Journal of Medical and Health Sciences
[ISSN 2958-1079]
Volume: 04 Issue: 01 | December-2025
JMHS

Assessment of the Capacity of Selected Clinical Placement Sites in Supporting the Development of Nursing Students' Clinical Skills and Competence in Bomet and Kericho Counties, Kenya

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Cite this article in APA
Towett, P., Boibanda, F., & Kirop, E. (2025). Assessment of the capacity of selected clinical placement sites in supporting the development of nursing students' clinical skills and competence in Bomet and Kericho counties, Kenya. *Journal of medical and health sciences 4*(1), 51-66. https://doi.org/10.51317/jmhs.v4i1.868

OPEN ACCESS
A publication of Editon Consortium Publishing (online)

Article history
Received: 2025-10-14
Accepted: 2025-11-15
Published: 2025-12-15

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Abstract
This study used a mixed-methods design (QUAN + QUAL) to assess the capacity of clinical placement sites in Bomet and Kericho Counties to support nursing students' skills development. Clinical placements are crucial for translating theoretical knowledge into practical skills, but their quality can be affected by resource limitations. Data was collected from students, nurse educators, nurse managers, and principals of nurse training institutions using questionnaires, Key informant interviews, and Focused Group Discussions, which achieved a response rate of 89.5 per cent (N=213). Students reported high confidence in basic nursing procedures (M=4.03), indicating successful skill acquisition. However, the development of full competence was significantly hindered by overcrowding, resulting in high student-to-patient and student-to-instructor ratios. Qualitatively, Nurse Managers reported that hospital staff were overwhelmed, leading to inconsistent mentorship. A positive correlation (r=0.488, p<0.01) was found between clinical competency development and curriculum implementation, underscoring the necessity of effective capacity management. Stakeholders emphasised the need for increased investment in simulation-based learning to bridge the theory-practice gap. The study concludes that while the system successfully builds basic student confidence, the quality of competence development is severely compromised by resource limitations and pervasive clinical overcrowding. Urgent systemic reform is required. The study strongly recommends that clinical placement sites establish a formal capacity management system based on effective student-to-patient ratios, standardise and resource a protected clinical mentorship program, and strategically invest in modern simulation infrastructure to secure the competence of future nurses.

Key terms: Capacity, clinical competence, clinical placement, nursing education, mentorship, overcrowding.

1.0 INTRODUCTION

The clinical practicum is crucial to nursing education, yet its effectiveness is often diminished by significant logistical challenges. Specifically, an excess of students in clinical settings leads to resource shortages that hinder effective learning. Additionally, the mismatch between student numbers and the availability of qualified supervisors and necessary equipment compromises meaningful supervision and in-depth educational experiences (Mbakaya et al., 2020; Kaimuri et al., 2024). Addressing these issues is essential for improving clinical education in nursing programs. Nursing education is composed of theoretical instruction and clinical practice gained through clinical placements, with the latter constituting a substantial portion of the student experience.

Clinical placements are essential experiences for nursing students, providing opportunities to work in hospitals, clinical and community health facilities. These placements bridge the gap between theoretical knowledge and practical skills, enabling students to work directly with patients and alongside experienced healthcare professionals. Through this hands-on experience, they enhance their clinical competence while developing empathy and a deeper understanding of patient care (Muthui et al., 2023). To facilitate both personal and professional development, students must practice within supportive clinical environments. Clinical education is the mechanism through which patient care competencies, integrating knowledge, skills, and attitudes, are imparted to students. Its primary objectives, as noted by Arkan et al. (2018), are to cultivate professional critical thinking, enhance clinical decision-making, and strengthen self-confidence. Nursing education in Bomet and Kericho Counties is provided by six training institutions, divided equally between three public schools and three faith-based organisations. All of these institutions offer a three-year diploma program. To help students acquire practical skills, they are assigned to various healthcare settings. This comprehensive clinical training network includes larger County and Sub-County Referral Hospitals, which are crucial for gaining experience in acute and complex patient care. Additionally, students are exposed to Faith-Based Referral Hospitals and various Primary Health Facilities. This diverse experience ensures that nursing trainees build competence not only in critical hospital environments but also in foundational community health and preventive care.

A study conducted in Kenya investigated the institutional factors influencing the clinical competencies of student nurses, identified inadequate mentorship support as a significant institutional barrier, despite the availability of adequate physical resources for clinical placements. The lack of mentorship was characterised by the absence of a structured mentorship program, a high student-to-mentor ratio that violates the Nursing Council of Kenya recommendations, and a deficiency in formal mentor-mentee pairing. Consequently, a majority of respondents reported being unable to effectively apply classroom knowledge during clinical procedures, highlighting a direct correlation between the weak mentorship system and a critical gap in professional skill development (Muthui et al., 2023).

The clinical practicum is a cornerstone of nursing education, yet its efficacy is frequently weakened by a persistent logistical issue: the placement of an excessive number of students in clinical units that lack the proportional resources to support them. This imbalance between student density and the availability of both human supervisors and physical equipment creates an environment where meaningful supervision and deep learning are compromised. A growing body of international research confirms this concern, linking clinical overcrowding to negative educational consequences. Qualitative findings from Turkey, quantitative results from Malaysia, and mixed-methods research from Malawi collectively establish that

excessive student numbers are a significant barrier to effective clinical learning and supervision across diverse healthcare contexts (Arkan et al., 2018; Mbakaya et al., 2020). Therefore, the central problem is the widespread and persistent misalignment of clinical placement capacity with educational demands, which threatens the development of clinical competence in nursing students.

A study done in Ghana revealed that clinical nursing education is compromised by severe misallocation of resources, characterised by excessively high student-to-preceptor ratios, often reaching 1:10 or more per shift. This overcrowding is compounded by ineffective teaching methods and a lack of essential medical equipment. Consequently, students face a significant barrier to acquiring practical competencies, as the clinical environment is fundamentally disproportional to their educational needs (Ziba et al., 2021).

The Nursing Council of Kenya (NCK) stipulates differentiated mentor-to-student ratios based on the complexity and acuity of the clinical environment, a critical parameter for designating areas as suitable learning settings. Highest-acuity settings, such as Intensive Care Unit (ICU), High Dependency Unit (HDU), Labour, and Delivery Wards, require the most intensive supervision at a 1:2 ratio, with specialised areas sometimes demanding 1:1 supervision. This contrasts with General (Medical/Surgical) Wards, which utilise a 1:4 ratio, and lower-acuity settings, including Long-term Care and Community Health Centres, which mandate a 1:6 ratio. Furthermore, classroom instruction is regulated at a 1:10 tutor-to-student ratio. Although these NCK standards are fundamental to quality clinical education, contemporary practice reveals deviations from these standards, primarily attributed to systemic issues such as staff shortages and increasing student enrollment, consequently posing challenges to the intended quality of student mentorship (Nursing Council of Kenya, 2024)

The purpose of this research was to assess the capacity of selected clinical placement sites in supporting the development of nursing students' clinical skills and competence. To achieve a comprehensive, multi-stakeholder understanding of the clinical learning environment, the study was guided by four specific objectives: to establish the perspectives of nursing students, nurse educators, principals, and nurse managers regarding the capacity of these clinical placement sites to enhance crucial skills and competence.

2.0 LITERATURE REVIEW

The study is based on Kolb's Experiential Learning Theory (Kolb, 1984), which asserts that learning is a continuous process grounded in direct experience. This theory involves a four-stage cycle: Concrete Experience (feeling), where the learner engages in a hands-on event; Reflective Observation (watching), where the learner reviews the experience to identify patterns and inconsistencies; Abstract Conceptualization (thinking), where the learner synthesizes reflections to develop new concepts; and Active Experimentation (doing), where the learner applies these concepts to new situations, creating further experiences. In nursing education, this framework is valuable as it helps students connect patient care, reflection, and theoretical integration, effectively bridging the gap between theory and practice and fostering clinically competent practitioners (Mohajer et al., 2024)

Clinical placement is the foundation of nursing education, serving as the critical bridge where theoretical knowledge meets the complexities of real-world patient care. It is within this clinical learning environment (CLE) that students develop the competence, confidence, and professional identity required for a successful transition into the workforce. However, across sub-Saharan Africa, the capacity and quality of

these environments to effectively enhance nursing students' skills remain a significant concern (Abuosi et al., 2022). This synthesis draws on a wide body of research to explore the multifaceted challenges in nursing education, identify persistent gaps, and highlight the essential components for strengthening curriculum implementation and clinical preparedness, with a specific focus on the Kenyan context.

The Persistent Theory-Practice Gap

Previous research has consistently illuminated a range of deeply rooted challenges within nursing education, constantly revealing a prevalent and significant theory-practice gap. This fundamental disconnect signifies the perennial rift between the academic competencies developed within nursing programs and the operational competencies required for safe, autonomous, and effective independent clinical practice. As demonstrated by the literature, multiple interrelated and systemic factors contribute to this phenomenon, as outlined in the sections that follow.

Deficiencies in the Clinical Learning Environment (CLE) and Supervision

The overall quality of the Clinical Learning Environment (CLE), which encompasses the physical atmosphere and the structure of supervisory support available, plays a pivotal role in shaping the student learning experience. Research conducted in diverse contexts, including Kenya and the United Kingdom, consistently highlights that nursing students face significant hurdles during their clinical placements. These challenges often stem from a lack of adequate mentorship and support, as well as resource limitations and overwhelming operational demands (Aryuwat et al., 2024; Waswa et al., 2023). Despite the differences in study locations, Thailand and Kenya, the findings from both studies were similar in identifying the challenges nursing students face when translating theory into practice in various clinical learning environments. The study conducted in Thailand utilised a qualitative approach and involved 28 nursing students from three nursing training colleges. In contrast, the Kenyan study employed a mixed-methods approach and included 394 nursing students from 12 nursing training institutions. Nonetheless, both studies clearly demonstrate that students encounter difficulties during their clinical experiences.

A prevalent concern in the clinical placement sites is the insufficient provision of formal clinical teaching. Many students report feeling a distinct lack of emotional encouragement and practical guidance from senior clinical staff and, occasionally, from nurse educators. This deficiency in mentorship can lead to feelings of isolation and uncertainty during critical learning moments.

The reality of high patient-to-nurse ratios, a common feature in many clinical settings, severely limits opportunities for meaningful hands-on learning experiences, intimate observation, and personalised instruction. Such challenging operational conditions not only hinder students' ability to assimilate knowledge and skills but also contribute to increased psychological stress and a decline in professional self-confidence among nursing students. Overall, the interplay between systemic constraints and the quality of support within clinical placements requires urgent attention to enhance the educational journey of future nurses.

Impediments in Clinical Assessment and Mentorship Systems

Clinical assessment plays a vital role as the essential gateway to achieving competence certification in healthcare education. However, its execution is often obstructed by a multitude of systemic challenges: The significance of effective mentorship in enhancing students' clinical skills and strengthening their professional confidence is well-documented (Omondi et al., 2024). Despite this, the implementation of

effective mentorship is frequently hampered by a critical lack of structured training programs for mentors. Many mentors wrestle with balancing their demanding clinical workloads, which limits the time and energy they can devote to nurturing new talent (Luther, 2025).

Additionally, mentors often voice their frustrations regarding the assessment process itself, citing the absence of standardized guidelines and a formalized training approach to objective evaluation methods, which can lead to inconsistent assessments (Cant et al., 2021). The study by Cant demonstrates two major strengths in its methodological approaches. First, it addresses a high-value research question by focusing on a standardised tool. By limiting the review to studies that specifically utilised the 'Clinical Learning Environment, Supervision and Nurse Teacher (CLES+T)' scale, the review ensures that all included data are measured using an internationally validated, standardised instrument. This consistency enhances the comparability and quality of the synthesised findings. Second, the review has a wide scope in synthesising sources. It incorporates findings from 21 studies across 16 different countries. This international perspective offers a broad, cross-cultural understanding of nursing students' clinical placement experiences, significantly improving the generalizability of the conclusions compared to a single-site study. However, one weakness of Cant's systematic review is its focus on subjective experiences. The CLES+T scale primarily measures students' perceptions and satisfaction, which means that the review synthesises findings related only to student viewpoints. Consequently, it does not necessarily address objective quality measures of clinical education or hard outcomes, such as patient safety incidents or clinical skill acquisition rates. This limitation confines the conclusions to the students' perspectives.

The overall standard and quality of nursing education are greatly shaped by the operational capacity of the institutions that provide this training. Significant deficiencies in educational resources, such as state-of-the-art high-fidelity simulation laboratories and current teaching materials (Waswa et al., 2023), can severely impact the quality of education. These inadequacies are further exacerbated by widespread staffing shortages and a notable lack of institutional support dedicated to ongoing professional development (Waswa et al., 2023). Consequently, these challenges not only diminish the learning experience for students but also hinder their capacity to acquire advanced clinical skills effectively.

Gaps in Curriculum Design and Pedagogical Delivery

The successful implementation of contemporary nursing education models encounters substantial instructional and integration obstacles: First, the incorporation of cutting-edge educational strategies, such as Interprofessional Education (IPE) and community-based learning, is significantly hindered by inadequate curriculum integration. There exists a pronounced deficiency in the specialised training necessary for educators to effectively facilitate these modern and collaborative instructional frameworks, which are crucial for preparing nursing students for a dynamic healthcare environment (Kong et al., 2025).

Secondly, there is limited pedagogical awareness. A pervasive lack of awareness of inclusive pedagogical frameworks, such as Universal Design for Learning (UDL), among both students and educators reveals a notable gap in the adoption of contemporary, inclusive teaching practices. This shortfall significantly undermines the ability to address the diverse learning styles present in today's classrooms, suggesting an urgent need for professional development and training to enhance pedagogical understanding and application (Dempsey et al., 2024). The thesis by Dempsey presents two notable strengths worth analysing. First, the study employs a mixed-methods approach that includes both a scoping review and primary data collection. This methodological triangulation enhances the credibility of the findings by ensuring that

conclusions are not based solely on a single source or method. This approach makes the study particularly valuable, as it effectively utilises mixed methods. Second, the research involving educators frequently utilised inductive content analysis on open-ended survey responses. This qualitative method provides rich, contextual data and offers deeper insights into the educators' perceptions and awareness of the learning program, moving beyond mere quantitative statistics. On the other hand, the study has one significant weakness concerning the limitations in primary data collection and the nature of the review methodology. The study assessing educator awareness had a low response rate of only 23% (n=61). This low response rate significantly increases the risk of non-response bias, meaning that the views of the 23% of participants may not accurately reflect the opinions of the 77% who did not participate. Furthermore, this limitation severely restricts the generalizability of the findings regarding Universal Design for Learning (UDL) awareness among all anatomy educators in the target regions.

Conceptual and Contextual Gaps in the Literature

Despite the existing considerable body of research addressing challenges in nursing education, critical conceptual and contextual gaps remain, particularly concerning the holistic and systemic assessment of clinical site capacity. First, there is clear evidence of a disregard for systemic capacity based on multi-stakeholder perspectives. The literature indicates a significant gap: it often fails to collect primary, empirical data from all key strategic actors simultaneously, particularly nurse educators, nurse managers, and the principals of nursing training institutions. While student perspectives are important and frequently collected, it is essential to have a comprehensive synthesis that includes institutional, managerial, and regulatory viewpoints. This broader understanding is crucial for grasping the full operational and systemic challenges faced by clinical placement sites. Although studies that employ document analysis or integrative reviews, such as those by Gassas (2021) and Cook et al. (2022), offer valuable insights, they fall short of capturing the on-the-ground realities from these critical primary actors.

Secondly, literature indicates a conceptual limitation and a tendency to focus on isolated variables. This issue stems from the fact that much of the existing research concentrates on singular concepts, such as workplace resilience (Waswa et al., 2023), individual competencies like physical assessment (Okoth et al., 2024), or is excessively centred on specific assessment tools (Cant et al., 2021). Such an approach restricts the ability to conduct a comprehensive, systemic analysis of how various factors, including student preparedness, school-based pedagogical strategies, regulatory support, and clinical infrastructure, interact to influence the overall implementation of the curriculum and the functional capacity of the placement site.

Thirdly, there is a risk of contextual inappropriateness and limited transferability of findings. Studies conducted in high-income countries such as Singapore, Australia, and China (Woo & Newman, 2020; Zhang et al., 2022) often highlight universal educational issues. However, they frequently do not adequately address the specific resource constraints, varying levels of clinical complexity, and unique systemic challenges faced by nursing education systems in low- and middle-income countries like Kenya. This indicates a need for research that is contextually relevant in order to inform local policy.

Owing to the gaps depicted in the literature, the current study is explicitly designed to address these identified conceptual and methodological gaps by adopting a holistic, multi-stakeholder approach to systematically assess the functional and perceived capacity of clinical placement sites. By intentionally integrating the perspectives of students, the nurse educators who prepare them, the nurse managers who

mentor them, and the principals who oversee the training institutions, this research aims to move beyond diagnosing isolated challenges. Ultimately, this comprehensive data integration will provide a robust, systemic framework for understanding, benchmarking, and strengthening the foundational role of clinical placement capacity in ensuring high-quality nursing education within the specific context of Kenya.

Summary

The drive to transform nursing education requires a concerted effort to address not only the visible challenges in clinical placements but also the underlying systemic and regulatory factors. By synthesising the evidence, it becomes clear that sustainable improvement depends on standardising supportive processes, investing in institutional capacity, and most importantly, adopting a holistic, collaborative approach that is deeply informed by the local context. Only then can the clinical learning environment truly fulfil its promise as the powerful catalyst for developing the next generation of skilled and resilient nurses.

3.0 METHODOLOGY

This study adopted a robust concurrent mixed-methods design (QUAN + QUAL), integrating both quantitative and qualitative data simultaneously to gain a comprehensive understanding of the factors influencing nursing students' clinical skills development. The research served as a blueprint, systematically outlining the procedures for data collection, measurement, and analysis. This approach was chosen specifically for its ability to allow for the collection of complementary data that, when triangulated during the interpretation phase, significantly enhanced the reliability, validity, and depth of the findings. The study gave equal priority to both strands, utilising a convergent parallel mixing strategy where results were compared, contrasted, and integrated to shape the conclusions.

Quantitative and Qualitative Strands

The quantitative aspect employed a descriptive cross-sectional design. Data were gathered using structured questionnaires administered to lecturers, senior nursing students, and nurse managers. This strand was designed to assess the capacity of the clinical placement sites to support nursing students' clinical skills and competence. Analysis relied on SPSS Version 26, using descriptive statistics (frequencies, means) and inferential statistics (Pearson correlation, linear regression, t-tests, ANOVA, and Chi-square tests) to describe patterns and infer relationships between variables, all conducted at a 95 per cent confidence level (α=0.05).

In contrast, the qualitative aspect followed a combined phenomenological and narrative inquiry approach. This allowed for a deeper exploration of participants' lived experiences, contextual realities, and perceptions regarding curriculum implementation. Data was collected through Key Informant Interviews (KIIs) with principals and nurse managers, and Focus Group Discussions (FGDs) with students and nurse educators. Thematic analysis, supported by NVivo software, was the primary analytical framework, ensuring the capture of the richness and complexity of the human experiences behind the numerical measures.

Study Context, Population, and Sampling

The research was undertaken in Bomet and Kericho Counties, situated in Kenya's South-Rift region. The study sites included a purposive selection of Level 4, 5, and 6 health facilities (County Referral, Sub-County, and faith-based hospitals) and their affiliated diploma nurse-training institutions (e.g., KMTCs and mission

hospital schools). The total study population comprised Nurse Educators (45), Principals (5), Nurse Managers (6), and all senior Nursing Students (N=336) across these institutions.

A two-pronged sampling approach was used. For the smaller populations (Educators, Principals, Managers), a census technique was adopted to include all potential respondents, while purposive sampling ensured they were selected based on their strategic roles. For the Senior Student Nurses, the required sample size (n=183) was determined using the Taro Yamane Formula at a 95 per cent confidence interval, as shown in the equation below.

$$n = \frac{N}{1+N(e)^2}$$

Where: = sample size required, N =Number of people in the population [in this case, the 336 nursing students], e = allowable error (%) - 0.05.

Substituting $n = \frac{336}{1+336\ (0.05)^2} = 183$

These students were then selected using a simple random sampling method.

Data Collection and Ethical Rigour

Three primary data collection instruments were utilised: structured questionnaires, Key Informant Interview guides, and Focus Group Discussion guides. Before the main study, a pilot study was conducted at Mosoriot in Nandi County to assess and refine the instruments. Reliability for the quantitative tool was confirmed using Cronbach's alpha coefficient, with all thematic areas scoring well above the 0.7 threshold. Validity was enhanced through expert consultation and an extensive literature review. Qualitative rigour was ensured through measures of trustworthiness, specifically credibility (through prolonged engagement and triangulation), confirmability, dependability, and transferability, to ensure the findings were consistent, objective, and applicable to similar contexts.

Ethical clearance was obtained from the Moi University IREC, and a research license was acquired from NACOSTI. These permissions facilitated institutional access from County Medical Departments, Faith-Based Hospitals, and nurse training institutions. All participants provided informed consent, and their confidentiality and anonymity were strictly protected during the study.

4.0 FINDINGS AND DISCUSSION

Response Rate Analysis

The study achieved a high overall response rate of 89.5 per cent from a total target sample of 238 participants, demonstrating the adequacy of the data for analysis. Response rates were particularly strong among Principals and Nurse Managers, both of whom achieved a 100 per cent response rate. Senior Nursing Students also had a very high return rate at 97.7 per cent. Nurse Educators, while having the lowest rate, still provided a substantial response at 84.4 per cent.

Table 1: Response Rate

Respondents	Target sample	Actual sample	Response rate
Senior Nursing Students	183	159	97.7%
Principals	5	5	100%
Nurse Educators	45	44	84.4%
Nurse managers	6	6	100%
Total	238	213	89.5%

Demographic Characteristics of Respondents

The findings align with the generally female-dominated nature of the nursing profession. Female respondents constituted the majority among Senior Nursing Students (69.5%), School Principals (75%), and Nurse Managers (54.5%). However, Male Nurse Educators were slightly more numerous (55.6%) than their female counterparts (44.4%).

Regarding the age of the respondents, there was a clear distinction in the age distribution across the groups, reflecting career progression. Nurse Managers were the youngest group, with over half (55.8%) being under 35 years old. Nurse Educators were predominantly in the middle age category (30–44 years), representing 66.7 per cent of the group. School Principals were the most experienced, with 100% being 45 years or older, which is consistent with the seniority required for the role.

Findings about the education level showed that all respondent groups demonstrated a high level of literacy and professional qualification: School Principals mostly held a Master's degree (57.1%), Nurse Educators were largely Bachelor's degree holders (77.8%), while Nurse Managers were split between Higher Diploma (50.9%) and Bachelor's degree (43.6%) holders. Students were composed of 2nd and 3rd year students (96.3%), with an average age of 23 years, ensuring the validity of data on clinical experiences.

Clinical Placement Capacity and Competence Development: Senior Nursing Students' Perspectives

Students generally reported a positive perception of their clinical training, as shown in Table 2.

Table 2. Frequencies and Percentages of Senior Nursing Students' Responses Regarding the Capacity of the Clinical Placement Sites in Supporting Students' Development of Clinical Nursing Skills

	N	Minimum	Maximum	Mean	Std. Deviation
My clinical placements provide adequate exposure to real patient care.	159	1.00	5.00	3.7107	1.14
I receive effective supervision from clinical instructors during practical sessions.	159	1.00	5.00	3.7862	1.37
I feel confident in performing basic nursing procedures due to clinical training.	159	1.00	5.00	4.0314	1.18
The institution provides opportunities for case discussions and debriefing after clinical experiences.	159	1.00	5.00	4.0063	1.11
Clinical training has helped me develop critical thinking and decision-making skills.	159	1.00	5.00	3.7673	1.17
My clinical learning experiences reflect real-life nursing practice scenarios.	159	1.00	5.00	3.9874	1.06
Valid N (listwise)	159				

The positive perception from the findings in Table 2 is evidenced by high mean scores across most metrics (all means were above M=3.71). The highest-rated statement was their confidence in performing basic nursing procedures (M=4.03), indicating successful hands-on skill acquisition. Opportunities for case discussions and debriefing were also rated highly (M=4.00), suggesting a structured reflective learning environment. Adequacy of exposure and supervision received slightly lower ratings (M=3.71 and M=3.78, respectively), with high standard deviations suggesting varied quality across sites.

The nursing students expressed concerns through qualitative data. From the findings obtained from students' FGDs, students expressed dissatisfaction due to the overwhelming number of students rotating in specific areas (e.g., labour ward) against a limited number of patients, challenging their ability to meet clinical learning objectives.

Senior Nursing Student 1... *Clinical learning environment is poor. It's poor, because at some point, we find there are almost three classes that are in the same rotation. Let's say, for example, labour ward, there are three classes and three classes rotating there, and the patients are few, yes, so they are not able to learn (FGD 1).*

Senior Student 2... *there are many nursing students against few patients and clients. Especially in maternity. Generally, departments are overwhelmed by the number of nursing students (FGD 2).*

Nurse Educators' Perspectives

Nurse educators provided a generally favourable evaluation of the clinical training framework, with high mean scores (all means above M=3.79). The highest rated was 4.45 for institutional collaboration with healthcare facilities to enhance learning. Regarding supervision, nurse educators reported providing continuous supervision (M=4.25) and perceived students as demonstrating competence in basic procedures (M=4.15). Sufficiency of exposure received the lowest rating (M=3.79), suggesting that while training is structured, factors like patient availability or instructor workload may limit overall exposure.

The qualitative data collected through FGDs involving nurse educators revealed gaps in the capacity of placement sites in supporting students' skills development. Educators highlighted a disconnect between classroom teaching and hospital reality, citing limited resources (e.g., lack of linen, correct appliances),

Nurse Educator 2 - *Yes, the major gap is most of the hospitals don't have the basics you teach like something like bed making there are no linen, then there are no appliances that can take the students to that level of integrating the knowledge and the practical. ...even to treatment, you want to teach the right thing, like, prepare a tray for this and that... It is hard... whatever you teach in class is not what is in the hospital. So everything is like a shortcut, you look for a delivery pack to deliver, where you have the drapes, you have everything, and you find it is only a scissor, and maybe two clamps, or you use the cord clamps and as a razor blade.* There is also the challenge of high numbers of students leading to limited opportunities for hands-on experience and instruction, consequently making other students who miss those opportunities to become "joy riders".

Nurse educator 1- *.... student numbers are swollen, it means that there are those students who will be joy riders, because you are not able to get some of them hands-on, then the number of patients again, at that moment, might not be adequate enough for the training of the students.*

Nurse Managers' and Principals' Perspectives

Interviews with Principals and Nurse Managers confirmed systemic challenges affecting clinical competence development. Principals cited a limited time allocated for clinical practice in the KRCHN curriculum and high student-to-instructor ratios, which reduce individualised supervision. Principals reported that clinical placements in their institutions were well-structured; however, they often encountered logistical challenges that limited their effectiveness. One major concern highlighted was the high student-to-instructor ratio in clinical settings, which reduces the level of individualised mentorship that students receive. Most principals acknowledged that, although partnerships with hospitals and healthcare facilities offered valuable hands-on experience, overcrowded wards and a shortage of clinical instructors made it difficult to ensure that each student receives adequate practical exposure.

Nurse Managers reported that qualified hospital staff were often overwhelmed by workload, for example, one nurse manning 30 patients. The nurse managers felt clinical teaching was primarily the duty of the Unit In-Charge, leading to inconsistent mentorship for the large number of students, up to 20 students per department. While some managers noted adequate infrastructure, others stressed that the increasing number of students has congested departments, for example, 57 students allocated to four MCH rooms, making effective learning impossible.

The overall findings indicate that while collaboration is strong and students gain confidence in basic procedures, the effectiveness of clinical training is consistently challenged by high student-to-patient/instructor ratios, resource limitations, and inconsistent staff mentorship across the clinical placement sites.

Discussion

The current study utilised a concurrent mixed-methods approach to assess the capacity of selected clinical placement sites in Bomet and Kericho Counties, South-Rift Region, in supporting the development of nursing students' clinical skills and competence. The high overall response rate of 89.5% across all stakeholder groups comprising students, educators, principals, and nurse managers validates the representativeness and reliability of the findings, allowing for a multi-perspective interpretation of the clinical training environment.

With regards to the alignment of Student Confidence and Systemic Capacity, the quantitative data present convincing evidence that senior nursing students reported high confidence (M=4.03) in performing basic nursing procedures and valued opportunities for case discussions (M=4.00). This suggests that the fundamental educational framework is successful in imparting core psychomotor skills and encouraging reflective learning. This positive perception aligns with Mohamed et al. (2024), who found that structured clinical training enhances students' confidence and preparedness. However, the qualitative data from both students and nurse educators presented a crucial warning, indicating a gap between perceived confidence and structural adequacy. Students' concerns about the adequacy of exposure (M=3.71) and supervision (M=3.78) were substantiated by the voices from Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs). This finding strongly suggests that while students are learning, the quality of their deep, critical skill development is compromised by systemic capacity issues.

The rampant challenge of clinical congestion was the most pronounced theme across all stakeholder perspectives, including students, educators, principals, and managers, which they perceived to be detrimental to learning. Students voiced dissatisfaction with the "overwhelming number of students" relative to a "limited number of patients," particularly in high-demand areas. This finding resonates directly with the international research from Zhang et al. (2022) and Ziba et al. (2021), who link high student density to reduced individualised attention and limited skill acquisition.

Furthermore, Nurse Educators, while reporting high mean scores for their provision of supervision (M=4.25), simultaneously lamented the "swollen number of students" that leads to students becoming idle in the clinical learning environment, which is a powerful phrase indicating that hands-on learning is missed by many due to competition for limited patient encounters. This is not a failure of individual educators but a systemic strain, as also supported by Tuitoek et al. (2022), who highlight the negative impact of high student-to-preceptor ratios. Consequently, some nursing students graduate without gaining clinical skills, and poorly trained nurses endanger the lives of the patients.

Findings of the study revealed capacity constraints and inconsistent mentorship. A critical factor undermining clinical capacity is the high workload and inconsistent mentorship provided by hospital staff. Nurse Managers acknowledged that qualified hospital staff are "often overwhelmed by workload (e.g., one nurse manning 30 patients)" and view clinical teaching as primarily the duty of the Unit In-Charge, leading

to inconsistent mentorship. This confirms the findings of Omondi et al. (2024) and Luther (2025), which identified systemic barriers like high workloads that hamper effective mentorship.

The quantitative finding of a moderate but significant positive correlation between clinical competency development and curriculum implementation ($r=0.488$, $p<0.01$) underscores that when the curriculum is properly enacted in the clinical setting, competence improves. However, the qualitative data reveal that the "disconnect" between classroom theory and hospital reality is exacerbated by resource limitations (lack of linen, correct appliances) and a shortage of nurse educators and mentors, consistent with Gassas (2021). The variability in supervision directly impacts the development of higher-order skills like critical thinking and decision-making, as argued by Cant et al. (2021) and further validated by Omondi et al. (2024).

The desire to bridge the Theory-Practice gap with simulation and collaboration was a unified perspective among the students and educators. This was exemplified by the fact that students and educators explicitly advocated for an increase in simulation-based learning to enhance preparedness before clinical exposure. This recommendation is evidence-based, aligning with Unver et al. (2018), who affirmed that simulation improves clinical skills and confidence, and Cook et al (2022), who stressed aligning classroom teaching with practice. Limited access to modern simulation tools, as noted by educators, presents a clear area for institutional investment, as similarly reported by Cant et al. (2021) and Dempsey et al. (2024).

Finally, the strong institutional collaboration rating by nurse educators ($M=4.45$) stands in contrast to the persistent capacity deficits. This suggests that while formal partnerships are robust, their effectiveness in expanding placement slots and reducing student-to-patient ratios is insufficient. Leaders' calls for stronger partnerships to expand opportunities, a recommendation echoed by Waswa et al. (2023), emphasise that collaboration must move beyond formality to a practical level of shared resource management to address the overwhelming number of students. Adopting frameworks like Competency-Based Education (CBE), as supported by Oduor et al. (2025), may offer a way to measure and manage this capacity more effectively, ensuring students achieve demonstrable competencies rather than just logging time.

Overall, the findings portray a picture of a dedicated nursing education system that successfully builds student confidence in basic skills but is consistently undermined by severe resource limitations and student overcrowding in the clinical environment, necessitating urgent systemic reform in mentorship, infrastructure, and resource allocation.

5.0 CONCLUSION AND RECOMMENDATIONS

Conclusion: This study, employing a rigorous concurrent mixed-methods approach, successfully assessed the capacity of clinical placement sites in Bomet and Kericho Counties to support the development of nursing students' clinical skills and competence. The high confidence levels reported by Senior Nursing Students in performing basic procedures confirm that the foundational structure of the clinical curriculum is effective in imparting core skills. However, the findings reveal a persistent and significant disconnect between student confidence and systemic capacity. The core problem undermining the quality of clinical education is the ubiquitous issue of clinical congestion, which was manifested by high student-to-patient and student-to-mentor ratios. This overcrowding, coupled with resource limitations and inconsistent staff mentorship, dilutes the clinical experience and ultimately hinders the development of crucial higher-order skills like critical thinking and decision-making. The clinical learning environment offers valuable exposure to students, but it lacks the intensive and personalised support necessary to turn that exposure into

consistent and reliable competence. While strong collaboration exists among institutions, it has not resulted in enough logistical capacity to accommodate the growing student population effectively.

Recommendations: To enhance clinical placement sites and ensure nursing students' competence in the South-Rift Region, the following recommendations are suggested: First, address the Capacity Crisis through partnerships and policy by establishing a formal capacity management system. Nurse training institutions and healthcare facilities should implement a data-driven capacity audit to determine realistic student-to-patient ratios as recommended by the Nursing Council of Kenya, which prioritises quality experiences over sheer volume. Additionally, diversify clinical sites by partnering with lower-level facilities (Level 3 and 4) and community health centres to distribute students more effectively and reduce congestion at major hospitals, while broadening exposure to primary healthcare settings. Secondly, standardise and resource clinical mentorship by establishing and sustaining clinical mentorship programs: Healthcare facilities should designate qualified clinical staff as official Mentors/Preceptors and provide them with protected time (a reduced patient load) to engage in structured teaching and feedback. This acknowledges that teaching is a professional duty, not an added burden on an already overwhelmed nurse. In addition, healthcare facilities should establish mandatory, continuous professional development programs focused on clinical teaching strategies, reflective practice, and structured feedback mechanisms. This should extend further to include offering tangible incentives (stipends, CME points, or career advancement credit) to staff who take on mentorship roles. Thirdly, nurse training institutions should have strategic investment in educational infrastructure. Also, they should prioritise modern simulation to compensate for limited patient exposure and resource deficits in real clinical settings. This allows students to gain necessary experience with complex procedures and practice critical decision-making in a safe environment before entering the ward. Lastly, nurse training institutions should invest in curriculum and pedagogical enhancement and adopt Competency-Based Education (CBE) to ensure assessment focuses on the demonstrated mastery of essential skills rather than merely the completion of placement hours. This will hold both the student and the clinical sites accountable for achieving specific, measurable competencies.

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