Online Learning in Nursing Education: Opportunities and Challenges Post-COVID-19

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Abstract

Background: The transition to online learning in nursing education following the COVID-19 pandemic has presented both opportunities and obstacles. The transition to digital education was driven by the pandemic, resulting in considerable upheaval in conventional learning environments. This study examines the experiences of undergraduate nursing students in the Middle East as they navigate the complexities of online learning, addressing the gaps in existing research that specifically target this demographic.

Methods: A thorough investigation of the difficulties experienced by nursing students in eight Arab nations as they made the switch to online learning was carried out. Data were collected via surveys and interviews, reflecting the various sociodemographic factors that shape students' views on online education. The research utilized a mixed-methods strategy, integrating quantitative assessments of perceived challenges alongside qualitative perspectives on the personal experiences of nursing students in the area.

Results: The results show notable differences in the difficulties experienced by nursing students in the various Middle Eastern nations. Although administrative challenges were significant in Palestine and Lebanon, technological barriers were more evident in Iraq and Palestine. Sociodemographic factors including gender, program type, and device availability significantly influenced students' experiences with online learning. The differences in infrastructure and academic challenges highlighted the necessity for customized interventions to meet the varied needs of nursing students in the area.

Conclusion: This study highlights the various challenges faced by nursing students in the Middle East as they transition to online learning. This research provides valuable insights that can guide the creation of targeted interventions aimed at improving the online learning experience for nursing students after COVID-19. It highlights the significance of cultural sensitivity and personalized support systems in enhancing educational outcomes.

Keywords: Middle East, online learning, nursing education, difficulties, and sociodemographic variables.

1.   Introduction

Nursing is fundamental in healthcare, as professionals are tasked with delivering vital care and support to patients and their families [1-4]. A thorough nursing education is crucial for preparing future nurses with the theoretical knowledge and practical skills necessary to succeed in a challenging healthcare setting [5]. The onset of the COVID-19 pandemic in early 2020 compelled governments and public health authorities around the globe to take rapid actions to curb the transmission of the virus [6, 7]. The implementation of social distancing measures and the shutdown of educational facilities resulted in considerable interruptions to conventional learning settings, exacerbating the difficulties encountered by nursing students who rely significantly on face-to-face, practical training [8-11]. This swift transition led nursing schools to adjust by adopting distance learning as a prompt solution, incorporating digital methods into their programs [12-14]. The transition was essential for maintaining continuity in education; however, it also presented several challenges, especially in terms of the quality and effectiveness of nursing training.

The challenges linked to distance learning have been well-documented across different student groups, yet there is a scarcity of research that specifically addresses nursing students. A limited number of studies have specifically focused on the distinct experiences of nursing students during this transition, including research carried out in Egypt and Jordan [15, 16]. The findings reveal notable issues faced by nursing students, such as challenges in maintaining focus during online classes, a desire for hands-on experiences, and apprehension regarding the overall efficacy of online education in equipping them for clinical practice.

The distinct importance of nursing education in patient safety—specifically, the necessity for future nurses to be well-prepared to deliver care—is highlighted by this gap in research. The abrupt transition to online learning prompts essential inquiries regarding the ability of these students to cultivate the necessary skills for achievement in actual healthcare environments.

In light of this research gap, the current study seeks to thoroughly investigate the challenges encountered by undergraduate nursing students as they transition to online learning in various countries throughout the Middle East. This study aims to explore nursing students' views on the obstacles that impede the online learning experience. This objective aims to explore the personal experiences of students, revealing the different challenges they face as they transition to online education.

2.   The Shift to Digital Education

Distance learning provides numerous benefits, such as increased mobility, flexible scheduling, and possible cost savings [17]. Nonetheless, these advantages are accompanied by a range of considerable challenges that may impede students' educational journeys. The necessity of adjusting to this new learning environment emphasized the importance for educational institutions to stay adaptable and attentive to students' needs and concerns [18].

A variety of studies carried out in the Middle East have examined the difficulties linked to distance learning, offering important perspectives on the experiences of students in different educational settings. A 2016 study in Iraq illustrated several obstacles that students encountered during this transition, such as limited access to dependable internet and technology resources [19]. A study conducted in 2021 revealed that pharmacy and medical students in Jordan faced comparable technological challenges, highlighting the urgent requirement for sufficient infrastructure to facilitate remote learning [15]. Research in Oman has reinforced these findings, highlighting a consistent set of challenges encountered by students in the region [20].

Alongside infrastructural challenges like limited internet bandwidth and insufficient computer facilities, various psychological and pedagogical factors have surfaced as significant barriers to successful online learning [21]. The absence of previous experience with online tools, varying degrees of technological literacy, and inadequate technical support intensify the challenges encountered by students [19, 22, 23].

3. The Consequences of Online Learning Difficulties

In addition to the technological and logistical hurdles, the transition to online education has sparked worries about the caliber of nursing education. An essential component of nursing education includes hands-on patient care, effective communication, and the cultivation of practical skills within a clinical environment. Numerous studies have emphasized the challenges students face in adjusting to virtual methodologies when they lack suitable hands-on experiences, which are essential for developing competencies in nursing practice [11, 24-26]. Elements of clinical training, including patient assessment, care management, and the execution of nursing procedures, necessitate in-person experiences that are challenging to replicate through online platforms.

Additionally, the literature has extensively explored psychological factors associated with online learning. Students have expressed feelings of isolation stemming from limited social interaction, worries regarding academic performance, and heightened anxiety linked to adapting to a significantly changed educational landscape [11, 15, 19, 22, 27, 28]. Accounts of individuals facing diminished motivation, apathy towards their studies, and anxiety regarding academic deadlines highlight the significant effect of this transition on mental well-being [11, 15].

Nursing students involved in online learning also face significant physical challenges. Problems like eye strain due to extended screen exposure, neck and back discomfort from poor ergonomics, and challenges in typing or using digital platforms can impede students' learning experiences [25]. The interplay of these physical issues and psychological stressors forms an intricate network of challenges that can greatly influence students' overall academic engagement and success.

4. Overview of the Key Findings

This study emphasizes the various challenges encountered by nursing students in the online learning setting throughout the Middle East. Palestine and Lebanon stand out for their considerable administrative challenges, whereas Iraq and Palestine face notable technological obstacles. Palestine consistently ranks at the top in all challenge categories, highlighting a significant struggle faced by nursing students in that area. In comparison, the UAE exhibits the lowest average rank for perceived challenges, indicating a more advantageous online learning environment [29].

The perceptions of online learning challenges among nursing students varied significantly due to a range of sociodemographic factors. In Jordan, single individuals indicated greater levels of difficulty, while those with low family incomes in Palestine and Lebanon encountered heightened challenges as well. In Iraq and Lebanon, female students reported facing more challenges than their male peers [30-33]. Furthermore, students participating in diploma programs in Jordan and bridging programs in Lebanon faced heightened difficulties. Students in governmental universities in Lebanon and private universities in Jordan faced unique challenges. The availability of the Internet has become a significant concern, especially for students in Jordan and Lebanon. Additionally, users of tablets in Lebanon and laptops in Palestine experienced greater challenges [34, 35].

5. Analysis of Prior Research

In comparing our findings with previous research, we notice consistent patterns in the reliance on mobile data, especially in Jordan and Saudi Arabia, which correspond with wider trends identified in the literature. The differences in device availability and technological challenges in Iraq, Egypt, Jordan, the UAE, and KSA underscore the varied infrastructural landscapes found in these nations. Academic challenges displayed comparable variations, highlighting the need for interventions tailored to specific contexts. Our findings, particularly regarding Palestine and Lebanon, align with a study carried out in Japan that highlighted similar challenges in online education [36-38].

To tackle the intricate challenges encountered by nursing students in the online learning environment following COVID-19, insights from earlier research can prove valuable. Interventions at the foundational level ought to prioritize the enhancement of Academic Self-Efficacy (ASE) by incorporating resilience-building activities and culturally attuned social support systems. Enhancing the online learning environment can be effectively accomplished by customizing lecture formats and employing a mix of recorded and live sessions, taking into account elements that affect learning flow, including self-regulated learning capabilities and motivation. The effective execution of international collaborative programs, as illustrated in a South Korean study, offers a valuable intervention strategy to enhance nursing education through diverse perspectives and global competencies [39, 40].

To tackle the effects of diminished clinical practice opportunities, it is essential to implement faculty development programs and support systems, which should encompass mentorship initiatives and improved clinical simulations. Furthermore, integrating effective humor into the online learning environment can boost engagement. Understanding psychological resilience, mental telehealth support programs and virtual simulations through augmented reality can significantly improve the learning experience. Consistent feedback systems are essential in enhancing student learning. The success story from the UAE stands as an exemplary model for other Middle Eastern countries, highlighting the significance of internet router access, flexible online platforms, and financial backing for technological resources [41-43].

6. Strengths and Weaknesses of the Study

This research is a groundbreaking endeavor, marking an important advancement in the realm of nursing education. This study is the first to specifically address the challenges encountered by undergraduate nursing students in the Middle East as they transition to online learning, representing a significant milestone. This distinctive emphasis brings forth fresh viewpoints and establishes a foundation for upcoming research into the intricacies of online education within this geographic setting.

This study's significant strength lies in its extensive and varied sample size, encompassing participants from eight Arab countries. This strengthens the reliability and applicability of the results. Additionally, the study offers an in-depth analysis of the impact of sociocultural factors on the online learning experience for nursing students in various countries throughout the Middle East. The emphasis on various cultural contexts is essential, as educational challenges frequently intertwine with local norms, economic conditions, and institutional frameworks. The inclusion of participants from eight Arab countries not only broadens the study's applicability but also provides valuable insights into the educational dynamics of the region.

While the study has its strengths, there are significant limitations that deserve attention. A significant concern is the uneven representation of participants among the countries included. The existing imbalance could influence the overall findings and restrict the degree to which the results are applicable to the broader population of nursing students in the Middle East. For example, if one country has a disproportionate representation, the unique challenges encountered by students from underrepresented countries might be overlooked, distorting the overall understanding.

Furthermore, although the study highlights and examines several technological, academic, and administrative challenges, it fails to explore in depth the psychological or emotional effects of these

challenges on nursing students. Grasping the mental health dimensions associated with online learning interruptions, particularly in post-conflict and post-pandemic contexts, may offer a more comprehensive perspective on the difficulties encountered by these students. Future studies may benefit from incorporating psychological assessments with academic performance measures to better capture this dimension.

7.   Summary and Considerations for Upcoming Studies

This research highlights the considerable challenges faced by nursing students in the online learning environment in the Middle East, focusing on the technological, academic, and administrative obstacles that impede effective engagement. The findings highlight the pressing requirement for improved support systems, particularly in geopolitical situations such as Palestine and Lebanon. The study emphasizes the importance of recognizing specific profiles of online teaching challenges and advocating for interventions that are specifically designed to address the unique situations of each country.

The differences in challenges encountered by students in various countries highlight the essential need for educational responses to be tailored to specific contexts. For example, students in the UAE face fewer obstacles thanks to enhanced infrastructural support, whereas those in Palestine need considerable investment in technology and educator training to enhance their online learning experience. Policymakers and educational institutions ought to tackle these disparities by formulating thorough strategies that integrate insights gained from this study.

Future studies should expand on this research by investigating longitudinal approaches to evaluate the evolution of students' experiences over time, especially as institutions adjust to new learning environments. Qualitative research methodologies, including interviews and focus groups, can offer deeper insights into the students' lived experiences, enabling an exploration of the nuanced ways their challenges manifest and how they navigate them.

Furthermore, considering the significant role of psychological factors in educational environments, upcoming studies might explore the mental health effects of the shift to online learning during times of crisis. Investigating resilience and coping strategies in nursing students may reveal valuable support methods that universities and policymakers can adopt.

Finally, the research highlights the significance of ongoing assessment regarding the effects of online education on nursing students. It proposes the creation of feedback systems and the implementation of regular evaluations of student needs to guide the development of adaptive and impactful educational strategies. This research enhances the understanding of the connections between education, conflict, and technology, establishing a foundation for significant advancements in nursing education throughout the Middle East.

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التعلم الإلكتروني في تعليم التمريض: الفرص والتحديات بعدCOVID-19

الملخص

الخلفية :قدم الانتقال إلى التعلم الإلكتروني في تعليم التمريض بعد جائحة COVID-19 فرصًا وعقبات. كان الانتقال إلى التعليم الرقمي مدفوعًا بالجائحة، مما أدى إلى اضطراب كبير في بيئات التعلم التقليدية. تهدف هذه الدراسة إلى فحص تجارب طلاب التمريض الجامعيين في الشرق الأوسط أثناء تنقلهم عبر تعقيدات التعلم الإلكتروني، مع التركيز على الفجوات في الأبحاث الحالية التي تستهدف هذه الفئة بشكل خاص.

الطرق :تم إجراء تحقيق شامل حول الصعوبات التي واجهها طلاب التمريض في ثمانية دول عربية أثناء انتقالهم إلى التعلم الإلكتروني. تم جمع البيانات من خلال استبيانات ومقابلات، تعكس العوامل الاجتماعية والديموغرافية المختلفة التي تشكل آراء الطلاب حول التعليم الإلكتروني. استخدمت

الدراسة استراتيجية مختلطة، حيث تم دمج التقييمات الكمية للتحديات المُدركة مع الآراء النوعية حول التجارب الشخصية لطلاب التمريض في المنطقة.

النتائج: تظهر النتائج وجود اختلافات ملحوظة في الصعوبات التي واجهها طلاب التمريض في مختلف دول الشرق الأوسط. على الرغم من أن التحديات الإدارية كانت مهمة في فلسطين ولبنان، كانت الحواجز التكنولوجية أكثر وضوحًا في العراق وفلسطين. أثرت العوامل الاجتماعية والديموغرافية مثل الجنس ونوع البرنامج وتوافر الأجهزة بشكل كبير على تجارب الطلاب مع التعلم الإلكتروني. تسلط الفروقات في البنية التحتية والتحديات الأكاديمية الضوء على ضرورة وجود تدخلات مخصصة لتلبية الاحتياجات المتباينة لطلاب التمريض في المنطقة.

الخلاصة: تبرز هذه الدراسة التحديات المتنوعة التي تواجه طلاب التمريض في الشرق الأوسط أثناء انتقالهم إلى التعلم الإلكتروني. توفر هذه الأبحاث رؤى قيمة يمكن أن توجه إنشاء تدخلات مستهدفة تهدف إلى تحسين تجربة التعلم الإلكتروني لطلاب التمريض بعد COVID-19. كما تبرز أهمية الحساسية الثقافية وأنظمة الدعم الشخصية في تعزيز النتائج التعليمية.

الكلمات المفتاحية: الشرق الأوسط، التعلم الإلكتروني، تعليم التمريض، الصعوبات، المتغيرات الاجتماعية والديموغرافية.