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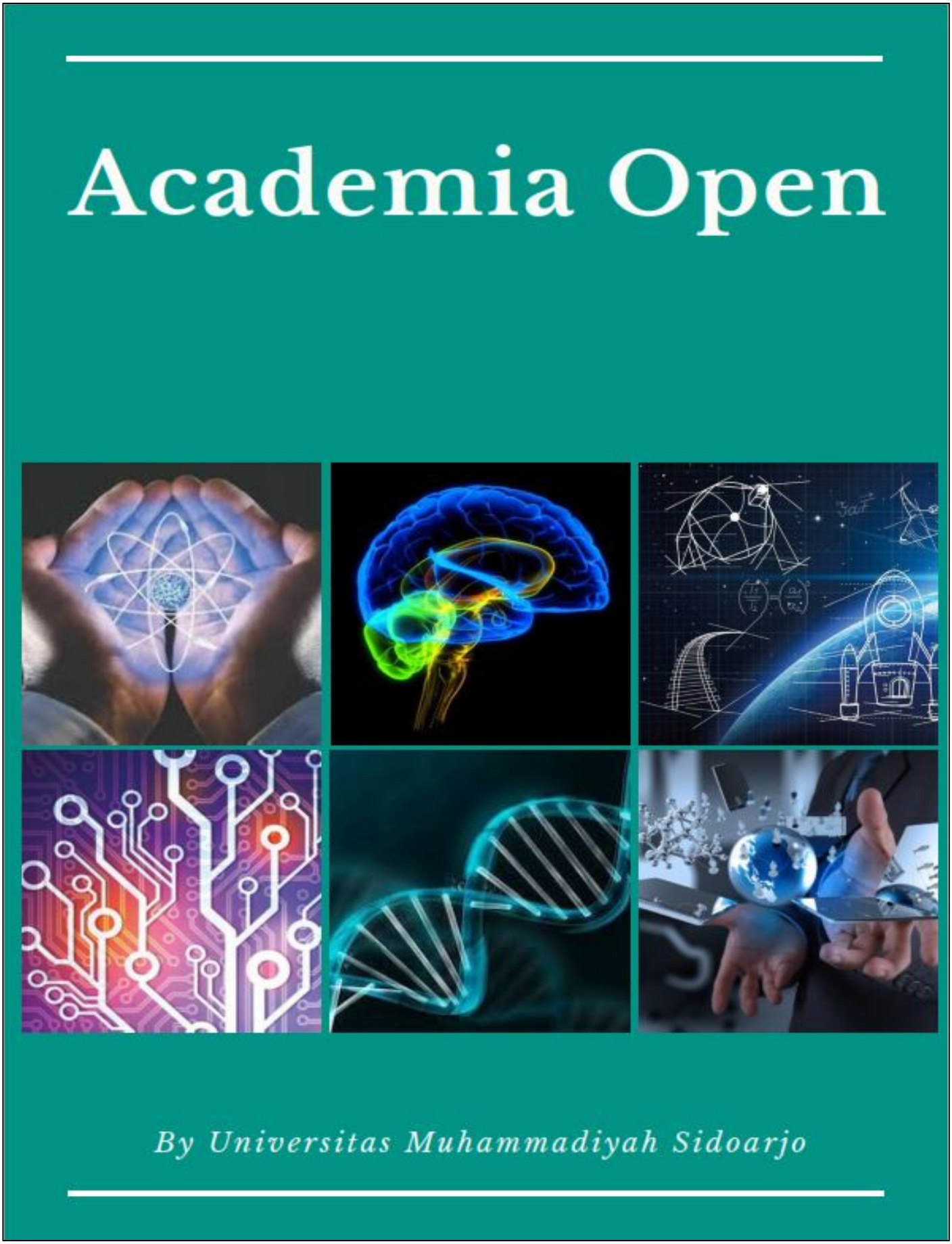

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Nurses in Iraq Show Alarmingly Low Infection Control Adherence

Perawat di Irak Tunjukkan Kepatuhan Pengendalian Infeksi yang Mengkhawatirkan

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Abstract

This study assesses nurses' adherence to standard precautions and infection management at the Republican Hospital in Basrah through a descriptive cross-sectional survey of 50 nurses, using a WHO-guideline-based questionnaire. The results indicate poor practice among 86% of nurses, with significant differences in adherence across age groups and workplace settings. The findings highlight the necessity for regular, targeted education to improve infection control practices, thus enhancing patient safety and care quality.

Highlights:

- High Non-Adherence: 86% of nurses show poor infection control practices.
- Demographic Differences: Age, workplace impact standard precaution adherence.
- Need for Education: Targeted training essential to enhance safety.

Keywords: Nurses' Commitment, Health Guidelines, Infection Control, Standard Precautions, Healthcare Safety

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Introduction

Patients with medical-related infections have a greater financial burden since their hospital stays are longer and their treatment expenses rise. Therefore, it is crucial that healthcare professionals carry out their responsibilities in line with infection control guidelines in order to reduce the likelihood of infection within the medical facility [1]. In particular, nurses, who have the most direct patient contact, have a duty to provide patients with high-quality nursing care in an infection-free environment. [2]

Among these, nursing professionalism is crucial for raising the bar for nursing professionals and enabling nurses to practice their vocation of providing high-quality nursing services [3]. The idea of desirable nursing professionalism allows nurses to feel personally fulfilled as well as to have the public recognize the importance of nursing [4]

Nonetheless, it has been discovered that nurses' experiences with an overwhelming workload, a lack of time, etc., negatively impact their infection control procedures [5]. Personal traits like nursing professionalism, moral sensitivity, and awareness, among others, and organizational traits like the medical institution's organizational culture, can all have an impact on the degree of infection management practice [6]

Because of the nature of nursing work, nurses often find themselves under time pressure to finish a variety of patient-related tasks in a short amount of time. This pressure arises from the need to perform both direct nursing duties, like giving medication, and indirect nursing tasks, like managing supplies and maintaining medical records [7]

Safe nursing practices for patients are more negatively impacted by the increased time pressure to finish nursing chores within the allotted amount of time [8], [9].

An excessive workload puts more pressure on nurses to finish nursing activities within the allotted time, which in turn makes them more stressed out at work and lowers the standard of care they give patients [10]. In light of the current circumstances, where infection management prevention guidelines have been strengthened as a result of the COVID-19 pandemic, it is imperative to evaluate the effects of time constraint as experienced by nurses on the quality of infection management practices [11]

Numerous epidemiological studies have shown that healthcare professionals, including doctors, dentists, and nurses, are connected to the spread of nosocomial illnesses [12]. There is a dearth of literature that examines nurses' knowledge and practices [13]. Thus, the purpose of this study was to evaluate the degree of infection management practice and adherence to standard precautions by nurses, as well as to identify any associations between their infection management practices and demographic traits.

Methods

Descriptive cross-sectional study recruited in the Republican Hospital, Basrah, was conducted from 9th May, 2022 to 25th January, 2023. A purposive (non-probabilistic) sample of 50 nurses that was randomly selected. Samples were collected from nurses at the Republican Hospital child and Al-Mauanee hospital and Abulchaseeb hospital, using a questionnaire consisting of 14 items. The nurse practitioners' practices were evaluated with respect to infection control measures by the researcher using a closed-ended questionnaire. A checklist was utilized in addition to observation to evaluate their practice with reference to infection control measure compliance. Practices from the Centers for Disease Control's 2022 guidelines and the World Health Organization's 2019 and 2023 guidelines on preventing hospital-acquired infections were incorporated in the questions' content. The sample size determined by G-power analysis. The study inclusion all nurse that working in this hospitals except that refuse to participate in this study

Cronbach’s Alpha coefficient was used to exam the reliability of questioner. The estimated alpha value showed good internal consistency of scales (0.84), which means the questionnaires had acceptable levels of internal consistency and equivalence measurability. The tool was scrutinized by professionals in the nursing area, to ascertain the content validity, before the data collection The questionnaire consisted of following parts:

First part: Socio-demographic data: Include (Age, Gender, Sex, Education level, Years of employment, Work place, Occupation).

Second part: Nurses’ practice regarding infection control that consisted from 14 items rated as apply (2 points), don’t apply (1 points)

Excel software and SPSS version 26 were utilized along with percentage, frequency, and average score for statistical data analysis. Frequency (F): In statistics, the number of times an event occurs in an experiment or sample is referred to as its likelihood. As a number or percentage, it represents a fraction of 100. Chi-Square Analysis It was utilized to ascertain the noteworthy correlation between the nurses' practices and expertise and their demographic attributes.

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Results and Discussion

A. Results

Variable		Frequency	Percentage
Age	20-30 years	20	40.0
	31-40 years	15	30.0
	more than 40 years	15	30.0
Sex	Male	14	28.0
	female	36	72.0
Education level	secondary school	22	44.0
	diploma	22	44.0
	bachelor	6	12.0
Years of employment	1-5 years	15	30.0
	6-10 years	8	16.0
	more than 10 years	27	54.0
Work place	child hospital	25	50.0
	the center	10	20.0
	Al-Mauanee hospital	9	18.0
	Abulchaseeb hospital	6	12.0
occupation	center	29	58.0
	district	21	42.0

Table 1. ***Demographic characteristics of participants (n =50)***

This table shown that the ages from 20 to 30 years constituted the largest percentage by 40%, and the majority of the participants were females by 72%, and equal percentage between education level that represent 44% from study, most of the participant have more than 10 years in the field of work, and 25 nurse was from child hospital, and according to occupation most of them (58%) from center.

Evaluation	Frequency	Percent
Poor	43	86.0
Good	7	14.0
Total	50	100.0

Table 2. ***Frequency and percentage regarding participant's practices***

The table shows the percentage of practices, which was that nurses have poor practice about infection control at percentage 86% and 14% have good practice according to the Chi-square

Variable		Practice		Significant
		Good	Poor	
Age groups	20-30years	0	20	.01*
	31-40years	5	10	
	more than 40 years	2	13	
Sex	Male	1	13	.348
	Female	6	30	
Education levels	secondary school	3	19	.980
	diploma	3	19	
	bachelor	1	5	
Occupation	center	3	26	.381
	districts	4	17	
Work place	children hospital	0	25	.009*
	center	4	6	

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	Almawanee hospital	1	8	
	Abulkchaseeb hospital	2	4	
Employment	1-5 years	0	15	0.137
	6-10years	1	7	
	more than 10	6	21	

Table 3. *Relationship between demographic features and the practices*

From the above table, it is clear that there are significant differences between the age groups and the application, as the age group 20-30 years is the highest in the application. There are also significant differences between the workplace and the application, as the Child Hospital is the best, followed by the Ports Hospital, then the Center, and finally Abu Al-Khasib Hospital.

B. Discussion

Table Number (1) shows that during the data analysis process, the age range of the majority of the samples (20–30 years old) that were counted was 40 percent. This conclusion was in conflict with a study by [14], which found that the majority of the nurses were between the ages of thirty and forty. Regarding gender, the majority of nurses in this research (72%) were female. Relative to educational level (44%) of nurses were graduated from both nursing institute and secondary school. This finding agreed with results obtained from study done by [15] which suggested that the bulk of the study's nurses were employed by nursing institutions.

In terms of the number of years that nurses have worked in the hospital, approximately 54% of nurses have worked there for more than ten years. This outcome does not agree with [16] Where the percentage of participating employees was 20 to 30, the largest percentage. With regard to sample collection, 50% of the participants were working in the Children's Hospital, As a result of the data analysis, table number (2) shows that 86% of the samples had poor nosocomial infection rates. This conclusion is consistent with that of a study conducted by [17], which showed that a majority of the analyzed sample (91.1%) had adequate infection control policies. The researcher believes that this is due to the lack of development programs and lectures on infection control.

The study's findings, as shown in table (3), indicate a substantial correlation between the age of nurses and their infection control practices. This outcome is consistent with the findings of [18], which showed a relationship between the age of nurses and their level of infection control expertise. Furthermore, a noteworthy correlation was observed between the participants' practice level and their place of employment. Nurses worked in children hospital and Almawanee hospital showed the highest level of practice regarding infection control. This result does not agree with [19], as his result was that there is no relationship between the workplace and knowledge, unlike what appeared to us that there is a statistical relationship.

Regarding gender, there is no relation between nurse's gender and practice toward infection control. This outcome did not match with the findings of the study that was conducted by Solanky which showed that females were more knowledgeable than males toward infection control. Regarding educational level of nurses and years of employment, there was no relation between educational level of participants and employment and their practice level. This result is incompatible. This showed that the years of experience working as a nurse had a favorable correlation with the amount of knowledge acquired. Nonetheless, all medical professionals and decision-makers in the field of health care have infection prevention as a top priority. Any preventative program that aims to lower the frequency of infections in our healthcare institutions must include nursing as a critical component. Therefore, in order to achieve the goal of infection prevention, nurses must acquire the necessary knowledge and exhibit appropriate practices.

Conclusion

This study critically assessed the adherence of nurses to standard precautions and their practices in infection management at the Republican Hospital in Basrah. The findings reveal a concerning scenario where 86% of the nurses demonstrated poor infection control practices. This study underscores a significant discrepancy in adherence levels among different age groups and workplace environments, highlighting the influence of demographic variables on compliance with infection control standards. The implications of these findings are profound, suggesting a pressing need for targeted educational interventions to enhance nurses' competencies in infection prevention. Regular in-service training and specialized programs for newly licensed nurses could effectively bridge the knowledge and practice gaps identified. Further research should explore the underlying factors contributing to poor practice and test the effectiveness of different educational strategies to improve the standard precaution adherence among healthcare professionals.

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References

1. J. E. Moon and K. S. Jang, "The Performance of Healthcare-Associated Infection Control Guideline Among Hospital Nurses: A Structural Equation Model," Iran. J. Public Health, vol. 47, no. 5, pp. 648–657, 2018.
2. E. Eltaher Hamed, M. Al Abdulla Alhareth, H. Ali Fadlalmola, and S. A. Alwesabi, "Nurse's Knowledge and Attitude Toward Infection Control Practices and Prevention Measures in the Governmental Hospitals, Najran City, Saudi Arabia," no. 07, pp. 357–368, 2023, doi: 10.17605/OSF.IO/TNCQR.
3. A. H. Ali and A. T. Saud, "Evaluation Nurses' Knowledge About Prevention of Nosocomial Infections in Al-Basrah Teaching Hospitals, Basrah, Iraq," Rawal Med. J., vol. 48, no. 3, pp. 731–734, 2023, doi: 10.5455/rmj.20230409075257.
4. M. Haque et al., "Strategies to Prevent Healthcare-Associated Infections: A Narrative Overview," Risk Manag. Healthc. Policy, vol. 13, pp. 1765–1780, 2020, doi: 10.2147/RMHP.S269315.
5. H. A. Khan, F. K. Baig, and R. Mehboob, "Nosocomial Infections: Epidemiology, Prevention, Control and Surveillance," Asian Pac. J. Trop. Biomed., vol. 7, no. 5, pp. 478–482, 2017, doi: 10.1016/j.apjtb.2017.01.019.
6. N. S. Kim and S. E. Choi, "Factors Affecting the Performance of Infection Control of Multidrug Resistant Organisms in Intensive Care Unit Nurses of General Hospitals Based on the Theory of Planned Behavior: The Mediating Effect of Intention," Res. Community Public Heal. Nurs., vol. 34, no. 3, pp. 183–195, 2023, doi: 10.12799/rcphn.2023.00150.
7. S. J. Kim and E. J. Lee, "Factors Influencing Emergency Department Nurses' Compliance With Standard Precautions Using Multilevel Analysis," Int. J. Environ. Res. Public Health, vol. 18, no. 11, 2021, doi: 10.3390/ijerph18116149.
8. M. H. Lee and S. H. Jun, "Factors Affecting the Infection Control Practices of Nurses at University Hospitals," Healthc., vol. 10, no. 8, 2022, doi: 10.3390/healthcare10081517.
9. T. A. Madani et al., "Steady Improvement of Infection Control Services in Six Community Hospitals in Makkah Following Annual Audits During Hajj for Four Consecutive Years," BMC Infect. Dis., vol. 6, no. February, pp. 0–9, 2006, doi: 10.1186/1471-2334-6-135.
10. A. Nasiri et al., "Knowledge, Attitude, Practice, and Clinical Recommendation Toward Infection Control and Prevention Standards Among Nurses: A Systematic Review," Am. J. Infect. Control, vol. 47, no. 7, pp. 827–833, 2019, doi: 10.1016/j.ajic.2018.11.022.
11. H. Sarani, A. Balouchi, N. Masinaeinezhad, and E. Ebrahimitabas, "Knowledge, Attitude and Practice of Nurses About Standard Precautions for Hospital-Acquired Infection in Teaching Hospitals Affiliated to Zabol University of Medical Sciences (2014)," Glob. J. Health Sci., vol. 8, no. 3, pp. 193–198, 2015, doi: 10.5539/gjhs.v8n3p193.
12. A. T. Saud and A. H. Ali, "Assessment of Nurse's Knowledge and Practices About Personal Protective Equipment in Hemodialysis Unit in Basra Teaching Hospital," Indian J. Forensic Med. Toxicol., vol. 15, no. 3, pp. 1351–1358, 2021, doi: 10.37506/ijfmt.v15i3.15496.
13. G. Sunkwa-Mills et al., "A Qualitative Study of Infection Prevention and Control Practices in the Maternal Units of Two Ghanaian Hospitals," Antimicrob. Resist. Infect. Control, vol. 12, no. 1, pp. 1–15, 2023, doi: 10.1186/s13756-023-01330-z.
14. F. Akbari and B. V. Kjellerup, "Elimination of Bloodstream Infections Associated With Candida Albicans Biofilm in Intravascular Catheters," Pathogens, vol. 4, no. 3, pp. 457–469, 2015, doi: 10.3390/pathogens4030457.
15. J. Karim et al., "Knowledge and Self-Reported Practice of Universal Precautions Among Kuwait University Medical Students in Their Clinical Years," Med. Princ. Pract., vol. 21, no. 4, pp. 328–333, 2012, doi: 10.1159/000335278.
16. F. Hussain, R. Khatoon, B. Sachan, and J. P. Srivastava, "Knowledge and Practice of the Universal Precaution Among Nursing Students of Eras's Lucknow Medical College and Hospital, Lucknow," Int. J. Community Med. Public Heal., vol. 5, no. 8, p. 3326, 2018, doi: 10.18203/2394-6040.ijcmph20183055.
17. A. P. Uchenna et al., "The Knowledge, Attitude, and Practice of Universal Precaution Among Rural Primary Health Care Workers in Enugu Southeast Nigeria, University of Nigeria, Enugcu Campus, Vol 4, Issue 09, 2015. Nigeria," World J. Pharm. Pharm. Sci., vol. 4, no. 9, 2015.
18. P. Solanky, H. Baria, A. Nerulkar, and N. Chavda, "Knowledge and Practice of Universal Precautions Among Nursing Staff at a Tertiary Care Hospital in South Gujarat, India," Int. J. Community Med. Public Heal., vol. 3, no. 9, pp. 2373–2376, 2016, doi: 10.18203/2394-6040.ijcmph20162890.
19. M. B. A. J. Al-Jubouri, "Assessment of Nurse's Knowledge About Nosocomial Infection at Hospitals in Baghdad City," Kufa J. Nurs. Sci., vol. 4, no. 1, pp. 161–166, 2014, doi: 10.36321/kjns.vi20141.2440.

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