



“Undergraduate students’ perceptions of learning nursing theories: A descriptive qualitative approach”

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ARTICLE INFO

Keywords:

Clinical practice
Nursing education
Nursing theory
Nursing students

ABSTRACT

Aim: This study examined undergraduate students’ perceptions of learning nursing theories and the contribution of these theories to clinical practice.

Background: Nursing theories are the foundation of the discipline. Students’ perceptions of learning nursing theories are under-investigated.

Design: This descriptive study used a qualitative approach with five questions survey and group narratives.

Methods: 163 first-year nursing students (female= 85%) participated in the study. Participants chose the best-fit theory to answer individually questions on the contribution of six learnt theories (McGill Model of Nursing, Self-Care Deficit Nursing Theory, Theory of Humanbecoming, Theory of Interpersonal Relations, Adaptation Model of Nursing and Theory of Human Caring) to their clinical practice. They discussed their answers in groups and provided group narratives.

Results: Responses of 163 participants showed no theory to be predominant. Narratives’ analysis revealed four themes: Pluralism in the view of nursing theories, Dualism in the view of nursing practice, Monism in the view of the person and Learning based on personal values and social context.

Conclusions: Students recognize the plurality of theories and the Person holistically. Teaching nursing theory in the undergraduate program should support the use of theoretical knowledge relevant to practice and promote its direct application during clinical training.

Tweetable abstract: This study examined undergraduate students’ perceptions of learning nursing theories using a qualitative approach. Narratives revealed Pluralism in the view of theories, Dualism in the view of practice, Monism in the view of the person and Learning based on personal values and social context.

1. Introduction

Educating undergraduate students on nursing theory helps them to develop appreciation of nursing values and acquire nursing knowledge (Chinn and Falk-Rafael, 2018; Jenkins, Kinsella and DeLuca, 2021). However, this teaching does not necessarily address students own beliefs and values of being and becoming a nurse (Jenkins et al., 2021).

The integration of nursing theoretical foundations in undergraduate and graduate nursing programs is essential to preserve the existence of the nursing discipline (Smith, 2019). The nursing discipline is described as a basic science (Barrett, 2017; Turkel et al., 2018) and recognized as both a professional and an academic discipline (McEwen, 2018). Nursing practice is defined as “the scientific art of using knowledge of unitary human beings who are in mutual process with their

environments for the well-being of the people ” (Barrett, 2002:51). Indeed, the nursing discipline considers the human being as a whole, in interaction with the universe and health (Barrett, 2017; Turkel et al., 2018). This interaction process is articulated in nursing theories and conceptual frameworks, which constitute disciplinary and scientific knowledge and are manifested within schools of thoughts. Schools of thoughts reflect different ontological and epistemological perspectives and methodologies for the development and use of disciplinary knowledge in practice (Barrett, 2002).

2. Background

Nursing theory teaching is considered as a mean for disseminating nursing knowledge into clinical practice (Chinn and Falk-Rafael, 2018).

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<https://doi.org/10.1016/j.nepr.2022.103325>

Received 21 January 2022; Received in revised form 24 February 2022; Accepted 8 March 2022

Available online 10 March 2022

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The relationship between the nursing discipline and the nursing practice should be updated by knowledge developed from within the discipline of nursing (Barrett, 2002; Turkel et al., 2018). Practice should inform theory and be the context where theory is validated (Reed, 2019). But there have always been concerns about a dichotomy between nursing theory and nursing practice (Lindell, 2019; McEwen, 2018). Many nursing theories are not suited to all nursing situations (Younas and Parsons, 2019). Direct care nurses and patients were often considered as recipients of knowledge developed by theorists, rather than participants in the construction of theories (Reed, 2019). Grand theories and models for example, use abstract terminologies that are not commonly used in nursing practice (Younas and Parsons, 2019). This is relevant as an example for Orem's theory that uses "self-care requisites" and "health deviations", or Watson theory that uses "carative factors", "practice of loving-kindness and equanimity", "caritas consciousness" and "transpersonal caring" (Fawcett and DeSanto-Madeya, 2012). The use of such terminologies by educators in classroom environment without a real use in clinical context, contributes to the gap between nursing theory and practice.

Mackintosh-Franklin (2016) stated that nursing education does not primarily aim to professionalize nurses, but rather to prepare graduates for operational functioning, skills development and knowledge required for a nursing workforce, rather than a nursing profession. Furthermore, some nursing research is now moving toward interdisciplinary research, away from discipline-specific theoretical foundations (Barrett, 2017; Grace et al., 2016). Students need to be aware of the unique contribution of nursing to healthcare, especially because they will be facing the challenges of working in an environment predominant by interprofessional collaborative groups, precision healthcare, e-science and big data. Nurses must share their nursing theoretical knowledge and perspective when working in interprofessional teams to ensure the quality of patient care (Smith, 2019).

Nursing must reconsider its theories and how they guide nursing practice in the current era (Jairath et al., 2018). Nurse scientists and educators are to participate in shared responsibility with health institutions and direct care nurses for improving and maintaining nursing standards of care (Mackintosh-Franklin, 2019), as well as promoting knowledge application (Thompson and Schwartz Barcott, 2019).

Complex health situations require critical reflection that involves the development of knowledge beyond preconceptions, towards an interpretation of own professional experience in an existing situation, along with a conscious analysis of theory and practice for improving practice in a new situation. To ensure critical reflection, nursing may need new practice approaches derived from the synthesis of its own theoretical foundations (Kuennen, 2015). The responsibility of nurse educators is to communicate to students the unique contribution of nursing practice to interprofessional patients' care and facilitate nursing knowledge use in clinical practice through critical reflection.

When the philosophical and theoretical underpinnings of nursing are not applied, the "unique contributions of nursing will be blurred" and nurses would make decisions that are not based on a nursing perspective (Yancey, 2015:275). For example, they would not consider patients holistically and would not carry a thorough assessment of patients' needs. They would instead focus on delegated tasks that are not in the scope of nursing practice.

Nurses are expected to be aware of the values and beliefs of their discipline to make informed decisions in a complex and challenging health care system (Yancey, 2015). Although nurses are expected to be aware of the conceptual foundations of their practice (Berbiglia, 2011; Turkel et al., 2018), they may not be using theories that underpin the nursing discipline (Scully, 2011).

To reduce this gap and encourage theory-guided practice, scholars have always focused on integrating nursing theories into the curriculum (Barrett, 2002; Lindell, 2019; Turkel et al., 2018).

Over the last 20 years, the number of theory-based undergraduate programs have been declining; maybe due to the complex nature of

nursing theories (Berbiglia, 2011), difficult use in practice and limited inclusion of all dimensions of care such as relationship building and context of care (Mudd et al., 2020). In addition, integrating nursing theories in curriculums, is at times delivered in isolated courses that are insufficiently articulated with practical training and with courses using knowledge from other disciplines. Fawcett recommends "using nursing discipline specific conceptual models and theories as the basis for all practical activities in nursing" (Butts, Rich and Fawcett, 2012:153) and using theories from other disciplines only in situation where it can improve students understanding of nursing theories (Butts et al., 2012).

Ideally, courses on discipline-specific knowledge would provide theoretical foundation for analyzing different clinical situations encountered in practice (Karnick, 2013; Lindell, 2019), thereby contributing to the safety and quality of the care (Karnick, 2013). It also provides future professionals with the ability to conceptualize self-knowledge as an integral part of their practice. It contributes to the richness of the program, the development of the scientific value of the discipline and its unique body of knowledge (Lindell, 2019; Yancey, 2016). Therefore, scholars continue to advocate for curriculums based on nursing theories, aiming to disseminate nursing values and knowledge in clinical environment and thereby establish theory-guided practice (Chinn and Falk-Rafael, 2018).

For helping students understanding theoretical knowledge that is essential for nursing practice, students need opportunities to discuss their own professional identity (Donohue-Porter et al., 2017). Students need to learn theory and develop skills, but more importantly they need to learn how to become a nurse. This can be achieved through students' engagement in understanding the realities of nursing practices and reflexivity. One way to help students develop their reflexivity is to give them opportunities to analyze a caring situation examining the theory, the evidence, their personal beliefs, their nursing values, their assumptions about practice, the context of care and the meaning of caring. Likewise, nursing educators should rethink how they generate nursing knowledge and how their own views, values and experiences influence their choices of teaching materials. They have the responsibility to prepare students for uncertainty and complex realities of practice through reflexive teaching (Jenkins et al., 2021).

In summary, it is argued that nursing educators should teach the foundations of the discipline and theory guided practice (Smith, 2019). Despite nursing theories being taught at all levels of education, nurses still lack solid knowledge on theories and report a nursing perspective marked by a holistic view of the person yet using a biomedical standpoint (Lindell, 2019). The literature lacks studies exploring the students' views on learning nursing theories and the impact of this teaching on students' competences and values.

Nursing scholars and educators can still test unconventional pedagogical approaches such as art-based learning to teaching nursing theories, but they also should rethink how their own views and experiences influence their choices of nursing theory teaching. They should use a student centered learning approach if they want to prepare nursing students for lifelong learning and engagement (Mackintosh-Franklin, 2016). Students' learning experience is to be considered as evidence and motivation for curriculum changes (Chinn and Falk-Rafael, 2018). Therefore, the experience of students learning nursing theories must be explored.

For creating a sustainable improvement in the learning experience and the environment of students, nurse educators are to examine the curriculum based on students' learning experience. In fact, students will value learning that considers the social context of the self, the academia and the clinical training environments in three phases, starting with 1) a self-orientation to valued learning, moving to 2) an engagement in learning experience through different context and 3) an acknowledgment of achievement (Smith, Grealish and Henderson, 2018). Thus, uncovering the experience of students who are engaged in the learning process will help nursing educators understand if learning nursing theories is meaningful to students, in terms of knowledge, professional

practice and personal view of nursing. Therefore, the purpose of this study was to examine undergraduate students' perceptions of learning nursing theories and the contribution of these theories to their practice.

2.1. Context of the study and institutional approach to teaching nursing theories

To describe our specific approach to teaching nursing theories and the setting of this study, it is important to note that educators support the need of teaching nursing theories at the undergraduate level. They consider that teaching several nursing theories would give students opportunities to integrate theories into clinical practice and expose them to a diversity of nursing processes. However, educators are still debating on the number of theories to be included in the curriculum, which theories to teach, whether to choose theories from one or two paradigms, whether to consider grand theories or replace them by middle-range or situation-specific theories. The current undergraduate program incorporates 13 nursing conceptual frameworks and theories, mainly in two theory specific courses. In the first-year autumn semester, students are acquainted with Henderson's Nursing Need Theory and start their clinical training. In the spring semester of the same year, six conceptual frameworks and grand theories are introduced. And finally, during the second-year, students learn six middle-range theories. Over the past decade and for actively engaging students in the learning process, a variety of pedagogical approaches was used, including group presentations, seminars with case-studies and flipped classrooms. However, the different approaches did not bring a higher satisfaction to teachers who witness students struggling to understand the abstract nature of theories and to apply theory-guided care plans.

3. Methods

3.1. Design

This study used a descriptive qualitative approach based on group narratives.

3.2. Procedure and context

A convenient sample was used. All students ($n = 272$) enrolled in the first year Bachelor program in the cohorts of 2018 and 2019, at HESAV, who joined the course on nursing theories during the spring semester, were invited to participate in the study. They were recruited at the end of the course and after a clinical training of six weeks in different areas and field of practice including general medicine, surgery, pediatrics and mental health.

This course on nursing theories is a stand-alone course, separate from other core teachings and given during the spring semester of the first undergraduate year. It introduces a total of six nursing theories/conceptual frameworks: McGill Model of Nursing, Self-Care Deficit Nursing Theory, Theory of Humanbecoming, Theory of Interpersonal Relations, Adaptation Model of Nursing and Theory of Human Caring.

A different teacher is assigned to each of the six theories. The course is organized in flipped classroom with group presentations on theoretical foundations and development of a theory-based care plan for one case-study per theory. Teachers illustrate to students how to apply each theory in practice using case-studies. However, the clinical instructors do not use this content with students during their clinical training, while they are caring for patients.

3.3. Data collection

Participants were asked to answer individually the following four questions, identifying one theory per question from the six theories learnt during the course:

1. Which theory/conceptual model best guides your professional practice and allows you to apply professional roles and skills?
2. Which theory/conceptual model would best assist you in planning your care activities within the nursing process?
3. Which theory/conceptual model would be most compatible with your values and personal views of nursing?
4. Which theory/conceptual model has opened-up new perspectives?

Additionally, participants were asked to answer the following fifth question:

5. In few words, what have you retained from each theory/conceptual model?

After answering the above questions individually, each participant was assigned to a discussion group of 4–7 participants. Then, students were asked to explain, compare and discuss their individual choices, perspective and attitude with other students of the same group. At the end of the discussion each group provided a narrative report with the key points discussed and relevant responses. Narratives were collected at the end of group discussions. The group discussions lasted on average 1.5 h.

The principal investigator and the co-investigator met twice to assess the progress of data collection and the data saturation. The study duration was 3 years.

3.4. Data management

Data were treated with the utmost discretion and was only accessible to the study researchers. All typed documents were stored on the university password-protected secure computer server. We identified participants by unique participation number and kept all identification data separate from the study data itself.

3.5. Data analysis

Percentages were calculated on answers related to question one to four. For the qualitative data, the research assistant imported the narratives in MAXQDA (Kuckartz and Rädiker, 2019) and saved each narrative as an individual document. The two investigators analyzed the qualitative data independently, using repeated reading and MAXQDA features. Data were condensed for content analysis using a categorical construction. Answers to each question were searched for ideas and recurrent significant terms or theoretical concepts such as self-care, adaptation and pattern. Terms frequencies, combinations of specific terminologies related to each theory were searched and identified. Word clouds were also used to identify recurrent terms and concepts. Similar recurrent concepts and ideas were coded and labeled. Coded data were aggregated and summarized. Categories were formed inductively through reasoning and looking for common features of codes and frequencies of occurrences for each code. Researchers based the final analyses on a common categorization.

3.6. Informed consent

Participation was voluntary. Students gave their consent to the use of data through their signed participation. They received verbal information and written email explaining that results would be analyzed anonymously and that they could revoke their consent anytime during the study. This study did not present any risk of physical or psychological harm to participants. Participants were advised to discuss with the investigators any ethical dilemmas or issues arising from the study or group discussions. They were also informed that they can address any concern directly to the Dean of nursing.

4. Results

The study participation percentage was 60%. A total of 163 first-year undergraduate students (female= 85%) from two consecutives

academic years, participated in the study. Group discussions and narratives writing lasted on average 90 min and generated 42 narratives.

4.1. Percentages

No nursing theory or model was predominant in the students' responses to the survey questions. Most students (40%) identified Orem's Self-Care Deficit Nursing Theory as the theory that best helps them in planning their professional activities, followed respectively by McGill's Model of Nursing (18%), Roy's Adaptation Model (11%), Watson's Theory of Human Caring (7%), Peplau's Theory of Interpersonal Relations in Nursing (5%) and Parse's Theory of Humanbecoming (1%). However, 18% of the students (n = 30) indicated that none of these theories is helpful for their practice (Table 1. Distribution of theories/conceptual models by undergraduate students answers to questions related to practice and nursing).

4.2. Derived narratives' themes

Analysis was generated from the narrative data of 163 participants in 42 groups. Results revealed that students retain conceptual foundations such as person-centered care, caring relationship, adaptation, co-construction of health with the universe and the person's perception of the disease. However, nursing theories are in their view not often operational in guiding their clinical practice. The narratives also showed that undergraduate students value opportunities of interaction and socialization with patients.

Four themes were generated from the qualitative analysis of the group narratives.

In their perspective on learning different nursing theories, students considered the importance of "Pluralism in the view of nursing theories", "Dualism in the view of nursing practice", "Monism in the view of the person" and "Learning based on personal value and social context".

4.2.1. Pluralism in the view of nursing theories. Students expressed the need for a plurality of theories in guiding their nursing practice. There was a clear absence of a predominant nursing theory across the data. None of the students chose a predominant theory to answer all questions. Groups referred to different theories when sharing their experience on learning nursing theories and the contribution of these theories to their practice.

[Group 40, Q3] specified that the choice of the theory "depends on the situation and the context".

When asked about the applicability of a specific theory, students referred to central concepts of multiple theories.

[Group 16, Q2] explained: "To conclude, for us none of these theories are complete. You would have to have a mixture of it." [Group 34, Q4]

specified "All. Each theory makes us think and see things from a different perspective".

Students used different concepts from different theories for describing their practice and approach to care. They retained general concepts but did not mention theoretical assumptions. They did not use theory specific language.

[Group 28, Q1] explained: "Theories are seen by our group as a support framework. It is important for us to practice according to our values and beliefs. We find it much more interesting to compile the talking points from each theory. This also allows for flexibility in adapting to the work environment and the clients we meet".

Students tended to favor theories with a structured approach to nursing assessment and care. [Group 17, Q1] verbalized discussing Orem's Theory: "Its care process follows a simple and detailed structure of unmet needs. We identify our different nursing roles and our actions / interventions, especially when talking about self-care." [Group 5, Q1] found Orem's theory "easier to understand than others because it is more structured, less mystical". [Group 27, Q2] stated on Roy's model: "The approach is very suitable for planning professional activities because the nurse uses data collection, goal setting and intervention implementation. In addition, she prioritizes her data collection from life-threatening emergencies to well-being".

It is worth noting that students did not seem to be concerned with the nursing diagnosis. The latter was almost absent from the student narratives and replaced by health problem or health goal, even though nursing diagnosis were used in care plans during the course.

4.2.2. Dualism in the view of nursing practice. Students described the nursing practice in two existing separate entities: 1) skills and 2) caring relationship. Nursing theory teachings seem to have highlighted the importance of building a relationship with the patient-family.

[Group 29, Q4] stated about Allen's Model: "We knew that the patients could accept or not the interventions chosen for their case, but we didn't think we could do so in direct collaboration with them." In addition, [Group 17, Q3] conveyed on Peplau's Theory: "The interpersonal relationship is at the center and this is what we would seek to have with our patients (relationship of trust). The patients would know when they needed help and the nurse would be available (Not the nurse who decides when and how to help). For us, the nurse is there to stand by the patients through their illness experience and not to direct them (unless they ask for it). In addition, the patient is the one who knows oneself best and not the nurse". For [Group 27, Q3] according to Watson's theory: "The nurse is personally involved in her relationship with the patient. This echoes the love/goodness value. In addition, she is interested in the spirituality of her patient."

However, students seem not to consider the nurse-patient-family

Table 1

Distribution of theories/conceptual models by undergraduate students answers to questions related to practice and nursing.

	1. Which theory/ conceptual model best guides your professional practice and allows you to apply professional roles and skills?	2. Which theory/ conceptual model would best assist you in planning your care activities within the nursing process?	3. Which theory/ conceptual model would be most compatible with your values and personal views of nursing?	4. Which theory/ conceptual model has opened-up new perspectives?
Self-Care Deficit Nursing Theory	32%	40%	16%	8%
McGill's Model of Nursing	24%	18%	25%	22%
Adaptation Model of Nursing	8%	11%	5%	12%
Theory of Human Caring	13%	7%	19%	14%
Theory of Interpersonal Relations	18%	5%	19%	12%
Theory of Humanbecoming	1%	1%	12%	10%
None of the 6 theories	1%	18%	5%	13%
All 6 theories	4%	0%	0%	10%

relationship building as a skill or an integral part of the nursing process and care plan. When asked on planning care activities in question two, students put emphasis on competences. Only two groups, answered this question mentioning the nurse-patient-family relationship. However, answers to all the remaining questions focused on this relationship. This reflects a dichotomy in the nursing students' views of nursing practice between the skills and the caring relationship. Additionally, the nursing role was predominantly described as "being present for the patient", promoting autonomy and auto-determination, integrating patient's family system and personal resources.

4.2.3. Monism in the view of the person. This theme emerged across all group narratives. Students strongly agreed on defining the person as a unified whole. Their perception of the nursing profession focused on the nurse-patient-family relationship within a holistic approach and more importantly, on patient own lived experience of health. They constantly described the person as a "whole", or "unique". The words "whole" and "wholeness" were the mostly recurrent terms. Groups frequently adopted a holistic view of the patient regardless of the theory on which they based their answers. When justifying their choice of theories, students lingered on the theoretical definition of the person as a concept. Less attention was given to the other concepts of the nursing metaparadigm. Most of the groups stated that the theory they chose addressed the patient as a unitary being, regardless of the theory specific view of the person. This is illustrated by different groups in reference to different theories:

[Group 33, Q3] on Watson's Theory: *"It prioritizes empathy and authenticity of the relationship. This theory makes it possible to know the person as a whole person and not just one's pathology."* [Group 27, Q1] on Orem's theory: *"The model of care takes into account the whole person, not just their illness or deficits but also their life experience through their development and their strengths and abilities in self-care"*. [Group 14, Q1] on: *"Roy's theory aims to promote the adaptation of each individual in a bio-psycho-social concept in health as in illness. For us, the patient is not just reduced to his or her illness but is a person as a whole. The role of the nurse is to help the patient to re-adapt to daily life"*. [Group 29, Q4] on Parse's theory: *"In all care plans, the patient is considered as a whole but for this theory the person's environment has a greater impact on the development of the care plan."*

4.2.4. Learning based on personal value and the social context. When justifying their choice of the nursing theory or conceptual model to answer questions on the nursing profession and activities, students relied on personal value and the social context of the self, the academia and the clinical practice.

[Group 14, Q1] stated addressing Peplau's Theory: *"This theory does not apply only to the healthcare world but to all daily relationships; certain concepts can be useful in our personal lives. This is why this model is the most humanistic for us."*

[Group 12, Q4] expressed their concern with their little experience in using theories: *"With the little experience we have, it's difficult to take a stand at this moment. Because in the departments where we did our internship, they do not use these theories."* [Group 3, Q2] added *"Orem's model is close to Virginia Henderson's. Virginia Henderson's nursing theory is familiar to us because we had the opportunity to practice it during our first semester. Therefore, it is easier for us to use it to carry out care plans."*

They often referred to the nursing competencies listed in the curriculum manual, to the concepts studied during the first semester and particularly to their lived experience during the clinical practice and training. They hardly relied on the content taught during the actual course on nursing theories. Apart, from identifying a concept to answer question five, students rarely used theory specific language and terminologies.

5. Discussion

Students recognized the benefits of using Orem's Theory and McGill's Model; it should be noted that these two theories are in line with professional values such as autonomy and partnership with the patient-family. However, the narratives did not show an adoption of these theories' operations or recommended care plans for practice. Additionally, 18% of participants thought that theories were not helpful for planning their nursing care activities.

Students rarely choose theories with a high level of abstraction such as Parse's theory of Humanbecoming (Fawcett and DeSanto-Madeya, 2012).

Students' preferences were for theories that have a structured approach to patient assessment and care with a clear distinction between the integrated biologic, psychologic, sociocultural and spiritual dimensions of the human being. This is congruent with the statement by Lindell (2019) describing nurses marked by a holistic view of the person yet using a biomedical standpoint. This perspective may reduce the complexities of the human experience and influence nursing care. It needs to be further explored in future research, especially in the mental health field of practice.

It is not possible for us, based on our results, to further explain the students' choices. They might be struggling to understand the abstract nature of Grand theories and to apply care plans using theoretical foundations without a demonstration from the instructors during clinical training. Our course illustrated to students how to apply each theory using case studies, but clinical instructors did not use this content with students. As advocated by Fawcett, classroom theory teaching should be integrated in the clinical experience (Butts et al., 2012), to better inform the nursing practice of novice nurses and help nurture their evolving practice pattern.

Students supported a plurality of theories justifying that none of the theory gave them tools to use in all nursing care situations. Indeed, not all nursing theories are suited to all nursing situations (Younas and Parsons, 2019). Students need guidance in choosing nursing interventions answering to specific situations. Situation-specific theories that have a limited number of concepts might be more relevant at the undergraduate level. Additionally, developing and using situation-specific theories and middle-range theories would be more useful for advancing nursing knowledge and guiding practice (Younas and Parsons, 2019). Students' agreement on the need of plurality of theories may also be explained by the absence of theories that are inclusive of all dimensions of nursing care. Our results are consistent with a review that already highlighted the lack of inclusive care dimensions in nursing theories and the difficulty of their use (Mudd et al., 2020).

Most students retained nursing concepts that they often described in relation to previous teachings and to skills acquired during clinical training. Learning nursing theory seems to be skill-based. This sheds the light on the knowledge in action that could be emerging in clinical practice. Therefore, a qualitative exploratory study based on the epistemology of care, the mobilization of nursing knowledge in clinical practice and its contribution to professionalization is necessary for a deeper understanding of the function and use of the disciplinary knowledge. Reflexive discussions on the use of theory, evidence, personal beliefs and nursing values in nursing situations remains necessary for building the students professional identify (Jenkins et al., 2021).

Although each theory or framework defines the person and nursing differently, students seem to have a shared holistic view of the person. This view is congruent with Barret's definition of nursing practice (Barrett, 2002) and with the literature describing how nurses advocate for holistic care in their practice (Newman et al., 2008). Holistic care refers to individualized, person-centered care that encompasses the full range of bio-psycho-socio-spiritual dimensions of the human being and supports a therapeutic relationship aimed at wholeness, healing and well-being (McEvoy and Duffy, 2008).

Students rarely used terminologies specific to each theory. This may

be due to the abstract nature of theories' specific terminologies and to the fact that these terminologies are not commonly used in nursing practice (Younas and Parsons, 2019). Teaching nursing theory should be expanded beyond specific courses to be employed throughout the curriculum, clinical practice and simulation (Lindell, 2019). This could be achieved using universal concepts important to nursing and central to different theories such as human wholeness, well-being, caring (Smith, 2019). Concept-based teaching could be a promising approach to improve meaningful learning at the undergraduate level and knowledge transfer to practice. Concepts can be easier to discuss with students and to disseminate in practice compared to Grand theories and conceptual models.

Students acknowledged the necessity of nursing theories but had difficulties using them. This raises questions related to the function of disciplinary knowledge and its use. For a deeper understanding of the function and use of the disciplinary knowledge, future research must explore the use of nursing theories in clinical practice of registered nurses.

6. Limitations

The study was conducted at one school of nursing, thus limiting generalization. The data collection used narratives of groups discussions. These narratives were written by students summarizing their discussions. This could be a limitation because the narratives did not transcribe all the details of the discussions that took place. Students' discussions were not audiotaped. Audiotaped focus group interviews with a smaller sample size could have yielded an in-depth analysis. However, we intended to collect comprehensive data from a large number of participants, to inform curriculum changes.

In addition, the study included only the first-year undergraduate students' perspectives. It would have been helpful to explore the perception of second- and third-year students who would have developed more skills and competencies and who studied middle-range theories. The perception of students on middle-range theories could have yielded different results because these theories are easier to apply in practice for students. The generalizability of our findings to other curricula using only middle-range theories are limited.

7. Conclusion

Nursing Theories should provide foundation for nursing practice and rationale for nursing interventions. Teaching nursing theories in undergraduate programs can increase nursing students' awareness of their professional identity and their unique contribution to the healthcare systems, patients' care and health experience. It can also facilitate the use of theory in practice. However, nurses and nursing students have difficulties using nursing theories in practice. Educators need to rethink the way this teaching occurs and ensure it is relevant to students, and used in clinical training.

The aim of this study was to understand the undergraduate students' views of nursing theories and its importance for their practice. Results showed that students have interest in the plurality of theories. They are also able to use theoretical concepts to reflect on their practice but have difficulty considering abstract terminologies and abstract theory application. This is of great importance for the revision of undergraduate programs that would guide practice and professionalization of young nurses. Ideally, theoretical concepts and nursing processes should be integrated in skill acquisition opportunities to bridge the nursing discipline theory-practice gap. Students need to learn theoretical concepts relevant to practice. They should be supported by teachers to use this knowledge during clinical training and to rethink their practice using reflexivity. The use and integration of middle-range and situation-specific theories in clinical training would facilitate the understanding of the complex nature of nursing theories. Nursing educators and scholars are to address the complexity of the terminologies used in

nursing theories, when taught at the undergraduate level (Younas and Parsons, 2019). They also need to assess how institutional culture and practice environment can affect the use of these theories by students during training.

CRedit authorship contribution statement

Nancy Helou: Conceptualization; Methodology; Validation; Investigation; Formal analysis; Writing – original draft; Writing – review & editing; Visualization; Supervision; Project administration. **Julie Aoudé:** Formal analysis; responsible for data entry in MaxQDA and data management; percentages calculation and performance of thematic analysis on 20% of the qualitative data. **Gina Sobral:** Conceptualization; Investigation; Formal analysis; Writing – review & editing; Visualization. All authors read and approved the final manuscript.

Ethical approval

The study was exempted from approval by the Swiss Association of Research Ethics Committees because it did not collect data on the health status of students.

Funding sources

No external funding.

Research data

Data will be available on justified request.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgement

We sincerely thank Prof. Jacqueline Fawcett for her genuine revision of our manuscript. We extend our acknowledgement to Prof. Annick Anchisi for her contribution to the manuscript through sharing her genuine insight of the nursing profession. We recognize the support of Swiss State Secretariat for Education, Research and Innovation (SERI) and HES-SO Leading House MENA for ensuring and coordinating the MENA Young researcher mobility grant for the research assistant.

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