




QUALITATIVE-EXPLORATIVE STUDY

Nursing Priority: the mental concept internalised by nurses and nursing students. A qualitative study.

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Findings:

This qualitative study explored how nurses and nursing students internalise and define the concept of nursing priority. Findings showed that about half of participants were unable to provide a clear or accurate definition of priority. Among those who did, nurses mainly framed priority in terms of urgency, whereas students emphasised relevance. Only a marginal proportion referred to interdependence among patient variables, indicating limited use of complex reasoning frameworks. Both groups identified patient needs and autonomy, along with observation and communication, as central elements in prioritisation, while psychological and contextual factors were rarely considered. Key challenges included patient complexity, simultaneous emergencies, communication difficulties, and organisational constraints. Overall, the findings reveal a substantial gap between theoretical models and clinical reasoning in practice, highlighting the need for educational and organisational interventions to strengthen conceptual clarity, decision-making skills, and the management of complexity in nursing prioritisation.

ABSTRACT

BACKGROUND: Setting priorities is a fundamental aspect of nursing practice; however, both nurses and students often struggle to define and apply this concept. Existing literature tends to focus on urgency, relevance, or missed care, overlooking the cognitive processes involved in prioritisation.

METHODS: This qualitative study analysed open-ended survey responses from 104 participants -68 nursing students and 36 nurses- from two universities and three hospitals in Northern Italy. A combined deductive and inductive content analysis was used to explore how nursing priority is internalised and defined, which elements are considered in its identification, and what challenges are perceived in its application. This study adhered to the COREQ guidelines.

FINDINGS: Approximately half of the participants were unable to accurately define nursing priorities. Among those who could, nurses most frequently referred to urgency, while students emphasised relevance. Both groups identified patient needs and autonomy, observation, and communication as key elements in prioritising patient care. Reported challenges included patient complexity, simultaneous emergencies, and communication difficulties. Few participants applied comprehensive frameworks, suggesting a gap between theoretical instruction and clinical practice.

CONCLUSIONS: The study highlights a widespread difficulty in conceptualising and operationalising nursing priorities, consistent with international findings. Educational and organisational interventions are needed to support nurses and students in managing complexity and improving decision-making. Enhancing conceptual clarity and reasoning skills in nursing curricula can reduce missed care, improve patient outcomes, and mitigate nurse burnout. These findings underscore the importance of updating educational models and clinical tools to better reflect the realities of nursing practice.

KEYWORDS: *Clinical Learning Environment, Academic Self-Efficacy, Nursing Students, Academic Success, Academic Failure*

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STUDIO QUALITATIVO ESPLORATIVO

La priorità infermieristica: un costrutto cognitivo interiorizzato da infermieri e studenti. Uno studio qualitativo.

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Riscontri:

ABSTRACT

Questo studio qualitativo ha esplorato come infermieri e studenti infermieri interiorizzano e definiscono il concetto di priorità assistenziale. I risultati mostrano che circa metà dei partecipanti non è stata in grado di fornire una definizione chiara e accurata di priorità. Tra coloro che ci sono riusciti, gli infermieri hanno prevalentemente fatto riferimento all'urgenza, mentre gli studenti alla rilevanza. Solo una minima parte ha richiamato l'interdipendenza tra le variabili del paziente, indicando un uso limitato di modelli di ragionamento complesso. Entrambi i gruppi hanno identificato i bisogni e l'autonomia del paziente, insieme a osservazione e comunicazione, come elementi centrali della prioritizzazione, mentre fattori psicologici e contestuali sono stati raramente considerati. Le principali criticità riportate riguardavano la complessità dei pazienti, le emergenze simultanee, le difficoltà comunicative e i vincoli organizzativi. Nel complesso, i risultati evidenziano un divario rilevante tra teoria e pratica clinica, sottolineando la necessità di interventi educativi e organizzativi per rafforzare chiarezza concettuale, capacità decisionali e gestione della complessità nella prioritizzazione infermieristica.

BACKGROUND: La definizione delle priorità è un aspetto fondamentale della pratica infermieristica; tuttavia, sia gli infermieri sia gli studenti spesso incontrano difficoltà nel definire e applicare questo concetto. La letteratura esistente tende a concentrarsi su urgenza, rilevanza o cure mancate, trascurando i processi cognitivi coinvolti nella prioritizzazione.

METODI: Questo studio qualitativo ha analizzato le risposte a domande aperte di un questionario somministrato a 104 partecipanti—68 studenti di infermieristica e 36 infermieri—provenienti da due università e tre ospedali del Nord Italia. È stata utilizzata un'analisi del contenuto combinata, deduttiva e induttiva, per esplorare come la priorità infermieristica venga interiorizzata e definita, quali elementi siano considerati nella sua identificazione e quali difficoltà siano percepite nella sua applicazione. Lo studio ha seguito le linee guida COREQ.

RISULTATI: Circa la metà dei partecipanti non è stata in grado di definire accuratamente le priorità infermieristiche. Tra coloro che ci sono riusciti, gli infermieri facevano più frequentemente riferimento all'urgenza, mentre gli studenti enfatizzavano la rilevanza. Entrambi i gruppi hanno identificato i bisogni e l'autonomia del paziente, l'osservazione e la comunicazione come elementi chiave nella definizione delle priorità dell'assistenza. Le difficoltà riportate includevano la complessità dei pazienti, la presenza di emergenze simultanee e problematiche comunicative. Pochi partecipanti applicavano framework completi, suggerendo un divario tra l'insegnamento teorico e la pratica clinica.

CONCLUSIONI: Lo studio evidenzia una diffusa difficoltà nel concettualizzare e operationalizzare le priorità infermieristiche, in linea con quanto riportato a livello internazionale. Sono necessari interventi educativi e organizzativi per supportare infermieri e studenti nella gestione della complessità e nel miglioramento dei processi decisionali. Rafforzare la chiarezza concettuale e le capacità di ragionamento nei curricula infermieristici può ridurre le cure mancate, migliorare gli esiti per i pazienti e mitigare il burnout infermieristico. Questi risultati sottolineano l'importanza di aggiornare i modelli educativi e gli strumenti clinici affinché riflettano meglio la realtà della pratica infermieristica.

KEYWORDS: *Ambiente Di Apprendimento Clinico, Self-Efficacy Accademica, Studenti Infermieri, Successo Accademico, Fallimento Accademico*

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BACKGROUND

Prioritisation is fundamental to nursing practice. Alfaro-LeFevre (1) emphasises its importance in all care settings for three primary reasons: 1) delays in care provision can have detrimental consequences for patients; 2) prioritising facilitates the identification of relationships among patient problems, enabling the development of safe and effective nursing care plans; and 3) allocating equal attention to all problems, irrespective of their significance, can prevent nurses from dedicating sufficient time to resolving priority issues essential for achieving care goals. Prioritisation in nursing involves categorising patient problems into those that require immediate action and those that can be deferred due to their nonurgent nature (1).

Recent literature has often conceptualised prioritisation primarily through the lens of unfinished or missed nursing care—that is, as a set of activities that are completed, omitted or left undone (2,3). In this view, prioritisation is observed as the outcome of nurses' decisions about which tasks to perform under resource constraints. However, this output-focused perspective risks oversimplifying the underlying decision-making process.

In reality, prioritisation is a dynamic cognitive process that begins with collecting and interpreting clinical information, constructing a mental representation (or frame) of the patient's overall situation, and then using this mental model to guide decisions about action or inaction (4–6). This process is influenced not only by clinical urgency or resource availability, but also by nurses' experience, values, emotions, and education (6). Understanding prioritisation as a complex, multi-stage process—rather than merely as the observable outcome of missed or completed care—provides a more nuanced foundation for research and education in nursing decision-making.

The nursing literature identifies four key approaches to prioritisation: (1) time-based (urgency), (2) relevance-based, (3) a combination of time and relevance, and (4) the interdependence of patient variables. Time-based prioritisation dictates actions according to external deadlines (e.g., a patient's desire to be dressed before visitors arrive), while relevance-based prioritisation focuses on essential actions, such

as pain relief, with relevance determined by either the nurse or the patient (Bowers et al., 2001; Hendry & Walker, 2004; Suhonen et al., 2018). Some nursing activities require both time and relevance considerations (e.g., pre-operative medication administration). Drawing on complexity science, Milani et al. (2024) proposed a framework in which time and relevance are interdependent, situated within a comprehensive understanding of the patient's clinical condition that incorporates both internal and external environmental factors. Within this framework, nursing priority is defined as "the variable that most likely affects all other patient-related variables." In practical terms, this means identifying the single patient issue (e.g., nausea) that, if addressed, will have the most significant positive domino effect on the patient's other interconnected problems (e.g., fatigue, loss of appetite, distress).

Recent advances in the psychology of reasoning and decision making further underscore that prioritisation is influenced not only by the objective value or urgency of care options, but also by how information is presented and processed, how events are interpreted, and how the nurse constructs the mental representation of the problem. Individual factors—such as previous experiences, personal reference points, reasons for choosing, thinking styles, and time constraints—significantly shape these decisions (Chai et al., 2021; Mazzocco & Cherubini, 2010; Roetzel, 2019). Dual process theories highlight that information processing in clinical settings is not always analytical and exhaustive (System 2 thinking), but often relies on intuitive, automatic, and heuristic processes (System 1), which are faster but potentially susceptible to cognitive biases (Evans, 2009; Kahneman & Tversky, 2012).

This understanding aligns with the complexity science perspective, suggesting that nursing prioritisation emerges from the integration of multiple, interdependent variables, rather than from linear or purely rational processes. Consequently, investigating how nurses and nursing students internally construct and apply the concept of priority can provide valuable insights for developing educational models and clinical strategies that better reflect real-world





decision-making and contemporary scientific knowledge (Milani et al., 2024).

This study aims to determine which of the aforementioned approaches is prevalent in nursing training and practice, and whether the concept of priority changes between education and professional practice. Such information is crucial for academic institutions and clinical organisations seeking to refine prioritisation practices and develop nursing theories that are aligned with current scientific understanding. Effective nursing prioritisation is essential, as it significantly influences patient outcomes (Milani et al., 2024).

Aims

The study explored the mental concept of nursing priority among nurses and nursing students to: (a) identify which definition of nursing priority from the literature that is conveyed in training and practice; (b) examine the elements considered in priority identification; and (c) identify perceived challenges in recognising priorities.

METHODS

Design and Sample

This exploratory qualitative study investigated the mental concept of nursing priority among professionals and students. A convenience sampling method was used to recruit participants. This method was chosen for its feasibility in accessing a diverse group of nurses and students from multiple institutions within a limited time frame. Based on a review of the literature on the concept of nursing priority, a psychologist developed a survey to investigate the mental concept of nursing priority, ensuring the formulation of appropriate items. The survey was reviewed and approved by a panel of clinical experts, nurses, and nursing educators. A pilot study with 10 participants (students and professionals) was conducted to refine the questionnaire. The final online survey was distributed to a mixed group of nurses from various clinical settings and students from different universities. The

study sample consisted of 68 nursing students from two universities and 36 nurses from three hospitals in Northern Italy.

Material and Data Collection

Following sociodemographic data (age, sex, years of experience, year of educational course, and place of work or study), participants were asked to respond to 4 open-ended questions, investigating the core themes that cover the three main objectives of the study. More specifically, the first question elicited the image that the participants associated with the nursing priority. It explored the most intuitive thoughts. As dual-process theories posit, intuitive thinking is an automatic and fast-thinking modality that responds to previous personal experiences (7–9). The question on the first associated image should automatically activate the experience-induced thought. The second question regarded a propositional description of the nursing priority. This question should activate more analytical thinking, which is slower and more exhaustive than intuitive thinking. These two questions are hypothesised to highlight the two main mechanisms underlying the evaluation of a nursing priority.

The third question asked which elements the participant usually considers when evaluating a nursing priority. Finally, the fourth referred to the difficulties participants encountered in identifying the nursing priority.

The research team initially contacted the presidents of the nursing bachelor's programmes and the nurse managers of the three participating hospitals to explain the purpose of the study and obtain approval for data collection. Following their approval, these key contacts distributed an email containing an invitation to participate and the link to the online survey, created using Google Forms. The link was distributed to students via university email lists and to nurses through internal hospital communication channels. The questionnaire was anonymous and participation was voluntary.





Data Analysis

A combined deductive and inductive content analysis approach was employed (10). The deductive analysis addressed the first aim (a): to identify the prevalent definition of nursing priority from the literature conveyed in training and practice. A categorisation matrix was developed based on definitions of nursing priority derived from the literature (AM, LS), highlighting four main categories: (1) urgency, (2) relevance, (3) urgency and relevance, and (4) interdependence. Two researchers (AM, EM) independently reviewed all responses, selecting data that aligned with the main categories. Coding discrepancies were resolved by discussion and, if necessary, consultation with a third researcher (KM). Inductive analysis addressed the remaining two aims (b) examining the elements considered in priority identification and (c) identifying perceived challenges in recognising priorities. Two researchers (AM, SL) independently coded the open-ended responses for each question, developing a coding framework to describe the content. Three researchers (AM, EM, and SL) then applied the framework to all responses, resolving discrepancies through discussion and, if necessary, consultation with a fourth researcher (KM).

Data collected through Google Forms were exported to a Microsoft Excel spreadsheet for organisation and cleaning. Qualitative content analysis was conducted manually by the researchers. All data were stored on a secure, password-protected server accessible only to the research team to ensure confidentiality.

Rigour

To ensure methodological rigour and trustworthiness, several strategies were employed throughout the study in line with established qualitative research standards. Credibility was enhanced by using investigator triangulation, where multiple researchers independently conducted both deductive and inductive content analyses. Any discrepancies were resolved through discussion and, when necessary, consultation with a third or fourth researcher. To further reinforce credibility and content validity, open-ended survey questions were developed by a

psychologist with expertise in cognitive psychology and concept formation, reviewed by a panel of clinical nurse experts and educators, and pilot-tested with a sample of the target population. Given the use of an open-ended survey with a fixed sample size, formal conceptual saturation was not a predetermined endpoint for data collection. However, the analysis of 104 responses yielded a rich and diverse dataset, allowing for a comprehensive exploration of the study's aims. Peer debriefing with the research team was used to validate the coding framework and thematic structure. The research team was composed of academics and clinicians with diverse backgrounds to ensure a comprehensive perspective. The team included senior nursing researchers with experience in qualitative methods (AM, LS), clinical nurses with direct experience in patient care and management (SL, EM), and a psychologist specialising in cognitive psychology and decision-making (KM), who developed the initial survey. This multidisciplinary composition enriched the data analysis and interpretation process. Confirmability was supported by maintaining a reflexive approach throughout the analysis, with researchers regularly reflecting on their own assumptions and potential biases. The use of direct quotations in the results section ensures that findings are grounded in the participants' own words. The dependability was addressed by thoroughly documenting the research design, data collection, and analysis procedures, allowing the study to be replicated or audited. Transferability was facilitated by providing detailed descriptions of the study context, demographics of the participants, and sampling strategy, allowing readers to assess the applicability of the findings to other settings. The study adhered to the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines to further enhance transparency and rigour.

RESULTS

In the following sections, all percentages reported for nurses are calculated based on the total sample of nurses (N=36), and percentages for students are based on the total sample of students (N=68), unless otherwise specified.





Sixty-eight nursing students with a median age of 24 years (range: 19–45) from two Italian universities and thirty-six nurses with a median age of 41 years (range: 24–61) from three Italian hospitals participated in the study. Among them, 78% of the nursing students and 72% of the nurses were female. The nursing students consisted of 26 first-year students, 12 second-year students, and 30 third-year students. The majority of the nurses had more than 10 years of work experience ($n = 22$), while six nurses had 7–8 years of experience, 5 had 4–6 years, and 6 had less than 4 years.

Categorisation matrix

The responses were analysed using the literature-derived categorisation matrix. Half of the participants (47% of nurses and 49% of students) did not provide an accurate definition of nursing priority, sometimes vague and sometimes without the basic elements of the meaning of the word “priority”. On this line, several participants (36% of nurses and 26% of students) provided responses that can be used for any nursing assistance, and not necessary for a priority (Nurse N67 and Students N41, N47: “A need to be met”; Nurse N60: “The care priority can be identified with a need that needs a specific response. The specific response is the delivery of a health care service that must be effective and efficient to provide a quality intervention.” Student N28: “Making the patient feel protected and listened to.” Some participants (8% of the nurses and 19% of students) mentioned the order of events (something that occurs before something else), but without making explicit the criteria useful to understand the priority issue (for example, student N105: the priority “Is to understand what is prioritised in a care process”; Nurse N62: “An activity that must be prioritised to ensure adequate and personalised care”). A minority (3% of nurses and 3% of students) did not define at all what a priority is, using the term priority to define it tautologically (e.g., Nurse N92: “Putting the patient's priority first”; Student N103: “A priority care need, for example, pain”).

The other half of the sample provides a clearer and precise definition of priority (53% of nurses and 51% of students). In particular, 28% of

nurses and 15% of students defined priority focusing on “Urgency”. In comparison, 14% of nurses and 31% of students referred to the “Relevance” category, and 8% of nurses and 6% of students used both “Urgency” and “Relevance” to describe their priority.

One response (corresponding to 3% of nurses) partially considered an interdependence-based frame, highlighting the importance of patient complexity in defining the priority and its intrinsic dynamics influenced by changing clinical conditions (Nurse N58: “Priority is synonymous with the urgency and importance of a treatment, therapy, or care process. Its urgency is often determined by the complexity of the patient, and can be reshaped at any time as clinical conditions change.”). However, it is not clear whether the definition considered the identification of that “variable that most likely affects all other patient-related variables” (Milani et al., 2024), so that when acting on it the nurse acts on all other variables. Furthermore, priority should be given to the emergent phenomenon that is embedded in the patient and defined by the interconnection of his/her internal and external variables. Interventions or activities that health professionals take, as mentioned by Nurse N58 (“synonymous with urgency and importance of treatment, therapy, or care process.”), are the consequence of the identification of the nursing priority and not the priority itself.

The initial image evoked by the term nursing priority.

When asked to identify the first image or concept associated with a nursing priority, both nurses (58%) and students (52%) mainly used a proposition rather than an image to describe it. Nurses tended to emphasise nursing activities or nursing interventions (44%) over patients' needs (30%), while students showed the inverse tendency, prioritising patients' needs and vulnerabilities (47%) over nursing interventions (32%). Only a minority of participants employed symbolic imagery (13% of nurses and 9% of students). Student imagery was more abstract (e.g., hourglass, iceberg), potentially representing urgency, importance, or hierarchical ordering. In contrast, nurse imagery was more concrete and often directly





related to patient conditions or nursing actions (e.g., a suffering patient, assisting with mobility and feeding).

Generally, responses addressed physical, psychological, and social needs, emphasising patient vulnerability and suffering, with urgency and relevance often implicit. This made it difficult to determine whether "pain" or "needs" were perceived as urgent or relevant from the nurse's or patient's perspective.

Elements considered in the identification of nursing priority

A content analysis of the third question revealed the elements considered in evaluating nursing priorities. Although overlapping themes emerged, distinct emphases also appeared. The category of elements reported with the highest frequency by both groups refers to "patient needs and autonomy" as the primary determinant of prioritisation (66% of the students and 54% of the nurses reported elements of this category). The prevalence of this category underscored its central role in guiding interventions. Other key elements categories reported by both groups with a high prevalence regard "observation and communication" (53% of students and 51% of nurses). Similar results are observed in the two groups, even if there is a lower prevalence in "Time and resource availability" (31% of nurses and 21% of students). Some differences emerged between nurses and students in two categories of elements: "patient's clinical condition" (59% of students and 36% of nurses) and "Use of assessment tools" (e.g., MEWS, Gordon's patterns; 21% of nurses and 7% of students). Lower attention was paid by nurses and students to 1) "Psychological and emotional factors" (10% and 16%, respectively) and 2) "Environmental and contextual factors" (5% and 3%, respectively). Finally, participants who defined priority in terms of "urgency" or "relevance" predominantly cited elements related to "patient clinical conditions" and "observation and communication". On the contrary, those unable to provide an adequate definition of

priority demonstrated a more heterogeneous distribution of elements considered relevant to prioritisation. Table 1 presents illustrative quotations and the abstraction process used to identify subcategories, general categories, and main categories in the analysis of elements considered for nursing priority identification.

Perceived challenges in the recognition of a nursing priority

Nurses (72%) and students (85%) identified similar challenges in recognising nursing priorities. These included patient complexity, communication difficulties, simultaneous emergencies, resource limitations, lack of information or skills, and organisational issues. However, the relative importance of these challenges differed between the two groups. Nurses primarily cited "patient complexity" (39%; for example, Nurse N19: "Patient with a complex clinical picture; resistance from the patient"), followed by "simultaneous emergencies" (31%) and "organisational issues" (25%; e.g., high workload, bad organisation in the department, teamwork). In contrast, students most frequently reported "simultaneous emergencies" (26%; e.g., Student N54: "Concomitance of multiple patient care needs, all of equal urgency"; Student N42: "In the case where the patient is in serious condition and all actions seem to be prioritised"), followed by "communication" (24%; e.g. Student N15: "To really understand what the person requires"; Student N20: "difficulty in communicating with the patient"), "lack of information and skills" (20%; e.g. Student N12: "Not having knowledge about possible complications of the disease or the care the patient needs"; Student N62: "Difficulty in mentally organising the information needed to prioritisation"), and "patient complexity" (12%). Organisational issues were reported by only 3% of students. Less frequently mentioned challenges in both groups included quality of life and psychosocial aspects, as well as a lack of encountered challenges in their experiences.





Table 1. Abstraction process of elements considered in the identification of nursing priority and related categories

Statements/quotations	Subcategory (elements)	General category	Main category
“the patient clinical condition and vital signs” (Student N. 21)	Heart rate, Blood pressure, Respiratory rate, Consciousness level, Vital signs	Vital signs	“Clinical condition of the patient”
“The severity of the risk posed by the patient, the speed with which a complication can arise, also in relation to the patient himself and the environment.” (Student N. 14)	Severity, Complication, Rapid deterioration	Risk of complication	
“The patient's age, main pathology, concomitant pathologies, and outcome.” (Student N. 24)	Presence of comorbidities, Surgical interventions, diagnosis, age	General clinical status	
“The patient's general clinical picture is considered, and once the needs are identified, they are classified.” (Student N. 30)	Needs identified through clinical observation and professional judgment; needs referred by patients	Needs	“Patient needs and Autonomy”
“First, the residual autonomy of the assisted person so that it can be preserved. And then, based on the need in question, goals are generated” (Student N. 6)	preserving the patient's residual autonomy, assessing the patient's ability to independently perform daily activities	Autonomy	
“I consider an initial assessment, the urgency of the patient's individual issues, and the time to resolve each of these” (Nurse N. 61)	Urgency of addressing life-threatening conditions, Critical situations	Time constraints	“Time and Resource Availability”
“Definitely the overall status of the patient and the resources I have available to obviate the priority of care.” (Student N. 32)	Human and material resources, Staff availability, access to necessary medical equipment	Resources availability	
“Everything. The gaze of the person in front of me, the eye (it is the mirror of the soul), the mouth rhyme, the posture, the shoulders, the temperature of the hands, the gait, the inclination of the head, the position of the hands. The whole body speaks. One must be able to	Body language, facial expressions, patient requests	Patient communication	“Observation and Communication”

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read.” (Nurse N. 95)			
“person's need/requirement, professional assessment of the clinical picture, organization of department work, team communication” (Nurse N. 77)	Collaboration, information sharing among professional	Team communication	
“The patient's level of worry, anxiety, and fear” (Student N. 4)	Anxiety, fear, stress	Emotional state	
“Symptoms, personality and its relational aspect” (Student N. 45) “patient well-being” (Nurse N. 67)	Assessment of psychological state, olistic approach, patient well-being, empathy	Psychological well-being	<i>“Psychological and Emotional Factors”</i>
“Patient's general clinical condition, state of consciousness, neurological objectivity, cardio-respiratory and hemodynamic parameters. Use of rating scales such as the MEWS assessing a clinical stability/instability and the nursing dependency index from the nursing perspective.” (Nurse N. 90)	Questionnaires Indexes, Scales	Measurement tools	<i>“Use of assessment and planning tools”</i>
“I assess the health status of the caregiver using Gordon models to find dysfunctional ones” (Student N. 105)	Gordon, Henderson, nursing process	Conceptual model	
“The light, the space around the person, the material needed.” (Nurse N. 70) “Characteristics of the subject and context” (Student N. 10)	Lighting, space, environment, physical surroundings	Environmental factors	“Environmental and Contextual factors”

Discussion

Nursing prioritisation is essential to avoid negative patient outcomes, increased mortality, nurses' burnout, and, more generally, to ensure a good quality of healthcare service (11).

According to the literature, urgency, relevance, the combination of urgency and relevance, and interdependence among all patients' variables are possible frames to define nursing priorities. The present research aimed to investigate which of these frames was conveyed the most in nursing practice or nursing education. The results showed that "urgency" and "relevance" are the most commonly used frames for identifying nursing priorities in practice and education. While "urgency" predominated in practice,

"relevance" was the prevailing frame in educational settings. However, approximately half of the participants were unable to articulate a precise definition of nursing priority: they offered images or concepts related to nursing interventions and nurses' responsibilities, where explicit elements of prioritisation were missing and potentially indistinguishable from routine care or from the actions required by the nursing professional profile. A lower proportion of participants reported words such as "before" or "first", suggesting the presence of the basic concept of priority. However, there was no explicit definition of the criteria necessary to decide which things (for example, nursing activities or patient problems) should be considered "first" or "before".





The difficulty in defining the nursing priority is consistent with international findings. Recent literature confirms that challenges in defining and operationalising nursing priorities are not unique to the Italian context but are present across various healthcare systems. For example, Stemmer et al. (2022) systematically reviewed unfinished nursing care and prioritisation decision-making in multiple countries, showing that similar difficulties are widespread and are linked to negative outcomes such as reduced job satisfaction and increased burnout among nurses (3). This is also in line with a global meta-analysis by Yuan et al. (2023), which demonstrated that high mental workload and prioritisation stressors are common among nurses worldwide, significantly impacting care quality and patient safety (12). Furthermore, a recent qualitative study in Finland by Hackman et al. (2024) found that the lack of structured support, protocols, and open discussion about prioritisation decisions in nursing homes leads to hidden phenomena of unfinished care and contributes to nurses' ethical burden—findings that closely mirror those observed in our Italian sample (2).

The most frequent challenges reported by nurses and students in our study—such as "simultaneous emergencies" and "patient's complexity"—echo international evidence suggesting that managing multiple problems or patients simultaneously is a pervasive issue. As highlighted by Yuan et al. (2023), high workload, complexity, and lack of clear prioritisation criteria increase the risk of missed care and stress for nurses globally (12). Our results further indicate that "time" and "relevance" are often insufficient criteria to identify priorities in complex situations. That reasoning about the interdependence of patient variables may facilitate more effective prioritisation (13,14). However, participants tended to perceive complexity as a series of independent variables rather than as a holistic, emergent property—an aspect also noted in the international literature (2,3).

This suggests a clear educational gap: both our findings and those from other countries indicate an urgent need for new conceptual models and theoretical frameworks to help nurses and students

navigate complexity. This need is addressed by new theoretical frameworks such as the Reasoning and Priority in Nursing Care (ReaP IN Care) model (Author 2025, under review), which redefines priority as the variable with the highest systemic influence, moving beyond simple urgency or relevance. For instance, nursing curricula could incorporate simulation-based training where students use "drawing reasoning", a visual mapping strategy central to the ReaP IN Care model, to externalize their thought process, identify interdependencies among patient variables, and explicitly justify their prioritization choices (Author 2025, under review). This approach would not only provide a concrete tool for managing complexity but also foster the analytical skills needed to reduce the ethical burden and improve care quality, as also advocated by Hackman et al. (2024).

Another critical point that should be considered in improving training and education is related to communication. This is indeed another major challenge, as also highlighted internationally, with a significant proportion of students reporting difficulties in understanding patient needs or responding effectively to their requests (12).

Finally, organisational management should develop strategies to address organisational challenges—such as workload and teamwork—reported by many nurses during the prioritisation process. For example, integrating visual reasoning tools, such as the "drawing reasoning" (Author 2025, under review), into team meetings and handovers can create a shared mental model, foster a culture of transparent decision-making, and reduce the individual cognitive burden on nurses. The convergence of evidence from different countries underscores that these are not isolated problems, but rather global issues that require coordinated educational and managerial interventions (2,3,12).

To the best of our knowledge, no previous studies have provided evidence on the mental concept of nursing priorities internalised by nurses and nursing students. The findings provide evidence of the need to improve education and training to reduce the phenomenon of missed care. However,





this study has some limitations. First, the sample size was relatively small, which limits the generalisability of the findings to all nursing students and professionals. However, it offers valuable insights that can help redirect efforts in both education and organisational management. Furthermore, the reliance on self-reported data presents certain challenges: (1) it may introduce biases, such as social desirability or recall bias, and (2) it may fail to capture implicit cognitive processes, which are central to decision-making.

This study highlights the need for continued investigation into how nurses and nursing students internalise and operationalise the concept of nursing priority. Future research should employ larger and more diverse samples across different healthcare and educational settings to enhance the generalisability of findings. Experimental and observational studies could further explore the implicit cognitive processes involved in prioritisation, overcoming the limitations of self-reported data. In addition, intervention studies are needed to evaluate the effectiveness of new educational models and decision-making tools aimed at improving priority setting and reducing missed care.

CONCLUSIONS

This study confirms that nursing prioritization is a significant challenge for both students and nurses, highlighting a gap between theoretical knowledge and clinical practice. The widespread difficulty in conceptualizing priorities calls for targeted interventions, as ineffective prioritization contributes to missed care, adverse patient outcomes, and nurse burnout. The key issues identified in this study can inform the development and integration of new theoretical models and reasoning tools within nursing curricula. Such advances could improve both the instruction and practical application of prioritisation skills in clinical and academic settings, a recognised priority in nursing education (15). Furthermore, healthcare organisations should implement management strategies that support nurses' clinical reasoning processes by providing adequate time, resources, and appropriate documentation tools, as

well as fostering interdisciplinary collaboration. Future research should move beyond self-reported data, employing observational and experimental designs to investigate the real-time cognitive processes of prioritization and to test the effectiveness of new educational and organizational interventions.

Declaration of generative AI and AI-assisted technologies in the writing process

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