



# Nurses' Perceptions of Medication Errors and Error Reporting in a Culturally Diverse Nursing Setting: Abu Dhabi, United Arab Emirates

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# Objectives

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Discuss:

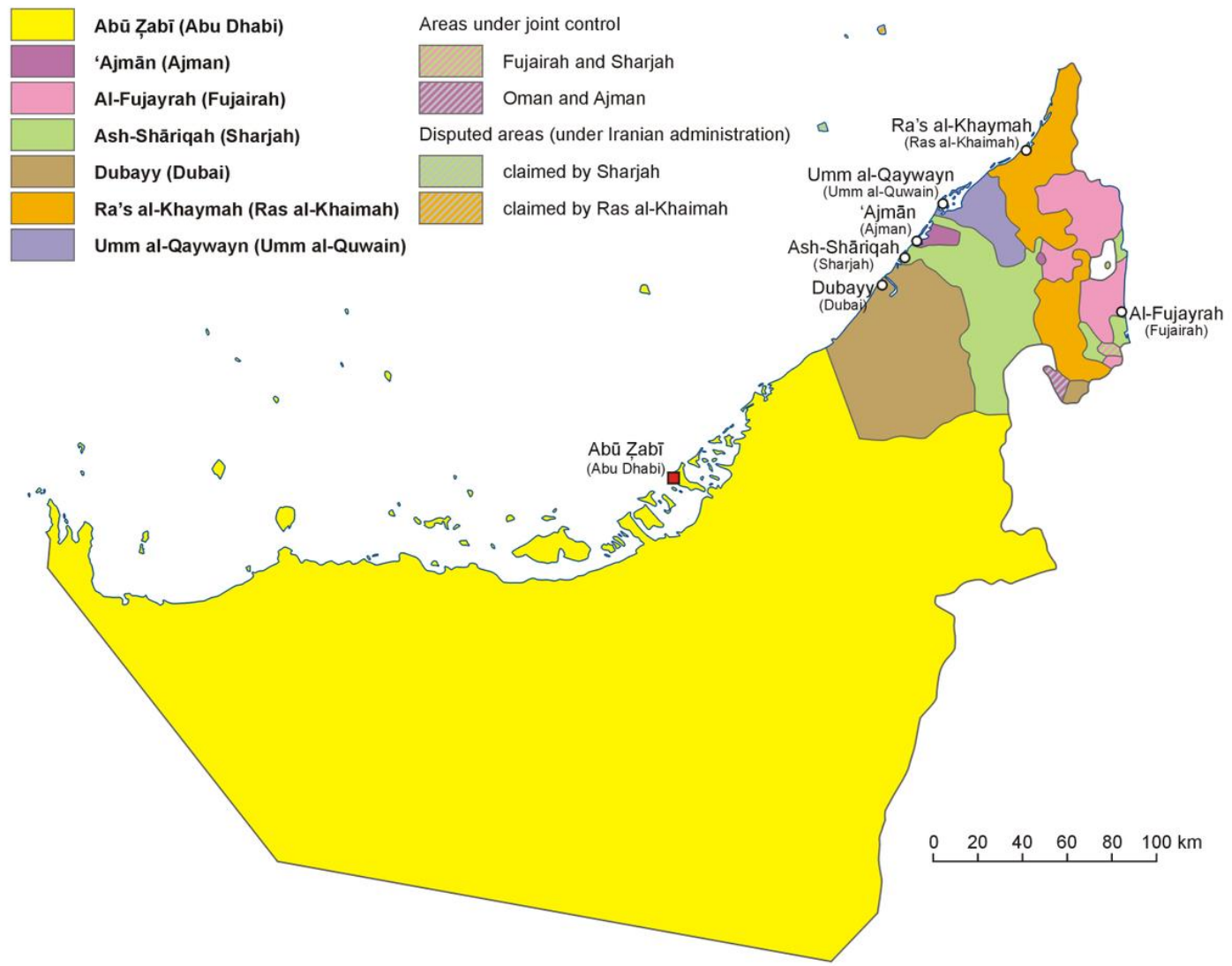
- Background, demographics, and healthcare culture in the UAE
- Problem statement and purpose
- Review of literature
- Methodology
- Findings
- Analysis



Where in the World is Abu Dhabi?





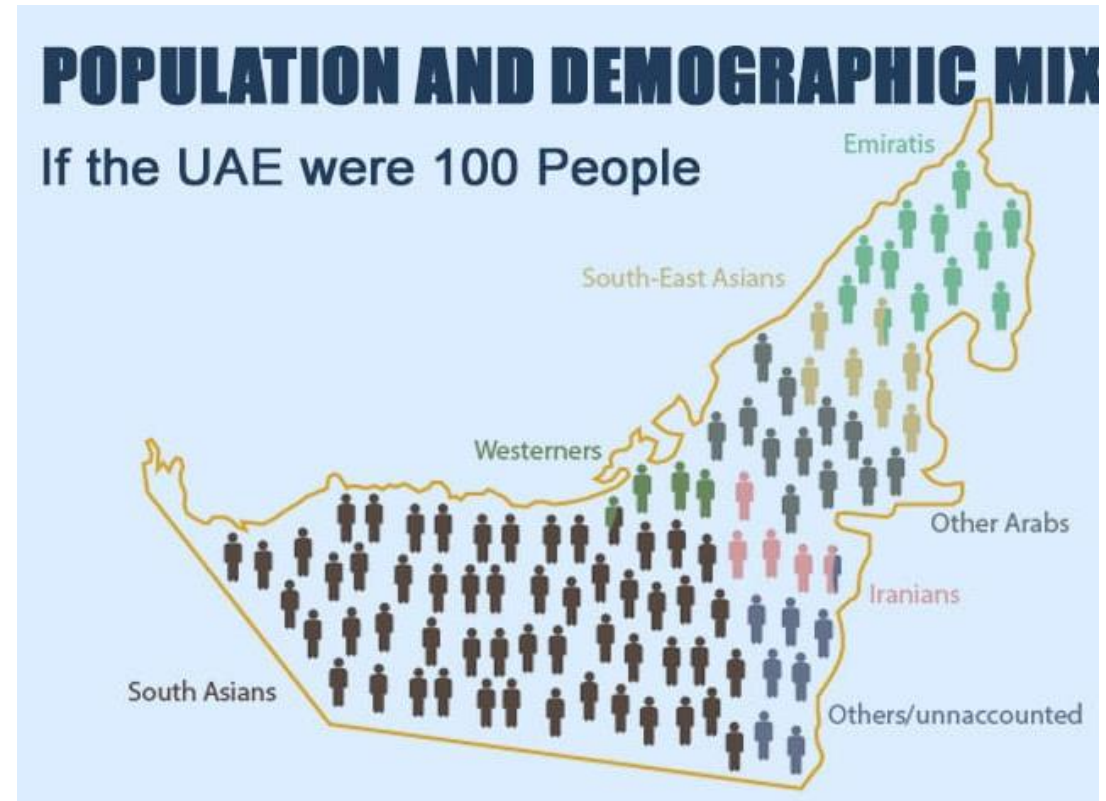


# UAE Population 9.68 million (2019) (World Bank)

- UAE citizens approximately 13 % (87% expats)

- Population by Nationality

• India	2,600,000
• Pakistan	1,200,000
• UAE	1,084,764
• Bangladesh	700,000
• Philippines	525,530
• Iran	450,000
• Egypt	400,000
• Nepal	300,000
• Sri Lanka	300,000
• China	200,000
• All other countries	1,696,334



# UAE Healthcare Workforce

- Government and private sectors
  - 4968 primary health centers
  - 143 hospitals with 13,312 beds
  - 49 007 health professionals

Profession	Nationals 2015	Non-Nationals 2015
Physicians	10.5%	89.3%
Dentists	8.8%	91.2%
Nurses and Midwives	0.7%	98.5%
Allied Health Professionals	6.0%	94.0%
Pharmacists	2.3%	97.6%



# Language

- English is the official language within the context of health-care delivery



# Purpose of Study

- To identify the causes of medication errors as perceived by nurses working in Abu Dhabi
- To identify the views of nurses working in Abu Dhabi regarding the reporting of medication errors



# Review of Literature

## Medication Errors

- Definition
  - Any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the healthcare professional, patient, or consumer (National Coordinating Council for Medication Error Reporting and Prevention, 2020).
- Consequences
  - Increased length of stay, additional medical interventions, and serious harm or death of patients, increased emotional distress, and loss of confidence of providers (Jones, J. & Treiber, L., 2012)

# Review of Literature

- Causes

- Work duration, working > 12.5 hours in one week, fatigue (Hewitt, P., 2010 )
- Distractions (Salami, I., et al., 2018)
- Inadequate staffing, low nurse: patient ratio (Cheragi, 2013)
- Prescriber/Nurse Communication Issues (Harkanen, M., Blignaut, A., & Vehvilainen-Julkunen, K., 2018)
- Human Factors (e.g. failure to follow the 5 rights, miscalculation) (Hewitt, P. , 2010; Harkanen, M., Blignaut, A., & Vehvilainen-Julkunen, K., 2018)

# Review of Literature

- Role of Reporting in Prevention
  - Error reporting and cause analysis are important tools to identify the major causes of medication errors (Elden, N., & Ismail, A., 2016).
  - Once data are compiled, health care agencies can then evaluate causes and revise and create processes to reduce the risk of errors (Wolf ZR, Hughes RG, 2008).
- Nurses Reporting of Errors
  - Low rate of error reporting (Lee, E., 2017; Stratton, K., 2004; Hammoudi, B., Ismaile, S., & Abu Uahya, O., 2018)
  - Reasons for low reporting: administrative reasons, fear, reporting effort, and disagreements over the definitions of errors (Hammoudi, B., Ismaile, S., & Abu Uahya, O., 2018)

# Review of Literature

- Medication Error Reporting in the UAE
  - Key deterrents to reporting:
    - Fear about the consequences of reporting
    - Emotions
    - Social influences
    - Issues related to the environmental context (Alqubaisi, M., Tonna, A., Strath, A., & Stewart, D., 2016).

# Methodology

- Self-report survey
  - Modified Gladstone's Scale to Measure
    - Rate of medication errors reported to nurse managers (1 item)
    - Nurses' perceived causes of medication errors (10 items)
    - Nurses' views about reporting medication errors (6 items)
  - Demographic Data
    - Gender
    - Age
    - Level of education
    - Years qualified to administer medications
    - Years practicing as a nurse



# Setting

- A 586-bed tertiary hospital in Abu Dhabi, UAE
- Public hospital that predominantly serves UAE Nationals
- Accredited by the Joint Commission International
- One of the major public teaching hospitals in the UAE
- Diverse workforce
  - Over 40 nationalities employed
- Model of care is Leininger's transcultural nursing, which focuses on the differences and similarities of the beliefs and values of cultures, in order to provide appropriate nursing care to the diverse population of the UAE

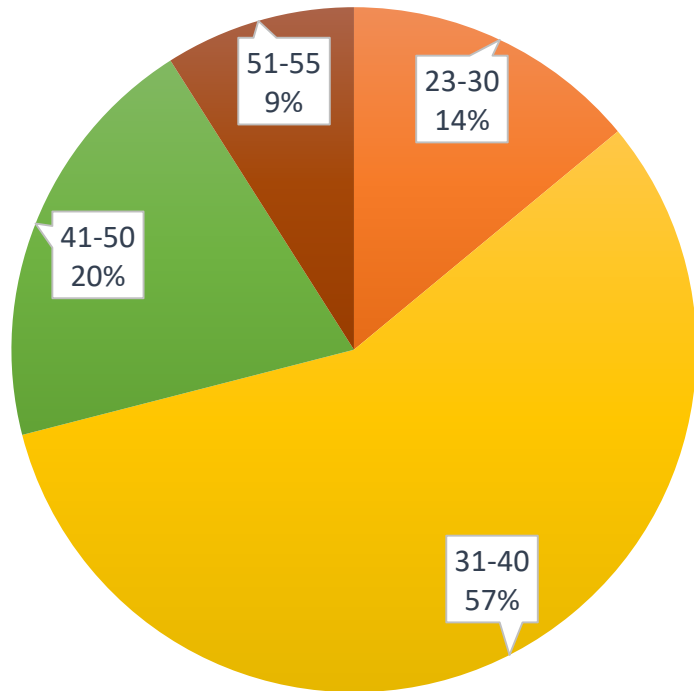
# Sample

- Criteria
  - Registered nurses
  - Age 23-55 years
  - Delivering direct patient care on the general medical unit and oncology and hematology unit

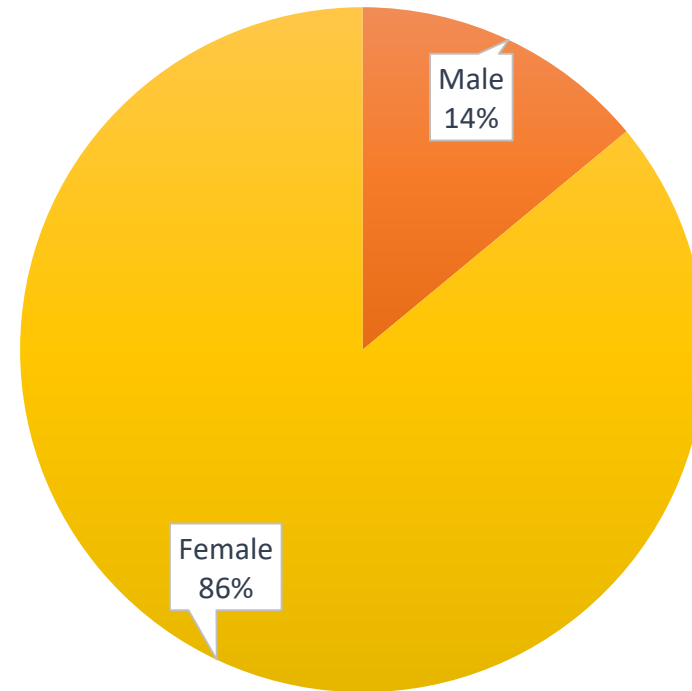


# Sample Characteristics (n = 43)

## Age

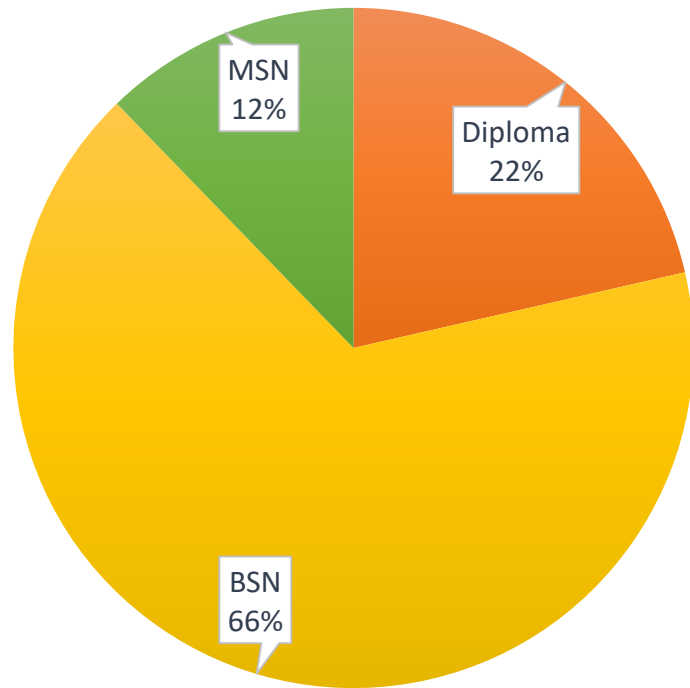


## Gender

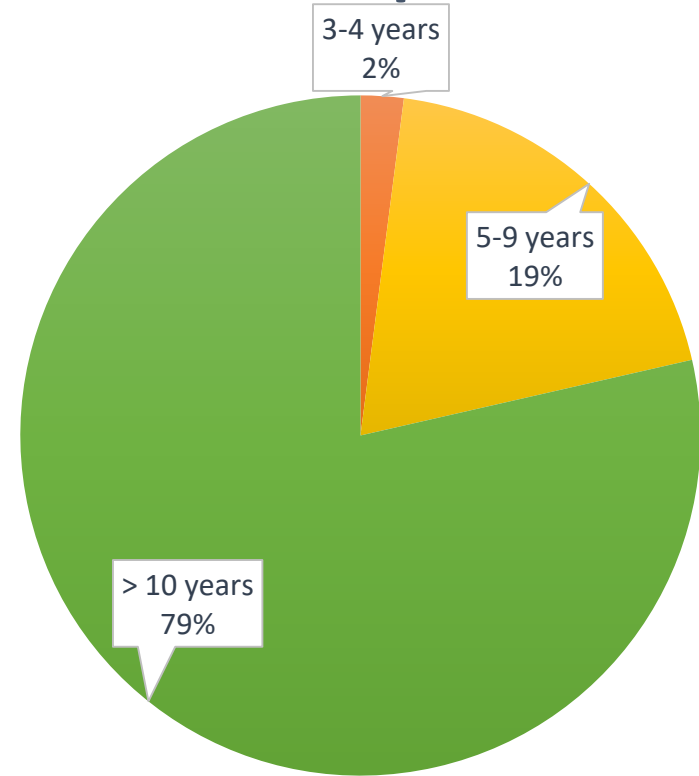


# Sample Characteristics (n = 43)

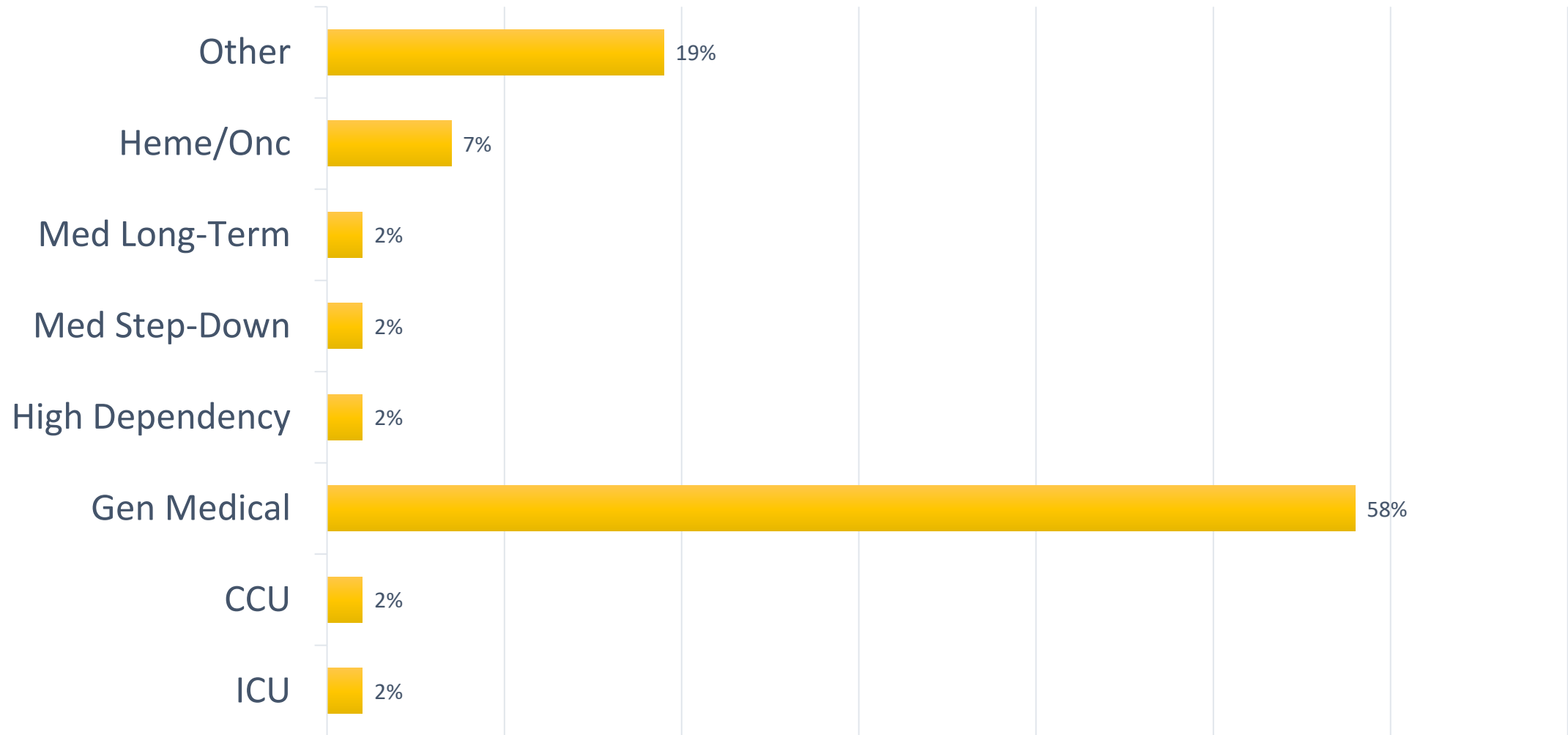
## Level of Education



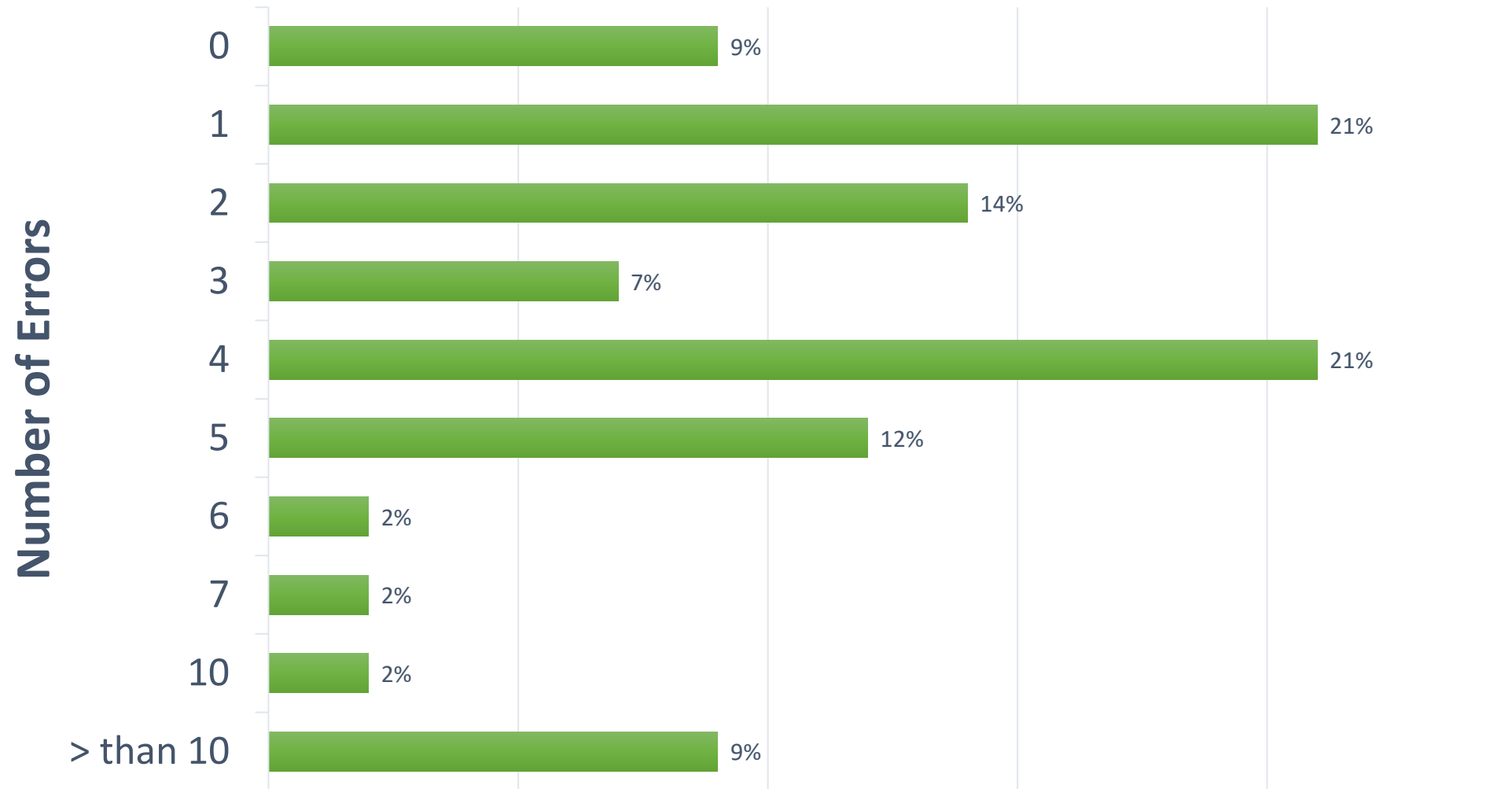
## Years of Experience



# Primary Work Setting



# Self-Reported Number of Med Errors Made in Career



# Findings

- Top 3 causes of medication errors
  - Failure to correctly identify the patient
  - Distractions in the environment
  - Physicians prescribing the wrong dose

# Findings

- 98% felt sure of what constitutes a med error
- 93% felt sure when an error should be reported
  - 35% had failed to report because they did not think it was serious enough to warrant reporting
  - 28% had failed to report because they were afraid of disciplinary action or losing their job
- 68% believe some med errors are not reported due to the fear of reaction from their co-workers
- 79% believe medication errors not reported due to fear of the reaction from the nurse manager

## Limitations

- Language issues
- Findings not generalizable
  - One hospital
  - Small sample size
- Modified Gladstone scale offered limited responses

# Conclusion

## Strategies to decrease errors and increase reporting of errors in Abu Dhabi

- Create a just culture for error reporting
- Allow nurses to speak up about prescribing errors
- Standardize the definition of medication error, and educate nurses that reporting of all errors is needed

## Further research

- What strategies can culturally diverse healthcare agencies enact to standardize the definition of medication error, and educate nurses that reporting of all errors is needed?
- How can culturally diverse healthcare settings create a culture where nurses are willing to speak up about prescribing errors?



# References

- Alqubaisi, M., Tonna, A., Strath, A., & Stewart, D. (2016). Exploring behavioural determinants relating to health professional reporting of medication errors: a qualitative study using the Theoretical Domains Framework. Springer Nature. <https://10.1007/s00228-016-2054-9>
- Cheragi, M. A., Manoocheri, H., Mohammadnejad, E., & Ehsani, S. R. (2013). Types and causes of medication errors from nurse's viewpoint. Wolters Kluwer India Pvt Ltd.
- Elden, N. M. K., & Ismail, A. (2016). The Importance of Medication Errors Reporting in Improving the Quality of Clinical Care Services. Canadian Center of Science and Education. <https://10.5539/gjhs.v8n8p243>
- Hammoudi, B. M., Ismaile, S., & Abu Yahya, O. (2018). Factors associated with medication administration errors and why nurses fail to report them. Wiley-Blackwell. <https://10.1111/scs.12546>
- Hewitt, P. (2010). Nurses' perceptions of the causes of medication errors: an integrative literature review. Jannetti Publications, Inc.
- Hughes, R. (2008). Patient safety and quality : an evidence-based handbook for nurses. Agency for Healthcare Research and Quality.
- Jones, J. H., & Treiber, L. A. (2012). When Nurses Become the "Second" Victim. Nursing Forum, 47(4), 286-291. <https://10.1111/j.1744-6198.2012.00284.x>
- McGillis Hall, L., Doran, D., & Pink, G. H. (2004). Nurse Staffing Models, Nursing Hours, and Patient Safety Outcomes. Journal of Nursing Administration, 34(1), 41-45. <https://10.1097/00005110-200401000-00009>
- Mrayyan, M. T., Shishani, K., & Al-Faouri, I. (2007). Rate, causes and reporting of medication errors in Jordan: nurses' perspectives. Wiley Subscription Services, Inc.
- National Coordinating Council for Medication Error Reporting and Prevention. (2014). About Medication Errors. NCC MERP. <https://www.nccmerp.org/about-medication-errors>
- Salami, I. ( 1 ), Saleh, Z. ( 1 ), Maharmeh, M. ( 1 ), Alasad, J. ( 1 ), Subih, M. ( 2 ), Darwish, R. ( 3 ), Al-Jbarat, M., & Al-Amer, R. (2019). Medication Administration Errors: Perceptions of Jordanian Nurses. Lippincott Williams and Wilkins. <https://10.1097/NCQ.0000000000000340>
- Wolf, Z & Hughes, R. (2008). Error Reporting and Disclosure. In R. Hughes (Ed.), Patient safety and quality : an evidence-based handbook for nurses (). Agency for Healthcare Research and Quality.