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CURRENT ARTICLE IN SOCIAL SCIENCES, HUMANITIES, AND PEDAGOGY

Theoretical integration to optimize the learning of nursing interns during their social service

Blanca Leticia Gómez-Ramos[1], Esther Izquierdo-Machín[2], Maely Ramírez-Rodríguez[3]

[1] University Institute of Hispanic Nations: IUNHI. Mexico.
[2]University of Medical Sciences of Havana, "Lidia Doce" Faculty of Nursing. Havana, Cuba.
[3]University of Medical Sciences of Pinar del Río, "Dr. Ernesto Guevara de la Serna" Faculty of Medical Sciences. Pinar del Río, Cuba.

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ABSTRACT

Introduction: clinical training of nursing interns during social service requires pedagogical approaches that integrate theory, practice, and competency assessment. In this context, Miller's Pyramid and Patricia Benner's theory provide conceptual references for understanding the progressive development of clinical competencies and learning needs in real healthcare settings.
Objective: to analyze an integrative pedagogical approach that articulates Miller's Pyramid and Patricia Benner's theory as a conceptual framework to address the learning needs of nursing interns during social service.
Methods: a qualitative analytical–interpretative study was conducted through a narrative documentary review. The analysis was based on a hermeneutic–dialectic procedure combined with thematic content analysis. Databases such as SciELO, PubMed, Scopus, CUIDEN, and LILACS were consulted using descriptors related to clinical competencies, nursing education, and the Miller and Benner models.
Results: the analysis identified conceptual convergences between both models, revealing a progression from theoretical knowledge to autonomous clinical performance. Emerging categories included theory–practice dissociation, fragmented assessment processes, and the need for situated tutorial support. In addition, a hermeneutic–dialectic convergence matrix was developed, linking Miller's levels with Benner's stages, which enabled interpretation of the progressive development of competencies among nursing interns.
Conclusions: the Miller–Benner integration constitutes a useful conceptual framework for understanding and guiding clinical learning during social service, promoting formative assessment, clinical judgment, and contextualized professional autonomy.

Keywords: Learning; Nursing Theory; Remedial Teaching; Social Work; Students, Nursing.

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INTRODUCTION

In the context of the social service stage, the nursing intern must construct knowledge based on their learning needs. The nursing teacher should contribute to satisfying these learning needs from a holistic vision of the formative process, where knowledge is constructed from reason, experience, and culture.[1] According to the authors, this provides professional and human meaning to the phenomena experienced by the nursing intern during their social service stage; which implies transcending the mere description of facts or technical procedures.

Likewise, it implies understanding the symbolic and human dimensions that emerge in this process, which intervene in the construction of nursing educational proposals based on a logical and ethical framework.[2] From a critical approach, this approach is oriented toward satisfying the learning needs of the nursing intern during their social service stage, based on the interpretation of the objective reality experienced by the student. Analysis and reasoning, in this sense, not only allow explaining the what and how, but also the why and for what purpose of care actions, by favoring a professional practice based on reflection and not on mere repetition.[3]

Currently, a significant gap is evident between the pedagogical approach that postulates that the intern should construct knowledge based on their own needs, with the teacher as a facilitator who helps identify and satisfy them, and the summative evaluative practices applied to the intern, generally based on checklists and the teacher's real experience, which fragments the learning process.[4] This disarticulation not only limits the effective recognition of individual formative needs but also generates dissatisfaction and a perception of stagnation in the development of clinical judgment. Consequently, the explicit need emerges to resort to an integrative framework that allows aligning the intern's needs, teaching strategies, and evaluation methods with the complexity of care in professional practice.[5]

Stimulating clinical learning oriented toward the recognition of behavior patterns places the student at the center of the observation and interpretation process.[4] This research assumes as an indispensable conceptual framework Miller's Clinical Competence Model. This theoretical structure emphasizes that the final objective is directed toward real practice, not only theoretical knowledge. On this basis, the authors of this study considered it pertinent to connect theory with practice by integrating objective data with subjective elements present in satisfying the learning needs of the nursing intern.

As a key principle of this model, Miller's Pyramid is presented, which revolutionized biomedical education; it was proposed by George Miller in 1990, is a hierarchical model that describes the levels for developing complete clinical competence, from theoretical knowledge to real practical action. Miller's Model as a fundamental tool for evaluating competencies at different levels reflects the evolution toward a more integral vision of professional competencies.[5] For their part, the nursing intern must progressively transit through these levels to satisfy their learning needs; they need to "know" to be able to "know how," and need to be able to "show how" to finally "do" competently.

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Another conceptual framework for understanding the development of competencies, assumed in this study, is Patricia Benner's Theory, which describes five levels or categories through which a nursing professional transits. This research recognizes that learning needs act as the driving engine that allows reducing existing gaps between each of these levels. In this way, learning is conceived as a continuous process that favors professional evolution from the novice level to achieving expert competence.[6]

According to the authors' opinion, the scenario addressed in this research is based on the analysis of a fused approach between Miller's Pyramid and Patricia Benner's Theory, configured as a powerful and innovative pedagogical framework to structure and enhance the satisfaction of learning needs of nursing interns during their social service. This integrated approach allows understanding, organizing, and strengthening formative progress by articulating competence, experience, and evaluation in a human, gradual, and contextualized process, which contributes significantly to elevating the satisfaction of learning needs, professional development, and quality of care.

To achieve the above, it is pertinent to promote joint reflection on practice, based on an approach oriented toward favoring a positive educational climate. This has become evident at the College of Scientific and Technological Studies of the State of Hidalgo, Metztitlán Campus, in Mexico. The educational teaching process of this institution behaves as an organized and dynamic system that has as its objective the integral formation of students, which encompasses not only the acquisition of knowledge but also the development of skills, values, and attitudes. Simultaneously, professional judgment is strengthened and the quality of care is improved.

The commitment of the authors of this article is expressed in the following objective: to analyze an integrative pedagogical approach that articulates Miller's Pyramid and Patricia Benner's theory as a conceptual framework to solve the learning needs of nursing interns during social service. The relevance of this study is supported by contributing to the progressive development of clinical competencies of nursing interns in their social service stage at the College of Scientific and Technological Studies of the State of Hidalgo, Metztitlán Campus, in Mexico.

METHODS

This article is based on a qualitative approach of analytical–interpretative character. This research was developed between October 2025 and January 2026. For information analysis, a hermeneutic–dialectic procedure articulated with thematic content analysis was employed. This approach starts from a comprehensive and interpretive reading that recognizes researchers' pre-understandings when situating the analysis from their formative and professional context. From this perspective, the foundations of Miller's Pyramid and Benner's professional development model are addressed as the first phase of the process, which favored the identification of essential meanings in relation to the study phenomenon.

In a second stage of the process, identification of meaning units and thematic coding of conceptual elements present in both models was carried out. The above allowed researchers to decompose contents into relevant analytical categories, which facilitated the identification of conceptual convergences between competency levels proposed by Miller and evolutionary stages described by Benner. The organization of these codes into preliminary themes made it possible to establish patterns of relationship and correspondence between both theoretical proposals.

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Subsequently, a dialectic analysis was developed oriented toward confronting theoretical elements, by examining similarities, differences, and possible tensions between theoretical approaches. Through this contrast, researchers established logics between competency levels and professional development stages, which generated an integrative interpretive synthesis. The above favored advancement from a fragmented understanding toward an articulated vision of competency development in nursing, sustained in the dialogue between both theoretical models.

Ultimately, the analytical process led to the construction of an integrative framework that explains how the learning needs of nursing interns are progressively satisfied during their social service stage at the College of Scientific and Technological Studies of the State of Hidalgo, Metztitlán Campus, in Mexico. This framework not only organizes findings coherently but also offers a critical and contextualized interpretation of the phenomenon, which evidences the usefulness of the hermeneutic–dialectic approach for understanding the complex formative process in the field of nursing education.

In coherence with the hermeneutic–dialectic procedure and thematic content analysis described previously, the narrative documentary review was structured based on search parameters oriented toward guaranteeing pertinence, theoretical depth, and conceptual coherence. The strategy focused on identifying literature that addressed competency formation in nursing from consolidated theoretical models, especially from Miller's Pyramid and Patricia Benner's professional development model. Documents with educational, clinical, and pedagogical focus were prioritized, which allowed analyzing learning development in practice contexts, as is the case of social service. Likewise, inclusion criteria related to thematic relevance, methodological rigor, and full-text availability were defined; duplicate studies, low quality, or not directly linked to the object of study were excluded.

The databases consulted included SciELO, PubMed, Scopus, CUIDEN, and LILACS, selected for their recognition in the field of health sciences and nursing. These sources allowed access to scientific articles, theoretical reviews, and relevant empirical studies, both in international and Latin American contexts, which favored a broad and contextualized review of the study phenomenon. The publication period considered for source inclusion generally covered the last five years.

Regarding descriptors, controlled terms from the DeCS and MeSH systems were used, as well as keywords derived from the object of study. Among the main descriptors used were "clinical competence," "Benner model," and "Miller Pyramid." These terms were combined using Boolean operators such as AND, OR, and NOT, which allowed constructing more precise search equations; for example "nursing education" AND clinical competence AND Benner" or "Miller pyramid OR competency-based learning AND nursing students." This strategy facilitated the retrieval of relevant information and the delimitation of the analysis field.

The qualitative hermeneutic analysis generated in this research is the result of a dynamic relationship between experience, theory, and interpretation. The reasoning that is manifested has been carried out by three researchers with training in Nursing and teaching experience at technical and higher levels. The first author has ten years of experience as a Nursing teacher in Upper Secondary Education at the College of Scientific and Technological Studies of the State of Hidalgo, Metztitlán Campus.

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At that institution, she works as a full-time teacher in professional nursing module subjects, in addition to fulfilling functions as practice supervisor, president of the local nursing academy. She also serves as group tutor, clinical field supervisor in social service, a function she performs twice a year. Her professional training has progressed from a bachelor's degree in Nursing, a master's degree in pedagogy, and a Doctorate in High Management of Care and nursing teaching, in addition to diplomas in teaching accompaniment. To all the above is added her certification and recertification by COMCE. The second and third authors are doctors in nursing science with extensive teaching experience at technical and higher levels of nursing.

RESULTS

In consideration of the logic of results, the relevant analytical categories of the study are presented and explained.

Conceptual convergences between Miller's Pyramid and Patricia Benner's Theory:
The hermeneutic–dialectic analysis of the literature allowed identifying a progressive convergence between Miller's Pyramid and Patricia Benner's theory in relation to the development of clinical competencies in nursing. It was identified that both models share an evolutionary logic oriented toward transit from theoretical knowledge toward contextualized and autonomous clinical action.

In the reviewed literature, it was documented that Miller's "knows" level corresponds to Benner's novice stage, characterized by rule-based learning and decontextualized conceptual knowledge. Benner notes that the novice "lacks situational experience" and depends on external norms to guide their practice, which coincides with findings found in studies on initial nursing training.[7]

It was also identified that the "knows how" level relates to the advanced beginner stage, where the student begins to integrate theory and practice through supervised clinical experiences. The analyzed studies agree that this transit favors initial recognition of clinical patterns and strengthens basic decision-making in real and simulated contexts.[8]

The documentary analysis showed that the "shows how" level articulates with Benner's competent stage. At this stage, the intern develops skills to prioritize care, organize interventions, and assume responsibilities with greater autonomy. Various authors describe that this level is characterized by the consolidation of clinical judgment and by conscious planning of professional practice.[9]

It was identified that Miller's "does" level converges with Benner's proficient and expert stages, where clinical performance becomes flexible, contextualized, and intuitive. The reviewed literature refers that at this stage the professional integrates knowledge, skills, and experience to respond effectively to complex care situations.[10]

Levels of clinical competency identified in the literature on nursing interns

From the thematic analysis of consulted sources, four levels of competency development present in nursing interns during social service were identified:
At the first level, corresponding to "knows," predominance of conceptual knowledge acquired in the classroom was documented, with difficulties transferring it to real clinical scenarios. The reviewed studies describe insecurity in procedure execution and high dependence on institutional norms and teacher supervision.[11]

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At the second level, "knows how," a progressive transition toward application of knowledge in real situations was identified. Interns began to recognize basic care patterns and relate theoretical contents with supervised clinical experiences. However, limitations in autonomy and complex decision-making persisted.[10]

At the third level, "shows how," evidence related to conscious care planning and the capacity to execute procedures in controlled contexts emerged. The analyzed literature indicated that students achieved greater clinical confidence when they received tutorial accompaniment and continuous feedback.[11]

At the "does" level, it was identified that some interns achieved autonomous clinical performances in specific care activities. However, the reviewed studies noted that this progression does not always occur linearly, due to factors associated with supervision quality, institutional conditions, and availability of meaningful clinical experiences.[10]

Documented gaps in satisfying learning needs during social service

The hermeneutic analysis allowed identifying three emerging categories related to formative gaps present during social service: theory–practice dissociation, fragmented performance evaluation, and need for situated tutorial accompaniment.

The "theory–practice dissociation" category emerged in studies that describe difficulties integrating academic knowledge with real demands of the clinical environment. It was documented that interns face complex care scenarios for which they do not always feel prepared, which generates insecurity and excessive dependence on supervisory personnel.[10,11]

The "fragmented performance evaluation" category was identified in research that questions the predominance of evaluations centered on isolated technical procedures and checklists, without considering clinical reasoning or context of action. The reviewed studies noted that this type of evaluation limits the integral identification of student learning needs.[12]

Likewise, the "need for situated tutorial accompaniment" category emerged, related to the importance of clinical supervision and pedagogical support during social service. The reviewed literature showed that students developed greater confidence and autonomy when they had clinical tutorials, reflective feedback, and contextualized teacher accompaniment.[13]

Complementarily, a gap was identified between expected competency levels and real functions assigned to interns during social service. Some studies documented that students assume complex clinical responsibilities without having completely consolidated previous development stages, which can affect care safety and progressive learning.[12]

Theoretical integration proposals emerging from hermeneutic analysis

As a result of the documentary analysis, a hermeneutic–dialectic convergence matrix was constructed that articulated Miller's Pyramid levels with Benner's model stages.

This matrix allowed interpreting the nursing intern's professional development as a dynamic and progressive process.

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Table 1. Hermeneutic–dialectic convergence matrix: articulation of Miller's Pyramid levels with Benner's model stages.

Miller's Pyramid	Benner's Model	Interpretive Correspondence	Integration to study object	Emerging Categories
Knows	Novice	Predominance of theoretical knowledge, rule-based learning, and scarce contextual experience	The intern begins their training with conceptual mastery acquired in the classroom, with limited transfer to clinical context	Initial theoretical knowledge; dependence on norms; insecurity in practice.
Knows how	Advanced Beginner	Incipient application of knowledge in real situations, still with constant support and supervision	The student begins to relate theory and practice during simulated scenarios or during first clinical experiences	Guided knowledge application; recognition of basic patterns; need for accompaniment
Shows how	Competent	Capacity to execute skills in controlled contexts, with conscious planning and deliberate decision-making	The intern in social service demonstrates clinical skills with greater autonomy, organizes their work, and responds to environmental demands	Structured clinical performance; decision-making; care planning; progressive autonomy
Does	Proficient/Expert	Integrated, intuitive, and contextualized performance, based on experience and consolidated clinical judgment	The intern manages to perform autonomously in real scenarios, integrating knowledge, skills, and attitudes in professional practice	Clinical judgment; professional autonomy; theory–practice integration; critical thinking; contextualized decision-making

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The matrix allowed identifying that clinical learning does not occur uniquely by accumulation of knowledge, but as a process of progressive transformation mediated by experience, reflection, and teacher accompaniment. From the hermeneutic perspective, it was interpreted that clinical competencies develop through articulation between theoretical knowledge, contextualized practice, and construction of professional judgment.

Likewise, the analysis evidenced that the Miller–Benner convergence constitutes a useful conceptual framework for understanding the learning needs of nursing interns during social service. The findings allowed recognizing that competency progress depends not only on experience time but also on institutional conditions, clinical supervision, and quality of available formative opportunities.

Narrative synthesis of patterns identified in the literature

The narrative synthesis allowed identifying a recurrent pattern in the reviewed studies: the need to integrate pedagogical strategies centered on contextualized clinical competencies. The literature agreed that the most effective formative processes are those that articulate theory, reflective practice, and continuous evaluation.

Consensus was identified regarding the importance of tutorial accompaniment as a key element to favor the development of clinical judgment and professional autonomy. The reviewed studies highlight that reflective supervision and continuous feedback facilitate transit from initial dependency levels toward safer and more contextualized clinical performances.[11,12]

The analysis showed that structural limitations present in some social service contexts, such as care overload, insufficient supervision, and scarcity of clinical resources, affect the progressive development of competencies and generate gaps between expected learning and intern's real performance. These findings evidence the need to implement flexible and contextualized pedagogical models that respond to the particularities of the formative environment.

DISCUSSION

The analysis of results obtained from the convergence between Miller's pyramid and Benner's model finds important support in contemporary literature, particularly in studies that highlight the progressive advancement of theoretical knowledge toward contextualized clinical competence. Various authors agree that both models allow structuring clinical skill development in progressive stages, which facilitates understanding of formative transit in nursing. In this sense, evidence indicates that competency acquisition is strengthened when learning is linked with practical experience, which confirms the correspondence identified between "knows–knows how–shows–does" levels and novice to expert stages.[12,13,14]

However, literature also introduces important nuances regarding the applicability of the Miller–Benner model in specific educational contexts, such as social service. Some studies note that the linear progression proposed by both models may not adequately reflect real learning trajectories, especially in environments where clinical opportunities are irregular or limited. In particular, in research on Benner's theory, in which it is evidenced that development toward higher levels does not always follow a continuous sequence, but depends on contextual factors such as supervision quality, diversity of clinical experiences, and institutional conditions.[13,14]

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Regarding limitations of Miller's Pyramid, recent literature suggests that its application may be restricted in low-resource environments, where conditions for progressive competency development are not fully guaranteed, for example studies on educational innovation in nursing indicate that clinical competency evaluation requires infrastructure, expert supervision, and adequate simulated or real scenarios; when these elements are scarce, transition between pyramid levels may fragment or become superficial. Furthermore, integration of new technologies, such as artificial intelligence, has evidenced gaps in the way competencies are developed and evaluated, which questions the universality of the model in diverse contexts.[13,14,15]

Regarding Benner's theory, relevant criticisms are identified that question its applicability in technical-level students or in initial formation stages. Some analyses sustain that the model assumes homogeneous progression based on accumulated experience, which may not be applicable to students with heterogeneous formative trajectories or with limited access to meaningful clinical experiences. Likewise, it has been noted that the model may oversimplify the complexity of skill development, by proposing sequential stages that do not always reflect individual variability in learning.[14,15]

The above shows that there are deeper epistemological criticisms that question Benner's foundations. Some authors argue that their approach, based on Heideggerian phenomenology, may lead to an excessively subjective vision of clinical experience, which hinders operationalization and objective measurement of competence. Likewise, it has been proposed that the model could reinforce traditional authority structures in nursing, which limits pedagogical innovation and adaptation to contemporary training contexts.[15,16]

Another element to consider, debated in literature, is the notion of "intuition" as a characteristic of the expert level in Benner's model. Some studies question the conceptual clarity of this construct, by noting that intuition cannot always be differentiated from advanced cognitive processes or pattern recognition acquired through experience. This theoretical ambiguity may hinder its application in educational contexts, especially in technical student training that require clear and observable criteria to evaluate their progress.[16,17]

Although the Miller–Benner convergence offers a solid framework for understanding competency development in nursing and finds support in literature, its application in the social service environment must be interpreted critically and contextually. Evidence shows that factors such as institutional conditions, resource availability, diversity of clinical experiences, and characteristics of the formative level can significantly influence learning development. Therefore, rather than assuming these models as universal structures, it is necessary to use them as flexible references that guide understanding of the formative process, by integrating adjustments that respond to specific realities of nursing educational contexts.[17,18,19]

For its part, from a critical approach, literature on nursing education in Mexico suggests that social service operates as an ambivalent transition space: on one hand, it favors consolidation of competencies in real scenarios; on the other, it exposes students to unequal labor and formative conditions. In this sense, guidelines from the Ministry of Health and the Ministry of Public Education establish that social service should have a formative, supervised, and learning-oriented character. However, evidence shows that this intentionality is not always fulfilled, which introduces a gap between normative ideal and daily practice. This situation questions the direct applicability of the Miller–Benner model, since competency progression is conditioned by structural factors more than by planned pedagogical development.[18,19,20]

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Although study results find support in international literature and Mexican normative framework, their applicability must be understood critically and contextually. NOM-019-SSA3-2013 and institutional guidelines provide a structural basis for competency development, but social service conditions introduce significant variations in this process. Therefore, the Miller–Benner model should be used as a flexible reference, capable of adapting to Mexican context relations, by recognizing both its contributions and limitations in nursing intern training.[20,21]

This study, based on a qualitative hermeneutic–dialectic approach and narrative documentary review, presents limitations inherent to its design. First, the interpretive nature of analysis implies that results are mediated by researchers' reflexivity and positioning, which, although it provides comprehensive depth, may introduce biases in meaning construction. Second, theoretical convergence between George E. Miller's and Patricia Benner's models is based on conceptual interpretation, so it was not empirically validated through field data with nursing interns. Likewise, the documentary review, although rigorous, may have omitted relevant studies due to limitations in search criteria or database access.

Another important limitation lies in the specific context of social service in Mexico, regulated by NOM-019-SSA3-2013, whose real implementation conditions may vary significantly between institutions and regions. This heterogeneity limits generalization of findings, since interns' formative experiences depend on factors such as supervision availability, clinical resources, and care load. Furthermore, the possible gap between normative and operational may affect direct applicability of the proposed integrative model.[20,21]

Study results offer relevant implications for training and supervision of nursing interns in the social service context. Articulation between George E. Miller's and Patricia Benner's models provides a useful framework for structuring teaching–learning processes based on competencies, which facilitates progressive planning of clinical development. In this sense, educational and health institutions can use this theoretical convergence to design pedagogical strategies that favor transition from theoretical knowledge toward autonomous practice, aligning formative objectives with expected performance levels.

Study implications highlight the need to contextualize this integrative model in real environments such as social service at CECYTEH Metztitlán, where students transit mainly between "knows how" and "shows how" levels, with advances toward "does" according to authors' experience. In this sense, the proposed matrix can guide teaching, supervision, and learning evaluation, although its implementation requires strengthening clinical accompaniment, systematizing competency evaluation, and guaranteeing adequate formative conditions. Thus, the model should not be applied rigidly, but as a flexible guide that responds to real conditions of the educational and care context.

Likewise, findings underscore the need to strengthen supervision and accompaniment mechanisms during social service, by guaranteeing that interns develop their competencies in safe and formative environments. Critical application of NOM-019-SSA3-2013 implies not only delimiting functions but also ensuring conditions that allow real learning progression. In this sense, the importance of integrating continuous formative evaluations, clinical tutorials, and reflection spaces that favor development of clinical judgment, professional autonomy, and theory–practice integration is highlighted.[20,21]

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From findings, various future research lines are identified that can enrich understanding of competency development in nursing. First, it is recommended to conduct empirical studies of qualitative and mixed cut that explore the direct experience of interns during social service, in order to validate and deepen the Miller–Benner convergence matrix in real contexts. These studies could incorporate techniques such as in-depth interviews, clinical observation, and narrative analysis, which would facilitate deeper understanding of the formative process.

Second, it is pertinent to investigate how structural conditions of the Mexican health system influence competency progress, especially in low-resource environments. This includes analyzing the impact of variables such as workload, clinical supervision, infrastructure, and institutional policies. Furthermore, it is suggested to explore adaptation of theoretical models such as Miller's and Benner's to specific technical training contexts, by considering particularities of upper secondary level and social service demands. These research lines will allow advancing toward more contextualized, flexible, and pertinent models for nursing education.

CONCLUSIONS

The construction of an integrative pedagogical approach that articulates George E. Miller's Pyramid with Patricia Benner's theory was achieved, through hermeneutic–dialectic analysis and documentary review. This process allowed developing a convergence matrix as a conceptual tool, in which relationships between competency levels (knows, knows how, shows how, does) and professional development stages (novice to expert) are established. As a concrete finding, a gap was identified between expected competency levels and real performance of interns, who in some cases assume functions of greater complexity without having fully consolidated previous stages, which evidences limitations in formative evaluation processes.

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Conflict of Interest
The authors declare that there is no conflict of interest.

Authorship Contribution
BLG: conceptualization, investigation, project administration, data curation, supervision, visualization, writing – original draft, writing – review and editing.
EIM: participated in conceptualization, investigation, visualization, writing – original draft, writing – review and editing.
MRR: supervision, investigation, writing – original draft, writing – review and editing.

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