

# Nursing of Critical Care Specialty Students' Satisfaction on Clinical Mentorship and Mentor's Profile

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## Abstract

**Introduction:** Intensive care education confronts the student to a complex reality: in patients hemodynamically unstable and device-dependent to keep them alive, is there when the mediator (clinical mentor), as referred by Vygotsky, guides the student through their experience. **Objective:** To identify the satisfaction about clinical mentorship of critical care specialty, perceived by nursing students related to their mentor's profile. **Method:** Quantitative research with a transverse-analytical design. Eighty-four students and fifteen mentors participated, the data collection instrument was the "Development of a tool to evaluate the quality of mentoring for nurses", with a Cronbach  $\alpha$  of 0.96 reliability. **Results:** Global satisfaction mean of  $129 \pm 0.57$  from a maximum possible of 170, and 57% representing a high grade of satisfaction. According to sex the Pearson correlation coefficient ( $t = -2.413$ ,  $df = 68$ ,  $m = 124$ ,  $p = 0.019$ ), in Females ( $n = 53$ ,  $124 \pm 22$  and in Males ( $n = 31$ ,  $138 \pm 19.49$ ). **Conclusion:** The hypothesis: the higher the clinical mentor's profile, the higher satisfaction of clinical mentorship by nursing students, was not confirmed, since there was no significant evidence nor difference in clinical mentor's profile during the evaluation. Even results on perception were high, this could be influenced by the amount of students with no labor experience entering the program, such that it limits a deep analysis, critical judgement, and academic questioning to the expert; then, quality of clinical mentorship allows the forming of expert, decisive, and decisions' maker specialists based on evidence. Finally, in exploring the index mentor-student it is proposed its standardization in all campuses were the Sole Program for Nursing Specialty (PUEE) is imparted.

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## Keywords

Clinical Mentorship, Specialty Nursing Students

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### 1. Introduction

Socrates, Plato and Aristotle were some of the most prominent mentors and educators in old Greece, from it we can intuit that mentorship has been present and evolving with transforming processes in nursing, leading it from a job to a care science thanks to Florence Nightingale's contributions, she was the promoter of professionalization and the first to create a program in nursing formation [1] [2]. Nursing profession is not only about autonomous and collaborative care, it also involves research, management, participation in health policy and care oversight, teaching training, and satisfactory mentorship performance [3]. In this context, Tapia-Pancardo *et al.* refer the fourth transition in nursing consolidating it into a profession, promoting continuous education and research in forming committed professionals in care attention with scientific bases, through accompanying, guidance, and orientation by the leadership of their clinical mentor [4].

Diverse mentorship programs do exist worldwide, in Mexico the program of Sonora State's objective is to rise the educational process quality, through individualized attention and to improve the learning conditions, attitudes and habits that contribute to professional and humanistic formation [5]. In this sense, to contextualize mentorship in clinical disciplines requires teaching training, which allows progress in its professional and personal formation [6]; then, nursing clinical mentorship demands knowledge and specific formation to exert it beyond classroom [7].

To contextualize nursing education in a complex setting, such as an Intensive Care Unit (ICU), is a challenge to the student, since it faces the reality of hemodynamically unstable patients who depend of devices to be alive; it is there where the mediator, as referred by Vygotsky, is a key player to seek the evolutive status that students must reach through mediator's clinical experience (so called clinical mentor), allowing the analysis and raising again the teaching process, as a social and cultural phenomena [8] [9].

Nursing clinical mentorship owns diverse exploration perspectives, in this study it will be analyzed by two grand constructs: the students' perceived satisfaction when enrolling the Sole Program for Nursing Specialty (PUEE), in the specialty of Nursing of Adult Critical Care (EEAEC), and the profile of the clinical mentors, which are immersed in critical areas (ICU, Emergency Room, Hemodialysis, Hemodynamics) in five institutions of health services, accompanying students in their clinical practices, for their construction and development of abilities for clinical judgement, critical thinking, and assertive decisions' taking, which contribute to perform a safety and quality attention in critical care patients. The objective of this study was to identify the satisfaction with clinical mentorship re-

ceived by nursing students in the specialty of critical care, related to the clinical mentor profile, hypothesizing that if the clinical mentor profile from PUEE is high, the clinical mentorship to students in the nursing specialty of adults in critical care will be highly satisfactory.

## 2. Method

Quantitative study, with transversal-analytical design. Eighty four students and fifteen clinical mentors from PUEE/EEAEC in Mexico City, from 3 third level institutes and 2 second level hospitals participants. Groups were selected through a convenience non-probabilistic sampling, considering the accesibility and willingness to participate in the study, such that all candidates were elegeible and 100% of the sample participated.

### 2.1. Selection Criteria

Inclusion criteria were: being enrolled students with 2 years of job experience or being candidates to graduate program in nursing; clinical mentors with 6 months or more being part of PUEE.

Being enrolled in PUEE and select it as an option to obtain their diploma as nurse, or they hold a nurse degree, have clinical experience, and enrolled in PUEE.

For clinical mentors the inclusion criteria were:

Hold more than six months as mentor in PUEE.

### 2.2. Data Collection Instruments

Information collection was through the “*Development of a Tool to Evaluate the Quality of Mentoring for Nurses*”, including 32 items, divided in 2 dimensions, *i.e.*, mentorship program and mentorship value, as well as 3 functions: psychosocial, career development, and model to follow [10]. The highest score was 170 and the lowest of 69, recategorized as high, medium and low satisfaction.

Validation of the construct and its internal consistency were obtained through the  $\alpha$  Cronbach coefficient, and 0.96 reliability from the original instrument and 0.95 post back-translation to Spanish, as well as, by functions and domains between 0.67 to 0.94.

Authors contacted the main author being authorized to implement it in Mexican population; in addition, the instrument was translated into Spanish and back-translated to English.

The index of the mentor’s profile was constructed from reviewing literature, and by experts’ consensus, who evaluated its suitability and clearness about the items to warrant content’ validity. Internal reliability was verified through the Cronbach’s  $\alpha$  coefficient as 0.75, confirming acceptable consistency in the evaluated dimensions.

The instrument academic-occupational of the mentors’ profile included socio-demographic variables, as well as the index mentor-student, years of experience as clinical mentor, academic degree, continuous education in teaching, and criti-

cal fields, deliberation with maximal score of 108 and minimal of 14 points, being categorized as optimal, regular and low.

### 2.3 Data Analysis

For statistical analysis comparative and association tests with SPSS v25, were used, *i.e.*, correlations between modus on entering the program, gender, clinical mentor's profile and clinical mentorship satisfaction.

### 2.4. Timing

Information collection was during August to December 2021, and data analysis and interpretation was in 2022.

### 2.5. Ethical Aspects

This research was with educational goals, the authors declare no experiments in human beings was conducted, data confidentiality was protected based in principles of respect, beneficence and non-maleficence, and justice established by the Belmont's inform, highlighting specific norms for educational research to guarantee ethical principles at any moment during the process; the obtained information was used exclusively for this research supported by signed informed consent by participants.

## 3. Results

The universe of study included 84 students from EEAEC, 63% were female and 37% male; the average age was  $29 \pm 3$  years and the range between 24 - 36 years old. The modus of entering the program were: two years of clinical experience 61% and being an option for graduation 39%. Full time students were 42% and those working along were 58%.

Regarding the perceived global satisfaction, an average of  $129 \pm 0.57$  from a possible maximum of 69, and predominance of high satisfaction level (57%), and 40% of medium satisfaction.

In the specialty program there is the figure of coordinator, who is supported by a staff of clinical mentors that accompany students in clinical settings. From them, age average was  $41 \pm 12$  years, with predominance of female gender (67%).

In relation to the index mentor-student, 60% rated it as no ideal, representing 1 clinical mentor for 6 - 10 students; while 33% rated it as ideal with 1 mentor for 5 students, and 7% students rated it as unfavorable for teaching with the relation of 1 mentor for 20 students.

Based in the instrument academic-labor profile for clinical mentors, a score was constructed including years of experience as clinical mentor, experience in critical fields, academic degree, as well as continuous education in teaching and critical areas, yielding: 49% are regular mentors, 45% showed a low profile for this mentorship, and only 6% scored as optimal profile.

To identify a lineal relationship between satisfaction in perceived clinical men-

torship by students and the mentors' profile, the Pearson correlation coefficient was used showing no lineal relationships in those variables ( $r_p = 0.116$ ,  $p = 0.304$ ). Comparison was made between perceived satisfaction of clinical mentorship related to entering modus, showing no significant difference ( $t = 2.143$ ,  $df = 82$ ,  $m = 135.64$ ,  $p = 0.35$ ). Furthermore, the comparison between perceived satisfaction of clinical mentorship and the score of clinical mentor's profile also showed no significant difference ( $t = 0.55$ ,  $df = 40$ ,  $m = 132$ ,  $p = 0.59$ ). Lastly, a comparison between perceived satisfaction of clinical ( $t = -2.413$ ,  $df = 68$ ,  $m = 124$ ,  $p = 0.019$ , Female =  $53.12 \pm 22$ ; Male =  $31.14 \pm 19.49$ ).

#### 4. Discussion

Clinical mentorship must be seen as a teacher's commitment that promotes specialty's growth, and professionalization in nurses attending critical care, creating a safe and quality setting, implementing it to patients in critical care.

In this study it was observed that, even though mentors' profiles were classified as regular or low, the students' satisfaction on the given clinical mentorship was kept high. This finding suggests that perception of satisfaction is not dependent, exclusively, of the mentor's academic profile or training, but other factors from the educational process intervene such as intrinsic motivation, the opportunity to practice in real scenarios, and the immediate clinical accompaniment influenced into the positive satisfaction. Likewise, the no ideal ratio of mentor/number of students could be compensated by constant interaction, the availability of the mentor, and peer support favoring a satisfactory educational experience. In this context, students' satisfaction seems to be mediated by the quality of the interaction and the learning context, more than the mentor's individual characteristics, which is coincident with reports on clinical formation in hospital settings. This is related with results reported by Dickman *et al.*, studying medical students satisfaction, where the clinical mentor profile was low but they collaborated with other mentors, resulting a higher satisfaction than the initial one [11].

In this sense, in 2021 Sánchez Rodríguez reported a study on nursing students, where clinical mentorship was classified as satisfactory or very satisfactory [12]; it was related to "attributes" highlighted the mentor-student index, the critical reflection about practices, mentor's professionalism, etc., attributes closely related with domains and functions, as designed in the report by Kim *et al.* [10].

By evaluating clinical mentorship in three modalities, Gusar *et al.* found that satisfaction was high when it is individually performed, since students referred mentor's more availability, recognition of their personal academic needs, and patience [13], similar results as those reported by González *et al.* [14], which are in contrast to the current research where the no-ideal mentor-student index predominated.

Likewise, Jiménez *et al.*, studying satisfaction of educational programs, reported it as high compared to the mentorship given to their students, finding beneficial psychosocial aspects by improving their procedural skills, eliminating fears and

challenges in the clinical environment [15].

Borrallo-Riego *et al.* reported high satisfaction when studying student's learning in clinical field, highlighting that satisfaction is favored when the student sees the clinical mentor as a model to follow, showing professional competence, knowledge, attitudes, and values which are similar with items evaluated through domains and dimensions in this study [16].

On the other hand, in a report pre- and post-test evaluating the performance and satisfaction of clinical mentorship, Yahyaei *et al.* found significant differences related to gender [17], similar to ours; however, in the construction of mentorship programs and models, learning bias by gender must be considered, as well as the teaching-learning methods, among other variables. In the previous study [17], there was a higher satisfaction and academic performance by the female gender, which suggest to establish new teaching-learning strategies. Even though the results contrast with those of Vallejo *et al.*, who did not find significant differences in satisfaction neither in academic achievement in students, according to gender, in clinical mentorship. Finally, in 2024 Borrallo-Riego *et al.* and Yahyaei *et al.* evaluated satisfaction of clinical mentorship in medical students, weighing it up as satisfied and very satisfied [16] [17]; besides they reported no significant differences, mentioned that female gender was very strict at evaluation, since they demand bigger evaluation criteria, as well as mentor's responsibility and organization.

## 5. Conclusions

The hypothesis raised was not confirmed, *i.e.*, the higher the clinical mentor's profiles, the higher the satisfaction of nurse student about clinical mentorship, since there was no significant evidence nor difference in clinical mentor's profile during the evaluation. It is relevant to strengthen clinical and teaching experience of the clinical mentor, with tools of containment and psychological support that favor graduate students' development, and adaptation in their training as specialist. Clinical mentorship quality allows the formation of expert, resolute and decision making specialists, based on evidence.

It is important to rethink and establish strategies according to the modus of entering the program by students, *i.e.*, those who enter being candidates to graduate program in nursing, and those being enrolled with 2 years of job experience, as a central element to increment the satisfaction about clinical mentorship, since through it the clinical mentor will consider how to conduct the mentorship. Accordingly, we seek out that every candidate without clinical experience will enter with a diploma course in critical areas or similar, with the purpose that the student could link knowledge in these clinical fields. In addition, by exploring the mentor-student index we propose to standardize the entering criteria for the 16 specialty programs among the campuses where PUEE is imparted.

## Limitations of the Study

Even the results on perception were high, it could be influenced by the quantity

of students without experience, limiting the profound analysis, critical judgement, and academic questioning to clinical mentors; it is recommended another study with graduated nurses with five years clinical experience, at least.

### Authors' Contributions

All authors collaborated in the research. JJCC and LMP designed the protocol. JJCC, DCTP and LMP collected and analyzed data and wrote the manuscript. JJCC and DCTP revised and edited the manuscript for publication. All authors read and approved the final manuscript.

### Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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