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THE CORRELATION BETWEEN LABORATORY AND CLINICAL PERFORMANCE AMONG STUDENT INTERNS AT THE COLLEGE OF NURSING: UNIVERSITY OF CEBU LAPU-LAPU AND MANDAUE

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ABSTRACT

Nursing students can complete nursing operations in their actual clinical activities with the aid of the laboratory function, which is essential for clinical learning and practice. This study intends to ascertain the relationship between laboratory skill performance and actual clinical performance among College of Nursing student at the University of Cebu Lapu-Lapu and Mandaue throughout their on-the-job training program. The findings of this study revealed that section (A) students need to do better in their laboratory skills exercises while the majority of Section (B) only obtained a *Satisfactory* rating despite doing well. However, both sections were rated *Very Satisfactory* on their actual clinical duties. The findings further revealed that section (A) has a positive correlation between laboratory and clinical performance, while section (B) has no significant association. The study revealed significant differences between section (A) and (B) laboratory performances while no difference in both clinical performances. The study concludes that even though there is a positive correlation between laboratory and clinical performance, students still need to understand how to effectively carry out their clinical responsibilities regardless of how well they perform on laboratory skill exercises. Even some did not perform well in the lab, they still did a good job when performing their actual clinical duties, which is why this study considers personal, emotional, and behavioral abilities in addition to laboratory functions as additional predictors for nurses' actual clinical performance during their on-the-job training program.

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INTRODUCTION

High-fidelity machines, equipment, facilities, and manikins are used in the laboratory to provide the student with as much "real-life" experience as possible in the nursing sector. These devices can elicit different physiological states and responses. Viewing laboratory exposure and actual clinical performance from a global perspective gives nursing students the chance to apply their theoretical knowledge to a safe clinical experience utilizing real patient scenarios.

Nursing students can practice using real-world scenarios and nursing abilities in the skills laboratory to prepare for their clinical placement. It is described as a training facility that provides students in the medical sector with a secure setting to hone their clinical abilities prior to practical application. It should be well-established because it will assist and enhance students' psychomotor learning. Additionally, the issue could arise if the school's nursing skills laboratory needs to be improved (Relloso et al., 2001).

The psychomotor skills component of nursing education is crucial for developing the abilities required for nursing care. However, a comprehensive nursing education should incorporate both theoretical and psychomotor skills. The learner will not acquire the believable qualities of a qualified nurse through theory alone. Because of this, they are integrating theory and practice in a real-world scenario that has been perfected in the skills lab is necessary for clinical abilities (Mothiba et al., 2020).

The most significant way to help health professional students gain clinical skills prior to exposure to real-life settings is to have them participate in skills laboratory sessions where they can develop these abilities. Notably, first-level students in all healthcare professions, including nursing, do not receive patient care training prior to beginning their university studies in the Philippines. As a result, clinical laboratory exercises are a viable method for instructing nursing students on handling real-world scenarios.

Moreover, university laboratory exercises and activities are required to increase nursing students' confidence in dealing with real patients. Before providing actual patient care, these skills should be learned through practical practice. The skills lab is crucial in helping nursing students get past their fears and anxiety about completing nursing procedures. Therefore, this comfort in dealing with patients can be acquired through education and ongoing practice in the skill laboratory.

The preceding information and skills instilled in nursing students, however, significantly impact their competence and confidence when executing nursing procedures. For nursing students to complete the nursing operation without trepidation, fear and anxiety should be first addressed. After that, the nursing skills laboratory should be the first venue for clinical learning and practice.

As laboratory experiences were highlighted as necessary in a university nursing care program, a few works of literature focused on whether these prior laboratory experiences and simulations inside the institution positively correlate to their actual clinical performance during their on-the-job training program. Hence, a gap in the literature that this study wants to address.

While Micabalo & Poliquit (2022) contend that implementing regulations and requirements in an internship program shapes the personality, background, and skill sets required for a solid foundation in the labor market. As a result, how well students do throughout their on-the-job training is crucial to their readiness for future employment. The execution, and longevity of

internship programs are also essential factors in determining how College programs might have a significant impact on the graduates' professional development.

This study wants to address the aforementioned literary issues, concerns, emphasis, importance of nursing laboratory exposure, and the literature gap. The main objective of the study is to determine whether there is a positive correlation between laboratory performance of nursing students in an institution and their actual clinical performance during their on-the-job training program in the College of Nursing, University of Cebu Lapu-Lapu and Mandaue.

FRAMEWORK

This examination is anchored on Social Learning Theory created by Bandura. It is a psychological interaction based on changes in convictions, ideas, and information and improves proficiency and individual learning measures through cooperation in the workplace (Falk & Kim, 2019). It stresses the significance of noticing, demonstrating, and impersonating others' practices, mentalities, and passionate responses. Social learning theory considers how environmental and cognitive factors influence human learning and behavior (McLeod, 2016). The hypothesis added a social component, contending that individuals can learn new data and practices by watching others. Known as observational learning, this sort of learning can clarify different practices, including those that regularly cannot be represented by other learning speculations. Bandura's hypothesis moves past social speculations, which propose that all practices are learned through molding, and intellectual hypotheses, which consider mental impacts (Cherry, 2019).

As indicated by Bandura (1977), learning would be unfathomably laborious, likewise dangerous, if people expected to rely altogether upon the effects of their exercises to enlighten them on what to do. Fortunately, most human lead is adjusted observationally through showing: from seeing others, one design considers how new practices are performed, and on later occasions, this coded information fills in as a guide for action.

Constructivism Theory is the idea that people are responsible for making their comprehension of the world and using what they know based on previous experiences in linking new information to these experiences. People use these experiences and new information to construct their meaning (Bruner, 2019).

Constructivism is a familiar way to deal with learning. Like most other learning hypotheses, constructivism has various roots in this century's philosophical and mental viewpoints, unequivocally in the advancement (Simonson et al., 2006). As of late, constructivism has gotten a "hot" issue as it has gotten expanded consideration in various orders, including instructional plans (Karagiorgi & Symeou, 2005).

Constructivism is a hypothesis that compares taking in with making importance as a matter of fact (Ertmer & Newby, 2013). Even though constructivism is viewed as a part of cognitivism (both consider learning a psychological movement), it separates itself from customary intellectual speculations in various manners. Most intellectual therapists consider the psyche a reference device to this present reality; constructivists accept that the brain channels the world's contribution to creating its one-of-a-kind reality (Barell, 2010). Constructivism crosses the two classes by underscoring the communication between these two factors. The constructivist position accepts that move can be encouraged by the association's invalid errands moored in significant settings. Since comprehension is "listed" by experience (similarly as word implications are attached to clear cases of utilization), the validity of the experience gets essential to the person's capacity to utilize thoughts (Ertmer & Newby, 2013).

OBJECTIVES OF THE STUDY

The study aims to determine the influence of laboratory skills performance on the actual clinical performance during their on-the-job training program among College of Nursing student interns at the University of Cebu Lapu-Lapu and Mandaue. The study seeks to identify the correlation between laboratory performance and to on-the-job training performance of the students. The result of the study would serve as the basis for identifying necessary intervention plans intended to enhance the department's laboratory practices and increase the level of performance among nursing students.

METHODOLOGY

Research Design

The investigation used the descriptive-quantitative method for research to determine the influence of laboratory skills performance on the actual clinical performance during their on-the-job training program among College of Nursing student interns at the University of Cebu Lapu-Lapu and Mandaue.

Research Environment

The study was conducted at the University of Cebu Lapu – Lapu and Mandaue campus originated at the College of Nursing Department.

Research Respondents

The investigation study formulated an aggregate of 69 student-respondents gathered through archival data in the College of Nursing, University of Cebu Lapu-Lapu and Mandaue.

Research Instrument

The assessment utilized the archival data available in the College of Nursing about the different skills performance of the students in the laboratory and the available performance rating in their actual clinical duties (on-the-job training).

Treatment of Data

Frequency, simple percentage, and rank were used to treat the collected information.

Table 1 No. of student- Respondents as gathered through Archival Data

Course Majors	(f)	Percentage
• 3rd Year Section A	**37**	**53.62**
• 3rd Year Section B	**32**	**46.38**
Total	**69**	**100.00**

Research Procedure

Data Gathering

To achieve the examination study, these means were followed. The letter of intent was routed to the Dean of the College of Nursing for the data gathering, requesting the data about the laboratory skills performance of the students and their actual clinical performance on their on-the-job training program. The faculty member teaching the said subjects was also asked to retrieve archival data intended for the study.

RESULTS AND DISCUSSION

This section contains the findings from the archival data tabulated and analyzed. The first part presents the laboratory skills performance of the respondents. The second part presents the actual clinical performance of the student interns. Lastly, the significant Relationship between the laboratory skills performance and the actual clinical performance of the student interns.

Table 2
Laboratory and Clinical Performance of the Nursing- Respondents in Section A

Laboratory (Operating Room) Performance			
Indicators		**Frequency**	**Percentage**
1.0	• **Excellent**	**1**	**2.70**
1.1-1.5	• **Very Satisfactory**	**10**	**27.03**
1.6-2.5	• **Satisfactory**	**23**	**62.16**
2.6-3.0	• **Needs Improvement**	**3**	**8.11**
Total		**37**	**100.00**
Clinical Duty (Operating Room) Performance			
Indicators		**Frequency**	**Percentage**
1.1-1.5	• **Very Satisfactory**	**13**	**35.14**
1.6-2.5	• **Satisfactory**	**22**	**59.46**
2.6-3.0	• **Needs Improvement**	**2**	**5.41**
Total		**37**	**100.00**

Performance Indicators	*(% +/-)*
• Excellent	**(2.70)**
• Very Satisfactory	**8.11**
• Satisfactory	**(2.70)**
• Needs Improvement	**(2.70)**

Summarized percentage change in Student's Performance (increase/ decrease)

Data on the laboratory and clinical performance of the student interns in the College of Nursing are shown in Table 2. According to the data, 62.16 percent of students' laboratory (operation room) performance was rated *satisfactory*. On the other hand, it was also evident from the interns' clinical duty performance that 59.46 received a *Satisfactory* rating. Moreover, the performance indicator statistically showed increased performance of students with *Satisfactory* ratings from their laboratory to actual clinical performance. It further suggests that most students need to perform better on section A of the task assigned to them to improve their skills in the operating room procedure during laboratory skill performance.

There is a positive trend toward more students imposing a Very Satisfactory performance during their clinical duties, according to the summarized students' performance indicator. Additionally, some students' performance in the lab may translate to their clinical performance. However, there have also been instances of students who underperformed in the lab but excelled in their clinical tasks. However, section A with students having excellent laboratory performance reflects a different performance in their clinical duties.

The "internship" phase, a component of the nursing degree program, serves as a tactical tool for systematizing the essential integration of theoretical learning and nursing practice (Corrado et al., 2019). Quinto (2019) claims that clinical laboratories have developed quality indicators that gauge how well clinical practice and patient care are doing. Furthermore, laboratory performance is closely related to the academic internship overseen by training hospitals, making it crucial to keep track of students' development to ensure that nursing students perform consistently, effectively, and efficiently in all medical settings.

Table 3
Laboratory and Clinical Performance of the Nursing- Respondents in Section B

Laboratory (Operating Room) Performance			
Indicators		**Frequency**	**Percentage**
1.0	**Excellent**	**2**	**6.25**
1.1-1.5	**Very Satisfactory**	**11**	**34.38**
1.6-2.5	**Satisfactory**	**18**	**56.25**
2.6-3.0	**Needs Improvement**	**1**	**3.13**
Total		**32**	**100.00**
Clinical Duty (Operating Room) Performance			
Indicators		**Frequency**	**Percentage**
1.1-1.5	**Very Satisfactory**	**24**	**75.00**
1.6-2.5	**Satisfactory**	**8**	**25.00**
Total		**32**	**100.00**

Performance Indicators	***(% +/-)***
• Excellent	**(6.25)**
• Very Satisfactory	**40.63**
• Satisfactory	**(31.25)**
• Needs Improvement	**(3.13)**

Summarized percentage change in Student's Performance (increase/ decrease)

Data on the laboratory and clinical performance of nursing student interns in Section B are presented in Table 3. The data reveals that the majority of the students' laboratory performances—56.25 percent—were classified as *Satisfactory*, while 75% of students' clinical performances received a Very Satisfactory rating. Additionally, the performance indicator statistically showed an improvement in students' performance from their laboratory to actual clinical performances rated as *Very Satisfactory*. According to the data, students' laboratory skill performances in section B were varied, although performing well, the majority with only a *Satisfactory* rating predominating. The data also suggests that the interns could execute their actual clinical tasks effectively, as evidenced by a Very Satisfactory grade. It further demonstrates that even though students might not be doing well on their laboratory exercises, there is still a greater likelihood that they will perform well on their clinical tasks, as indicated by the student performance indicators.

It was further supported by Solvik & Struksnes (2018). They noted that while most nursing students did not believe the procedure performed at the university resembled how it is performed in clinical practice, they reported that the exercises in the clinical lab were an excellent way to prepare for the practice. To help nursing students adapt to the "real world" as seamlessly and meaningfully as feasible, universities should consider students' ages better while facilitating clinical preparations (Solvik & Struksnes, 2018).

Table 4
Significant Relationship between the Respondent's Laboratory Skills Performance and Clinical Performance ($\propto$ = 0.05)

Variables	Correlation Coefficient		Sig. (2-tailed)	Significance	Result
Section A	**Laboratory Skills**	**Clinical Performance**			
• Laboratory vs. Clinical	**1.000**	**.463****	**0.004**	**Significant**	**Ho Rejected**
Section B					
• Laboratory vs. Clinical	**1.000**	**0.117**	**0.522**	**Not Significant**	**Ho Accepted**

The significant correlation between the respondent's performance in the laboratory and the clinical setting is shown in Table 4. The data showed that section A, between the student interns' demonstrations of their laboratory skills and their actual clinical performance, had a positive connection (pvalue.05). However, section B showed a lack of association. Students' perceptions of their performance in Section A in the lab reflect their actual responsibilities and abilities in their clinical work. Furthermore, it indicates that the evaluation of student performance in their lab is unidirectional and imposes a correlation between that evaluation and their actual clinical performances. However, although part of the data supports a clear conclusion on good laboratory performance and exposure among nursing student interns showing a positive correlation to clinical performance, the data further suggest that student's capacity and determination are also vital factors to their actual clinical performance since data shows that although not performing well in the lab still got a good performance in their actual clinical duties.

Table 5
Significant Difference between the Laboratory Skills Performance and Clinical Performance of Sections A and B

Indicators	df	t-Statistics	t-Critical	p-Value	Decision on Ho	Interpretation
Laboratory	**62**	**2.917**	**1.999**	**0.005**	**Ho Rejected**	**Significant**
Clinical Duty	**62**	**1.530**	**1.999**	**0.523**	**Ho Accepted**	**Not Significant**

Table 5 presents the significant difference between the laboratory skills and clinical performance of sections A and B student interns in the College of Nursing. The data revealed a significant positive difference among students' laboratory performances, while no significant

difference was identified in their actual clinical duty and performance. The information suggests that sections A and B deal with their laboratory performances differently. Additionally, the findings suggest consistency in the statistical link between the two variables and their implications, as noted above. It is emphasized that despite evidence supporting a positive correlation between laboratory and clinical performance, students still possess a general understanding of how to effectively carry out their actual clinical responsibilities, regardless of how well they perform on their laboratory skills exercises.

CONCLUSION

Nursing students can practice using real-world scenarios and nursing abilities in the skills laboratory to prepare for their clinical placement. To ascertain positive results, sections in nursing students' laboratory performance must be assessed in connection to their clinical performances. The findings of this study revealed that students in section (A) are not performing well in their laboratory skills activities, while Section (B) was varied, although performing well, the majority with only a *Satisfactory* rating predominating. However, both sections were rated *Very Satisfactory* on their actual clinical duties. The findings further revealed that section (A) has a positive correlation between laboratory and clinical performance, while section (B) has no significant association.

Moreover, the study revealed significant differences between section (A) and (B) laboratory performances while no difference in both clinical performances. The study concludes that even though results showed evidence of a positive correlation between laboratory and clinical performance. The student still has a general personal understanding to perform their actual clinical duties regardless of whether they perform well on their laboratory skills exercises. Further concludes not to classify laboratory functions as the only factor affecting nursing students' clinical performance but also categorize but not limited to personal, emotional, and behavioral capacity as determinants for nursing's actual clinical performance in their on-the-job training program.

RECOMMENDATION

Based on the result, the researchers proposed the following:

1. The nursing department must strengthen their initial efforts to cultivate a culture of practical laboratory functions embedding personal, emotional, and behavioral capacity as determinants of performance.
2. The College of Nursing, together with the University Research Office (URO), should continuously monitor student laboratory and clinical performances measuring how personal, emotional, and behavioral affects student performance.
3. The College of Nursing must provide follow-up interventions to low-performing students in laboratory activities before sending them to their clinical duties.
4. Other variables not taken in this study could be examined as a recommendation for further studies exploring the correlation between laboratory and clinical performance.

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