

Research Article

Novice Omani Nurses' Readiness for Practice: Challenges and Insights from a National Study

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Abstract

Background: The transition from student to professional nurse is often challenging, marked by stress, role confusion, and limited confidence in clinical practice. This study addresses a critical gap in research by exploring the readiness of Omani nursing graduates for professional practice, focusing on their knowledge, clinical competencies, and factors influencing their transition. **Methodology:** A descriptive cross-sectional study was conducted across multiple healthcare institutions in Oman, targeting recent nursing graduates and participants in internship programs. Data were collected using the 2023 Casey-Fink Graduate Nurse Experience Survey, a validated tool with a Cronbach's alpha of 0.890. Statistical analyses, including descriptive statistics, ANOVA, and independent t-tests, were performed using SPSS Version 23 to evaluate participants' perceived readiness and competencies. **Results:** The study included 194 novice nurses, with 86% from the Oman College of Health Sciences. The mean overall knowledge score was 3.56/4, highlighting high perceived competency. However, significant gaps were identified in areas such as initiating IV therapy ($M=2.23$), administering blood products ($M=1.78$), and managing violent patients ($M=1.80$). Confidence in clinical tasks like EKG interpretation and rapid response initiation was also limited. Participants in structured programs, such as internships and enhancement initiatives, reported slightly higher readiness scores, though differences were not statistically significant ($p>0.05$). Stress emerged as a pervasive challenge, with 46.9% strongly agreeing that work-induced stress impacted their performance. **Conclusions:** This study reveals substantial variability in the readiness of Omani novice nurses, emphasizing the need for enhanced clinical training, mentorship, and targeted interventions to address competency gaps. The findings provide valuable insights for nursing educators, internship coordinators, and policymakers in refining curricula and support programs to improve graduate preparedness for clinical practice.

Keywords

Nursing Education, Readiness for Practice, Novice Nurses, Clinical Competency, Transition to Practice, Competence

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1. Introduction

The healthcare system in Oman has significantly evolved over recent decades, a transformation that has been mirrored globally due to the increased demand for a skilled national nursing workforce. This demand is part of a larger narrative of a global shortage of nurses and the challenges faced by nursing schools in preparing graduates to deliver safe, effective, and compassionate care. Worldwide, novice nurses often enter the workforce with limited practice and confidence, hindering their ability to navigate the complexities of high-acuity patient care [1].

Nursing education is vital in equipping graduates for competent practice amidst dynamic healthcare advancements. However, bridging the gap between theory and practice remains a significant challenge [2, 3]. While readiness for practice lacks a unified definition, it is widely accepted as possessing the essential knowledge and skills for safe, independent nursing practice upon graduation [4, 5].

Transitioning from student to professional nurse is often marked by stress, role confusion, and reality shock [6-8]. Newly graduated nurses must independently apply their knowledge and skills in real and critical patient care situations, highlighting the need for robust preparation during nursing education. Despite efforts to enhance clinical training, novice nurses often report gaps in areas such as pharmacology, pathophysiology, leadership, and electronic health record management [9].

While existing studies highlight the importance of enhanced clinical training and mentorship [10], there is a significant gap in research examining the readiness of Omani nursing graduates for clinical practice. This study seeks to fill this gap by exploring the perceptions of novice nurses regarding their preparedness for clinical roles and identifying factors that support or hinder their transition. The findings aim to provide valuable insights for nursing schools, internship program coordinators, and healthcare policymakers in Oman.

Novice nurses frequently experience stress, role adjustment challenges, and reality shock during their early employment [6, 11]. Limited exposure to acutely ill patients during training can exacerbate this shock and contribute to early turnover [12, 13]. Internship programs have proven effective in facilitating smoother transitions, improving patient care outcomes, and enhancing job satisfaction [14-17].

Hickey (2009) [18] highlights the critical responsibility of nursing schools in addressing knowledge and practice gaps to prepare graduates for safe care delivery. Frameworks such as Benner et al.'s (2010) [19] call for radical transformation emphasizing the importance of equipping novice nurses with confidence and practical skills to thrive in clinical environments. This study builds on prior research by focusing on the perceptions of Omani nursing graduates about their readiness for practice, addressing a significant knowledge gap in the Sultanate of Oman.

This study explores the perceptions of Omani nursing graduates participating in internship programs regarding their knowledge and clinical competencies in delivering safe patient care. The objectives of this study were to assess the perceived knowledge and clinical competency levels of newly graduated Omani nurses, to examine variations in perceived clinical competencies among new Omani graduate nurses across different healthcare settings, and to identify specific areas of clinical practice where newly graduated Omani nurses feel least prepared.

This study sought to answer the following research questions: What is the perceived knowledge and clinical competency level among new Omani graduate nurses? How do perceived competencies vary across different clinical settings? In which areas of clinical practice do new Omani graduates feel least prepared?

This study provides critical insights into the challenges faced by novice nurses in Oman, addressing knowledge, skills, and practice gaps to enhance nursing education and healthcare delivery. Its findings can guide curriculum revisions, professional development programs, and mentorship initiatives to better prepare graduates for clinical roles.

The results of this study can significantly contribute to improving patient care, reducing nurse turnover, and fostering a sustainable workforce by creating supportive environments for novice nurses. Policymakers and educators can use this study to develop strategies for resource allocation, professional training, and curriculum enhancement, ensuring that nursing graduates meet the demands of modern healthcare. The urgency and importance of this research cannot be overstated.

This research also provides a solid foundation for future studies and comparative analyses in diverse cultural and healthcare contexts. By supporting innovative educational practices and workforce development strategies, this study's findings can inspire further exploration of the topic and contribute to the ongoing improvement of nursing education and healthcare delivery.

The literature review explores relevant research on the transition from nursing education to professional practice, focusing on work readiness, challenges, and strategies to facilitate new graduates' integration into clinical roles. Using six databases, including PubMed and CINAHL®, and keywords such as "transition," "work readiness," and "nursing education," the review spans studies from Oman and neighboring regions.

Nursing education in Oman began in 1970 with a two-year program by the American Missionary Association. Over the decades, it evolved into multiple institutes, specialized training centers like the Oman Specialized Nursing Institute, and programs at institutions such as Sultan Qaboos University and the University of Nizwa. This growth reflects Oman's commitment to developing a skilled nursing workforce to meet

healthcare needs. However, studies highlight the persistent challenges faced by novice nurses during the transition to practice.

Transition-to-practice studies in Oman reveal that enhancement training programs improve new nurses' confidence in patient care, communication, and task prioritization, though personal and work-related stressors remain significant. Al Hajri and Al Battashi (2023) [17] surveyed 313 new nurses using the Casey-Fink Graduate Nurse Experience Survey, finding confidence in clinical skills ($M=3.11$, $SD=0.59$) and communication with patients ($M=3.19$, $SD=0.65$), yet moderate dissatisfaction with management-related aspects like time off ($M=2.41$, $SD=1.31$). Similarly, Al-Rawajfah et al. (2023) [20] assessed 405 nurses and identified factors such as age and orientation duration significantly influencing transition experiences ($\beta=-0.007$, $p=.018$). The study emphasized the need for national strategies to support graduates.

Regional studies support these findings. In Egypt, Akeel and Kabeel (2023) [21] demonstrated significant knowledge improvements (96%) among interns after orientation programs ($p<0.0001$). In Jordan, Al-Yatim et al. (2023) [22] found moderate readiness among new graduates ($M=3.58$, $SD=0.8$), with leadership competencies correlating with readiness for practice ($p=0.02$). However, gaps remain in decision-making and stress management under pressure.

In the UAE, AlMekawi and El Khalil (2022) [23] identified low confidence among nursing students in specific procedures and managing multiple patients, with limited perceived benefits from simulations ($M=2.70$, $SD=0.93$). Students called for increased clinical placements and diverse experiences to boost readiness. Similarly, Robinson (2019) [24] highlighted alignment between educators' and leaders' expectations of new graduates' competencies, suggesting a need for enhanced preparation in critical thinking and leadership.

Broader studies, such as Missen et al. (2016) [25] and Dwyer and Revell (2016) [26], emphasize the gap between knowledge and practical application, with new nurses feeling unprepared for tasks like medication administration. Emotional intelligence (EI) and psychological capital (PsyCap) also influence readiness. Mashigo (2014) [27] identified EI factors like optimism and emotional management as predictors of job competence ($r=-.28$, $p=.00$). Caballero et al. (2011) [28] developed a Work Readiness Scale (WRS) that underscores attributes such as personal qualities and organizational skills essential for workforce integration.

Overall, the literature underscores the importance of targeted interventions, including orientation programs and emotional development, to address new nurses' challenges and enhance their readiness for clinical practice. Further research on self-assessed clinical competence and structured support strategies is essential to ensure successful transitions into professional roles.

2. Methodology

2.1. Study Area

The study was conducted across multiple institutions and healthcare facilities in Oman, targeting recent graduates from Sultan Qaboos University, the University of Nizwa, the University of Buraimi, and the Oman College of Health Sciences. Additionally, data were collected from 13 Ministry of Health hospitals that hosted trainees in internship and enhancement programs. These included three tertiary hospitals in Muscat—Al-Nahdha Hospital, Khoula Hospital, and Royal Hospital—and ten secondary hospitals located in various governorates: Boshier Renal Dialysis Unit, Al-Buraimi Hospital, Khasab Hospital, Ibra Hospital, Sohar Hospital, Rustaq Hospital, Sur Hospital, Nizwa Hospital, Ibri Hospital, and Sultan Qaboos Hospital in Salalah. The diverse settings ensured a representative sample of novice nurses across the Sultanate of Oman.

2.2. Study Design

A descriptive cross-sectional design was employed to assess the knowledge and clinical competency levels of novice Omani nurses in delivering safe patient care. The data collection period, from August to September 2024, was strategically chosen to align with the graduation timeline of the 2024 academic year cohort.

2.3. Sample Size Determination

Based on sample size calculations, a target of 255 participants was identified as adequate for the study. However, 194 participants ultimately completed the survey, achieving an approximate response rate of 86%.

2.4. Sampling Technique

Convenience sampling was utilized to recruit participants, focusing on novice nurses who met the following criteria: recently graduated (within the past 12 months) from Sultan Qaboos University, the University of Nizwa, the University of Buraimi, or the Oman College of Health Sciences; had completed or were actively participating in a formal internship or orientation program; and had commenced their professional careers in Ministry of Health hospitals across Oman.

2.5. Ethical Approval

Ethical approval was obtained from the Institutional Review Board (IRB) at the Ministry of Health's Center for Studies and Research. Participation in the study was voluntary, and informed consent was secured from all participants prior to data collection. The collected data were securely stored in a password-protected computer to avoid unauthorized access.

2.6. Data Collection Instrument

The study utilized the 2023 version of the Casey-Fink Graduate Nurse Experience Survey, a validated self-report questionnaire developed by Casey and Fink (Casey et al., 2004). This tool is widely used to evaluate the experiences of newly registered nurses and assess the effectiveness of nursing residency programs. The instrument demonstrated a high level of reliability, with a calculated Cronbach's alpha of 0.890, indicating strong internal consistency. The survey assesses eight key factors: Role Confidence, Manage Patient Care, Support, Role Satisfaction, Stress/Burnout, Resilience, Organizational Commitment, and Preceptorship. It includes four sections: demographic variables, Role Transition Experience (covering the eight sub-scales rated on a 4-point Likert scale), Preceptorship (7 items on a 4-point Likert scale), and Learning Needs Assessment of Skills (rated on a 3-point confidence scale). This comprehensive tool provides valuable insights into novice nurses' readiness and professional growth.

2.7. Method of Data Collection

After securing ethical approval, the researchers distributed a link to the Casey-Fink Graduate Nurse Experience Survey through email and social media platforms. The link was shared with Ministry of Health enhancement coordinators, nursing students in internship programs, and newly graduated nurses. Participants were given two weeks to respond, with a reminder sent midway to maximize participation. The self-administered survey ensured convenience and accessibility for respondents, contributing to the high response rate.

2.8. Data Analysis

Statistical analyses were performed using SPSS Version 23 to ensure an accurate and reliable interpretation of the data. Descriptive statistics, including mean, standard deviation, frequencies, and percentages, were utilized to characterize the study sample and assess the perceived levels of clinical competency among novice nurses.

To examine differences in perceived competencies among graduates from various nursing schools in the Sultanate of Oman, a one-way Analysis of Variance (ANOVA) test was applied. Additionally, an independent sample t-test was conducted to compare the mean scores of knowledge and practical skills between groups of novice nurses, providing insights into variations across different academic and professional contexts. This robust analytical approach ensured a comprehensive evaluation of clinical competency perceptions, facilitating meaningful comparisons and enhancing the study's credibility.

3. Results

3.1 Demographic Characteristics of Participants

This study included 194 novice Omani nurses and recent graduates, achieving a robust response rate of 86%. The majority of participants (78.9%) identified as female, with males comprising 21% of the sample. In terms of educational background, a substantial proportion (78.4%, $n = 152$) graduated from the Oman College of Health Sciences, followed by 10.8% from the University of Buraimi, 6.7% from Sultan Qaboos University, and 4.1% from the University of Nizwa.

Academic performance among participants was notable, with 81.4% reporting a GPA of 2.75 to 3.9. Specifically, 25.3% had GPAs between 3.3 and 3.74, 23.7% reported GPAs ranging from 2.3 to 2.74, 6.7% indicated GPAs from 2.0 to 2.29, and 2.6% achieved outstanding GPAs between 3.74 and 4.0.

Regarding professional roles, the majority of participants (64%) were recent graduates, while 33% were engaged in internship programs. A smaller segment, representing 11.9%, was enrolled in the enhancement program. These findings provide valuable insights into the demographic and educational profiles of novice nurses in Oman, underscoring the diversity and readiness of this cohort to meet the demands of their emerging professional roles (Table 1).

Table 1. Demographic Characteristics of Participants ($N=194$).

Variable	Category	N	%	Mean	SD
Gender	Male	41	21.1	1.79	.409
	Female	153	78.9		
Schools of Nursing Attended	Sultan Qaboos University	13	6.7	3.61	.852
	University of Nizwa	8	4.1		
	University of Buraimi	21	10.8		
	Oman College of Health Sciences	152	78.4		
Latest GPA	2 - 2.29	13	6.7	2.93	.928

Variable	Category	N	%	Mean	SD
Current Status	2.3 - 2.74	46	23.7	2.22	.915
	2.75 - 3.29	81	81.4		
	3.3 - 3.74	49	25.3		
	3.75 - 4	5	2.6		
	Newly Graduated	64	64		
	Internship	23	33		
	During Enhancement Program	107	11.9		

3.2. Perceived Knowledge and Clinical Competency

The participants in this study demonstrated a relatively high overall knowledge score, with a mean of 3.56 (out of a maximum of 4). However, a detailed analysis identified areas of concern. Item 28 states, “*I consistently feel high levels of stress while at work,*” recorded a lower mean score of 2.9 (*SD*

= 1.2), with 46.9% of participants strongly agreeing. Similarly, item 30, addressing the impact of personal life stress on work performance, had a mean score of 2.78 (*SD* = 1.2), with 50.5% strongly agreeing and only 11% strongly disagreeing. These findings highlight the pervasive influence of stress on the participants’ professional and personal lives, warranting targeted interventions to enhance workplace well-being (Table 2).

Table 2. Perceived knowledge and clinical competency *N*=194.

Items	Mean	SD
1. I am confident prioritizing patient care needs.	3.84	.630
2. I feel confident delegating tasks to others.	3.58	.914
5. I feel confident using best evidence when making clinical decisions.	3.71	.783
6. I feel confident communicating a plan of care with patients, families, and caregivers.	3.80	.670
7. I have confidence in my clinical decision-making skills.	3.76	.733
8. I can accurately recognize changes in my patient's condition.	3.78	.694
9. I can complete my patient care assignment on time.	3.82	.644
10. I feel confident managing my patient workload.	3.78	.711
11. I can organize my time effectively to complete my patient care tasks.	3.81	.657
12. I can prioritize competing tasks during my shift.	3.84	.636
19. I am satisfied with the clinical practice area I am working in currently.	3.74	.779
23. I am satisfied with my current role in nursing.	3.81	.657
27. I consistently feel overwhelmed by my workload.	3.12	1.092
28. I consistently feel high levels of stress while at work.	2.90	1.150
29. I feel exhausted at the end of my shift.	3.29	1.082
30. I am experiencing stress in my personal life that is affecting my work.	2.78	1.193
31. I feel overwhelmed by the patient acuity in my clinical practice area.	3.03	1.119
Overall mean score	3.56	

3.3. Perceptions of Readiness for Professional Nursing Practice

In the domain of clinical problem-solving, mean scores were comparable across the three groups studied. Newly graduated nurses achieved a mean score of 3.63 ($SD = 0.77$), internship participants scored 3.64 ($SD = 0.48$), and those in the enhancement program recorded a slightly higher mean of 3.74 ($SD = 0.46$). Statistical analysis revealed no significant differences among the groups ($r = 0.728$, $p = 0.484$), suggesting uniform competence in this area regardless of group affiliation.

Regarding engagement in learning activities, the findings similarly showed no statistically significant differences across the groups ($r = 1.304$, $p = 0.274$). The mean scores were 3.70 ($SD = 0.80$) for newly graduated participants, 3.90 ($SD = 0.30$) for internship participants, and 3.82 ($SD = 0.47$) for those in the enhancement program. These results suggest consistent engagement in learning activities across all groups, reflecting a commitment to ongoing professional development.

Finally, practice readiness scores indicated minor group variations but did not reach statistical significance ($r = 2.337$, $p = 0.099$). The enhancement program participants had the highest mean readiness score ($M = 3.90$, $SD = 0.46$), followed closely by internship participants ($M = 3.87$, $SD = 0.46$), with newly graduated nurses scoring slightly lower ($M = 3.70$, $SD = 0.80$). While these trends suggest a positive impact of structured programs like internships and enhancement initiatives on readiness for practice, the lack of statistically significant differences underscores the need for further exploration to better understand and address potential gaps (Table 3).

3.4. Correlation Analysis of Clinical Settings and Work Readiness

The results also indicated no significant correlation between the various clinical experience areas and the novice nurses' clinical problem-solving average score, learning activities average, and practice readiness in any of the wards ($p > .005$) (Table 4).

Table 3. Perceptions of Readiness for Professional Nursing Practice $N=194$.

Variables	Clinical Status	Mean	SD	F	P-value
Clinical Problem-Solving	Newly graduate	3.633	.7682	0.728	0.484
	In internship program	3.638	.4837		
	Started enhancement program	3.735	.4567		
Learning Activities	Newly graduate	3.700	.7952	1.304	0.274
	In internship program	3.896	.3007		
	Started enhancement program	3.824	.4772		
Practice Readiness	Newly graduate	3.703	.8053	2.337	0.099
	In internship program	3.870	.4577		
	Started enhancement program	3.904	.4564		

Table 4. Correlation Analysis of Clinical Settings and Work Readiness $N=194$.

Clinical Settings	Clinical Problem-Solving		Learning Activities		Practice Readiness	
	R-value	P-value	R-value	P-value	R-value	P-value
Adult Medical/Surgical Ward	.009	.899	.007	.921	-.076	.290
Emergency Department	.127	.078	.021	.775	-.008	.915
Oncology department	.042	.562	.036	.616	-.008	.917
Adult ICU	.052	.470	.033	.652	.032	.663
Pediatric ICU	.135	.060	.095	.187	.057	.433
Burn Unit	.131	.068	.052	.475	.029	.691

Clinical Settings	Clinical Problem-Solving		Learning Activities		Practice Readiness	
	R-value	P-value	R-value	P-value	R-value	P-value
Labor & Delivery	-.030	.674	.082	.258	-.076	.294
Pediatric Medical/Surgical Ward	.058	.422	.092	.204	.012	.871
NICU/ Newborn	.040	.583	.044	.542	.025	.728
Orthopedic Ward	.106	.141	.040	.580	-.024	.737
Neurology department	.028	.701	-.020	.785	-.019	.790
Renal Medical Unit	.064	.373	.029	.693	.018	.802

3.5. Confidence Level in Clinical Practice

The survey results reveal that newly graduated Omani nurses feel least prepared in several critical clinical practice areas. Participants reported particularly low confidence in initiating intravenous (IV) therapy ($M = 2.23$, $SD = 0.955$), administering blood products ($M = 1.78$, $SD = 0.917$), and performing nasogastric tube care ($M = 2.73$, $SD = 0.512$). Significant differences were observed among groups in these areas, with p -values of 0.005, 0.002, and 0.02, respectively.

In addition, the respondents expressed inadequate readiness in delivering handover reports ($M = 2.33$, $SD = 0.736$), interpreting electrocardiogram (EKG) or telemetry readings ($M = 2.38$, $SD = 0.845$), and initiating rapid response calls ($M = 2.06$, $SD = 1.006$). Other critical concerns included suicide risk screening ($M = 1.63$, $SD = 0.968$) and managing violent patients or their families ($M = 1.80$, $SD = 0.929$). These areas also demonstrated statistically significant differences ($p < 0.05$).

4. Discussion

This study aimed to explore the perceptions of novice Omani nurses regarding their readiness for clinical practice, focusing on their perceived knowledge, clinical competencies, and confidence in specific areas of practice. The findings provide critical insights into new nursing graduates' challenges in Oman, revealing strengths and areas for improvement in their clinical preparedness. This discussion will highlight the key findings, contextualize them within existing literature, and suggest strategies to address identified gaps.

4.1. Knowledge and Clinical Competency

The results indicated a high level of perceived knowledge among Omani novice nurses, with a mean score of 3.56 out of 4, suggesting that most participants felt they possessed the knowledge required for practice. This finding aligns with

previous studies emphasizing the importance of a solid educational foundation in nursing [17]. However, these findings also highlight the nuanced nature of perceived readiness, where general knowledge confidence does not necessarily equate to proficiency in specific clinical tasks. This study identified significant gaps in confidence and preparedness in areas such as intravenous (IV) therapy, blood product administration, and nasogastric tube care. These specific deficits raise concerns about how well nursing curricula in Oman address practical skill acquisition and reinforce the application of theoretical knowledge in real-world settings. These findings echo the work of Missen et al. (2016) [25], who noted that new nurses often struggle to apply this knowledge in clinical practice despite a robust knowledge background. Thus, bridging the gap between academic preparation and clinical readiness remains a critical area for improvement.

4.2. Stress and its Impact on Readiness for Practice

Another significant finding from this study was the pervasive influence of stress on participants' readiness for practice. Nearly half of the respondents reported high stress levels at work, and the majority felt that personal life stressors impacted their job performance. This reflects the "reality shock" that novice nurses often experience as they transition from student to professional roles [6]. High stress levels can impair clinical decision-making, job satisfaction, and retention [15], reinforcing the importance of developing effective strategies to manage stress during the transition period. In Oman, these stressors may be compounded by unique challenges, such as navigating new healthcare systems, managing patient care expectations in understaffed settings, and balancing professional and familial responsibilities. The interplay of these factors underscores the importance of culturally sensitive interventions that address both personal and workplace stressors. By tailoring strategies to these specific challenges, healthcare institutions can foster a more supportive environment for novice nurses.

4.3. Engagement in Learning Activities and Program Participation

The study also assessed participants' engagement in learning activities, with no significant differences across the three groups (new graduates, internship participants, and enhancement program participants). Despite minor variations, the findings suggest a uniform commitment to continued professional development across all cohorts, which is crucial in the context of evolving healthcare needs. This finding indicates that novice nurses in Oman value professional growth and recognize the importance of continuous learning in advancing their careers. Notably, the enhancement and internship program participants reported slightly higher practice readiness scores, which underscores the potential value of structured support systems such as internships and enhancement programs in bridging the gap between knowledge and clinical application. These findings highlight the effectiveness of structured learning pathways in building confidence and skills, suggesting that greater investment in such programs could yield significant benefits for nurses and healthcare organizations. This finding supports the literature suggesting that well-organized orientation and mentorship programs can enhance new nurses' competencies and confidence in clinical practice [15, 17].

4.4. Clinical Competence and Confidence in Critical Skills

One of the most striking findings from this study was the significant lack of confidence among new nurses in performing critical clinical tasks such as IV therapy, administering blood products, and interpreting EKGs. The findings are consistent with earlier studies in Oman and the broader region, which found that novice nurses often feel inadequately prepared for high-stakes tasks despite their academic training [20, 23]. The low confidence in performing complex procedures raises patient safety concerns and reflects systemic challenges within nursing education, such as limited access to advanced clinical rotations or inadequate exposure to high-pressure scenarios during training. The relatively low confidence levels in performing complex procedures are concerning, as they suggest that existing educational programs may not adequately address the practical skills required in real-world clinical environments. This gap in readiness could be attributed to limited clinical exposure during nursing education, which is a persistent issue highlighted in the literature [9]. As a result, nursing programs must prioritize immersive, hands-on training experiences and incorporate advanced simulation technologies to better prepare students for high-stakes clinical tasks.

4.5. Implications for Nursing Education and Practice

The study's findings suggest several important implications

for nursing education and practice in Oman. First, there is a clear need for enhanced clinical training, particularly in high-risk areas such as IV therapy, blood product administration, and critical decision-making skills. While knowledge may be well covered in academic settings, more hands-on experience in clinical environments is essential to ensure that nurses are equipped to handle the complexities of patient care. This may involve revising existing curricula to allocate more time to clinical placements, developing competency-based assessments, and integrating real-world scenarios into teaching methodologies. Incorporating more simulation-based learning and offering extended clinical placements may help address these gaps [23].

Second, the role of mentorship and structured internship programs should be expanded. These programs have been shown to improve the confidence and competence of new nurses [14], and the positive impact of these programs was evident in this study, where participants in internship and enhancement programs reported higher readiness scores. Targeted mentorship programs, particularly those involving senior nurses who understand local challenges, can provide the guidance, feedback, and emotional support needed to ease the transition into professional practice. Developing targeted mentorship initiatives, with experienced nurses providing guidance and support during the early months of training, could help alleviate some of the stress and uncertainty experienced by novice nurses.

Finally, the high stress levels reported by participants underscore the importance of supporting new nurses' mental health and well-being. Integrating stress management techniques into nursing curricula and offering ongoing support throughout the transition period could help mitigate the adverse effects of stress on clinical performance and job satisfaction. Thus, to promote resilience and improve job satisfaction among novice nurses, we suggest implementing workplace wellness programs, regular mental health check-ins, and peer support networks. These strategies would not only benefit individual nurses but also contribute to the sustainability of the nursing workforce.

4.6. Limitations and Future Research Directions

While this study provides valuable insights into the perceptions of Omani nursing graduates, it is essential to acknowledge its limitations. The self-reported nature of the survey may have introduced biases, as participants may have overestimated their competencies or underreported areas of weakness. Additionally, the study's cross-sectional design limits the ability to draw causal conclusions. Future research could explore the longitudinal effects of internship and enhancement programs on nurses' long-term job satisfaction, retention, and clinical competence.

Further research is needed to explore the factors contributing to the observed differences in confidence and competence in specific clinical tasks. For example, examining the

impact of clinical placements, training duration, and mentorship quality could provide more detailed insights into how nursing education programs can be improved to prepare graduates for practice better.

5. Conclusions

This study highlights the readiness of novice Omani nurses for clinical practice, revealing a strong foundation in knowledge and commitment to lifelong learning. However, gaps in clinical competence, particularly in high-stakes tasks like IV therapy and blood product administration, were evident. The findings underscore the need for enhanced clinical training, structured mentorship, and stress management initiatives to support the transition from education to practice. Addressing these areas can better prepare future nurses to deliver safe and effective care in Oman's evolving healthcare system.

To enhance clinical readiness, nursing education programs should increase hands-on training in critical areas, expand mentorship opportunities, and integrate stress management into curricula. Educational institutions and healthcare providers must collaborate more closely to ensure nursing programs align with real-world clinical demands. Offering structured support systems such as internships and conducting regular competency assessments during the first year of practice will further enhance nurses' clinical competence and confidence.

Abbreviations

IV	Intravenous
EKG	Electrocardiogram
ICU	Intensive Care Unit
NICU	Neonate Intensive Care Unit

Author Contributions

Mohammed Khalfan Ambusaidi: Conceptualization, Data curation, Formal Analysis, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing

Abeer Nasser Al Jahdami: Conceptualization, Data curation, Formal Analysis, Methodology, Project administration, Resources, Software, Validation, Visualization, Writing – original draft, Writing – review & editing

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Alya Juma Rashid Al Mashaykhi: Conceptualization, Data curation, Formal Analysis, Methodology, Project administration, Resources, Software, Validation, Visualization, Writing – original draft, Writing – review & editing

Conflicts of Interest

The authors declare no conflicts of interest.

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Biography



Mohammed Khalfan Ambusaidi is a senior tutor at Oman College of Health Sciences, Nursing Department. He completed his PhD in psychometry from Widener University in 2022 and his Master of Nursing Education from Villanova University in 2007. Dr. Ambusaidi is a Pharmacology Task Force chair.

Dr. Ambusaidi is recognized for contributing to test development and evaluation and preparing students for high-stakes testing. He has participated in multiple research and test development workshops. He currently serves on a local Research and Ethical Approval and Review committee.

Research Fields

Mohammed Khalfan Ambusaidi: Nursing, Nursing Education, Assessment and Evaluation, Information Technology, Leadership and Management

Abeer Nasser Al Jahdami: Patient and Occupational Safety, Simulation, Nursing Education, Pain Management, Palliative and End-of-Life care

Siham Said Al Rashdi: Nursing Knowledge and Perception, Information Technology, Telemedicine, Leadership and Management, Chronic Disease Self-Management, Occupational Safety

Alya Juma Rashid Al Mashaykhi: Healthcare Workload Management, Resilience in Healthcare