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# Perceptions of nursing staff and students regarding attrition: a qualitative study

<https://doi.org/10.1515/ijnes-2023-0081>

Received August 6, 2023; accepted January 19, 2024; published online February 2, 2024

## Abstract

**Objectives:** This research aims to explore the perceptions of nursing students and directors of bachelor of nursing degree courses regarding reasons for attrition amongst nursing students.

**Methods:** A qualitative descriptive study was conducted using inductive thematic analysis. The study included a purposeful sample of 12 students and 4 directors of bachelor of nursing degree courses.

**Results:** As reasons for attrition, the directors highlighted a lack of preparation for nursing studies and students' limited awareness of possibilities for support and learning. The students emphasized insufficient support from academic staff and poor course organization. Economic and family issues and a misunderstanding of the professional role of a nurse were cited as reasons by both directors and students.

**Conclusions:** The findings provide important insight into attrition in the nursing programme. Further research is warranted, particularly in other contexts. Addressing student attrition requires a comprehensive approach that includes the provision of adequate support systems, mentorship, and resources for students.

**Keywords:** students; nursing; student drop-out; academic failure

## Introduction

According to Jeffreys [1], attrition refers to the number of students who enrolled in a nursing programme but did not complete it. It has been similarly defined as the difference between the number of students who begin the cohort and the number of students who complete it [2]. The attrition rate in nursing programmes is an important issue for students, universities, and the health system in general. Students who graduate late may waste their time [3] and harm their university's reputation or assignment of funds [4, 5]. Attrition also has social and health system impacts. At the social level, attrition can directly affect family expenditures, as students who complete their programme late may require more economic resources from their family to cover university fees [6]. Furthermore, in combination with the retirement of older nurses and the expansion of nursing roles [7], attrition contributes to the nursing shortage [8] at the sanitary level.

The importance of attrition is widely recognized in the literature. Despite the many studies on this phenomenon, the international perspective has not been fully developed. There is a lack of definitive information about attrition in nursing courses, and studies have reported varying rates. For example, Fowler and Norrie [9] have reported attrition rates of approximately 25–30 % in the United States, Australia, and the UK, while the European Commission et al. [10] have found a 33 % attrition rate, and Palese et al. [11] have identified a retention

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failure rate of 19–20 %. Meanwhile, Bulfone et al. [12] have presented a rate of 7.3 %, and Dante et al. [13] have given a range of 35–37 %. This variability in attrition rates at the international level is due to a lack of consensus on the definition of attrition as well as an inadequate understanding of the specific reasons for attrition. Palese et al. [11] have suggested that the primary reason for attrition is that students realize during their programme that nursing is not the right profession for them. Other factors, such as family commitments or financial problems, may also contribute to students leaving the programme [14–17].

A qualitative study design can provide in-depth knowledge about the motivations behind attrition in addition to insights from both students and academics. Such a study can be valuable for developing a theoretical framework and identifying other variables within this complex phenomenon. In a previous qualitative study, Canzan et al. [18] have explored reasons for leaving a nursing programme and found that the first clinical placement experience played a significant role in the students' decision to withdraw. Therefore, the present study aims to analyse the perceptions of both students and directors of bachelor of nursing degree courses regarding reasons for attrition amongst nursing students. By gathering data from multiple stakeholders, this study seeks to provide a comprehensive understanding of the factors influencing attrition in nursing education.

## Methods

### Aim

The aim of the present study is to explore the perceptions of students and directors of bachelor of nursing degree courses regarding the causes of attrition amongst nursing students.

### Study design

This qualitative descriptive study employs thematic analysis based on the framework developed by Braun and Clarke [19]. Thematic analysis allows for a detailed exploration of data capturing complex and nuanced information. It involves identifying common threads and patterns that emerge across interviews by using an inductive approach to generate categories and themes [20]. In the present study, categories were derived directly from the interviews by coding them according to theoretical concepts from the literature [19]. To ensure quality reporting, the researchers adhered to the Consolidating Criteria for Reporting Qualitative Research (COREQ) checklist developed by Tong et al. [21], which serves as a guide for comprehensive and transparent reporting of qualitative research.

### Research team and reflexivity

The interviewer (A.D.) was a PhD research fellow in nursing and expert in qualitative research. Two researchers (R.M. and G.B.) with four years of experience in nursing, qualitative research, and education assisted with the interviews by observing nonverbal expressions and recording field notes behind the screen. The participants were informed about this procedure.

### Sample

Purposive sampling was conducted in October 2020 amongst students and directors of bachelor of nursing degree courses at one Italian university with a central headquarters and 21 peripheral sites. The directors were nurses with the highest education level (Master of Science in Nursing or PhD) who might be teaching a nursing degree course but had the main role of planning the lessons and internships of students according to the university's instructions. The inclusion criterion for directors was at least three years of experience in this specific role. Four directors were interviewed. In addition, interviews were conducted with 12 students, of whom four were currently enrolled and on track with their programme, four were delayed in their completion of the degree, and four had left the nursing programme. The choice to include on-track students, students with a delayed graduation, and students who had left the programme ensured a rich perspective of the reasons for attrition.

For safety reasons related to the COVID-19 pandemic, the research used a Voice over Internet Protocol (VoIP) system. With this technology, voice calls can be made using a broadband internet connection. Hence, each director or student met with the interviewer virtually face-to-face in a video-call session. To preserve the privacy of participants, the interviews were exclusively audio-recorded, and field notes were recorded to capture the nonverbal aspects, as described above. The declaration of consent and the interview session were audio-recorded separately for each participant to protect their identity.

## Setting

The interview setting was freely chosen by each participant. However, they all opted for their office or, for some students, their home. Every director or student was alone in their office or home during their interview.

## Procedures

Each interview focused on the experiences of the director or student in relation to students' reasons for leaving the programme. The interviews with directors were guided by two open-ended questions: "In your experience, what are nursing students' reasons for leaving the course?" and "Can you tell me about some experiences with student attrition?" Meanwhile, the interviews with students asked, "In your experience, what are the reasons for leaving the course?" and "Have you ever considered leaving the programme? If so, why?" The socio-demographic characteristics of the participants were also collected.

All interviews were transcribed verbatim [22]. The duration of the interviews ranged from 30 to 60 min, and 107 pages of transcription were produced. The researchers discussed the saturation of the data, which was determined to occur when no new insights emerged [22].

## Data analysis

Thematic analysis was adopted to identify analyses and report patterns or themes within the data [19]. The data analysis considered both latent and manifest content [23]. The first step was inductive and driven by the research questions. Codes were collected under potential categories and themes or sub-categories and sub-themes by comparing the emerging coding clusters to each other and to the entire data set [19]. The researchers read and reread the responses line by line to gain a deep comprehension of the data. The researchers R.M. and G.B. performed independent reviews to assess whether the categories fit the content of the transcriptions. Furthermore, for an intra/intercoder check, the researchers compared the results and discussed the appropriate coding to enhance reliability. The research interviewer (A.D.) resolved any discrepancies to reach a consensus.

The second step in producing inductive codes entailed causation coding, which focuses on the mental models of what people believe about events and their causes [24, 25]. In this manner, each researcher independently compiled a list of codes and grouped the outcomes into categories and themes. The code generation process was discussed again amongst the researchers to ensure the trustworthiness of the data analysis. The researchers met on three occasions to evaluate whether the themes clearly represented the content of the data. Finally, the findings were organized into a map.

## Rigour of data analysis

Guba and Lincoln's [26] criteria for trustworthiness were used to ensure confirmability, credibility, dependability, and transferability. For transferability, a purposive sample was used to allow the findings to be employed in similar contexts. For credibility, the researchers assured their understanding of the data by asking interviewees for confirmation during the interviews (i.e., member checking). For dependability, a short report with information about the coding, categories, and themes was shared amongst the researchers to promote consensus, and disagreements were resolved as described above. Finally, confirmability was achieved by describing the research steps taken from the start of the research project to the development and reporting of the findings.

## Ethical issues

The research protocol was approved by the university's internal review board. All participants were informed about the aims and methods of the study and provided written consent to participate. Their participation was voluntary, and they could withdraw at any time. They were also assured of the confidentiality of the data.

# Results

## Characteristics of the sample

All of the directors were women between 50 and 63 years of age. Their years of work experience ranged from 4 to 17. Of the 12 student participants, 11 (91.6 %) were female, and the mean age was 24.8 (SD=2.74, range=20–28). Four

**Table 1:** Characteristics of students and directors of bachelor of nursing degrees.

Participants	Gender	Age (years)	Years of working
<b>Directors</b>			
DNBD – A1	F	63	4
DNBD – A2	F	50	8
DNBD – A3	F	53	17
DNBD – A4	F	63	8
<b>Students</b>			<b>Status in the programme</b>
St-A1	F	26	Delayed graduation
St-A2	F	25	Delayed graduation
St-A3	F	27	Delayed graduation
St-A4	F	23	Delayed graduation
St-B1	M	21	Left the programme
St-B2	F	26	Left the programme
St-B3	F	23	Left the programme
St-B4	F	20	Left the programme
St-C1	F	28	On track
St-C2	F	21	On track
St-C3	F	22	On track
St-C4	F	27	On track

DNBD, Director of Bachelor of Nursing Degree; St-A, student out of the programme or with a delayed graduation; St-B, student who left the programme; St-C, student currently enrolled and on track with the programme.

students (33.3%) were delayed in graduating, four (33%) were enrolled and on track with the programme, and four (33%) had left the programme (Table 1).

## Main theme 1: directors' perceptions of reasons for attrition

Four key themes emerged as reasons for attrition as perceived by the directors of the bachelor of nursing degree courses. These four themes are as follows: “lack of preparation for nursing studies”, “unawareness of future professional role”, “economic difficulties and personal issues causing attrition”, and “poor awareness of students regarding possibilities for support and learning” (Table 2).

**Table 2:** Description of themes in directors' perceptions of reasons for attrition amongst nursing students.

Sub-themes	Quotations
Lack of preparation for nursing studies	<p>A1. A cause of student is the heavy academic workload; students just can't manage the amount of study and have great difficulties in passing exams.</p> <p>A1. ...and the student's inability to study effectively. The student's study habits from high school are often inadequate; it follows that they have low scores in preadmission tests.</p> <p>A2. For academic workload, exams are very heavy to prepare, and their sessions are very close in time.</p> <p>A2. First, in the first year, many students have no knowledge of chemical, biochemical, and physical topics, and there is an exam in the first year that is very difficult to pass. Therefore, students without knowledge of these topics from high school have to take and retake the exam, so they become discouraged and leave the course.</p> <p>A2. About students that leave the programme, there are many problems in nursing courses because they cannot manage deep learning because of the inadequacy of their study habits.</p> <p>A2. I think that the major reasons are related to clinical placements and difficulty in combining theoretical and practical learning.</p>

Table 2: (continued)

Sub-themes	Quotations
Unawareness of future professional role	<p>A4. ...and the difficulties balancing theoretical and clinical learning together and the great academic workload.</p> <p>A2. Many students think that, to be a nurse, it is important to have technical skills and not critical thinking, clinical judgement, and knowledge, showing a stereotypical image of nurses.</p> <p>A2. We do a lot as a university to orient students in high school who want to become a nurse; however, students are not very certain of what they want to do when they grow up.</p> <p>A2. The students often have expectations in relation to the job opportunities and a secure monthly income as a first motivation to be a nurse.</p> <p>A3. Many students do not want to take a nursing degree because their first choice was something else; however, they attend some theoretical lessons to help pass the pre-entry test in the next year and to join the desired course and to request the recognition for passing exams.</p> <p>A3. The problems are evident in their first clinical placement when the students are faced with the real role of a nurse and realize that it is not for them.</p> <p>A3. Many students think that it is enough to do a clinical placement, to perform skills, and not to have the ability of critical thinking, clinical reasoning, clinical judgement, clinical decision-making...</p> <p>A4. Most students attend the first year of a bachelor of nursing degree without knowing the role of a nurse. They often think of their role as physician assistants. However, their focus is on the patients and their needs, and most of the time is spent in relation to the patient and as a caregiver. The nurse collaborates with the physician but focuses on the patient and his/her response to the disease. It is very dangerous to choose a bachelor of nursing degree without knowing anything about nurses. This is a frequent reason for attrition.</p>
Economic difficulties and personal issues causing attrition	<p>A1. Off-site students have to think about their everyday chores at home; they have a series of tasks that take away their study time.</p> <p>A1. Many students must work for economic reasons or must take care of family.</p> <p>A2. I remember a student who experienced abandonment by her father, and economic problems meant she left the course.</p>
Poor awareness of students regarding possibilities for support and learning	<p>A1. Some of them wandered into the course and paid taxes. Sometimes, we don't even see them anymore, and they don't even tell us what happened or if they decided to leave or not. Often, we have to search for them.</p> <p>A2. Often, the student goes missing from the ... course, and we cannot find out what they need.</p> <p>A4. When a student leaves the programme, we often do not know their situation; we have to look for them and pursue them ... they do not search for help.</p> <p>A4. Students attending the bachelor of nursing degree may be very unsatisfied because the clinical placements are sometimes insignificant ... with no opportunities related to learning outcomes.</p> <p>A4 ...in the clinical placement, they had little support ... and lose learning opportunities.</p>

### Sub-theme 1.1: lack of preparation for nursing studies

According to the directors, students had difficulty studying because their high school education did not equip them with sufficient knowledge of the subjects necessary for nursing studies. Additionally, the directors mentioned inadequate study habits as a factor contributing to students' challenges. They reported that the workload in university differs significantly from that in high school, particularly in terms of the quantity. A majority of the interviewees observed that many students entered university with gaps in their knowledge, especially in subjects such as chemistry, biochemistry, and physics, which hindered their progress in the nursing programme (Table 2, quotations A1 and A2). The directors also remarked on students' difficulties in deeply

engaging with their studies and establishing strong connections between subjects. They emphasized the need to prioritize the integration of theory and practice, which requires comprehensive study and reflection. Students who scored low on the pre-admission test and struggled significantly to meet the demands of the nursing degree often found themselves contemplating dropping out (Table 2, quotations A1, A2, A4).

### **Sub-theme 1.2: unawareness of future professional role**

Participants noted that students had not always been fully aware of the implications of being a nurse when they first chose to pursue a nursing degree, and some students did not have a strong motivation to be a nurse. Additionally, participants stated that some students continued to have doubts or be confused about the role they would assume upon becoming a nurse. Students frequently thought that nurses provide bedside care, are submissive or subordinate to doctors, and focus solely on patient assistance. However, during their first clinical placement, they often developed a more accurate understanding of the nursing role and realized that being a nurse was not a suitable profession for them (Table 2, quotations A2, A3, A4).

Interviewees also reported that many students chose nursing because they thought that the high demand for nurses would make it easier to find employment. Alternatively, they might have been unable to pass the selection process for other courses, such as medicine or physiotherapy, and enrolled in nursing courses with the objective of later transferring to another field (Table 2, quotations A2, A3).

### **Sub-theme 1.3: economic difficulties and personal issues causing attrition**

Another theme that emerged from the interviews was that economic difficulties and personal issues were further causes of student attrition. The directors noted that, for some students who did not reside on or near the campus where the nursing degree programme was offered, additional obstacles to success that contributed to attrition included logistical issues, such as commuting long distances, coordinating transportation, and effectively managing their time (Table 2, quotation A1). Furthermore, the participants underlined that many nursing students had financial obligations, including paying tuition fees, covering living expenses, and supporting their families, and balancing these financial commitments with the demands of the nursing degree programme became overwhelming for some of them. Additionally, when students had family responsibilities – for example, caring for children, elderly parents, or other dependants – it became more challenging to fulfil their study requirements (Table 2, quotations A1, A2).

### **Sub-theme 1.4: poor awareness of students regarding possibilities for support and learning**

During the interviews, the directors emphasized the lack of awareness amongst nursing students regarding opportunities available to them and how to effectively seek, utilize, and benefit from support systems and resources, such as tutoring and academic advising, that were available to them. As a result, students often failed to make full use of these support systems, which hindered their academic progress and overall learning experience (Table 2, quotations A1, A2, A4). The directors also noted that clinical placements did not adequately benefit student learning and professional development. This problem could be attributed to various factors, such as the limited exposure to diverse patient cases and inadequate guidance and supervision during clinical rotations. Consequently, clinical learning experiences did not align with the expectations and requirements of the nursing programme, which led to insignificant learning experiences and missed opportunities (Table 2, quotation A4).

## **Main theme 2: nursing students' perceptions of reasons for attrition**

Four key themes emerged from nursing students' perceptions of reasons for attrition: "lack of support from academic staff in clinical placement and academic needs", "poor course organization as a reason for dropping out", "students' motivation and understanding of their future professional role", and "economic and family issues as causes of attrition" (Table 3).

**Table 3:** Description of themes related to nursing students' perceptions of reasons for attrition.

Sub-themes	Quotations
Lack of support from academic staff in clinical placement and academic needs	<p>A1. I had no good experience in my difficulties when I contacted the mentor for some information. I sent an email, but the mentor did not respond...</p> <p>A1. I went to the mentor's office, and I read in his paraverbal communication a rude expression...The mentor was very busy, but I needed his support...</p> <p>A1. We were too much for any clinical placement. In what way can the nurse guide us? Too many students and low learning opportunity...</p> <p>A2. I needed some information, but I do not know the secretary's office hours...I called by telephone, but no one responded...</p> <p>A2. The nurses left us often and willingly: 'Go, do it!' once, there was a lady who complained of a bowel ache. The nurse gives me the enema and tells me to go! I had never done an enema! I had no idea! Luckily, there were some aides who helped me! I could do damage...to the patient!</p> <p>A2. We understood that clinical placement was very difficult because there were many sad stories that you struggle to forget ... you think about it even at home, and it is difficult to try to maintain a healthy detachment.</p> <p>A3. Why did you go there, asking for information, advice, something; they weren't very jovial! Sometimes even with rude ways. I understood them also because maybe they went there 50 times a day to ask him the same thing.</p> <p>A3. But, uh, it was really my problem; maybe I took things too personally. It hurt me to see people like this. I don't know because anyway I lived my childhood in the hospital practically, so I thought I was stronger! Instead, I can't.</p> <p>B2. I come from a peripheral site...and the mentor said to me that he does not have information...but to contact the central site was impossible...they did not respond to the telephone...to the mail...</p> <p>C2. Sometimes, I entered the mentor's office to get information, but I understand that there are some particular situations...of hard work for him...and the mentor gave no full attention to my needs.</p>
Poor course organization as a reason for dropping out	<p>A1. For exams, we prepared on lesson content, but for the exams, the teacher asks questions about other content...</p> <p>A1. What is the teacher doing to us? What is he teaching us? I do not understand what utility these lessons can have. There are no nurse interventions or any discussion. I do not need to know about the pathophysiological process about a problem or not – only about what a nurse can do about the problem...</p> <p>A3. I went out of the course and delayed graduation because there were only a few occasions to do exams. I know that in other universities, there are many other occasions during the academic year. If you do not pass the exams, it sometimes happens that you must wait for the next.</p> <p>A4. At the beginning, I attended the clinical placement a lot – very regularly. Then, there were times when maybe the exams took away time from the internship. Therefore, it was difficult following clinical placement and exams. So, I found myself making a choice because the exam sessions were only a few.</p> <p>B1. Exams that difficult! There are certain impossible tests! Anatomy I have taken eight times! There are people who have had to take hygiene as many times. Very difficult, based on luck ... the mood of the teacher, not the study done.</p> <p>B3. The nurses in clinical placement explained to us, 'No, it's not like that!' There was something wrong...in comparison to lessons...and so I was left with this confusion; er, it was bad, bad my path...</p>
Students' motivation and understanding of their future professional role	<p>A1. Maybe a person realizes that the road is not theirs. You might become aware that being a nurse one day requires so much headspace, so many responsibilities, so much clinical and psychological preparation that he feels a little overwhelmed, right?</p> <p>A1. In the future, we are alone with a patient, and we must know what to do...it's very high responsibility...we can damage the patient...I felt overwhelmed...</p> <p>A3. So, I have to tell the truth! I entered the degree course as one person, and I came out completely another! I understood the sense of duty, of responsibility; it's you in that moment, and that's it! And all this falls on you: the duty, the commitment, the right. I say</p>



Table 3: (continued)

Sub-themes	Quotations
	<p>the right because the right of other people is us who must keep it! Because they can't! And this changes you; you become another person. But because you acquire new skills, both on a professional level and on a personal level, mmm you grow! Even if you don't want to, you grow up! I believe this prevents many people from continuing.</p> <p>B3. I started casually. In reality, maybe I realized that maybe I don't want to be a nurse!</p> <p>B4. But then going on with the course, you realize that, yes, today is not my responsibility, but tomorrow, yes! So, I have to commit today to avoid problems tomorrow is difficult!</p> <p>C1. But many students entered into a nursing degree only because it was less difficult than physiotherapy...and, at the same time, they performed some exams in common with the physiotherapy degree.</p> <p>C1. During the internship, for example, I found difficulties! I could not do what they asked me. Or, during the lesson, I remember that often it was insistently told the great responsibility that this work entailed. This idea also influenced me a little in my internship, and therefore it was holding me back!</p>
Economic and family issues as causes of attrition	<p>A1. My husband was transferred to work in another city. Therefore, I did not have anyone to help me with my daughter. Also, my parents were in another city.</p> <p>A2. I must pay for travel to go to the clinical placement very far from my home, the taxes, books...many problems.</p> <p>A3. I was in difficulty; my mother was ill...I should study, but she was very needy for my help.</p> <p>C3. I must work because in our family there are many economic problems...I couldn't face it all.</p> <p>C4. Everything was going well...and I knew at the best of being pregnant...how did I do? I asked to continue with the part-time path...but it only exists in the regulation... nothing done!</p>

### Sub-theme 2.1: lack of support from academic staff in clinical placement and academic needs

During the interviews, some students highlighted a lack of support from academic staff, particularly in relation to their clinical placement and academic needs. They perceived the academic staff as excessively busy and not giving proper attention to their requests. This situation was considered detrimental to their progress in the nursing programme (Table 3, quotations A1, A2, A3, B2, C2). Some students also observed poor organization of clinical placements, which resulted in insufficient guidance in their learning. In clinical settings, the students found that the nurses who were responsible for supporting them were overwhelmed by their own workload. As a result, the students struggled to identify learning opportunities. The busy schedules of the nurses made it difficult for them to provide guidance, and the students were sometimes assigned to perform clinical skills on patients without adequate supervision, which raised concerns about patient safety (Table 3, quotations A1, A2).

The aspect of emotional involvement during clinical placement was also noted. The emotional stress experienced by some participants was intensified by their exposure to challenging patient histories and clinical situations and could be overwhelming. Constantly thinking about patients' histories and clinical situations could lead students to question their ability to pursue a career in nursing (Table 3, quotations A2, A3).

### Sub-theme 2.2: poor course organization as a reason for dropping out

All participants reported concerns about the organization of exams and the relevance of the content taught by nurse teachers. They found that either the nursing aspects were not adequately explained and discussed or that the content of lessons diverged significantly from the knowledge required for applied nursing skills in clinical placement. Here, two aspects of course organization as a cause for dropping out emerged: "exam sessions" and "lesson content".



Regarding exam sessions, students expressed dissatisfaction with the limited opportunities to take exams, which resulted in significant waiting periods to retake failed exams. These waiting periods could impede students' progress and delay their overall academic advancement. Furthermore, the students found that the content of lessons was not particularly relevant to the questions on the exams. They believed that some of the exams were excessively challenging and made it difficult for students to achieve passing grades. Additionally, the timing of clinical placements and exams were not conducive to student learning. These factors could increase stress levels and discourage students, which might prompt them to consider leaving the course (Table 3, quotations A1, A3, A4, B1).

As for lesson content, the students emphasized the need for lessons that focus on nursing interventions and practical discussions rather than pathophysiological processes only. They recounted situations in which nurses in clinical placement contradicted the content of the lessons, which created confusion and frustration. The discrepancy between the lessons and the students' experiences in clinical practice had a negative impact on their learning and caused them to question their chosen path in nursing (Table 3, quotations A1, A3, A4, B1).

### **Sub-theme 2.3: students' motivation and understanding of their future professional role**

When starting the nursing degree, some participants found that the role of a nurse was ambiguous, which affected their motivation to pursue a career in nursing. Some admitted that they lacked genuine motivation to become a nurse, and their choice to pursue a nursing degree was accidental or based on misconceptions. Additionally, some students believed that nursing degree courses were simpler than other courses, and they saw the nursing degree programme as an opportunity to take exams that could benefit them in other fields of study (Table 3, quotations A1, A3, B3, C1).

Concerning the nursing role, students often had a significant revelation about the true role of a nurse during their clinical placement, when they became aware of the immense responsibilities involved in caring for patients. They recognized that, as a professional nurse, they would be entrusted with making crucial decisions for their patients, which could be overwhelming (Table 3, quotations A1, B4, C1).

### **Sub-theme 2.4: economic and family issues as causes of attrition**

The participants reported two main challenges related to their personal lives: economic issues and family commitments. Many students faced financial pressures; balancing work and education was challenging, imposed time constraints, and increased their stress levels. Financial constraints also limited their access to resources and opportunities that could enhance their educational experiences (Table 3, quotations A2, C3). Regarding family commitments, some students reported that they needed to care for children, elderly parents, or other family members. These responsibilities were stressful and consumed their time and energy, which made it more difficult to fully engage in their nursing education and be available for academic pursuits (Table 3, quotations A1, A3, C4).

## **Discussion and implications for an international audience**

The present study is one of the first qualitative studies in the Italian setting to explore the perceptions of bachelor of nursing degree students and directors regarding reasons for attrition amongst nursing students. According to the directors, students struggled to manage the quantity and quality of their studies because they had insufficient knowledge and study habits from high school. As a result, they often scored poorly on pre-entry testing (the entrance exam before going into the nursing programme) and might have to retake exams, delay the programme, or even drop out. These results are consistent with findings in the international literature, which acknowledges that students with low scores on these pre-entry tests are more likely to encounter academic difficulties [3, 27, 28]. To address these educational shortcomings, universities may offer specific courses early in the academic year. However, it may be beneficial to review the organization of these courses, including their content, duration, and timing. Furthermore, the bachelor of nursing degree programme in Italy has a duration of three years, whereas other countries, such as Spain, the United States, and Canada, have a 4-year programme. Therefore, Italian

nursing students have a comparatively shorter time frame to accomplish their learning goals. Considering this difference, it could be valuable to engage in an international or European discussion about the possibility of providing more time for educational programmes, in line with practices in other countries, to give students more time to acquire the essential knowledge, study habits, and skills.

Another aspect highlighted by the directors was that nursing students often lack awareness of the available support systems and the challenges, such as inadequate guidance and supervision, that they may encounter during their clinical placement. Colalillo [29] has found that failing to seek academic support or participate in faculty orientation and mentoring sessions was a factor associated with nursing student attrition. Furthermore, Parse's [30] theoretical framework emphasizes that trust between students and faculty and the ability for them to establish positive relationships are important factors associated with student success [31]. Therefore, it is crucial to prioritize an orientation programme in the first year of the nursing programme [32].

To address the aforementioned issues, academic nursing staff should ensure that students understand their role within the university and inform them about the options to seek support from academic staff when facing problems related to their programme. Additionally, students should be familiarized with the concept of the preceptorship model, which pairs students with experienced healthcare professionals to enhance their learning experiences. Efforts should also be made to improve the quality and relevance of clinical learning experiences. Such efforts could include providing students with meaningful and impactful opportunities to apply their knowledge and skills in real-world healthcare settings.

Finally, some themes that emerged from the directors' interviews appear to overlap with the students' perspectives. Specifically, as factors contributing to attrition, both directors and students noted a misunderstanding of the role of a nurse and low motivation to pursue a nursing career. According to Canzan et al. [18], students in nursing programmes start to grasp the true role of a nurse and begin questioning their motivation during their programme and particularly during their first clinical placement, when they become aware of the independent decision-making they will have to undertake as practising professionals. Glossop [33] and Kukkonen et al. [16] have identified this theme as the "wrong career choice". To support students in navigating these feelings, nursing programmes should prioritize the provision of appropriate guidance, mentorship, and supervision during clinical placement. To this end, directors of bachelor of nursing programmes should consider interventions that offer orientation and guidance regarding career choices for high school students [34].

The directors also emphasized the importance of genuine motivation as a requirement for pursuing a bachelor of nursing degree. Attrition can occur when students are not truly motivated and choose to pursue the degree solely because of job security or to complete exams for other courses in which they are more interested. The directors observed that many students withdrew from the nursing courses because of contingent problems, such as economic constraints or personal commitments. Likewise, the students mentioned facing financial difficulties and family obligations that limited their access to educational experiences and led them to consider leaving the programme. This finding is consistent with studies by Andrew et al. [14], Bakker et al. [15], Ten Hoeve et al. [17], and Kukkonen et al. [16].

The majority of nursing students perceived a lack of support from academic staff, particularly in regard to information sharing and coping with the emotional stress and inadequate guidance they experienced during their clinical placement. These findings align with literature emphasizing the impact of these factors on student attrition [11, 15, 17, 35]. Additionally, students reported perceiving the academic staff as rude. However, it is necessary here to consider the context of the data collection, which took place towards the end of the COVID-19 lockdown. At that time, maintaining social isolation was a priority, which could have influenced the students' perceptions. A particularly important perception of the students was that the lack of support during clinical placements was associated with increased stress.

Another significant aspect that students highlighted was the organization of the courses, particularly the exams and theoretical lessons. Students expressed that the content covered in theoretical lessons did not align with the content tested on the exams. They also referenced problems with the organization of exam sessions, such as limited opportunities to take exams and infrequent exam sessions, which could cause delays in their programme progress. These issues led students to believe that the university did not meet their expectations or needs. Such high levels of academic dissatisfaction can have a negative impact on student retention [36].

In Italy, course accreditation heavily considers the input of students, and academic staff should encourage students to participate in the Paritetic Commission to voice their opinions about the quality of the course [37]. Teacher-Student Paritetic Commissions, which are comprised of teachers and students, propose methodologies for detecting and evaluating the quality of teaching and raising specific concerns, also on the basis of the annual results of student questionnaires.

The present study has some limitations to acknowledge. First, the sample size was small, which is typical in qualitative research using a purposive approach to address the research question in depth [38]. However, the use of a larger sample could yield other results beyond the findings of this study. Another limitation is that the findings cannot be generalized due to the context-dependent nature of the factors that emerged regarding student attrition.

Nevertheless, it is worth noting that the current study provided a comprehensive view of the phenomenon of attrition by incorporating the perspectives of both students and directors who were directly involved in the nursing students' education. Despite the above limitations, this multi-perspective approach enriches current understandings of the challenges and issues surrounding student attrition while contributing valuable insights to the field. Further research should be conducted with larger sample sizes and in different contexts to help confirm and expand these findings.

## Conclusions

Student attrition in nursing education is a complex and multifaceted issue that encompasses various factors, including a student's sense of inadequacy about reaching learning goals, unawareness of the role of a nurse, economic and family problems, insufficient support from teachers, and poor course organization. These factors can contribute to the high attrition rates observed in nursing programmes. Addressing student attrition requires a comprehensive approach that includes the provision of adequate support systems, mentorship, and resources for students. Enhancing the quality and relevance of clinical learning experiences as well as improving the alignment between theoretical lessons and exams are crucial steps towards promoting student success and satisfaction. Additionally, addressing the financial constraints and personal commitments of students is essential to reduce attrition rates. Further research is warranted, particularly in other contexts, to deepen the understanding of factors which influence student attrition. Mitigating the challenges associated with attrition can create an educational environment that fosters student success and retention and encourages the development of competent and motivated nursing professionals.

**Acknowledgements:** This work was supported by the Centre of Excellence for Culture and Research in Nursing, Rome, Italy.

**Research ethics:** The research protocol was approved by the Internal Review Board of the university. All participants were informed about the aims and methods of the study. We requested written consent. Participation was voluntary, and directors and students could withdraw their participation at any time. They were also assured of the confidentiality of the data. The study was conducted in accordance with the Declaration of Helsinki.

**Informed consent:** Informed consent was obtained from all individuals included in this study.

**Author contributions:** Rocco Mazzotta conceptualization, formal analysis, investigation, Angela Durante data curation, investigation, methodology, Valentina Bressan methodology, supervision, Angela Cuoco investigation, methodology, Ercole Vellone funding acquisition, project administration, supervision, Rosaria Alvaro funding acquisition, project administration, supervision, Giampiera Bulfone conceptualization, data curation, formal analysis, investigation, project administration.

**Competing interest:** None.

**Research funding:** Centre of Excellence for Culture and Research in Nursing.

**Data availability:** On request.

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