The Transitional Learning Experience of Baccalaureate Nursing Students Post-COVID-19 Pandemic in the Kingdom of Bahrain

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Abstract

The development of the COVID-19 pandemic has brought a sudden and unprecedented interruption of education worldwide. The transition of the mode of study for students who are already adapted and engaged in a routine learning mode is accompanied by various psychological issues that influence the overall learning experience. This study aimedto explore the learning experience of Baccalaureate nursing students in the transitional stage from online to offline post-COVID-19pandemic. A qualitative descriptive and exploratory research design was utilized in this study by employing a convenient sampling method, including nursing students enrolled in Bachelor degree in Nursing. A semi-structured interview was conducted with ten nursing students using an interview topic guide. Braun and Clarke's 2006 thematic analysis model was used to analyze data obtained from interviews. Findings revealed four key themes that emerged from thematic analysis: (1)Transactional mode of learning from online to offline; (2)Challenges and opportunities of various learning modes; (3) Perceived learning experience during and after COVID-19; (4) Clinical practice during and after COVID-19. Study findings suggested that the online learning experience of the nursing students during the COVID-19 pandemic reflected a unique experience for nursing students as a new strategy in nursing education in Bahrain. Despite this development, the offline learning experience remained the preferable mode of study that facilitatesstudents' abilities in communication, sharing knowledge, and developingskills in the nursing profession.

Keywords:COVID-19 pandemic; Online learning; transition; Baccalaureate Nursing Students; clinical experience.

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I. Introduction

The world faced an existential global health crisis with the declaration of the World Health Organization (WHO) in 2019, considering the coronavirus disease (COVID-19) to be a global pandemic (Tian et al., 2020). The Covid-19 pandemic has swept the world with alarming levels of morbidity and mortality (Zhang et al., 2020). The development of the COVID-19 pandemic has brought a sudden and unprecedented interruption in various fields such as education. Therefore, many educational institutions striveto develop active curricular innovation and transformation to meet the evolving educational needs in this pandemic successfully. The higher education institutes reconsidered during the pandemic the best utilization of the online learning mode (Poon, 2013). In the digital era, of 2021, the education system has developed many ways to expand the learning material for students to study. An offline environment is such where a teacher can see students together, in an online multi-student class, this has its own set of challenges (Mitra et al., 2023). According to Rachmah (2020), more students favor offline than online instruction because students would better understand the materials being taught through the offline method. The listening abilities of students improve better in the traditional classroom.

Universities have begun to experience a shift to offline educationfollowing two years of anti-pandemic initiatives. Returning to face-to-face teaching methodology was a challenge for students after receiving flexibility for virtuallearning, such as conducting online sessions and exams. Students enrolled in online courses could not achieve the intended learning outcomes due to the lack of support, technical issues, and lack of course structure (Jaggars, 2011). Creating a distance online learning environment should include meticulous monitoring of students' progress, providing valuable feedback, and a consideration level of awareness regardless of using technology to effectively communicate and manage platforms' futures (Kearns, 2012). Addressing the challenges and concerns related to the sudden shift of teaching and learning mode from offline to online and vice versa is essential to be addressed to explore the consequences of introducing a new mode of learning in nursing education. Understanding the underpinning meaning of being engaged in a new learning

experience in terms of the mode of study in nursing education is vital to exploring the intrinsic and extrinsic factors, that may affect the student's learning experience and satisfaction with the learning/ teaching strategies.

II. Methodology

A qualitative descriptive design was used in the study to explore the learning experiences of Baccalaureate nursing students post-COVID-19regarding the transition from an online or virtual mode of study to on-campus study. This study took place in the College of Health and Sport Sciences at the University of Bahrain, the main governmental nursing educational institute in the Kingdom of Bahrain, in faith to fulfill the research aim. Emphasizing the importance of ethical principles, ethical approval was obtained from the Scientific Research and Publication Committee at the University of Bahrain (UoB).

Before starting the data collection phase, a participant information sheet was provided to the participants following obtaining informed consent. Participants were asked to return the participants' information sheet and consent forms within 48 hours before participation in the study to ensure the compliance of Baccalaureate nursing studentsin meeting the research requirements and to confirm and declare their agreement or disagreement to take part in the study. The voluntary nature of participation in research requires the investigators to inform each participant that they may drop participation in an ongoing research study without penalty or loss of benefits. Participants were assured that they could withdraw from the study if they wished while taking into consideration the need to notify the research team about their wish to withdraw. When withdrawing from the study, the participants should inform the research team of their wishes to withdraw (University of Nevada, 2021). A semi-structured interview was utilized in the study to obtain in-depth data about students' learning experiences about shifting the mode of study from online (which occurred as a result of COVID-19) to offline mode, post-COVID-19 pandemic, to meet the study's aim and objectives.

Sample and Sampling Technique

Participants were selected using convenient sampling techniques. The study sample considered Baccalaureate Nursing Students who were enrolled in their 3rd year of study and who studied initially in the program in the online mode and then shifted to the offline mode post-COVID-19. According to Rahi (2017), convenience sampling describes the data collection process from a research population that is effortlessly reachable to the researcher.

Initially, six nursing students voluntarily participated in the semi-structured interviews. Semistructured interviews are often the sole data source for a qualitative research project and are usually scheduled in advance at a designated time and location outside of everyday events. They are generally organized around a set of predetermined open-ended questions, with other questions emerging from the dialogue between interviewer and interviewee/s. (Adams et al., 2002; DiCicco- Bloom & Crabtree, 2006).

Interviews were conducted in a private, calm room within the College of Health and Sport Sciences after arrangements had been made with the Nursing faculties who served as study gatekeepers. Each interview session lasted 60-80 minutes. The interview was based on the interview topic guide as illustrated in Table 1. Each interview started with a general introductory question to make participants calm, allowing them to express their feelings and thoughts freely with the researcher. The interview was facilitated by using probing questions and recording participants' nonverbal cues, comments, and facial expressions. All interviews were tape-recorded in the Integrated Circuit record (IC record) andtranscribed verbatim in preparation for analysis.

	Main questions	Propping questions		
1.	What was your perception of nursing learning during COVID-19? And after the COVID-19 pandemic?			
2.	What is your perception of the transactional mode of learning from online to offline?	Perception toward the online learning experience Which kind of class do you prefer?		
3.	Describe your experience during COVID-19 pandemic.	 Explain to me the educational techniques used during COVID-19. Talk about those techniques from your point of view; what are their advantages and disadvantages? Ex: Virtual OSCE (Objective Structured Clinical Evaluation), using an Elsevier clinical skill, case studies, and clinical concept map Do those techniques enhance your learning input and output? 		
4.	Describe your learning experience after the COVID-19 pandemic.	 What educational techniques were used? Were all sessions conducted face-to-face? Does the training session mandate physical attendance? 		
5.	Explain your experience with offline transition.	 How do you feel during this transition period? Can you describe it as a successful or unsuccessful experience? 		

Table 1Interview Questions

		What is the difficulty you faced?How do you describe this transition experience?	
6.	How can you identify the learning outcome and learning strategies?	 face to face before COVID-19? During covid 19 pandemic? How do those strategies help you before COVID-19 and during the pandemic? 	
		Explain your experience and identify, please.	
7.	Explain to me the needs in the transitional period that affected your learning experience.	 How do you think the intrinsic and extrinsic factors affected your learning: satisfaction and the effectiveness of online learning/ teaching strategies. 	
8.	Explain your experience with clinical practice during and after COVID-19.		

The interviews were continued by includingan additional sample of four nursing students, ending up with a total of ten nursing students who participated in the study. Interviews ceased once data saturation was achieved. Morse (2015: p. 587) takes the view that saturation is 'present in all qualitative research,' it is commonly considered the 'gold standard' for determining sample size in qualitative research, with little distinction between different types of qualitative research. In qualitative research, saturation is used as a criterion for terminating data collection and analysis (Garrett et al., 2012; Lipworth et al., 2013).

Data Analysis

Thedata were analyzed using Braun and Clarke's 2006 thematic analysis model described by Vanover et al. (2021) the thematic analysis method is an iterative process consisting of six steps: (1) becoming familiar with the data, (2) generating codes, (3) generating themes, (4) reviewing themes, (5) defining and naming themes, and (6) locating exemplars.

The audio interviews in verbatim form were transcribed and documented through Microsoft Word (2016) immediately after the completion of each interview. Initially, all interviews were transcribed within 24-48 hours of interview time—the verbatim documentation started by playing the audiotape and writing it in Word document software.

The data were approached in an interactive process; data analysis started earlier, simultaneously with the data collection process, which helped to escort and make sense of integrated nonverbal cues for each participant.

Trustworthiness

Haq et al. (2023) declared that the trustworthiness of qualitative data has been debatable, yet it has strong support from its supporters. However, the importance and worth of qualitative data cannot be undermined. The degree of trustworthiness of qualitative research can be measured by ensuring the credibility, transferability, dependability, and conformability of research design, process, and action.

Credibility is amplified through different strategies in this study such as the time spent with the study participants for an average of one semester within the nursing department, interviewing protocol, piloting the interview initially with three nursing students, and conducting meetings with nursing faculties and administration. Obtained data from participants were communicated with participants following the interviews to ensure the accuracy of data collected and analyzed for initial codes, sub-themes, and themes.

Transferability was ensured when participants with distinctive features participated in the study such as different social and secondary learning backgroundsto transfer research findings to other learning settings withstudents from different disciplines. Dependabilitywas maintained in this study through detailed information that illustrated the data collection method and data analysis process, as well as limitations faced throughout the research generating period. Confirmability was achieved before beginning the interviews with the participants by establishing an informal relationship to produce an intact, comfortable, and trusting atmosphere, enabling the researcher to collect data effectively; also, after each interview, the conversation was summarized with the interviewees.

III. Findings

Characteristics of the Study Participants

Qualitative data were obtained from 10 Baccalaureate Nursing Students who participated in the semistructured interviews. All participants were Bahraini nursing students, with a mean age of 22.2 years and a mean GPA of 3.58. The participants' online studying experience extended from 2020 to 2022 and on offline mode of study from 2022 to 2023.

A summary of the participants' demographics (age, gender, nationality, GPA), is presented in Table 2.

Nurse Participants' Demographic Data						
PARTICIPANTS ID	AGE	GENDER	GPA	DURATION OF ONLINE LEARNING		
P1	20	F	3.81	2 academic years		
P2	20	М	3.86	2 academic years		
Р3	21	F	3.47	2 academic years		
P4	20	F	3.39	2 academic years		
P5	20	F	3.08	2 academic years		
Р6	20	М	3.47	2 academic years		
P7	20	F	3.81	2 academic years		
P8	20	F	3.67	2 academic years		
P9	21	F	3.33	2 academic years		
P10	20	F	3.95	2 academic years		

 Table 2

 articipants' Demographic 1

Four key themes emerged from the thematic analysis which reflected participants' learning experience post-COVID-19as (1)Transactional mode of learning from online to offline; (2)Challenges and opportunities of various learning modes; (3) Perceived learning experience during and after COVID-19; (4) Clinical practice during and after COVID-19. (See Table 3 for themes and subthemes).

Table 3Summary of Themes and Sub-themes

Themes	Sub-themes		
Transactionalmode of learning from online to offline	 technological capabilities (channels of interaction, communication). internal and external challenges 		
Challenges and opportunities of various learning modes	 Advantages Disadvantages Influential factors of online and off-learning stress. 		
Perceived learning experience during and after COVID- 19	 Advance online sessions perceived learning support learning engagement 		
Clinical practiceduring and after COVID-19.	 Achievement of clinical objectives. Impact of COVID-19 on clinical practice. (limited role – extended role). 		

Transactional mode of learning from online to offline

Findings showed that the transitional stages of the teaching and learning process were accompanied by unpredicted situational changes related to technology use and consequences of a transactional shift of study mode.

The post-pandemic transactional period was reflected through participants' statements and the researcher's extraction of two sub-themes.

Technological capabilities (channels of interaction, communication)

This sub-theme emerged from student's quotes and comments. The participants' verbatimanalysis of the interview uncovered concerns about communication and channels of interaction that had positive and negative impacts on them. For instance, one of the participants declared that:

"Transactional learning during COVID-19 was a different experience altogether. The shift to online platforms meant that interactions with instructors and fellow students became virtual" (P6).

Adaptation to the shift of mode of the study was a general concern among most of the participants, as one of the participants commented on the teaching and learning process saying:

"It required adapting to a new way of engaging in discussions, asking questions, and receiving immediate feedback" (P2).

"The transition experience required us to adapt and find creative ways to meet the clinical core competencies, which were more readily available before COVID-19" (P4).

Participants expressed their points of viewonthe positive and negative impact of the transitional mode of study as declared by the following participants:

"I would describe the transition as both successful and unsuccessful. While we were able to continue our education remotely, there were limitations in terms of practical skill development and clinical exposure" (P9).

"It was challenging to establish the same level of connection and engagement with instructors and peers virtually" (P1).

"The effectiveness of online learning and teaching strategies was influenced by various factors such as internet connectivity issues, technological difficulties, and varying levels of digital literacy among students" (P8).

Internal and external challenges

Data obtained from the thematic analysis indicated that the transition from offline to an online mode of study was associated with internal and external challenging factors such as lack of face-to-face contact, limited immediate feedback by the instructor, difficulties associated with time management and the practice in clinical settings, which were declared by the participants as:

"The transitional period undoubtedly affected our learning experience, both intrinsically and extrinsically. In terms of satisfaction, the lack of face-to-face interactions and the absence of the traditional learning environment impacted the overall learning experience" (P5).

"The difficulty I faced was the lack of immediate feedback and the need for self-discipline and time management in an online learning environment" (P 7).

"After COVID-19, I perceived nursing learning as primarily face-to-face and hands-on. We had regular in-person lectures, skills labs, and clinical rotations, which allowed us to interact directly with our instructors and peers. However, during the pandemic, my perception of nursing learning shifted significantly" (P3).

Challenges and opportunities of various learning modes

The student's overall learning experience during the offline and online modes of study is accompanied by some advantages and disadvantages from the lens of study participants. Most of the participants agreed that the online learning method was practical, convenient, and flexible and teaching materials were accessible anytime. These perceptions were expressed in the following sub-theme of advantages:

Advantages

The majority of participants perceived the advantages of the online learning method as practical and convenient as verbalized by one of the participants:

"From my point of view, these techniques had their advantages and disadvantages. The advantage was the flexibility and convenience of accessing learning materials and resources remotely" (P10).

Another participant mirrored P10's point of view:

"The online experience allows more flexibility to get access at any time for recorded lectures, anytime and anywhere(P2).

Additionally, some participants reflected on the advantages of the mode of learning saying:

"During an online session, Doctors gave students extra academic activities to ensure that we are working at home" (P9).

"Offline ...[...] mean to me a positive environment in the classroom which helps me to follow my progress" (P1).

"In the classroom, I feel that I'm more responsible and disciplined to be prepared for the session" (P8).

Disadvantages

However, findings demonstrated that online learning has some disadvantages such as a lack of handson practice and the challenge of applying theoretical knowledge into practice, as verbalized by most of the participants. Some participants believed that offline learning is restrictive, as voiced by *Participant 7*:

"With the offline learning methods, physical attendance is mandatory, which is caused a time constraints" (P7).

Other participants commented on the transitional stage of the mode of the study as mentioned in the following statements:

"The online transition was a mixed experience for me. Initially, there was a sense of unease and unfamiliarity with the new learning format. It was challenging to replicate the hands-on experience and the direct patient interactions that are crucial for nursing education" (P2).

"I can describe my online experience as Anxiety induced due to internet interruption and unstable connection that kicked the student out of the exam which led to mark loosing [....] but even the offline caused me anxiety because the exam environment causes a delay in thought process, not meeting the criterion of essay part writing of exam" (P8).

Influential factors of online and off-learning stress

The COVID-19 pandemic rapidly transformed nursing education between the online and offline experience, which caused stressful feelings among nursing students, which were declared through the interviews:

"The sudden transition to offline learning brought about a sense of uncertainty and apprehension. I had concerns about how effectively we could learn and develop essential nursing skills without the traditional face-to-face interactions" (P1).

Online learning obligates us to purchase platforms and provides an internet connection that causes an economic burden, but offline sessions make the economic burden less through attending face-to-face classes with no required financial effort. (P8)

I can see the blended learning method as very beneficial; a combination of online and face-to-face content delivery can bridge the gap between the traditional and new methods. (P9)

Perceived learning experience during and after COVID-19

Participants agreed that the learning experience during and after COVID-19 was complemented with opportunities for using advanced online sessions that were new to them and receiving ongoing support throughout the new experience. These findings emerged from the data in the following two sub-themes:

Advanced online sessions

Findings revealed that COVID-19pandemic impacted the learning experience by the emergence of new learning strategies such as virtual discussions, online assignments, and self-directed learning, which became more prominent during the pandemic. Participants perceived the various learning strategies as expressed in the quotes:

"These strategies aimed to promote active engagement and critical thinking, but they also required a higher level of self-motivation and independent learning" (P5).

"During the pandemic, the educational techniques used shifted predominantly to online platforms. We had virtual OSCEs (objective structured clinical evaluations), utilized Elsevier Clinical Skills modules, engaged in case studies, and worked on clinical concept maps" (P1).

perceived learning support

"During the pandemic, my learning experience in nursing involved a combination of educational techniques between online sessions and clinical physical attendance" (P8).

"I got enough support from my instructors; they were available through online applications and answered all my inquiries" (P5).

"Technical support during the online learning period caused me stress because sometimes I faced internet disruptions during exams. Also, exams will automaticallyshut down through university applications, but offline exam experience will allow more time to finish exams without stress" (P 1).

learning engagement

Participants viewed their learning experience as a dynamic and engaging process. This was implied as:

"During the pandemic, the educational techniques used shifted predominantly to online platforms. We had virtual OSCEs (Objective Structured Clinical Evaluations), utilized Elsevier clinical skills modules, engaged in case studies, and worked on clinical concept maps" (P7).

"After COVID-19, learning outcomes and strategies were primarily identified through face-to-face interactions. In-person discussions, hands-on practice, and immediate feedback from instructors facilitated a better understanding of the learning objectives. However, during the pandemic, learning outcomes and strategies had to be redefined to suit the online environment(P3)".

Clinical practice during and after COVID-19

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Participants viewed their clinical practice during COVID-19as fulfilling the specific clinical objectives and had the opportunity to apply theoretical knowledge into practice with the available resources that time, as declared in the following quotes:

"I can see the clinical ...ammm [...], very important but partially I achieved the course objectives even during COVID-19 and continued following the hospital precautions" (P10).

"In my opinion, attending clinical rotation physically even during a pandemic is crucial, to attain a hands-on skill and practice" (P4).

IV. Discussion

Overall study findings revealed that students' learning experience during and after the COVID-19 pandemic described the transactional mode of learning from online to offline, which was affected by technological capabilities and internal and external challenges. Moreover, the challenges and opportunities of various learning modes faced during both learning experiences expose the advantages, disadvantages, and influential factors of online and off-learning stress. Furthermore, participants perceived learning experiences during and after COVID-19 as advanced online sessions, supporting learning engagement and achieving clinical practice objectives.

The research findings showed that participants' learning experience of COVID-19 declared the role of technological capabilities (channels of interaction, communication) and the internal and external challenges they experienced during COVID-19, which enhanced their communication and allowed the students to have the opportunity to use recent technologies and platforms. Therefore, improve the instructor interaction and receive direct feedback via online sessions. Kian (2014) emphasized that the educator and the learner can communicate with each other through the tools and equipment provided by technology. Also, UNESCO (2020) reported that the e-learning method is one of the most crucial educational environments, as it can be a proper alternative to face-to-face training during an outbreak of infectious diseases.

Meanwhile, despite the technological development, some participants still preferred offline learning as a desired way to contact the instructors. This aligns with a study conducted by Mousavizadeh (2022) to examine the views and experiences of nursing students regarding quality, quantity, e-learning challenges, and solutions, and the findings showed that the students prefer face-to-face learning to e-learning another aspect emphasized was that the traditional education system is a system they know and are accustomed to, and a complete change is not a profitable option for anyone.

The current study discovered that the bachelorette nurses' students disclosed the advantages and disadvantages of online and offline learning experiences due to the COVID-19 pandemic, and they explained different influential factors that affected both online and off-learning stress. They pinpointed the advantages of the online session as easy and accessible at any time, anywhere, especially the recorded ones; they got to practice more activities. The offline benefits and advantages are shown by viewing the classroom as a positive environment that helped their progress and assisted them become more responsible and disciplined to be prepared for the session. Virtual learning provides benefits within academia and the community. Students can better communicate with clinical faculty and stakeholders through digital platforms (Manakatt et al., 2021).

On the contrary, the offline method exhibited disadvantages, and participants described physical attendance as a mandatory task. Online learning caused mixed experiences for them as there was a sense of unease and unfamiliarity with the new learning format. It was challenging to replicate the hands-on experience. The literature showed that the pause of clinical education is disastrous for nursing students and can cause students to worry about their insufficient clinical skills and how this educational interruption will be compensated, which subsequently causes more stress (Aslan & Pekince, 2021). Joseph et al. (2022) conducted a study to examine the impact of COVID-19 on nursing students and the stress on nursing students; they concluded that 27% of students had Impact of Events Scale-Revised (IES-R) scores IES-R scores above 33, indicating a high risk for posttraumatic stress disorder. Moreover, this aligns with this study's findings, and participants stated that their stress and concerns developed due to the transition between online and offline learning.

In line with the University of Bahrain's initiatives during the pandemic, the College of Health and Sport Sciencesdesigned advanced online sessions during COVID-19 through perceived learning support and engagement for students engaged in health sciences studies. Compared to the global perspective, Kanagaraj et al. (2022) assessed the nursing students' satisfaction with the virtual learning experience during the COVID-19 pandemic in selected nursing colleges in India. The result showed that most students rated their satisfaction level as being "good" in virtual theory classes and "moderate" in virtual practical learning; most were dissatisfied with virtual education's technical and environmental dimensions. These results call for blended learning strategies to be designed to enhance learning outcomes and ensure a deepened satisfaction level with virtual learning activities.

Research participants uncovered facts about their clinical experiences during COVID-19 and after the pandemic. Clinical attendance was reassumed and not paused during and after the pandemic, which allowed them to gain skills, practice, and competencies. However, some competencies were affected during the pandemic and verbalized as (having a limited role) due to hospital restrictions and precautions. Clinical education is a basic need for medical students, especially nursing students, and cannot be replaced by other methods; thus, face-to-face clinical education is necessary for nursing students during the COVID-19 pandemic (Ramos-Morcillo et al., 2020).

V. Conclusion

The findings of this study support the need to continueupdating and developing both modes of study in nursing educations that students can be equipped in the transitional stage effectively and smoothly. Nursing students expressed their views about the overall experience as beneficial with many advantages, while some challenges and disadvantages also existed. Integrating theory into practice with the effective use of various learning tools in offline and online modesis essential in facilitating students' learning experiences. The result of this study would help nursing educators to be ready always to shift the curriculum and mode of study easily through well-structured and designed strategies for efficient andeffective clinical teaching experience. In faith to provide expert and competent future nurses, developing and implementing innovative teaching and learning techniques is mandated.

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