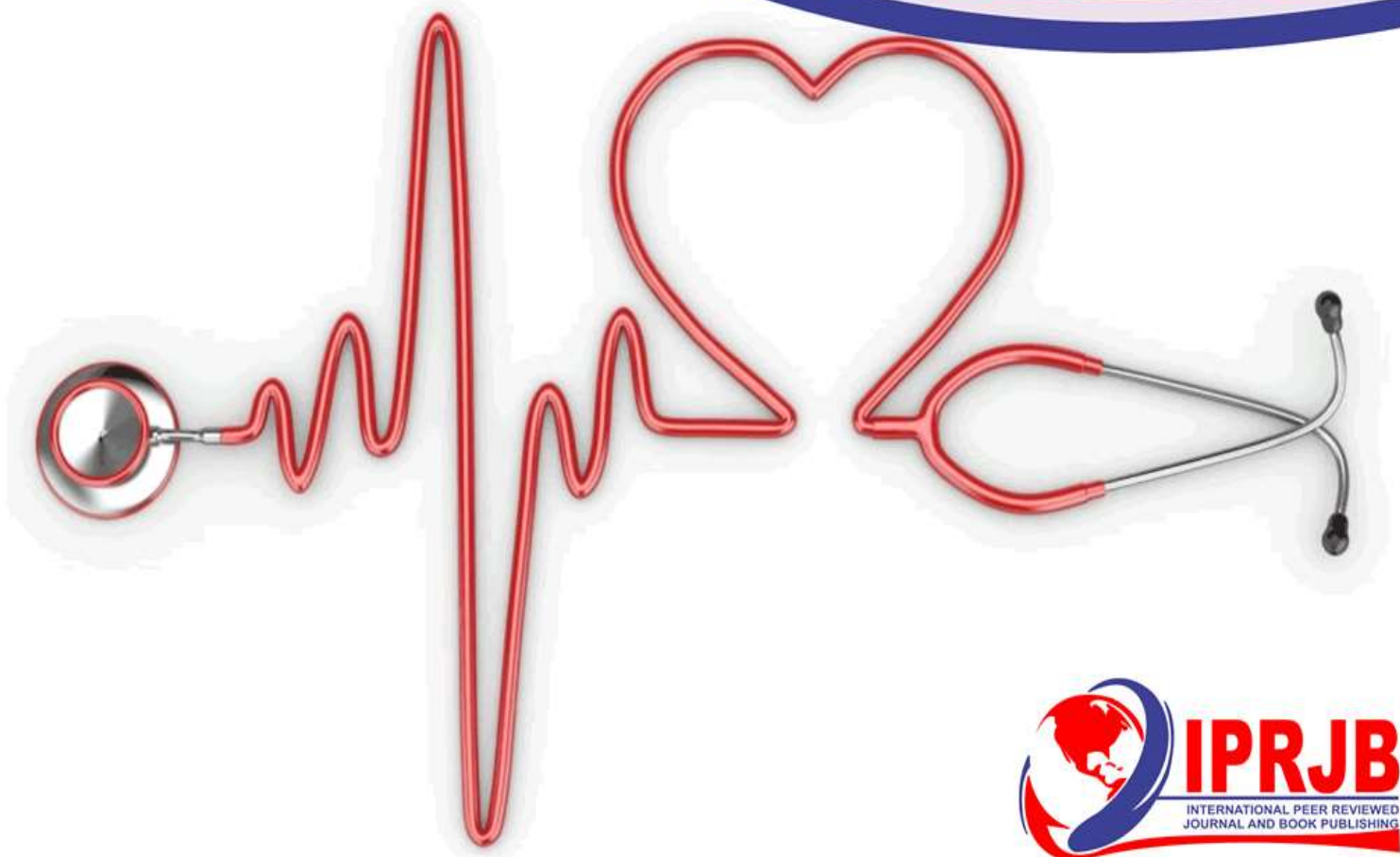


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**Assessment of Factors Associated With the Acquisition of Competencies among Undergraduate Nursing Students in Ugandan Universities**

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**Abstract**

**Purpose:** Like other developing countries, Uganda grapples with the critical challenge of equipping nursing students with essential clinical competencies. These competencies encompass vital nursing skills, knowledge, attitudes, and behaviors crucial for effective nursing practice. This study assessed student perceptions and confidence in applying acquired clinical skills among undergraduate nursing students in Ugandan universities.

**Methodology:** A descriptive cross-sectional study was used to assess bachelor's in nursing students from central and western Ugandan universities. Data were entered into Excel and exported to SPSS version 22. Results were presented using frequencies, pie charts, percentages, and tables. Chi-square tests were conducted to assess associations of the variables in the study.

**Findings:** The study showed that acquisition of clinical competencies is positively correlated with students' perceptions ( $r=0.775$ ) ( $p=0.000$ ), Institutional factors ( $r=0.668$ ) ( $p=0.000$ ), clinical learning environment ( $r=0.556$ ) ( $p=0.000$ ), clinical feedback ( $r=0.439$ ) ( $p=0.000$ ). The study further shows that 69.9% ( $n=70$ ) had adequate clinical learning experience, while 31% ( $n=31$ ) had inadequate clinical learning experience. This implies moderate student supervision, feedback, and an unfavorable clinical learning environment. Competency acquisition in student nurses is positively influenced by the active involvement of students' perceptions, institutional factors, and a supportive clinical learning environment. A sufficient amount of clinical experience is pivotal in developing competent student nurses.

**Unique Contribution to Theory, Practice and Policy:** Management should always invite experienced professionals to share career experiences to enhance realistic perceptions among nursing students. Students should be given more time to practice in clinical settings, and management should advocate for including student attitude tests in orientation programs across nursing and clinical training universities.

**Keywords:** *Competency, Nursing, Clinical, Nursing Students*

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## INTRODUCTION

Student Nurses' Clinical learning is a vital component of nursing education in the clinical setting (Jamshidi et al., 2016). This is only achievable when the nurses are knowledgeable and well-conversant with theory and hands-on experience. Nurse graduates are expected to provide humane, safe, and effective care in various settings while keeping abreast of the swift advances in healthcare (Benner, 2010). The nurse competency of nursing students is a fundamental issue in health care as it relates to professional standards, quality nursing care, and patient safety (WHO, 2010).

As opined by (Aiken et al., 2002), before graduation approaches, nursing students are expected to have acquired adequate clinical competencies to fulfill their duties safely and effectively and adequately provide high-quality, safe, and patient-centered care. In this regard, trained, well-qualified, and experienced nurse practitioners are required to produce optimal results since all healthcare systems are labor-intensive.

To ensure the nursing faculty abides by WHO requirements, the curricula have been transformed using teaching strategies such as problem-based learning, objective structured clinical examination, simulation practice, and flip teaching. All these strategies have been identified as effective methods for improving psychomotor and problem-solving skills to strengthen patient-centered nursing care competencies in nursing students, as affirmed by (Fan et al., 2015).

Despite all this, one must ably perform the following nursing tasks to be recognized as possessing clinical competence; take history for new admissions, perform and document patient health assessment, answer questions for patients or families, educate patients or families with disease-related care knowledge, chart and documentation, develop care plan for patients, perform shift report, perform hygiene and daily care routines, provide rest and comfort measures, assess nutrition and fluid balance, assess elimination, assist in activities and mobility, and change position, provide emotional and psychosocial support, perform venipuncture, Start intravenous injections, change intravenous fluid bottle or bag, administer intravenous medications (or into intravenous bags), administer intramuscular medications, perform subcutaneous (or intracutaneous) injection), administer oral medications, administer blood transfusion, perform urinary catheter insertion and care, Perform sterile techniques, perform postural drainage and percussion, and oxygen therapy, perform pre-operative/post-operative care, perform enema, perform upper airway suction, perform tracheotomy care, perform nasogastric tube feeding and care, perform chest tube care with underwater seal management and perform wound dressing.

Clinical nursing skills are a course unit in the curriculum where these clinical procedures or tasks are drawn. So, every nurse has to cover this course unit's theory and practical aspects before graduation to get the required competencies. Although nursing education has been acknowledged as having a global purpose of ensuring professional clinical competencies and improving the safe delivery of high-quality nursing care, as revealed by (Kooli et al., 2023) ;(Helmi et al., 2021), critics still lament that practically there is a shortage of competent, experienced nurses globally (Tefaye et al.,2020).

Hands-on experience in clinical settings requires adequate clinical resources to train students. Collaboration between health facilities and Institutions of learning can help lay strategies for acquiring and managing these resources effectively. The learning resources could have been

inadequate from the beginning or lacked replacement when they wore out or got stolen. Some students even lost compassion for nursing as it was challenging to practice. Regardless of these findings, some students experienced this because they were forced into a career that was not their choice or disliked the clinical environment. This will be reinforced by counseling the students and explaining the course's benefits. In Malawi, (Fikre et al.,2016) reported that student nurses practiced through trial and error when allocated to the clinical environments due to a lack of preceptors or clinical instructors to guide them. Preceptorship is a dynamic psychosocial intervention that includes educative and supportive interactions between students, preceptors, and nurse teachers at the clinical training. This could have been due to a lack of financial incentives, so they absentee themselves or deliberately refused to guide students.

These interactions are based on preceptors' professional behavior, including teaching relevant skills, applying theoretical knowledge to clinical practice, and providing students with adequate support and encouragement (Foster et al.,2015) ;(Saar Koski et al.,2018). Therefore, it is hoped that investigating preceptors' participation in students' acquisition of clinical competencies will help develop an effective clinical teaching strategy in nursing education.

A study in Tanzania by Muganyizi et al. (2014) analyzed pre-service family planning teaching in clinical and nursing education. The results showed that only one person met the criteria for suitability for family planning teaching. Training Institutions should be able to produce competent nurses who can teach and have hands-on experience to provide safe and quality services to communities. Therefore, this study has revealed the linkage between theoretical and practical knowledge.

When utilized adequately, knowledge can go a long way in closing the theory-practice gap, thus producing a competent nurse who can deliver safe and quality care to patients. A study done in Kenya (Wachira, 2014) looked at the theoretical and clinical practice competency of new bachelor's in nursing graduates following an internship in Kenya; results revealed that 69 percent of the graduates lacked appropriate clinical judgment capacity. Most students appeared unable to apply their theory to practice after completing their education. Furthermore, this implies that most students transition through their education before applying the theory learned in class into practice. In this study, students reported that nurse educators at the school of nursing schedule very little time for practice.

In Uganda, maternal and infant mortality rates are still unacceptable, with 16 mothers dying every day while giving birth and 131 infants dying before reaching the age of five. To enhance the existing health results of Uganda's population, the health sector requires quantity and quality of well-trained health workers. This study sought to assess factors affecting competency acquisition among bachelor of nursing students in government and private universities in Uganda. There could be occasional complaints from the ward nurses of various practicum sites where students practice concerning their level of competency acquisition. Unfortunately, there are no studies done in Uganda to assess the competency acquisition of undergraduate bachelor of nursing students in Ugandan universities.

The study focuses on assessing the competence acquisition of bachelor of nursing students in government and private universities in Uganda. It aims to fill the gap in existing research by examining the factors influencing the level of competency these students attain during their academic and practical training. The research is motivated by the need to enhance the quality of health workers in Uganda to handle the high maternal and infant mortality rates. By

understanding and improving the competence acquisition of nursing students, this study seeks to contribute to better healthcare outcomes in the country.

The study utilized qualitative and quantitative research meth to assess the factors that influence the acquisition of clinical competence among undergraduate nursing students during their practicum experiences. It gathered data from students, mentors, and supervisors to gain comprehensive insights into the factors affecting competency acquisition among undergraduate nursing students in Ugandan universities. Quantitative data was carefully processed using Microsoft Excel and IBM SPSS, with descriptive statistics like range, mean, and mode presented visually through figures, tables, and textual summaries.

Qualitative data was analyzed thematically after coding. When collecting this data, the study targeted students, preceptors, and supervisors across eight universities with final-year bachelor of nursing students. A descriptive survey design was employed, utilizing purposive sampling for participant selection and questionnaires for data collection. Chi-square tests were applied to explore relationships between variables, and a significance level was set at  $P \leq 0.05$ . This comprehensive approach required a detailed examination of competency acquisition factors, providing valuable insights into the nursing education landscape in Uganda.

### **Conceptual Framework**

Fig 1 shows the linkage between different factors and competence acquisition of bachelor of nursing students. It shows how competence acquisition as a dependent variable is related to the dependent variables: preceptor, environmental, institutional, and student factors. The researcher also identified some extraneous variables that may affect the acquisition of clinical competencies, including the university management, facilities, and the quality of lectures, among many others.

The variables are part of the input and process explained in Ludwig's Input-Output model. They play a role in bringing out the output and academic performance. If these variables are not controlled, they may interfere with the study results. The researcher maintained the effect of the extraneous variables by randomly selecting students because randomization is one of the ways to attempt to control many extraneous variables.

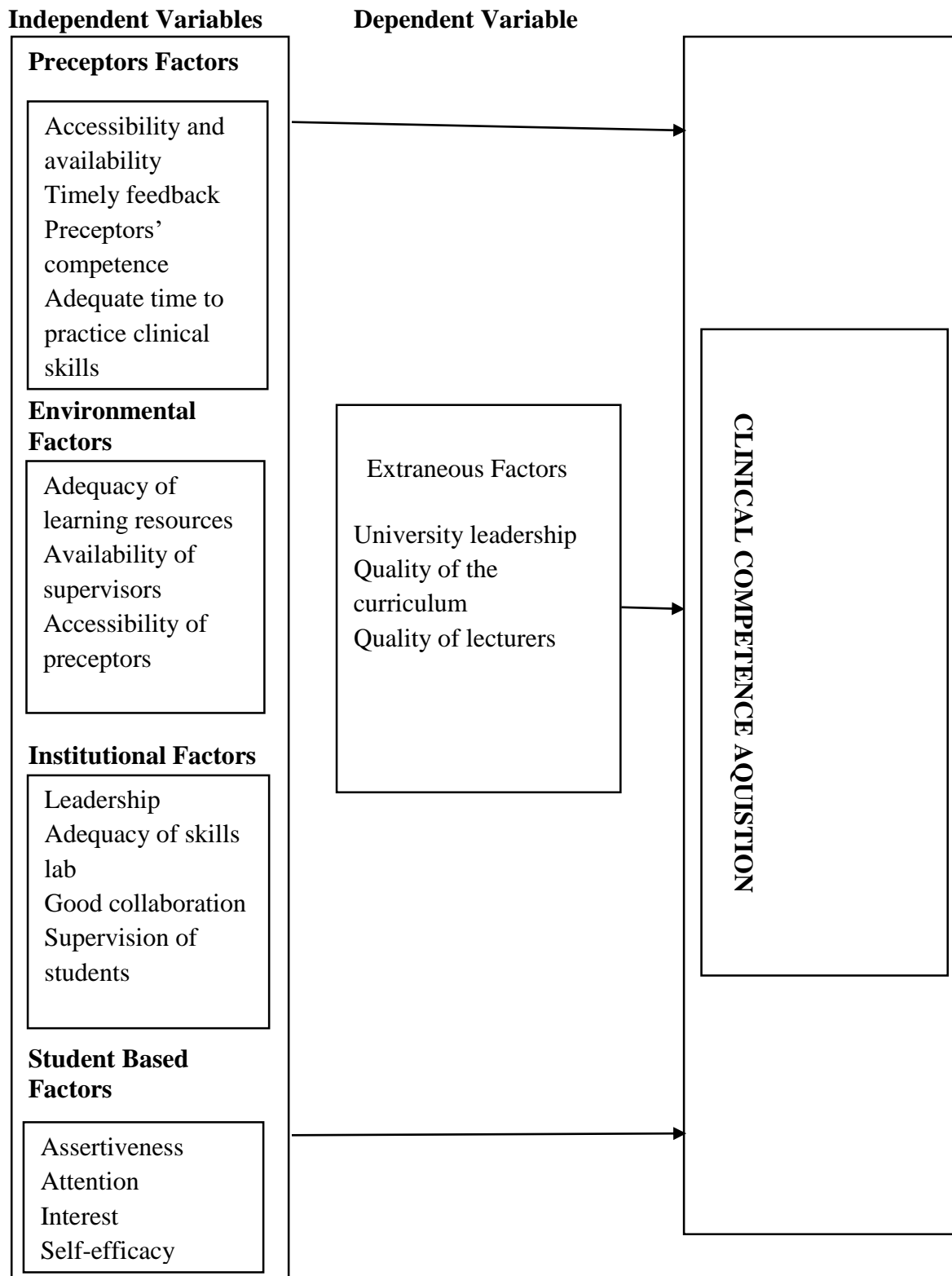


Figure 1: Conceptual Framework for the Factors Affecting the Acquisition of Competencies

Source: Adopted from Koontz and Wehrich (1988).

## LITERATURE REVIEW

Clinical learning combines theoretical knowledge with real nursing scenarios, enabling anticipatory socialization to work and developing necessary clinical skills, such as critical thinking, clinical reasoning, decision-making, and specialized skills (Manninen et al., 2020). The Clinical Learning Environment (CLE) helps ensure significant and progressive learning outcomes. Evidence suggests that the CLE reflects a psycho-social organizational context that influences teaching and learning processes (Tomietto et al., 2014). A systematic review and meta-synthesis documented that an unsupportive CLE combined with unwelcoming clinical staff, a lack of expertise among clinical supervisors, and a lack of sense of belonging among students may negatively impact students' learning (Panda et al., 2021).

A supportive and positive CLE is a welcoming area where collaboration occurs, and mutual respect is observed (Pienaar et al., 2022; Pitkänen et al., 2018). In addition to CLE, learning Saarikoski's rough clinical placements is also based on the clinical supervision model (Cremonini, 2015). The supervision provided by qualified nurses in clinical placements helps students to link theoretical knowledge with practical knowledge, increases student empowerment, engages students in their learning process, enhances motivation, and influences the profession. Additionally, insufficient clinical equipment (Jacob et al., 2023) could hinder students' practical learning and achievement of clinical objectives (Gemuhay et al., 2019; Mbakaya et al., 2020). Moreover, the theory-practice gap may confuse students as they struggle to apply their knowledge in real-world settings ( Jacob et al., 2023).

A conducive CLE should have qualified clinical educators and preceptors to supervise and guide students' clinical learning. Ali et al. (2015) emphasize that a good CLE should provide an atmosphere where the Staff makes students feel like part of the team, understands them, is interested in teaching, and considers students' feelings. These will boost student confidence and motivate them to want to learn more. In contrast, Castillo-Angeles et al. (2017) allude that an environment where the Staff is unwelcoming to students, unsupportive in their clinical practice, and unwilling to teach can cause fear, anxiety, and disappointment in the students' learning experience. Additionally, a hostile learning environment can hinder students' ability to acquire new knowledge and skills, ultimately impacting their future practice.

Flott and Linden (2016) state that nursing students undergo evaluation in clinical learning environments, where they can apply their skills and knowledge to patient care. However, two qualitative studies conducted in South Africa and Tanzania by Donough, Van der Heever (2018), and Gemuhay (2019) found that students do not receive sufficient clinical supervision. The studies revealed that clinical facilitators were either unavailable or spent less time with students in the clinical area. This experience can create a damaging setback for students and fear of practicing without supervision. Kalyani et al. (2019) advise that for nursing students to gain the required competencies for delivering high-quality patient care, clinical-based knowledge and competency through clinical experiences should be prioritized and greatly emphasized.

Adeyemi et al. (2021) conducted a literature review exploring nursing students' clinical practice challenges. The review identified inadequate resources, including equipment, supplies, and facilities, as significant barriers to effective clinical learning. More research is needed on the impact of resource availability on nursing students' clinical competencies. Consequently, a successful clinical practice program should aim to deliver a good and constructive learning

experience to nursing students to ensure their clinical competency and confidence in future practice. A supportive and favorable clinical learning environment is critical for promoting optimal learning during clinical practicums.

### **Research Gaps for Future Studies**

#### **Contextual Gaps**

- Limited exploration of the perceptions of students and mentors towards the clinical competence assessment tool.
- Lack of analysis on the impact of mentorship in rural hospitals on nursing student competence acquisition.

#### **Methodological Gaps**

- Absence of studies evaluating the long-term effectiveness of the clinical competence assessment tool on nursing education outcomes.
- Limited research on the correlation between information literacy competencies and clinical competence among nursing students.

#### **Geographical Gaps**

- Scarcity of studies examining mentorship practices and their influence on nursing student development in rural healthcare settings in Uganda.
- Insufficient research on the challenges experienced by nursing students in clinical training programs in specific regions of Uganda.

By addressing these contextual, methodological, and geographical gaps identified in existing empirical studies, future research can contribute significantly to advancing nursing education and clinical competence acquisition among students in Uganda.

### **The Theory that Guided the Study**

Albert Bandura's Social Learning Theory guided this research. The theory points out that individual learn from Preceptors. For learning to occur, the following steps must be followed: observation, attention, retention, reproduction, and motivation (Bandura, 1977). The clinical practice experience setting fits well into this theory. The theoretical framework also emphasizes learning, the interaction between cognitive and environmental influences and experiences to acquire or change one's knowledge and skills.

These assumptions by Albert Bandura are very applicable to the clinical setting where preceptors, supervisors, and students interact during clinical practice. During clinical practice, nursing students observe the preceptors' procedures and later conduct a return demonstration under supervision. The clinical environment in which the students and the preceptors interact is the practicum site in the health care facility setting.

The role of other stakeholders, such as the supervisors, is to reinforce a one-to-one interaction with the learners. Students, supervisors, and preceptors collaborate to develop clinical learning goals during the practicum. Furthermore, Bandura asserts that adherence to a particular behavior or learning can lead to a positive change. Finally, Bandura says that knowledge and competencies are acquired through the modeling process. He also argues that modeling is a four-way process that starts with an observation, then attention, retention, reproduction, and motivation.



## **METHODOLOGY**

### **Study Design**

Descriptive survey design was considered since it provides a snapshot of a situation at a particular moment, and findings from the selected sample are generalized to the whole target population.

### **Study Area**

The study was conducted at the beginning of this study at three government and five private universities in Uganda that offered Bachelor of Nursing programs. The universities consisted of Bishop Stuart University (BSU), Bugema University (BU), Kampala International University (KIU), Clarke International University (CIU), Makerere University (MUK), Mbarara University of Science & Technology (MUST), Mountains of the Moon University (MMU), and Uganda Christian University (UCU). Four of these are in the Central part of Uganda, and the other four are located in the Western part of Uganda.

### **Study Population**

Bachelor in nursing students (who must have completed their mandatory clinical placement rotations in the supposed health clinics) from Bishop Stuart University (BSU), Bugema University (BU), Clarke International University (CIU), Kampala International University, Makerere University (MUK), Mbarara University of Science and Technology (MUST), Mountains of the Moon University, and Uganda Christian University (UCU) who consented to the study. Students absent from the University on the day of data collection were excluded from participating in this research.

### **Sample Size Determination**

Probabilistic and non-probabilistic techniques were used in recruiting research participants. The sample size of 108 students represents all eight (8) Universities distributed in the figure of 108 to eight universities; stratified sampling was used. In a stratified procedure, 108 sample sizes were divided into BSU, BU, CIU, KIU, MUK, MUST, MMU, and UCU as per the number of students in each school, resulting in 11, 12, 13, 12, 14, 33, 04, and 10 recruits respectively. The total number of the student target population in the eight (8) participating universities was found to be 150, and as per Krejcie and Morgan, 150 correspondents have a sample size of 108.

### **Sampling Procedure**

A Simple random sampling technique was used on the lists of students per university until the proportionate required numbers were obtained. Participating students were requested to give their consent using informed consent forms.

### **Data Collection Tool**

All participants received self-administered questionnaires, which they filled out at their convenience. These were open-ended and close-ended questionnaires.

### **Data Entry and Analysis**

Data was checked, cleaned, coded, and entered into the Microsoft Excel database, exported to SPSS computer software, and presented in text as figures and tables such as pie charts and bar graphs. Chi-square tests were used to check for possible associations between dependent and independent variables, and a P-value of  $\leq 0.05$  was considered statistically significant.

## Ethical Consideration

The anticipated participants were requested to join this research voluntarily, and each participant was given a consent form to sign. Ethical approval from the Institutional Research and Ethics Committee (IREC) of Moi University College of Health Sciences and Mulago Hospital Research and Ethics Committee (MHREC) was honored. Finally, the Uganda National Council for Science and Technology (UNCST) cleared and approved the research protocol.

## RESULTS

### Socio-Demographic Characteristics of the Students

**Table 1 Showing Student respondents According to Age**

Age	Frequency	Percentage	Cumulative percentage
21 – 24	43	43	43
25 – 28	28	28	71
29 – 32	12	12	83
33 – 36	7	7	90
37 – 40	7	7	97
41 – Above	3	3	100
<b>Total</b>	<b>101</b>	<b>100</b>	

The highest percentage of respondents (43%) was aged between 21 to 24 years, and the least number of respondents (3%) were above 40 years of age. The mean age of the respondents was 22.4 years, which is the appropriate mean age for tertiary students in Uganda. Over three-quarters (80%) of the respondents were below 28 years old, which is also the right age bracket for university students in Uganda. Less than three percent of the respondents were over 41 years old; such respondents studied and worked simultaneously, and there were few in government and private universities in Uganda.

**Table 2: Shows Respondents Who Attended Placements**

Number of placements attended	Frequency	Percentage	Cumulative percentage
1 -2	5	4.9	4.1
3	7	6.9	10.2
4	21	20.7	30.6
5 and above	67	67.3	99
None	1	1	100
<b>Total</b>	<b>101</b>	<b>100</b>	

Most students who responded (68.4%) had attended more than four placements. This was purposive so that they could gain vast knowledge from their experience.

**Table 3 Showing Students' Enrolment into the Program**

Method of entry into the program	Frequency	Percentage	Cumulative
Direct entry	66	65.3	65.3
Extension	35	34.7	100
<b>Total</b>	<b>101</b>	<b>100</b>	

Most respondents (65.3%) were enrolled through direct entry, while only 34.7% were enrolled through an extension program.

**Table 4: Level of Clinical Competence Acquisition**

Clinical Competences	Agree n (%)	Neutral n (%)	Disagree n (%)
Apply critical thinking to patient care	68(68)	14(14)	18(18)
Develop a care plan for patients.	58(57.4)	36(35.6)	7(6.9)
Assess the nutrition and fluid balance of the Patient.	68(67.3)	20(19.8)	13(12.9)
Administer intravenous and intramuscular Medications	67(67.6)	20(20.2)	12(12.1)
Perform urinary catheter insertion and care	74 (73.2)	15(14.9)	12(11.9)
Perform pre-operative and post-operative care.	72(71.3)	11(10.9)	18(17.8)
Administer blood transfusion	69(68.3)	7(6.9)	25(24.8)
Demonstrate capacity to secure the patient's upper airway	74(74.8)	6(6.1)	19(19.2)
Perform chest tube care with underwater	51(51)	23(23)	26(26)
Collect information from the client (history taking) and interpretation of their laboratory results.	69(68.3)	14(13.9)	18(17.8)
Analyze and interpret data obtained in the client's assessments	51(50.5)	8(7.9)	42(41.6)

The majority of the study participants mentioned that they were able to secure the patient's upper airway (74.8%), catheterize patients (73.2%), perform pre-and postoperative care (71.3%), take the patient's health history, and interpret their laboratory results (68.3%), administer blood to patients (68.3%), could apply critical thinking while caring for patients (68%), administer intravenous and intramuscular medications (67.6%), and could assess the patients' nutritional and fluid status (67.3%). Nevertheless, fewer study participants could develop patients' care plans (57.4%), perform chest tube care during underwater seal drainage (51%), and analyze and interpret data obtained during their client's assessments (51%).

**Table 5: Showing Summary of the Descriptive Statistics and ANOVA Results for the Level of Confidence in the Application of Basic Clinical Skills as Perceived by the Students**

Acquired clinical competence students perceived as well grasped	Frequency	Mean	Standard deviation
History taking and examination for a differential diagnosis	101	3.2	1.2
Ability to perform chest care with the underwater bag	100	3.34	1.1
Ability to administer a blood transfusion	101	3.6	1.2
Administer pre and post-operative care for patients	101	3.7	1.0
Insert and care for a urinary catheter	101	3.9	1.2
Confidently administer intravenous medications	101	3.9	1.2
Assess Nutrition and fluid balance	101	3.8	1.0
Develop a patient care plan	101	3.7	0.9
<b>Total average score on competence acquisition</b>	<b>101</b>	<b>3.63</b>	<b>0.59</b>

Students perform highest in insertion and care for urinary catheters and administering IM and IV medicines (3.9) and lowest in history taking examination and making of differential diagnosis (3.2). On the whole, considering the means reflected, the students rated themselves as performing reasonably well. Since personal variables affect performance in applying acquired skills, the researcher considered it essential to relate background variables to the dependent variable confidence in applying acquired skills. Acquisition of clinical skills was aggregated in one index (Aquiskill) with arithmetic mean = 3.63 and standard deviation = 0.59

**Table 6: Summary of the Descriptive Statistics and ANOVA Results for the Relationship between the Number of Placements Students Attended and Application of Acquired Clinical Skills (Acquicomp)**

Number of clinical placements attended	Frequency	Mean	St. deviation	F	Sig.
1 -2 placements	18	3.6	1	0.5	0.77
3 placements	26	3.6	0.2		
4 placements	30	3.7	0.6		
5 + placements	27	3.6	0.6		
<b>Overall</b>	<b>101</b>	<b>3.6</b>	<b>0.6</b>		

The means in the Table above suggest that the difference in the number of placements scored differently on confidence in the application of acquired clinical competencies, with the students who had attended four placements scoring highest and the rest scoring almost the same. To confirm whether the differences were significant, we consider the F value 0.5, whose significance value of 0.77 is greater than alpha = 0.05. The conclusion, therefore, is that there is no significant difference between the number of placements attended and students' confidence in applying acquired competencies.

**Table 7: Summary of the Descriptive Statistics and ANOVA Results for the Relationship between Student Mode of Entry into the Program and Application of Acquired Clinical Competencies (Acquicomp)**

Number of clinical placements attended	Frequency	Mean	St. deviation	F	Sig.
Direct entry	66	3.6	0.7	0.46	0.8
Extension program	35	3.6	0.4		
<b>Overall</b>	<b>101</b>	<b>3.6</b>	<b>0.6</b>		

The means in the Table above suggest that different methods of student entry into the program scored similarly in confidence to apply acquired skills. To confirm whether the similarity in the mean was significant, we consider the F value of 0.46, whose significance (Sig) value of 0.002 is less than  $\alpha = 0.05$ . The conclusion, therefore, is that there is no significant relationship between the method of entry and student confidence in the application of acquired competencies.

### Student Perceptions and Confidence in the Application of Acquired Clinical Skills

The objective hypothesis was stated: “There is a positive relationship between students' perceptions and confidence in the application of acquired skills and competencies by undergraduate nursing students.” To test this hypothesis, the researcher asked respondents to rate their level of confidence in the application of basic nursing skills concerning their perceived supportive factors conceptualized as Congruence between what is learned in class and practice on the ward, enough time to practice, regular assessments, desire to achieve goals, demand for nurses on the job market, sufficient theory learned and courage to ask questions in practice. The rating was according to the Likert scale, with one representing strongly disagree, two representing disagree, three representing neither agree nor disagree, four representing agree, and five representing strongly agree. The summary of the descriptive statistics of respondent' rating their level of performance as per their conceived perceptions was given in Table 21 in decreasing order of means.

**Table 8: Perceptions of Undergraduate Nursing Students on What Influences the Acquisition of Clinical Competencies in Government and Private Universities in Uganda**

Student perception of what influences skill acquisition	Frequency	Mean	Standard deviation
There is enough time to practice the clinical skill	101	3.7	0.9
Congruence between what is learned in class and practice onward	101	3.5	1.1
My peers influence my ability to acquire skills	101	3.7	1.0
Students' will to learn skills	99	2.7	1.2
Students perceived the capacity to understand	101	3.8	1.0
Student adequately prepared	101	3.8	1.2
Having sufficient theoretical knowledge	101	3.2	1.2
Student courage to ask and be corrected	101	3.5	1.2
Student's intention to open his/her clinic	99	3.6	1.1
When a student has the desire to achieve goals	101	3.6	1.1
I have a positive attitude	101	3.8	1.2
Desire to further my education career	101	3.6	1.1
There is a high demand for nurses in the job market in the country	101	3.8	1.1

The means in the Table above suggest that the respondents, who were driven by the perception of natural ability to understand, adequately prepared for the practicum, and those who thought there was high demand for nurses on the Job market scored highest (3.8), the respondents who thought their will to learn the skills scored lowest. Overall, the means suggest that the respondents' performance in applying skills was fair (3.6). All four items were aggregated into one index (StudePerc) to test objective one. The dependent variable application of acquired competencies (Acquicom) was then related to each variable (StudePerc), as shown in the table below.

**Table 9: Summary of the Pearson Product Moment Correlation Analysis for the Relationship between Students' Perceptions (Studeperc) and Student Acquisition of Clinical Competencies (Acquicom)**

		<b>Student perceptions</b>	<b>Competence Score on Skill</b>
Average Student Perceptions	Pearson Correlation	1	.775**
	Sig. (2-tailed)		.000
	N	101	101
Competence Score on Skill Development	Pearson Correlation	.775**	1
	Sig. (2-tailed)	.000	
	N	101	101
**. Correlation is significant at the 0.01 level (2-tailed).			

A Pearson product-moment correlation index obtained was positive at  $r = 0.775$ . The significance or p-value = 0.000, less than the predetermined  $\alpha=0.01$ , or  $\alpha = 0.05$ . This result indicates a significant relationship between student's perceptions and students' acquisition of clinical competencies. This confirms the research objective hypothesis that a positive relationship exists between students' perceptions and students' acquisition of clinical competencies among undergraduate nursing students in government and private universities in Uganda.

## Discussion

This research sought to explore undergraduate nursing students' perceptions of what influences the acquisition of clinical competencies in government and private Universities in Uganda. The response rate among students was 101/108 (94%), representing the target population, as argued by (Bjork et al., 2014).

The Pearson Product Moment Correlation was used to determine the relationship between students' perceptions and acquisition of clinical competencies; the Pearson product-moment correlation index  $r$  gave a significance or p-value of 0.000, less than  $\alpha = 0.01$ . The results revealed that students' perceptions are significantly related to the acquisition of clinical competencies among undergraduate nursing students in government and private universities in Uganda, implying that positive students' perceptions influence the acquisition of clinical competencies. The Pearson product-moment correlation index  $r$  of students' perceptions and acquisition of clinical competencies was positive at 0.775. This value is far greater than 0.5, indicating a strong significant relationship between students' perceptions and acquisition of clinical competencies. Also, the positive relationship implies that students who perceive their

course as essential and have a positive attitude are more likely to acquire clinical competencies than their counterparts.

The findings of this study are consistent with those of several scholars, including studying students' performance in clinical experiences and, therefore, clinical competency. It also found that student performance in competency application depended on whether students had a positive attitude towards nursing subjects, liked nursing subjects, felt that nursing science would be helpful, and were not afraid to ask questions (Mikkonen, 2019). This indicates that the positive perceptions that build a positive attitude build the student's chances of better performance in skills acquisition. Moreover, these findings are not different from those by (Anderson et al., 2011), which determined that students who report condescending and insensitive manners, harmful and humiliating comments, and failure to listen harm their learning and do not acquire the required competencies.

## **CONCLUSION AND RECOMMENDATIONS**

### **Conclusion**

The research concludes that students' perceptions of the course they pursue strongly correlate with their chances of acquiring clinical competencies. Therefore, enhancing positive attitudes among undergraduate nursing students in government and private Universities can improve their ability to acquire clinical skills and reduce the time they take to acquire the competencies. Government and private Universities training clinical and nursing courses should conduct student attitude tests during the orientation of the students, identify the students with negative and unrealistic perceptions, and appoint counselors to such students to support them in the early stages of the course.

### **Recommendations**

Attitude tests should be conducted during student orientation to identify negative perceptions and provide counseling support, which can help address unrealistic expectations early in the course.

Organizing activities within and outside institutions to foster realistic expectations among students can enhance their perceptions and confidence in their nursing and clinical training.

Universities should invite experienced nurses and other healthcare professionals to share career experiences with students, helping them build realistic expectations and perceptions about their future roles.

### **Contributions to Theory, Practice, and Policy**

This study contributes to the theory by addressing student perceptions and expectations in nursing education. It highlights the role of early intervention through attitude tests and counseling in shaping students' attitudes towards their training. The recommendations offer practical strategies for universities to implement and support nursing and clinical students effectively. By incorporating these suggestions, institutions can enhance students' learning experiences and outcomes. The study advocates for a proactive approach to supporting nursing students by integrating counseling services, confidence-building activities, and mentorship programs. These recommendations can inform policy decisions aimed at improving the quality of nursing education and preparing students for successful careers in healthcare.

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