



*University of Babylon
College of Nursing*



Occupational Health Problems of Nurses Working at Emergency Units in Babylon Teaching Hospitals

Project submitted to the council of the college of nursing,
university of Babylon in partial fulfillment of the requirements for
the degree of bachelor of sciences in nursing

Submitted by student

Hussein Ali Kazem

Hussein Hamza Hassan

Hawra Ali Rashid

Hussein Ammar Obaid

Supervised by

Dr. Maryam Abdel Kareem

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

((وَلِلَّهِ مَا فِي السَّمَاوَاتِ وَمَا فِي الْأَرْضِ لِيَجْزِيَ الَّذِينَ أَسَاءُوا
بِمَا عَمِلُوا وَيَجْزِيَ الَّذِينَ أَحْسَنُوا بِالْحُسْنَى)).

صدق الله العظيم

[سورة النجم، آية: ٣١]

الإهداء

الحمد لله أولا على كل نعمه وهبها لنا

. الى خير خلق الله النبي المصطفى أبي القاسم محمد (ص) والى ال بيته الطيبين الطاهرين
الى الشمعة التي احترقت نفسها لتضيء لنا طريق العلم التي منحنتي القوة والدعم حفظها الله ذخرا لي

...الى من بفضل دعائها انا هنا تروني وكل ما املك

(أمي الحبيبة)

الى الذي لم يبخل علي بشيء الى من سعى لأجلي و توفيقني ونجاحي
الى اعظم واعز رجل في هذا الكون يكفيني فخرا واعتزازا انتماني اليه

(أبي العزيز)

الى أجمل قدر في دنيتي نعمة الله لي (اخوتي واخواتي)

كما اتقدم بجزيل الشكر والعرفان إلى الدكتورة الفاضلة ((مريم عبد الكريم))

لتفضلها بقبول الاشراف على بحثي ، والتي لم تدخر علما أو جهدا وغمرتني بالنصح والإرشاد
والمعلومات القيمة والملاحظات السديدة التي لها أثر كبير في هذا البحث ليصل بالصورة التي هي عليها الآن ،

. فجزاها الله خير الجزاء ، وانعم عليها بالصحة والعافية

كما اتقدم بالامتنان لكل من ساندني ولو بكلمه طيبه أعم الجميع وأخص أصدقائي وزملائي

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Abstract

Nurses in the ED confront excessive occupational health problems, which can include factors such as the unpredictable number of patients at any time, rapid and unpredictable changes in patients, and injuries caused by accidents and conflicts. Irregularity, unpredictable situations, high-atmospheric pressure, lack of control, and the limited amount of time available for evaluating the effectiveness of therapeutic interventions are stressors for nurses in the emergency department because patients referring to this section are usually in a critical state .

Quantitative research cross sectional study design started from 20 October 2022 to 20 April 2023 conducted at Babylon Teaching hospitals. Non probability convenient sample consists of 100 Nurse to assess the occupational health problems of nurses working at emergency units in Babylon Teaching Hospitals.

The results of this study showed that the number of study samples with age ranged between twenty-twenty-nine, and their educational attainment is a nursing institute, and they live in an urban area. Most of them are married, and their work is six hours per shift, and their monthly income is insufficient. Work-related risks increase with the number of nurses.

The study concludes there are no significant relationship in five demographic items and three of them were have significant relationship with occupational health problems at p value less than 0.05.

The study recommended necessity of health institutions to provide a suitable environment inside the emergency room to avoid any obstacles that may effect on the quality of nursing care which is provided to patients.

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Chapter One
Introduction

Chapter One

Introduction

1- 1 Introduction

The emergency department is the vital and important part of the hospital, its considered one of the most dangerous working environments in hospitals, as preserving patients' lives and avoiding health complications are requiring accurate work, rapid activity and high communication among health care personnel to control on any urgent change that occurs in patient health that could lead to death. Emergency nursing focuses on providing urgent nursing care to people who suffer from health problems, whether diagnosed or not that resulting from various factors such as psychological, social and physical for different age groups, children, adults and the elderly (Mohammed *et al.*, 2021).

Occupation is an important part of life, as it can provide an income, self-esteem, an opportunity for personal growth, and social identity. Nevertheless, work can also have a negative effect on one's health and expose one to stress. Occupational problem is both an emotional and a physical condition that can have devastating effects and is often caused by one's inability to provide the needs, resources, and abilities required by an employee (Kakemam *et al.*, 2019).

Emergency room nurses must deal with emergency patients and provide nursing care by understanding the situation. In emergency situations, nurses need the knowledge and skills that are necessary for rapid and accurate assessment, intervention, and patient care, and must make urgent decisions to solve problems (Kim *et al.*, 2015).

In Iraq, the work of the nursing staff inside the health institutions sometimes it goes through many obstacles, the expectations indicate the necessity of continuing to provide health care as if it is the deterioration of the security situation and the increase in the political problems and the high rate of killings has not any psychological effect. Overcrowding is often occurring when the patients' need for health services exceeds the capacity of the emergency department. In crowded situation, the patients often will suffer from long waiting periods or given their treatment in places not designated for treatment. Crowding is usually as a reflect image for the organizational disorder in the health system which is used in the hospital (Mohammed *et al.*, 2021).

Nurses in the ED confront excessive occupational health problems, which can include factors such as the unpredictable number of patients at any time, rapid and unpredictable changes in patients, and injuries caused by accidents and conflicts. Irregularity, unpredictable situations, high-atmospheric pressure, lack of control, and the limited amount of time available for evaluating the effectiveness of therapeutic interventions are stressors for nurses in the emergency department because patients referring to this section are usually in a critical state (Zaboli *et al.*, 2016).

1- 2 Important of study

Emergency departments, where individuals under intense stress are served and frequent deaths, life threatening accidents, and critical cases are observed, are evaluated as settings with high occupational stress Hence, emergency department staff encounter the highest stress among all health professionals. Therefore, especially emergency department nurses have more problems due to several reasons such as busy schedule, giving care for many patients simultaneously, unexpected

sudden deaths, giving care for a seriously or deadly ill person within limited time and intensity, and noisier and crowded work environment of emergency department (Kilic *et al.*, 2016).

The nurses spend more time in direct contact with the patients and they are responsible for care of the patients, they are more likely to encounter health risks compared to other health personnel (Aras & Uskun, 2015). Nurses may also have numerous health problems resulting from work environment and conditions such as work overload, long working hours, overtime, violence in the work place, microorganisms, ionized radiation, being exposed to medications and anesthetics, and penetrating stab wounds (Khamisa *et al.*, 2015).

Therefore, the emergency department nurses have more problems due to several reasons such as busy schedule, giving care for many patients simultaneously, unexpected sudden deaths, giving care for a seriously or deadly ill person within limited time and intensity, and noisier and crowded work environment of emergency department. These occupational health problems include ones such as stab wounds, musculoskeletal system problems related to transfer of patient and positioning patient in the bed or being exposed to violence by patients and their relatives (Wu *et al.*, 2020).

All of these problems cause to decrease the productivity by affecting the service quality of nurses and lead to effect on the quality of life negatively. Thus, it is important to evaluate emergency department nurses' health problems resulting from their work environment and working conditions (Li *et al.*, 2021).

1- 3 Statement of problem

Occupational Health Problems of Nurses Working at Emergency Units in Babylon Teaching Hospitals

1- 4 Objectives of study

- 1- Find out demographic data of study sample
- 2- Identify occupational health problem in emergency room
- 3- Find out correlation between personal data and occupational Health Problems
- 4- Find out correlation between professional data and occupational Health Problems

1- 5 Definitions of the terms

1- 5- 1 Occupational Health Problems

A number of negative consequences which may has long-lasting effects on the individual with impacts on workplace performance and culture that can have damaging effects, and often results from an inability to meet the needs, resources and capabilities that are required of an employee (Sarafis *et al.*, 2016).

1- 5- 2 Nurses

A person officially educated and trained in providing the care of the sick or infirm people through comprehensive teaching nursing program, a professional's nurses is present in the health care institution that concentrate on preservation the health of individuals and community to arrive for societies with optimal health (Dunphy *et al.*, 2011).

Chapter Two
Methodology

***Chapter Two
Methodology*****2-1 Study Design**

Quantitative research cross sectional study design started from 20 October 2022 to 26 April 2023, the study conducted to study the occupational health problems of nurses working at emergency units by using a questionnaire form in teaching hospitals at Babylon province.

2- 2 Ethical Consideration

The researchers explain the purpose of the study for the nurses and committed to maintain the confidentiality of this data and use it only for the purposes of this study. As well as all study sample which sharing in this study right to apologize for the completion of their participation when they feel discomfort.

2- 3 Setting of the Study

This study conducted in four Babylon Teaching Hospitals, (Imam Al-Sadiq, Al-Hilla General Hospital, Babylon Maternal and Children Hospital and Marjan Teaching Hospital) the time which is required for collect the data from study sample was from 5 December 2022 to 14 February 2023.

2- 4 The Sample of Study

Non probability convenient sample consists of 100 nurses has been chosen randomly from study area, all of them present in four emergency units at teaching hospitals which is selected to doing this study.

3- 5 Instrument of Study

The questionnaire form used in this study were taken after a reviewing the previous literature and adopted as a tool to use in this study after modified by the

researchers and supervisor to study the occupational health problems of nurses working at emergency units by using a questionnaire form in teaching hospitals at Babylon province. Appendix (A).

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Part I: Demographic Data

This part consists from (6) items, including (age, gender, marital Status , educational achievement, monthly income and residency).

Part II: Professional Information

This part contains on (6) items, this items involved (number of years of employment in hospitals , number of working hours in a day, number of additional working hours per day, work in the emergency unit continuous, having diseases before work as a nurse and mention the disease if they have) .

Part III: Occupational Health Problems

This part consists of (4) domains, all of them conducted to study the occupational health problems of nurses working at emergency units. The nurse can select (yes or no) as answer of the question. First domain (Diagnosed Chronic Diseases),this domin contain (8) choices,second domain (Physical Problems) ,this domain contain (14) choices, third domain (Biological Problems), this domain contain (5), the last domain (Psychological Problems) and this domain contain (12) .

2- 6 Validity of the Instrument

The questionnaire validity for the study was obtain after distribution to (9) experts. All scientific and logical views that have been posed by the experts were utilized and added. Appendix (B).

2- 7 Rating and Scoring

The tools of study consist from the question has two choices (Yes and No) the nurses can select one choice for answer. If the nurse answer (Yes) given (2 point) and if answer (No) given (1 point), and the mean of score for assessment their

answer is (present) if the mean was (1.5 or more) and (not present) if the (mean less than 1.5).

2-8 Data Gathering

The sample of study was the nurses ; they are present at four teaching hospital in Babylon governorate. The data collected from the sample by using questionnaire form consist from three parts (Demographic data, professional information and

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occupational health problems). data are gathering from nurses by self-report and the time consume with each one about (7-15) minutes.

2- 9 Statistical Analysis

The statistical analysis is used to analyze the data and get the results in this study has been by using the SPSS program. SPSS (Statistical Package for Science Service version 23).

2- 9- 1 Descriptive Data Analysis

The analysis implement by use:

A- Percentage (%)

$$\text{percentage (\%)} = \frac{\text{frequencies (f)}}{\text{size of sample}} \times 100$$

B- Mean (x)

$$x = \frac{\sum x}{n}$$

C- Stander deviation (SD)

$$sd = \sqrt{\frac{\sum x^2}{n-1}}$$

2- 9- 2 Inferential data analysis

Chi-square test (χ^2)

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

Chapter Three
Results of Study

Chapter Three

Results of Study

Table (3-1): - Distribution of demographical characteristics of study sample according Personnel Information.

Demographical data	Rating and intervals	Frequency	Percent
Age \ Year	20 - 29	79	79.0
	30 – 39	9	9.0
	40 - 49	5	5.0
	50 and more	7	7.0
	Total	100	100.0
Gender	Male	45	45.0
	Female	55	55.0
	Total	100	100.0
Marital Status	Married	55	55.0
	Single	38	38.0
	Divorced	5	5.0
	Widowed	2	2.0
	Total	100	100.0
Educational Achievement	Preparatory Nursing	20	20.0
	Nursing Institute	41	41.0
	College of Nursing	39	39.0
	Total	100	100.0
Monthly Income	Enough	26	26.0
	Enough to some text	35	35.0
	Not Enough	39	39.0
	Total	103	100.0
Residency	Urban	74	74.0
	Rural	26	26.0
	Total	103	100.0

The results in this table showed the demographics data of study sample, regarding the age the highest proportion was among age group (20-29) at statistical percent (79.0%), the findings of gender indicated the highest percentage among female nurses at (55.0%), the results showed highest percent of study sample are married at (55.0%) in regard the marital status, on other hand, the more number of study sample with institute as educational achievement, the more nurses had not enough monthly income at percentage (39.0%). Finally, the major nurses living in urban area with percent (74.0%) finally,

Table (3-2): - Distribution of study sample according to Professional Information.

Professional Items	Rating and intervals	Frequency	Percent
Number of Years of Employment in Hospitals	1 - 5	71	71.0
	6 - 10	9	9.0
	11 - 15	6	6.0
	16 and more	14	14.0
	Total	100	100.0
Working Shift	Morning	56	56.0
	Night	44	44.0
	Total	100	100.0
Number of Additional Working Hours Per Day	Not present	82	82.0
	1 - 6 hours	18	18.0
	Total	100	100.0
Is your work in the emergency unit continuous?	Yes	85	85.0
	Sometime	13	13.0
	No	2	2.0
	Total	103	100.0
Do you have Diseases Before You Work as a Nurse	Yes	18	18.0
	No	82	82.0
	Total	103	100.0

The findings in this table express the characteristics of study sample regarding professional information., related the number of year working the more number of study sample ranged between 1-5 years as percentage (71.0%), the work shift of study sample, the results indicated the highest proportion among morning shift (56.0%), the majority of number of additional working hours per day was not present as (82.0%), with regard to the continuity of work in emergencies, the higher percentage of nurses who participated in the study were continuing to work at (85.0%). Finally, about whether the nurses had diseases before coming to work in the emergency room, the highest percentage was that they did not suffer from any disease before working in the emergency room at (82.0%).

Table (3-3): Assessment of Occupational Health related to the Diagnosed Chronic Diseases.

No	ITEMS		F	%	M.S	S.D	Ass
1	High Blood Pressure	Yes	15	15.0	1.15	.359	Not Present
		No	85	85.0			
2	Diabetes Mellitus	Yes	13	13.0	1.13	.338	Not Present
		No	87	87.0			
3	Allergy (bronchial asthma)	Yes	15	15.0	1.15	.359	Not Present
		No	85	85.0			
4	Chronic Respiratory Infections	Yes	22	22.0	1.22	.416	Not Present
		No	78	78.0			
5	Cardiovascular Disease	Yes	7	7.0	1.07	.256	Not Present
		No	93	93.0			
6	Heartburn or Stomach Ulcer	Yes	12	12.0	1.12	.327	Not Present
		No	88	88.0			
7	Duodenal Ulcer	Yes	16	16.0	1.16	.368	Not Present
		No	84	84.0			
8	Thyroid Disorder	Yes	29	29.0	1.29	.456	Not Present
		No	71	71.0			

ASS = Assessment, M.S=mean of score= 1.5, cut of point = 0.49, Not present t (1-1.49), present (1.5 - 2).

This table show that the participants recorded not present any chronic disease as whole assessment in all items regarding to occupational health problems in ED.

Table (3-4) Assessment of Occupational Health related to the Physical Problems

No	ITEMS		F	%	M.S	S.D	Ass																																																																																																																				
1	Sleep Disturbance	Yes	47	47.0	1.52	.498	Present																																																																																																																				
		No	53	53.0				2	Severe Pain in the Back and Spinal Cord	Yes	56	56.0	1.57	.505	Present	No	44	44.0	3	Severe Pain in the Body and Limbs	Yes	61	61.0	1.59	.512	Present	No	39	39.0	4	Exposure to radiation	Yes	23	23.0	1.25	.435	Not Present	No	77	77.0	5	Arm, Hand and Joint Pain	Yes	49	49.0	1.53	.499	Present	No	51	51.0	6	Weakness and loss of Appetite	Yes	41	41.0	1.41	.492	Not Present	No	59	59.0	7	Visual Disorders and Eye Problems	Yes	19	19.0	1.19	.394	Not Present	No	81	81.0	8	Hearing Disorders and Ear Problems	Yes	86	86.0	1.14	.389	Not Present	No	14	14.0	9	Falling During Work	Yes	21	21.0	1.19	.394	Not Present	No	79	79.0	10	Vertebras Slip	Yes	51	31.0	1.57	.505	Present	No	49	69.0	11	Wounds or Scratches	Yes	58	58.0	1.62	.519	Present	No	42	42.0	12	Abortion (for female)	Yes	23	23.0	1.31
2	Severe Pain in the Back and Spinal Cord	Yes	56	56.0	1.57	.505	Present																																																																																																																				
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		No	14	14.0				9	Falling During Work	Yes	21	21.0	1.19	.394	Not Present	No	79	79.0	10	Vertebras Slip	Yes	51	31.0	1.57	.505	Present	No	49	69.0	11	Wounds or Scratches	Yes	58	58.0	1.62	.519	Present	No	42	42.0	12	Abortion (for female)	Yes	23	23.0	1.31	.465	Not Present	No	77	77.0																																																																								
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		No	79	79.0				10	Vertebras Slip	Yes	51	31.0	1.57	.505	Present	No	49	69.0	11	Wounds or Scratches	Yes	58	58.0	1.62	.519	Present	No	42	42.0	12	Abortion (for female)	Yes	23	23.0	1.31	.465	Not Present	No	77	77.0																																																																																			
10	Vertebras Slip	Yes	51	31.0	1.57	.505	Present																																																																																																																				
		No	49	69.0				11	Wounds or Scratches	Yes	58	58.0	1.62	.519	Present	No	42	42.0	12	Abortion (for female)	Yes	23	23.0	1.31	.465	Not Present	No	77	77.0																																																																																														
11	Wounds or Scratches	Yes	58	58.0	1.62	.519	Present																																																																																																																				
		No	42	42.0				12	Abortion (for female)	Yes	23	23.0	1.31	.465	Not Present	No	77	77.0																																																																																																									
12	Abortion (for female)	Yes	23	23.0	1.31	.465	Not Present																																																																																																																				
		No	77	77.0																																																																																																																							

13	Varicose vein	Yes	26	26.0	1.26	.441	Not Present
		No	74	74.0			
14	Headache	Yes	64	64.0	1.66	.524	Present
		No	36	36.0			

ASS = Assessment, M.S=mean of score= 1.5, cut of point = 0.49, Not present t (1-1.49), present (1.5 - 2).

This table show that the participants recorded present physical problems for seven items, while not present for another items as whole assessment regarding the occupational health problems in ED.

Table (3-5): Assessment of Occupational Health related to the Biological Problems.

No	ITEMS		F	%	M.S	S.D	Ass
1	Acquired Immunodeficiency Syndrome	Yes	1	1.0	1.02	.252	Not Present
		No	99	99.0			
2	Hepatitis Virus	Yes	17	17.0	1.29	.456	Not Present
		No	83	83.0			
3	Pulmonary Tuberculosis	Yes	13	13.0	1.13	.338	Not Present
		No	87	87.0			
4	Pollution with Biological Fluids	Yes	27	27.0	1.27	.446	Not Present
		No	73	73.0			
5	Acupuncture and Sharp Instruments	Yes	52	52.0	1.52	.502	Present
		No	48	48.0			

ASS = Assessment, M.S=mean of score= 1.5, cut of point = 0.49, Not present t (1-1.49), present (1.5 - 2).

This table express the results of study sample in regard exposure to biological problems during their work in emergency room, where the results were not present any biological problems except the last items (acupuncture and sharp instruments) were present in fifty two nurses in ED.

Table (3-6) Assessment of Occupational Health related to the Psychological Problems

No	ITEMS		F	%	M.S	S.D	Ass																																																																																																																				
1	Feeling of continuous sadness as a result of work load.	Yes	54	54.0	1.53	.499	Present																																																																																																																				
		No	46	46.0				2	Intolerance of many things related to work.	Yes	57	57.0	1.56	.505	Present	No	43	43.0	3	Loss of self-confidence.	Yes	17	17.0	1.17	.378	Not Present	No	83	83.0	4	Loss of self-control.	Yes	14	14.0	1.16	.368	Not Present	No	86	86.0	5	Feeling of continuous failure	Yes	27	27.0	1.27	.446	Not Present	No	73	73.0	6	Willing to sacrifice many important things	Yes	88	88.0	1.14	.349	Not Present	No	12	12.0	7	Tense Relationships with colleague	Yes	13	13.0	1.12	.338	Not Present	No	87	87.0	8	Tense relations with officials in the work	Yes	59	57.0	1.63	.521	Present	No	41	41.0	9	Work stress and frequent night shifts	Yes	63	63.0	1.66	.534	Present	No	37	37.0	10	Exposure to threats from patients and their families during work	Yes	58	58.0	1.57	.505	Present	No	42	42.0	11	I feel dissatisfied with the nature of my work	Yes	58	58.0	1.62	.519	Present	No	42	42.0	12	Exposure to Physical attacks by patients and their families	Yes	69	69.0	1.70
2	Intolerance of many things related to work.	Yes	57	57.0	1.56	.505	Present																																																																																																																				
		No	43	43.0				3	Loss of self-confidence.	Yes	17	17.0	1.17	.378	Not Present	No	83	83.0	4	Loss of self-control.	Yes	14	14.0	1.16	.368	Not Present	No	86	86.0	5	Feeling of continuous failure	Yes	27	27.0	1.27	.446	Not Present	No	73	73.0	6	Willing to sacrifice many important things	Yes	88	88.0	1.14	.349	Not Present	No	12	12.0	7	Tense Relationships with colleague	Yes	13	13.0	1.12	.338	Not Present	No	87	87.0	8	Tense relations with officials in the work	Yes	59	57.0	1.63	.521	Present	No	41	41.0	9	Work stress and frequent night shifts	Yes	63	63.0	1.66	.534	Present	No	37	37.0	10	Exposure to threats from patients and their families during work	Yes	58	58.0	1.57	.505	Present	No	42	42.0	11	I feel dissatisfied with the nature of my work	Yes	58	58.0	1.62	.519	Present	No	42	42.0	12	Exposure to Physical attacks by patients and their families	Yes	69	69.0	1.70	.548	Present	No	31	31.0						
3	Loss of self-confidence.	Yes	17	17.0	1.17	.378	Not Present																																																																																																																				
		No	83	83.0				4	Loss of self-control.	Yes	14	14.0	1.16	.368	Not Present	No	86	86.0	5	Feeling of continuous failure	Yes	27	27.0	1.27	.446	Not Present	No	73	73.0	6	Willing to sacrifice many important things	Yes	88	88.0	1.14	.349	Not Present	No	12	12.0	7	Tense Relationships with colleague	Yes	13	13.0	1.12	.338	Not Present	No	87	87.0	8	Tense relations with officials in the work	Yes	59	57.0	1.63	.521	Present	No	41	41.0	9	Work stress and frequent night shifts	Yes	63	63.0	1.66	.534	Present	No	37	37.0	10	Exposure to threats from patients and their families during work	Yes	58	58.0	1.57	.505	Present	No	42	42.0	11	I feel dissatisfied with the nature of my work	Yes	58	58.0	1.62	.519	Present	No	42	42.0	12	Exposure to Physical attacks by patients and their families	Yes	69	69.0	1.70	.548	Present	No	31	31.0																	
4	Loss of self-control.	Yes	14	14.0	1.16	.368	Not Present																																																																																																																				
		No	86	86.0				5	Feeling of continuous failure	Yes	27	27.0	1.27	.446	Not Present	No	73	73.0	6	Willing to sacrifice many important things	Yes	88	88.0	1.14	.349	Not Present	No	12	12.0	7	Tense Relationships with colleague	Yes	13	13.0	1.12	.338	Not Present	No	87	87.0	8	Tense relations with officials in the work	Yes	59	57.0	1.63	.521	Present	No	41	41.0	9	Work stress and frequent night shifts	Yes	63	63.0	1.66	.534	Present	No	37	37.0	10	Exposure to threats from patients and their families during work	Yes	58	58.0	1.57	.505	Present	No	42	42.0	11	I feel dissatisfied with the nature of my work	Yes	58	58.0	1.62	.519	Present	No	42	42.0	12	Exposure to Physical attacks by patients and their families	Yes	69	69.0	1.70	.548	Present	No	31	31.0																												
5	Feeling of continuous failure	Yes	27	27.0	1.27	.446	Not Present																																																																																																																				
		No	73	73.0				6	Willing to sacrifice many important things	Yes	88	88.0	1.14	.349	Not Present	No	12	12.0	7	Tense Relationships with colleague	Yes	13	13.0	1.12	.338	Not Present	No	87	87.0	8	Tense relations with officials in the work	Yes	59	57.0	1.63	.521	Present	No	41	41.0	9	Work stress and frequent night shifts	Yes	63	63.0	1.66	.534	Present	No	37	37.0	10	Exposure to threats from patients and their families during work	Yes	58	58.0	1.57	.505	Present	No	42	42.0	11	I feel dissatisfied with the nature of my work	Yes	58	58.0	1.62	.519	Present	No	42	42.0	12	Exposure to Physical attacks by patients and their families	Yes	69	69.0	1.70	.548	Present	No	31	31.0																																							
6	Willing to sacrifice many important things	Yes	88	88.0	1.14	.349	Not Present																																																																																																																				
		No	12	12.0				7	Tense Relationships with colleague	Yes	13	13.0	1.12	.338	Not Present	No	87	87.0	8	Tense relations with officials in the work	Yes	59	57.0	1.63	.521	Present	No	41	41.0	9	Work stress and frequent night shifts	Yes	63	63.0	1.66	.534	Present	No	37	37.0	10	Exposure to threats from patients and their families during work	Yes	58	58.0	1.57	.505	Present	No	42	42.0	11	I feel dissatisfied with the nature of my work	Yes	58	58.0	1.62	.519	Present	No	42	42.0	12	Exposure to Physical attacks by patients and their families	Yes	69	69.0	1.70	.548	Present	No	31	31.0																																																		
7	Tense Relationships with colleague	Yes	13	13.0	1.12	.338	Not Present																																																																																																																				
		No	87	87.0				8	Tense relations with officials in the work	Yes	59	57.0	1.63	.521	Present	No	41	41.0	9	Work stress and frequent night shifts	Yes	63	63.0	1.66	.534	Present	No	37	37.0	10	Exposure to threats from patients and their families during work	Yes	58	58.0	1.57	.505	Present	No	42	42.0	11	I feel dissatisfied with the nature of my work	Yes	58	58.0	1.62	.519	Present	No	42	42.0	12	Exposure to Physical attacks by patients and their families	Yes	69	69.0	1.70	.548	Present	No	31	31.0																																																													
8	Tense relations with officials in the work	Yes	59	57.0	1.63	.521	Present																																																																																																																				
		No	41	41.0				9	Work stress and frequent night shifts	Yes	63	63.0	1.66	.534	Present	No	37	37.0	10	Exposure to threats from patients and their families during work	Yes	58	58.0	1.57	.505	Present	No	42	42.0	11	I feel dissatisfied with the nature of my work	Yes	58	58.0	1.62	.519	Present	No	42	42.0	12	Exposure to Physical attacks by patients and their families	Yes	69	69.0	1.70	.548	Present	No	31	31.0																																																																								
9	Work stress and frequent night shifts	Yes	63	63.0	1.66	.534	Present																																																																																																																				
		No	37	37.0				10	Exposure to threats from patients and their families during work	Yes	58	58.0	1.57	.505	Present	No	42	42.0	11	I feel dissatisfied with the nature of my work	Yes	58	58.0	1.62	.519	Present	No	42	42.0	12	Exposure to Physical attacks by patients and their families	Yes	69	69.0	1.70	.548	Present	No	31	31.0																																																																																			
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		No	42	42.0				11	I feel dissatisfied with the nature of my work	Yes	58	58.0	1.62	.519	Present	No	42	42.0	12	Exposure to Physical attacks by patients and their families	Yes	69	69.0	1.70	.548	Present	No	31	31.0																																																																																														
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		No	31	31.0																																																																																																																							

ASS = Assessment, M.S=mean of score= 1.5, cut of point = 0.49, Not present t (1-1.49), present (1.5 - 2).

This table express the results of study sample in regard exposure to psychological problems during their work in emergency room, where the results were present psychological problems in seven items, while other five items were not present any problems about psychological aspect.

Table (3-7): Overall Assessment of Occupational Health Problems for Nurses Working in Emergency Room.

Main domain	Rating	F	%	M.S	S.D	Ass
Occupational Health Problems	Present	61	61.0	1.64	.534	Present
	Not Present	39	39.0			
	Total	100	100.0			

ASS = Assessment, M.S=mean of score= 1.5, cut of point = 0.49, Not present t (1-1.49), present (1.5 - 2).

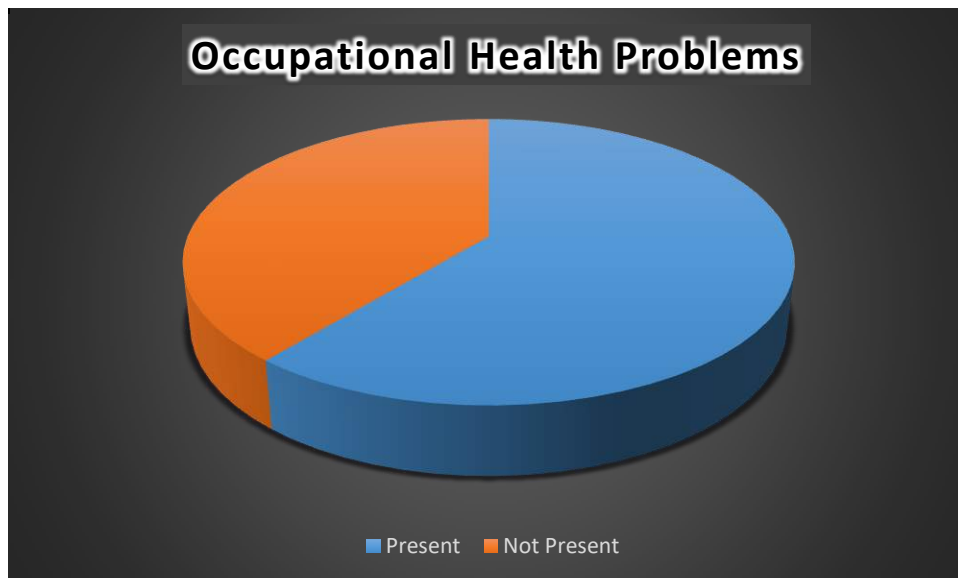


Figure (3-1): Overall Assessment of Occupational Health Problems for Nurses Working in Emergency Room.

This table express the overall assessment of study samples related to occupational health problem in emergency room, the results in this table revealed the more nurses suffer from occupational problems related their working in ED..

Table (3-8) Relationship between Occupational health problems with demographical characteristics.

Demographical data	Chi-square	D.F	P-Value	Assessment
Age \ Year	2.520	2	.472	N.S
Gender	.837	1	.042	S
Marital Status	.780	3	.854	N.S
Educational Achievement	2.852	3	.240	N.S
Monthly Income	.883	2	.250	N.S
Residency	1.408	1	.495	N.S
Year of Experience	.981	2	.047	S
Working Shift	.932	2	.041	S

The results which is presented in this table about the relationship between the demographic data for emergency nurses and occupational health problem, the findings indicated there are no significant relationship in five demographic items and three of them were have significant relationship with occupational health problems at p value less than 0.05.

Chapter Four
Discussion

Chapter Four

Discussion of the Results

This chapter is one of the important parts of the body of the scientific research. In this chapter, the results of the study are discussed and compared to the results of previous studies which is related to the current study, in a way that is agrees and contradicts the results of the present study.

4-1 Discussion of Demographic Characteristics

The table (3-1) express the results of demographic information of study sample, regarding the age the results of present study reached to the highest percentage were among age group ranged between twenty to twenty-eight year, statistically this results harmonize with the findings of study conducted by (Wu et al., 2020) in six grade III A hospitals in Xi'an, China to provide guidance for occupational health promotion strategies making and fatigue relief. In related the gender, the results of the study showed the female nurses more number than male about half of total study sample, this corresponding with the results of study doing by (Eyi & Eyi, 2020) to gather information about occupational accidents, occupational diseases, and problems related to occupational health safety during clinical practices in the second and third years of the education at the surgical area where their results reveal the female more than male number.

Related the marital status of the nurses who are participated in this study, the results clarified the half number of study sample is married, this agree with the findings of study conducted to assess the occupational health hazards faced by healthcare workers and the mitigation measures in Kampala, Uganda by (Ndejjo et al., 2015), where the half of study sample in these study were married. As well as, the highest proportion of educational achievement

was among nurses graduated from nursing institution about less than half, this finding compatible with results of study carried out in all departments at tertiary care hospital, Karad/ India to assess the awareness of occupational hazards among staff nurses by (Shinde et al., 2016). In other hand, the before last demographic item in this table monthly income, the results revealed the higher percentage were among nurses which is their monthly income not enough.

Finally, the last demographic item in this table is residency, the results showed that is three quarters of the number of the study sample were living in urban area, this results is considered statistically congruent with the results of study doing by (Abdul-Kareem & Kadhum, 2022) in Babylon governorate, where the highest percentage of nurses who are participated in this study living in urban area.

4-2 Discussion the Professional Information of the Study Sample.

The first item in table (3-2) of professional information is years of experience, the results indicated three quarter number of nurses their years' experience ranged between one to five years, this finding concordant with the results of study performed to analyze the occupational health hazards among nursing staff at Quena University Hospital and develop occupational hazard handbook to eliminate or minimize hazard among nurses by (Sabra & Morsy, 2016). Related the working shift of nurses, the highest percentage about half were among nurses working in morning shift, this agree with the results of study doing to in Babylon governorate by (Abdul-Kareem & Kadhum, 2022), where their study results indicated the majority of nurses living in urban area.

Number of additional working hours per day, the majority answered that there are no additional working hours in the emergency room. From the point of view of the researchers, this result is logical according to the system

of duties in Iraq, as the work is divided into two shifts, morning and evening, with constant working hours. Regarding the continuity of work in the emergency room, the majority of the nurses who participated in this study answered that their work is continuous while they are present in the emergency room, that is because the nature of work system in Iraqi hospitals is depending on the monthly schedule in dividing the nurses into different places in the hospital, so the work is almost constant during the month. If the nurses who participated in the study had different diseases before working in the emergency room, the majority answered that they did not suffer from any diseases before working in the emergency room.

4-3 Discussion the Overall Assessment of Occupational Health Problems for Nurses Working in Emergency Room.

Table (3-7) dealt the overall assessment of occupational health problems faced the nurses during working in emergency room at hospitals which is selected to conducted this study, the result in this table express there are occupational health problems faced the nurses through their work in the emergency room, this finding consistent with results of study doing by (Kilic et al., 2016) where their results express there are occupational health problems in emergency room suffered the nurses from it.

The emergency room is one of the most crowded places in the hospital, as it is the main entrance to the hospital. Therefore, it is natural for nurses working in the emergency room to be exposed to many occupational health problems that negatively effect on the health of nurses and thus lead to a decrease in the quality of nursing care provided to patients.

4-4 Discussion the Relationship between Occupational health problems with demographical characteristics.

The table (3-5) showed the relationship between the demographic data and occupational health problems. The results in this table express there are relationship association between only three demographic items (gender, year of experience and working shift at p. value, this results corresponding with results of study doing in Indonesia/ Meuraxa hospital by (Luhonna et al., 2021) to assess the occupational safety and health risks in order to prevent occupational accidents and occupational diseases that have the potential for material and non-material harm, where their results indicated there are influence's association between demographic data of study samples and their demographic items.

Chapter Five
Conclusion
s &
Recommendations

Chapter Five

Conclusions & Recommendations

5-1 Conclusions

The study concludes the following:

- 1- The more number of study sample with age ranged between twenty to twenty-nine with nursing institute and living in urban area.
- 2- More nurses who are participated in study with years of employment in hospitals ranged between one to five years and majority of them work in morning shift.
- 3- The overall assessment indicated the nurses suffer from occupational problems related their working in ED.
- 4- There are no significant relationship in five demographic items and three of them were have significant relationship with occupational health problems at p value less than 0.05.

5- 2 Recommendation

- 1- Health institutions must provide reception staff to organize the presence of patients and their relatives inside the emergency rooms in order to avoid overcrowding.
- 2- Health administrations must work to reduce occupational health problems that nurses and other health care providers may encounter during their work to provide care for patients in health institutions by organizing work methods in a way that preserves the safety and security of the health team.

3- The necessity of health institutions to provide a suitable environment inside the emergency room to avoid any obstacles that may effect on the quality of nursing care which is provided to patients.

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Appendices

Appendix A
Questionnaire



بسم الله الرحمن الرحيم



حضرة المحترم

نظرا للمكانة العلمية المرموقة لديكم يرجى التفضل بالمساهمة في تقييم الاستبيان المستخدم في
البحث الموسوم ((مشاكل الصحة المهنية للممرضين العاملين في وحدات الطوارئ في
مستشفيات بابل التعليمية))

**((Occupational Health Problems of Nurses Working at Emergency
Units in Babylon Teaching Hospitals))**

ولكم فائق الشكر والاحترام.....

- الاسم:
- الشهادة:
- سنوات الخبرة:
- مكان العمل:
- التاريخ:
- التوقيع:

((مشاكل الصحة المهنية للممرضين العاملين في وحدات الطوارئ في مستشفيات التعليم))

الجزء الاول: المعلومات الديموغرافية.

أولاً: المعلومات الشخصية:

- ١- العمر:
- ٢- الجنس : ذكر انثى
- ٣- الحالة الزوجية: متزوج اعزب مطلق أرمل منفصل
- ٤- التحصيل العلمي : اعدادية تمرير معهد كلية تمرير
- ٥- الدخل الشهري : كافي كافي الى حدا ما غير كافي
- ٦- السكن : حضر ريف

ثانياً: المعلومات المهنية:

- ١- عدد سنوات الخدمة في المستشفيات: سنة
- ٢- عدد ساعات العمل ليوم العمل الواحد: ساعة
- ٣- عدد ساعات العمل الاضافية يومياً: ساعة
- ٤- هل عملك في وحدة الطوارئ متواصل نعم أحيانا كلا
- ٥- هل لديك امراض قبل عملك كمرض: نعم كلا
- ٦- إذا كانت الاجابة ب نعم يرجى ذكرها:

الجزء الثاني: المشاكل الصحية المهنية

الجانب الاول: الامراض المزمنة المشخصة:

ت	الامراض المزمنة	نعم	لا
-1	وجود ارتفاع في ضغط الدم		
-2	الاصابة بمرض داء السكري		
-3	الحساسية (الربو القصبي)		
-4	الالتهابات التنفسية المزمنة		
-5	الاصابة بأمراض القلب والشرايين		
-6	حرقة الفؤاد أو قرحة المعدة		
-7	قرحة الاثني عشري		
-8	اضطرابات الغدة الدرقية		

الجانب الثاني: المشاكل الجسدية

ت	المخاطر الجسدية	نعم	لا
-9	اضطرابات بالنوم		
10	وجود آلام شديدة في الظهر والعمود الفقري		
11	آلام شديدة في الجسم والاطراف		
12	التعرض للأشعة		
13	آلام الذراع واليد والمفاصل		
14	ضعف أو فقدان الشهية		
15	اضطرابات بصرية ومشاكل في العين		
16	الاضطرابات السمعية ومشاكل في الاذن		
17	السقوط اثناء العمل		

		انزلاق الفقرات	18
		جروح أو خدوش	19
		الأسقاط أو الاجهاض (للمرضات)	20
		دوالي الساقين	21
		الم الراس او الصداع	22

الجانب الثالث: المشاكل البيولوجية

ت	المخاطر البيولوجية	نعم	لا
23	الاصابة بمرض نقص المناعة المكتسب		
24	الاصابة بالتهاب الكبد الفيروسي		
25	الاصابة بداء السل الرنوي		
26	التلوث بالسوائل البيولوجية		
27	وخز الابر والادوات الحادة		

الجانب الرابع: المشاكل النفسية

ت	المخاطر النفسية	نعم	لا
28	الشعور بحزن مستمر نتيجة اجهاد العمل		
29	التعصب لأشياء كثيرة تخص العمل		
30	فقدان الثقة بالنفس		
31	فقدان السيطرة على النفس		
32	الشعور بالفشل المستمر		
33	استعداد للتضحية بأشياء مهمة كثيرة		

		علاقات متوترة مع الزملاء	34
		علاقات متوترة مع المسؤولين	35
		الاجهاد في العمل والخفارات الليلية المتكررة	36
		التعرض الى التهديدات من المرضى وذويهم اثناء العمل	37
		اشعر بعدم الرضا عن طبيعة عملي	38
		التعرض للاعتداءات الجسمية من قبل المرضى وذويهم	39

((Occupational Health Problems of Nurses Working at Emergency Units in Babylon Teaching Hospitals))

First Part: Demographic Characteristics:

First. Personnel Information

1-Age: years

2- Gender : Male female

3- Marital Status: Married Single Divorced

Widowed Separated

4- Educational Achievement: Preparatory Nursing

Nursing Institute College of Nursing

5- Monthly Income: Enough Enough to some text

Not enough

6- Residence: Urban Rural

Second. Professional Information

1-Number of Years of Employment in Hospitals years

2- Number of Working Hours in a Day hour

3- Number of Additional Working Hours Per Day hour

4- Place of work (Unit or Department) :

5- Is your work in the emergency unit continuous? Yes some time

No

6- Do you have Diseases Before You Work as a Nurse: Yes No

If yes, specify please:

Second Part: Occupational Health Problems

First Aspect: Diagnosed Chronic Diseases

No	Chronic Diseases	Yes	No
1	High Blood Pressure		
2	Diabetes Mellitus		
3	Allergy (bronchial asthma)		
4	Chronic Respiratory Infections		
5	Cardiovascular Disease		
6	Heartburn or Stomach Ulcer		
7	Duodenal Ulcer		
8	Thyroid Disorder		

Second Aspect: Physical Problems

No	Physical Hazards	Yes	No
9	Sleep Disturbance		
10	Severe Pain in the Back and Spinal Cord		
11	Severe Pain in the Body and Limbs		
12	Exposure to radiation		
13	Arm, Hand and Joint Pain		
14	Weakness or loss of Appetite		
15	Visual Disorders and Eye Problems		
16	Hearing Disorders and Ear Problems		
17	Rotor (dizziness)		
18	Falling During Work		
20	Vertebras Slip		
21	Wounds or Scratches		
22	Abortion (for female)		

Third Aspect: Biological Problems

No	Biological Hazards	Yes	No
23	Acquired Immunodeficiency Syndrome		
24	Hepatitis Virus		
25	Pulmonary Tuberculosis		
26	Pollution with Biological Fluids		
27	Acupuncture and Sharp Instruments		

Fourth Aspect: Psychological Problems

No	Psychological Hazards	Yes	No
28	feeling of continuous sadness as a result of work load		
29	Intolerance of many things related to work		
30	Loss of self-confidence		
31	Loss of self-control		
32	Feeling of continuous failure		
33	Willing to sacrifice many important things		
34	Tense Relationships with colleague		
35	Tense relations with officials in the work		
36	Work stress and frequent night shifts		
37	Exposure to threats from patients and their families during work		
38	I feel dissatisfied with the nature of my work		
39	Exposure to Physical attacks by patients and their families		

Appendix B

Panel of Experts

مكان العمل	الاختصاص	الشهادة	اسم الخبير	ت
جامعة بابل / كلية التمريض	تمريض الام و الوليد	أستاذ مساعد	أ.م.د. وفاء احمد	١
جامعة بابل / كلية التمريض	تمريض الاطفال	مدرس	م.د محمد طالب عبد	٢
جامعة بابل / كلية التمريض	تمريض الصحة النفسية والعقلية	مدرس	م.د امير صلاح الدين	٣
جامعة بابل / كلية التمريض	تمريض الام و الوليد	مدرس مساعد	م.م زينب عبد الامير	٤
جامعة بابل / كلية التمريض	تمريض الصحة النفسية والعقلية	مدرس مساعد	م.م زمن أحمد حريفش	٥
جامعة بابل / كلية التمريض	تمريض الاطفال	مدرس مساعد	م.م. علي فاضل عبيد	٦
جامعة بابل / كلية التمريض	تمريض صحة المجتمع	مدرس مساعد	م.م حسين علي عبد العباس	٧
جامعة بابل / كلية التمريض	تمريض صحة المجتمع	مدرس مساعد	م.م محمد عباس حسين	٨
جامعة بابل / كلية التمريض	تمريض الاطفال	مدرس مساعد	مها احمد كاظم	٩

Ministry Of Health
Babylon Health Directorat
Email :
babiltraining@gmail.com



وزارة الصحة
دائرة صحة محافظة بابل
المركز العام
مركز التدريب والتنمية البشرية
وحدة ادارة البحوث

لأجل عراق اخضر مستدام... مستعمل معا لترشيد استهلاك
الطاقة الكهربائية والمحافظة على البيئة من التلوث

٢٠٢٢/

التاريخ: ١٤٨٨

الى / مستشفى / جان التعليمي

مستشفى الامام الصادق (ع)

مستشفى الحلة التعليمي

مستشفى بابل التعليمي للنسائية والأطفال

م / تسهيل مهمة

٢٠٢٢/٩/٥



تحية طيبة ...

أشارة إلى كتاب جامعه بابل /كلية التمريض / شعبة الشؤون العلمية ذي العدد ٤٥٢٦ في
٢٠٢٢/٩/٧

تسبيل مهمة الطلبة المدرجة اسماتهم ادناه من الجامعة أنفا لإجراء بحث التخرج الموسوم
والخاص بالتخرج بعنوان :-

(مشاكل الصحة المهنية للمعرضين العاملين في وحدات الطوارئ في مستشفيات بابل التعليمية)
للتفضل بالاطلاع وتسهيل مهمة الموما إليهم ونسب الضوابط والإمكانيات على أن لا تتحمل
مؤسساتكم أية تبعات مادية وقانونية....

... مع الاحترام .

الأسماء :-

- ١- حسين عمار عبيد
- ٢- حسين علي كاظم
- ٣- حسين حمزة
- ٤- حوراء علي رشيد

لدينا له ١٦٠٧١

Handwritten signature



الدكتور
محمد عبد الله عجرش
مدير مركز التدريب والتنمية البشرية
٢٠٢٢ / ١

Handwritten signature and text: "الإمساك الهوائي" and "للأخصائين"

الخلاصة

يواجه الممرضين في قسم الطوارئ العديد من مشاكل الصحة المهنية ، والتي يمكن أن تشمل جوانب متعددة مثل مراجعة اعداد غير متوقعة للمرضى في أي وقت ، وقد تكون حدوث تطورات مفاجئة للمرضى الراقدين ، والإصابات الناجمة عن الحوادث النزاعات وعدم التنظيم وحدثت اشياء غير متوقعة وطارئة مثل الحرائق ، وانعدام السيطرة على الوضع داخل ردهات الطوارئ، وعدم وجود وقت كافي لتقديم عناية تمريضية فعالة و ممكن ان تكون العوامل او الضغوطات التي يمر بها مقدمي الرعاية وبالتالي يؤثر على جودة العملية التمريضية.

بدأ البحث الكمي والتصميم الوصفي المقطعي في الفترة من (٢٠ أكتوبر ٢٠٢٢ إلى ٢٠ ابريل ٢٠٢٣) . تتكون العينة غير الاحتمالية (المتوفرة او المناسبة) من (١٠٠) ممرض وممرضة وأجريت في مستشفيات بابل التعليمية لتقييم مشاكل الصحة المهنية للممرضين العاملين في وحدات الطوارئ في مستشفيات بابل التعليمية.

وأظهرت نتائج هذه الدراسة أن عدد عينات الدراسة مع أعمار تتراوح ما بين تسعة وعشرين عامًا ، وتحصيلهم التعليمي هو معهد تمريض ، ويعيشون في مناطق حضرية. معظمهم متزوجون ، وعملهم ستة ساعات في كل وردية ، ودخلهم الشهري غير كاف. تزيد المخاطر المتعلقة بالعمل مع زيادة عدد الممرضات.

استنتجت الدراسة إلى عدم وجود علاقة ذات دلالة إحصائية في خمسة عناصر ديموغرافية وثلاثة منها كانت لها علاقة معنوية مع مشاكل الصحة المهنية بقيمة p أقل من ٠,٠٥ . أوصت الدراسة بضرورة قيام المؤسسات الصحية بتوفير بيئة مناسبة داخل غرفة الطوارئ لتجنب أي معوقات قد تؤثر على جودة الرعاية التمريضية المقدمة للمرضى.



جامعة بابل
كلية التمريض

مشاكل الصحة المهنية للممرضين العاملين في وحدات الطوارئ في مستشفيات بابل التعليمية

مشروع بحث مقدم الى
مجلس كلية التمريض في جامعة بابل
جزء من متطلبات نيل درجة البكالوريوس علوم في التمريض

تقدم بها الطالبة

حسين علي كاظم

حسين حمزة حسن

حوراء علي رشيد

حسين عمار عبيد

بإشراف

د / مريم عبد الكريم

شوال ١٤٤٤

ابريل ٢٠٢٣