ibrahim RM, Ahmed MM, Younis NM. Perceived Benefits Related to Drug Abuse among Students. *Journal of Current Medical Research and Opinion*. 2024 Jul 8;7(07):3179-86.
87. Ibrahim RM, Ahmed MM, Younis NM. Perceived Barriers for substance Abuse among Students. *Journal of Current Medical Research and Opinion*. 2024 Jul 8;7(07):3171-8.
88. Ibrahim RM, Ahmed MM, Younis NM. Correlation Between HBM and Weight Control among Employee University. *Journal of Current Medical Research and Opinion*. 2024 Jun 17;7(06):2870-8.
89. Al-Ghurairi SA, Younis NM, Ahmed MM. Prevalence of weight gain among students of Mosul University, Iraq during quarantine 2020. *Rawal Medical Journal*. 2022 Jul;47(3).
90. Ahmed MM, Younis NM, Hussein AA. Violence Towards Nurses Staff at Teaching Hospitals in Mosul City. *Indian Journal of Forensic Medicine & Toxicology*. 2020 Jul 1;14(3).
91. Ahmed MM, Ibrahim RM, Younis NM. Perceived Seriousness related to Smoking among students. *Journal of Current Medical Research and Opinion*. 2024 Jul 13;7(07):3234-43.
92. Ahmed MM, Younis NM, Ibrahim RM. Evaluation of Behavioral Control aimed at Improving Students' Behavior Concerning Substance abuse. *Current Clinical and Medical Education*. 2024 Jul 19;2(7):92-9.
93. Ahmed MM, Ibrahim RM, Younis NM. Behavioral Intention to Improvement Behavior of Students' related to Drug Use: Apply the Health Beliefs Model. *Current Clinical and Medical Education*. 2024 Jul 19;2(7):100-6.
94. Younis NM, Ahmed MM, Dhahir NM. Prevalence of coronavirus among healthcare workers. *International Journal of Medical Toxicology & Legal Medicine*. 2021;24(1and2):267-70.
95. Younis NM, Ibrahim RM, Ahmed MM. Relationship between Quality of Life and Lifestyle of Health Old Age. *Current Clinical and Medical Education*. 2024 Aug 1;2(8):18-28.
96. Ibrahim RM, Ahmed MM, Younis NM. Correlation between Physical Activity and Quality of Life of Elderly. *Current Clinical and Medical Education*. 2024 Aug 1;2(8):9-17.
97. Younis NM, Ibrahim RM, Ahmed MM. Relationship between Personal Hygiene and Elderly Health. *Current Clinical and Medical Education*. 2024 Aug 4;2(8):199-206.

98. Ibrahim RM, Ahmed MM, Younis NM. Association between Psychological Problem and Health old age. *Current Clinical and Medical Education*. 2024 Aug 4;2(8):190-8.
99. Younis NM, Ahmed MM, Ibrahim RM. Motivation of Application Health Beliefs Models With Substance Abuse. *Current Clinical and Medical Education*. 2024 Aug 10;2(8):236-43.
100. Younis NM, Ahmed MM, Ibrahim RM. Confidence of Application Health Beliefs Models with Addiction. *Current Clinical and Medical Education*. 2024 Aug 10;2(8):218-26.
101. Younis NM, Ahmed MM, Ibrahim RM. Health Beliefs Model in Enhancing the Beliefs Concerning Healthy Weight. *Current Clinical and Medical Education*. 2024 Aug 10;2(8):227-35.
102. Ibrahim RM, Ahmed MM, Younis NM. Effectiveness of a Model-Based Intervention Based on Health Beliefs in Altering the Beliefs of Students Regarding Substance use. *Journal of Current Medical Research and Opinion*. 2024 Jul 29;7(07):3363-72.
103. Ibrahim RM, Younis NM, Ahmed MM. Sleep Disorder with Internet Addiction in University Students: A Cross-Sectional Study Correlational. *Journal of Current Medical Research and Opinion*. 2024 Aug 27;7(08):3492-504.
104. Ibrahim RM, Younis NM, Ahmed MM. The relationship between factory workers' quality of life and occupational hazards. *Current Clinical and Medical Education*. 2024 Aug 27;2(8):369-80.
105. Nasir MY, Rian MI, Nada HI. Prevalence of snake bite among children in Nineveh Governorate/Iraq: A retrospective study. *International Journal of Medical Toxicology & Legal Medicine*. 2022;25(3and4):166-9.
106. Bura'a LN, Younis NM. Nurses knowledge regarding to phototherapy at neonatal care units in Mosul City, Iraq. *Rawal Med J*. 2023 May 27;48(2):379.
107. Ibrahim RM, Ahmed MM, Younis NM. Nursing Students' Information Toward Distraction Techniques for Children Undergoing Procedures. *Journal of Current Medical Research and Opinion*. 2024 May 23;7(05):2597-605.
108. Muwfaq Younis N. Efficacy of Health Beliefs Model-Based Intervention in Changing Substance Use Beliefs among Mosul University Students: A Randomized Controlled Trial. *Revis Bionatura* 2022; 7 (2) 35.
109. Ahmed MM, Younis NM, Ibrahim RM. Apply the HBM in Changing the Beliefs Related to Weight Control Behaviors among Employees. *Journal of Current Medical Research and Opinion*. 2024 Jul 22;7(07):3345-53.
110. Younis NM, Ahmed MM, Ibrahim RM. Motivation of Students for Enhancing the Beliefs related to Substance abuse: Apply Health Beliefs Model. *Journal of Current Medical Research and Opinion*. 2024 Sep 5;7(09):3549-58.
111. Ibrahim RM, Idrees NH, Younis NM. Knowledge about Type 1 Diabetes in Children among Nursing Students of the University of Mosul. *The Malaysian Journal of Nursing (MJN)*. 2024 Jul 25;16(1):117-23.
112. Ahmed MM, Hussein AA, Younis NM. Assessment of nursing student's beliefs about healthy dieting. *Journal of Education and Health Promotion*. 2024 Oct 1;13(1):408.
113. Ahmed MM, Ibrahim RM, Younis NM. Improving University Staff Members' Weight Control Practices: Health Beliefs Model. *Journal of Current Medical Research and Opinion*. 2024 Sep 11;7(09):3559-71.
114. Ibrahim RM, Ahmed MM, Younis NM. Weight Control and Health Beliefs Model: A Comparative Study. *Journal of Current Medical Research and Opinion*. 2024 Sep 11;7(09):3572-83.
115. Andreatta PB, Klotz JJ, Dooley-Hash SL, Hauptman JG, Biddinger B, House JB, Ahern K. Performance-based comparison of neonatal intubation training outcomes. *Advances in Neonatal Care*. 2015 Feb 1;15(1):56-64.
116. Luhaib YR, Younis NM. Utilization of Primary Health Care Services in Qayyarah City Northern Iraq. *Journal of Current Medical Research and Opinion*. 2024 Nov 19;7(11):3746-54.
117. Younis NM, Ibrahim RM, Ahmed MM. Evaluation of Nurses Practices Towards to Phototherapy: Across-Sectional Study. *Journal of Current Medical Research and Opinion*. 2024 Nov 19;7(11):3735-45.
118. Jasem WM, Younis NM. Nurses' Practice Towards Nursing Documentation: Across-sectional Study. *Journal of Current Medical Research and Opinion*. 2024 Nov 25;7(11):3767-78.
119. Jasem WM, Younis NM. Nurses' knowledge Towards Nursing Documentation: A descriptive study. *Journal of Current Medical Research and Opinion*. 2024 Nov 25;7(11):3755-66.
120. Younis NM, Taher AK. Transtheoretical Model on changing Electronic Smoker-Related Behaviors among Caregiver. *Current Clinical and Medical Education*. 2025 Feb 25;3(2):43-51.

121. Younis NM, Ahmed MM, Ibrahim RM. Using the Nola Pender's Model in Health Promotion towards Hypertension of Employees in Nineveh province. *Current Clinical and Medical Education*. 2025 Mar 9;3(03):39-53.
122. Younis NM, Ahmed MM, Ibrahim RM. Quality of life for Students Universities in Internal Sections: A cross-Sectional Study. *Current Clinical and Medical Education*. 2025 Apr 4;3(4):1-1.
123. Younis NM, Ahmed MM, Ibrahim RM. Knowledge of Healthcare Giver Towards Pharmacovigilance: A Descriptive Study. *Current Clinical and Medical Education*. 2025 Apr 4;3(4):12-22.
124. Ahmed MM, Younis NM, Ibrahim RM. Pharmacovigilance Barriers for Healthcare Providers: A cross-sectional study. *Current Clinical and Medical Education*. 2025 May 1;3(5):18-28.
125. Younis NM, Ahmed MM, Ibrahim RM. Healthcare Provider Perceptions of Pharmacovigilance: A Cross-Sectional Investigation. *Current Clinical and Medical Education*. 2025 May 1;3(5):7-17.
126. Mnawer MS, Younis NM. Effectiveness of an Educational Program in Improving Nurses' Knowledge Towards Communicable Diseases. *Salud, Ciencia y Tecnología-Serie de Conferencias*. 2025(4):1584.
127. Wahab MA, Younis NM. Efficacy of an Educational Program Based Intervention in Improving Nurses' knowledge Toward Radiation Protection Measures: A Randomized Controlled Trails. *Salud, Ciencia y Tecnología-Serie de Conferencias*. 2025(4):1585.
128. Taher AK, Younis NM. Impact of a Transtheoretical Model on Enhancing Electronic Hookah-Related Behaviors among Nurses. 2025
129. Ahmed MM, Ibrahim RM, Younis NM. Diabetic Distress among Patients with Type II: A Descriptive Study. *Advanced Biomedical Research*. 2025 Mar 1;14(1):23.
130. Taher AK, Younis NM. Impact of a Transtheoretical Model on Enhancing Electronic Hookah-Related Behaviors among Nurses. 2025
131. Younis NM, Ibrahim RM, Ahmed MM. Lifestyle of Elderly in Mosul Governorate: A Cross-Sectional Study. *Journal of Current Medical Research and Opinion*. 2024 Sep 1;7(09):3515-24.
132. Younis NM, Ahmed MM, Ibrahim RM. The Relationship Between Lung Cancer and Addiction: A Comprehensive Review. *Current Clinical and Medical Education*. 2025 Jun 5;3(6):1-0.
133. Younis NM, Ahmed MM, Ibrahim RM. Using the Health Promotion Towards Hypertension among Employees: A Randomized Controlled Trial. *Current Clinical and Medical Education*. 2025 Jun 11;3(6):29-38.
134. Bura'a LN, Younis NM. An Interventional Program on Nurses Knowledge and Practice towards Phototherapy in Neonatal Care Units. *Int J Membrane Sci Technol*. 2023 Jul 2;10(2):1428-32.
135. Younis NM. Evaluation the health lifestyle of kindergartens students at Mosul city/Iraq. *International Journal of Medical Toxicology & Legal Medicine*. 2023;26(1and2):148-52.
136. Younis NM. Prevalence of Electronic Hookah and Risk Factors among University Students in Mosul City/Iraq. *Int J Membrane Sci Tech*. 2023 Jul 2;10(2):1422-7.
137. Ahmed MM, Naji AB, Younis NM. Efficacy of an educational program based on health belief model to enhancing weight control behaviors among employees in the University of Mosul: a randomized controlled trial. *Revis Bionatura*. 2023;8(3):28.
138. Awad MS, Younis NM, Aneed SH, Diala CG, Okenwa CR, Hammed SU, Ibishagba SM, Uduebholo VJ, Ohaekwe CC, Binuyo OA, Owokoya AO. Attitude of University Students toward Covid-19 Vaccines. *International Journal of Medical and All Body Health Research*. 2025;6(4):01-4.
139. Younis NM, Ahmed MM, Ibrahim RM. Nurses Practice Toward Adverse Effects Following Immunization: Cross-Sectional Study. *Current Clinical and Medical Education*. 2025 Jun 27;3(6):64-73.
140. Ali JM, Younis NM. Utilizing an intervention based on the health beliefs model to enhance nurses' perceptions of drug dosage errors. *International Journal of Pediatrics and Adolescent Medicine*. 2025 Aug 1:10-4103.

