



Assessing the Impact of Preceptorship on Nursing Education and Practice in Ghana: Challenges, Opportunities, and Outcomes

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Abstract

Objective: This analysis aimed to evaluate the impact of preceptorship programs on nursing education and practice in Ghana, considering challenges, opportunities, and outcomes.

Method: A comprehensive literature review and synthesis of findings from studies and case examples from Ghana and other West African countries were conducted.

Findings: Preceptorship programs have the potential to enhance student learning outcomes, clinical competence, and confidence. However, challenges such as resource limitations and inadequate support for preceptors need to be addressed. Case studies demonstrate the benefits of preceptorship, including improved patient outcomes and strengthened collaboration between academia and practice.

Conclusion: Preceptorship programs can transform nursing education and practice in Ghana, but their success requires investment, support, and collaborative efforts from stakeholders.

Recommendations: Nursing education institutions and healthcare facilities should prioritize preceptorship initiatives, allocate resources, provide support for preceptors, and engage students and educators in the planning, implementation, and evaluation of these programs to optimize their quality, relevance, and impact.

Keywords: Preceptorship, Nursing education, Clinical competence, Ghana, Nursing practice

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Introduction and Background:

Nursing education plays a crucial role in preparing competent and confident healthcare professionals to meet the evolving needs of patients and communities. In Ghana, there is a growing recognition of the importance of bridging the gap between theoretical knowledge and practical application in clinical settings. Preceptorship programs have emerged as a promising approach to address this challenge, providing nursing students with structured, supervised clinical experiences under the guidance of experienced nurses [1,2].



This study is undertaken to evaluate the impact of preceptorship programs on nursing education and practice in Ghana, considering the readiness and competence of preceptors, the efficacy of preceptorship compared to conventional clinical teaching approaches, the challenges and benefits of implementing preceptorship within the Ghanaian healthcare system, the opinions and experiences of nursing students and educators, and the influence of preceptorship on nursing students' preparedness for professional practice [3,4,5].

The main objective of this study is to provide a comprehensive and evidence-based understanding of the role and impact of preceptorship programs in nursing education and practice in Ghana. The specific objectives are as follows:

1. Evaluating the readiness and competence of preceptors in linking theoretical knowledge to practical application in clinical settings.
2. Comparing the efficacy of preceptorship programs against conventional clinical teaching approaches in terms of student learning outcomes and skill development.
3. Identifying and analyzing the unique challenges and potential benefits of implementing the preceptorship model within Ghana's healthcare system, considering factors such as resource availability, institutional support, and cultural context.
4. Investigating the opinions and experiences of nursing students and educators concerning the quality and effectiveness of preceptorship in their respective programs.
5. Assessing the influence of preceptorship on nursing students' preparedness for professional practice, as well as their self-assurance in applying their skills and knowledge in real-world clinical situations.

Academically, this study contributes to the growing body of knowledge on the effectiveness and impact of preceptorship programs in nursing education, particularly within the context of Ghana and other West African countries [6,7]. By synthesizing findings from a range of studies and case examples, this study provides a contextualized understanding of the challenges, opportunities, and outcomes of preceptorship initiatives in the region, identifying gaps in the current literature and providing direction for future research and practice [8,9].

Practically, this study offers evidence-based recommendations for nursing education institutions and healthcare facilities to invest in and prioritize preceptorship programs as a means of enhancing the quality, relevance, and impact of nursing education and practice [10,11]. By addressing the challenges and barriers identified in the literature and highlighting the potential benefits of preceptorship, this study can inform the design, implementation, and evaluation of preceptorship initiatives in Ghana, ultimately contributing to the development of a stronger, more competent, and confident nursing workforce [12,13].

Practical Significance

The analysis of preceptorship programs in nursing education in Ghana has significant practical implications for improving the quality and relevance of nursing education and practice. By highlighting the potential of preceptorship to enhance student learning outcomes, clinical competence, and confidence, this analysis provides evidence-based recommendations for nursing education institutions and healthcare facilities to invest in and prioritize these initiatives. The identification of challenges and barriers, such as resource



limitations and inadequate support for preceptors, underscores the need for targeted interventions and collaborative efforts to create enabling environments for preceptorship. The case studies and examples from Ghana and other West African countries demonstrate the tangible benefits of preceptorship programs, such as improved patient outcomes, enhanced staff satisfaction and retention, and strengthened collaboration between academia and practice. By implementing the recommendations and strategies outlined in this analysis, nursing education institutions and healthcare facilities can work towards optimizing the quality, relevance, and impact of preceptorship programs, ultimately leading to a stronger, more competent, and confident nursing workforce that can meet the evolving healthcare needs of populations in Ghana and beyond. The practical significance of this analysis lies in its potential to inform evidence-based decision-making, policy development, and resource allocation for preceptorship initiatives in nursing education and practice.

Academic Contribution to Literature and Practice

This analysis makes a significant academic contribution to the literature and practice of nursing and midwifery education in Ghana by providing a comprehensive and evidence-based examination of preceptorship programs. The analysis synthesizes findings from a range of studies and case examples from Ghana and other West African countries, offering a contextualized understanding of the challenges, opportunities, and outcomes of preceptorship initiatives in the region. By evaluating the readiness and competence of preceptors, comparing the efficacy of preceptorship programs against conventional clinical teaching approaches, investigating stakeholder opinions and experiences, and assessing the influence of preceptorship on nursing students' preparedness for practice, this analysis contributes to the growing body of knowledge on the effectiveness and impact of preceptorship in nursing education. The analysis also identifies gaps in the current literature, such as the need for more robust evaluation frameworks and the importance of ongoing faculty development and support, providing direction for future research and practice. By highlighting the potential of preceptorship to transform nursing education and practice, improve patient outcomes, and advance the nursing profession, this analysis contributes to the academic discourse on the role of preceptorship in the 21st century. The insights and recommendations offered in this analysis can inform the design, implementation, and evaluation of preceptorship programs in nursing and midwifery education in Ghana and beyond, contributing to the development of evidence-based practices and policies in the field.

Method Analysis:

This study employed a comprehensive literature review and synthesis approach, incorporating a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis; and an Outcome Analysis to evaluate the impact of preceptorship programs on nursing education and practice in Ghana. The SWOT analysis was used to systematically examine the internal and external factors influencing the implementation and success of preceptorship initiatives, while the Outcome Analysis focused on assessing the effects of preceptorship on various aspects of nursing education and practice, such as student learning outcomes, clinical competence, and preparedness for professional practice [3,4,5].

The use of SWOT analysis in this study is justified by its widespread application in healthcare research, particularly in evaluating educational programs and interventions [14,15]. SWOT analysis provides a structured framework for identifying and analyzing the strengths, weaknesses, opportunities, and threats



associated with preceptorship programs, enabling researchers to develop targeted strategies and recommendations for improvement [16,17]. By considering both internal factors (strengths and weaknesses) and external factors (opportunities and threats), SWOT analysis offers a comprehensive understanding of the complex interplay of variables influencing the success of preceptorship initiatives in Ghana [18,19].

Previous studies have successfully employed SWOT analysis to provide insight into comparable concepts in nursing education. For example, Bvumbwe et al. [20] used SWOT analysis to evaluate the implementation of a clinical preceptorship program in Malawi, identifying key strengths, such as improved student learning outcomes and enhanced clinical competence, as well as weaknesses, such as inadequate resources and limited support for preceptors. Similarly, Mubuke et al. [21] conducted a SWOT analysis of a preceptorship program in Uganda, highlighting opportunities for interprofessional collaboration and threats related to high turnover rates among preceptors.

The Outcome Analysis in this study focused on evaluating the impact of preceptorship programs on various aspects of nursing education and practice, drawing from a range of studies and case examples from Ghana and other West African countries [6,7,8,9]. By synthesizing findings related to student learning outcomes, clinical competence, preparedness for practice, and other relevant indicators, the Outcome Analysis provided a comprehensive assessment of the effectiveness and impact of preceptorship initiatives in the region [10,11,12,13].

The combination of SWOT analysis and Outcome Analysis in this study allowed for a holistic evaluation of preceptorship programs in Ghana, considering both the factors influencing their implementation and the resulting effects on nursing education and practice. This approach is consistent with best practices in educational research and has been successfully applied in similar studies investigating the impact of preceptorship programs in various settings [22,23].

Results & Analysis

This section employs a comprehensive approach, combining SWOT analysis and Outcome Analysis, to evaluate the impact of preceptorship programs on nursing education and practice in Ghana. By examining the strengths, weaknesses, opportunities, and threats, as well as the outcomes of these initiatives, this analysis provides valuable insights for stakeholders to optimize preceptorship programs.

Strength Analysis

The strengths of preceptorship in nursing education, as identified in the SWOT analysis and enriched by the additional sources, highlight the multifaceted benefits of this approach in bridging the gap between theory and practice, enhancing students' clinical competencies, and preparing nursing graduates for the challenges of modern healthcare in Ghana.

One of the key strengths is the presence of a legal framework supporting preceptorship, as evidenced by Ghana's Health Institutions and Facilities Act 2011 (Act 829) and the Health Professions Regulatory Bodies Act, 2013 (Act 857) [1, 3]. These acts provide a solid foundation for the implementation and governance of preceptorship programs, ensuring that they adhere to established standards and guidelines. The legal framework helps to promote quality and consistency in nursing education, which is crucial for the success



and sustainability of preceptorship initiatives. By operating within a supportive legal environment, preceptorship programs can benefit from increased legitimacy, resources, and institutional support, thereby enhancing their effectiveness and impact.

Another significant strength is the potential for integrating innovative technologies, such as artificial intelligence (AI) systems, into preceptorship programs [2]. As healthcare becomes increasingly technology-driven, exposing nursing students to AI-assisted tools and clinical decision support systems during their preceptorship can greatly enhance their digital literacy and prepare them for the future of healthcare. By incorporating these cutting-edge technologies, preceptorship programs can equip nursing students with the skills and knowledge needed to navigate the evolving healthcare landscape, ultimately leading to improved patient outcomes and more efficient healthcare delivery. The integration of innovative technologies also presents opportunities for research and innovation, allowing preceptorship programs to contribute to the advancement of nursing education and practice.

The successful precedent set by Ghana's nursing and midwifery assessment reform, as described in [4], serves as an inspiration and model for the effective implementation of preceptorship programs. This success story demonstrates Ghana's capacity for positive change in nursing education, highlighting the potential for overcoming challenges and achieving meaningful improvements through collaborative efforts and strategic planning. By drawing on the lessons learned from this experience, preceptorship programs can benefit from a roadmap for success, enabling them to anticipate and address potential obstacles, engage key stakeholders, and develop effective strategies for implementation and evaluation.

The additional sources provided further underscore the strengths of preceptorship in nursing education. Asirifi et al. [5] assess the challenges and opportunities in clinical nursing education in Ghana, highlighting the potential benefits of preceptorship in addressing these challenges. Their findings suggest that preceptorship can help bridge the theory-practice gap, enhance students' clinical competencies, and improve the overall quality of nursing education. By providing nursing students with hands-on, real-world experience under the guidance of experienced preceptors, preceptorship programs can facilitate the development of critical thinking, problem-solving, and decision-making skills, which are essential for effective nursing practice.

Atakro et al. [6] explore the experiences of nursing students during their clinical placements in Ghana, emphasizing the importance of effective clinical teaching methods, such as preceptorship, in enhancing learning outcomes. Their study findings underscore the role of preceptorship in providing a supportive learning environment, fostering professional socialization, and promoting the development of essential clinical skills. By offering nursing students individualized attention, feedback, and mentorship, preceptorship programs can help to build their confidence, competence, and professional identity, ultimately leading to better patient care and improved health outcomes.

Donkor and Andrews [7] discuss the challenges and opportunities facing nursing practice in Ghana in the 21st century, stressing the need for innovative approaches to nursing education, such as preceptorship, to meet the evolving healthcare needs of the population. They argue that preceptorship can help align nursing education with the demands of modern healthcare, ensuring that nursing graduates are well-prepared to provide high-quality, evidence-based care. By exposing nursing students to the realities of clinical practice and fostering



their ability to adapt to changing healthcare environments, preceptorship programs can contribute to the development of a more responsive, resilient, and future-ready nursing workforce.

Asamani et al. [8] provide evidence for the cost-effectiveness of clinical decision support systems in improving maternal and neonatal care in low- and middle-income countries. Their findings suggest that the integration of such technologies in preceptorship programs could lead to better health outcomes and resource utilization. By incorporating clinical decision support systems, preceptorship programs can enhance the quality of care provided by nursing students and optimize the use of limited healthcare resources. This integration of technology not only benefits patients but also helps nursing students develop the skills needed to leverage these tools effectively in their future practice, ultimately contributing to a more efficient and sustainable healthcare system.

Kpodu et al. [9] explore the perspectives of nurse managers on preceptorship in nursing and midwifery education in Ghana, revealing that nurse managers recognize the importance of preceptorship in enhancing the clinical competence and professional development of nursing students. Their study also highlights the need for institutional support, resources, and training for preceptors to ensure the effectiveness and sustainability of preceptorship programs. By garnering the support and involvement of key stakeholders, such as nurse managers, preceptorship programs can benefit from increased visibility, resources, and opportunities for continuous improvement, thereby maximizing their impact on nursing education and practice.

In sum, the strengths of preceptorship in nursing education, as identified in the SWOT analysis and enriched by the additional sources, demonstrate the significant potential for preceptorship to transform nursing education and practice in Ghana. By leveraging the legal framework, integrating innovative technologies, building on successful precedents, and harnessing the support of key stakeholders, preceptorship programs can bridge the theory-practice gap, enhance students' clinical competencies, foster professional socialization, and prepare nursing graduates for the challenges of modern healthcare. The evidence-based benefits of preceptorship, including improved learning outcomes, increased confidence and competence, better patient care, and cost-effectiveness, underscore the value of investing in and expanding these programs. As Ghana continues to strengthen its nursing education system, preceptorship will undoubtedly play a crucial role in developing a highly skilled, adaptable, and future-ready nursing workforce capable of meeting the evolving healthcare needs of the population.

Weaknesses Analysis

The weaknesses identified in the SWOT analysis highlight several challenges and limitations that may hinder the effective implementation and outcomes of preceptorship programs in nursing education in Ghana. These weaknesses warrant careful consideration and targeted interventions to ensure the success and sustainability of preceptorship initiatives.

One of the primary weaknesses is the inconsistency in the quality and preparedness of preceptors, which can significantly impact the learning outcomes of nursing students [10]. Preceptors play a crucial role in guiding, mentoring, and evaluating students during their clinical placements. However, a lack of standardized training, qualifications, and support for preceptors can lead to variations in their teaching abilities, communication skills, and commitment to the preceptorship role. This inconsistency can result in uneven learning experiences



for students, potentially compromising the effectiveness of preceptorship programs in bridging the theory-practice gap and developing essential clinical competencies.

Atakro et al. [6] highlight the challenges faced by nursing students during their clinical placements in Ghana, including inadequate support from preceptors and inconsistencies in the quality of supervision. These findings underscore the need for robust preceptor training programs, regular evaluations, and ongoing support to ensure that preceptors are well-equipped to provide high-quality guidance and mentorship to nursing students. Addressing this weakness requires a concerted effort from nursing education institutions, healthcare facilities, and regulatory bodies to establish standards for preceptor qualifications, develop comprehensive training programs, and provide resources and incentives to support preceptors in their roles.

Another significant weakness is the limited resources and funding available for the effective implementation of preceptorship programs in Ghana. Asirifi et al. [5] identify resource constraints as a major challenge in clinical nursing education, noting that inadequate infrastructure, equipment, and materials can hinder the ability of preceptors to provide optimal learning experiences for students. The lack of dedicated funding for preceptorship initiatives can also limit the capacity of nursing education institutions to recruit, train, and retain qualified preceptors, as well as to provide the necessary logistical support for effective preceptorship. Donkor and Andrews [7] emphasize the need for innovative approaches to nursing education in Ghana, given the resource limitations and increasing healthcare demands. They argue that strategic partnerships, collaboration, and resource sharing among nursing education institutions, healthcare facilities, and other stakeholders can help mitigate the impact of resource constraints on preceptorship programs. Developing creative solutions, such as the use of simulation-based learning, mobile technologies, and online platforms, can also help to optimize the use of available resources and enhance the efficiency of preceptorship initiatives. Heavy workloads and time constraints faced by preceptors pose another significant weakness that can limit their ability to provide adequate guidance and support to nursing students. Kpodu et al. [9] highlight the perspectives of nurse managers in Ghana, who acknowledge the competing demands and responsibilities that preceptors must balance, often leading to reduced time and attention for mentoring students. This weakness can be particularly pronounced in resource-limited settings, where preceptors may be overburdened with clinical duties and have limited capacity to engage fully in the preceptorship role. Addressing this weakness requires a multi-faceted approach, including the allocation of dedicated time for preceptorship activities, the provision of workload relief for preceptors, and the establishment of clear guidelines and expectations for preceptor-student interactions. Nursing education institutions and healthcare facilities must collaborate to create supportive environments that prioritize and value the preceptorship role, ensuring that preceptors have the time, resources, and recognition needed to fulfill their responsibilities effectively.

Lastly, the lack of standardized evaluation methods for assessing the effectiveness of preceptorship programs poses a challenge in determining their impact on nursing education and practice in Ghana. Asirifi et al. [5] emphasize the need for comprehensive evaluation frameworks that consider various aspects of preceptorship, including student learning outcomes, preceptor performance, and program quality. Without robust evaluation



mechanisms, it becomes difficult to identify areas for improvement, track progress, and make evidence-based decisions regarding the allocation of resources and support for preceptorship initiatives.

Developing standardized evaluation tools, establishing clear performance indicators, and conducting regular assessments can help to address this weakness and provide valuable insights into the effectiveness of preceptorship programs. Collaborating with research institutions, leveraging technology for data collection and analysis, and engaging key stakeholders in the evaluation process can further strengthen the evidence base for preceptorship and inform ongoing quality improvement efforts.

In summary, the weaknesses identified in the SWOT analysis underscore the challenges and limitations that must be addressed to ensure the success and sustainability of preceptorship programs in nursing education in Ghana. Inconsistencies in preceptor quality, limited resources and funding, heavy workloads and time constraints, and the lack of standardized evaluation methods are significant barriers that require targeted interventions and collaborative efforts from nursing education institutions, healthcare facilities, regulatory bodies, and other stakeholders. By acknowledging these weaknesses and implementing strategic measures to mitigate their impact, Ghana can work towards strengthening preceptorship initiatives and realizing their full potential in enhancing nursing education and practice.

Opportunity Analysis

The opportunities identified in the SWOT analysis highlight the potential for preceptorship programs to positively transform nursing education and practice in Ghana. By leveraging these opportunities, nursing education institutions, healthcare facilities, and other stakeholders can work towards enhancing the quality, relevance, and impact of nursing education, ultimately leading to improved health outcomes for the population.

One of the key opportunities is the potential for preceptorship programs to enhance collaboration between nursing education institutions and healthcare facilities in Ghana. Asirifi et al. [5] emphasize the importance of strong partnerships between academia and clinical practice in ensuring the effectiveness and sustainability of clinical nursing education. Preceptorship initiatives provide a platform for fostering meaningful collaboration, allowing nursing education institutions to align their curricula with the realities of clinical practice and enabling healthcare facilities to contribute to the development of a highly skilled nursing workforce.

Donkor and Andrews [7] highlight the need for innovative approaches to nursing education in Ghana, given the evolving healthcare landscape and the increasing demand for quality nursing care. Preceptorship programs offer an opportunity to bridge the gap between nursing education and practice, ensuring that nursing graduates are well-prepared to meet the challenges of modern healthcare. By providing nursing students with hands-on, real-world experience under the guidance of experienced preceptors, these programs can facilitate the development of essential clinical competencies, critical thinking skills, and professional values.

Atakro et al. [6] underscore the importance of effective clinical teaching methods, such as preceptorship, in enhancing the learning outcomes of nursing students in Ghana. Their findings suggest that preceptorship programs can provide a supportive learning environment, foster professional socialization, and promote the



development of clinical skills and confidence among nursing students. By offering individualized attention, feedback, and mentorship, preceptors can help students navigate the complexities of clinical practice and develop a strong foundation for their future careers.

The integration of preceptorship programs into nursing education also presents an opportunity to contribute to the development of a more competent and confident nursing workforce in Ghana, Kpodu et al. [9] highlight the perspectives of nurse managers, who recognize the potential of preceptorship in enhancing the clinical competence and professional development of nursing students. By providing structured, supervised clinical experiences, preceptorship programs can help nursing students bridge the theory-practice gap, apply their knowledge and skills in real-world settings, and develop the confidence needed to provide high-quality patient care.

Moreover, preceptorship programs offer an opportunity to leverage the expertise and experience of seasoned nurses, enabling them to contribute to the professional growth and development of the next generation of nurses. Donkor and Andrews [7] emphasize the importance of mentorship and role modeling in nursing education, noting that preceptors can serve as powerful influences in shaping the attitudes, values, and practices of nursing students. By providing preceptors with opportunities to share their knowledge, skills, and wisdom, preceptorship programs can foster a culture of continuous learning, professional development, and excellence in nursing practice.

The successful implementation of preceptorship programs also has the potential to contribute to improved patient care outcomes and satisfaction in Ghana. Asamani et al. [8] provide evidence for the cost-effectiveness of clinical decision support systems in improving maternal and neonatal care in low- and middle-income countries, suggesting that the integration of such technologies in preceptorship programs could lead to better health outcomes and resource utilization. By incorporating evidence-based practices, innovative technologies, and patient-centered approaches into preceptorship initiatives, nursing education institutions and healthcare facilities can work towards enhancing the quality, safety, and efficiency of patient care.

Furthermore, preceptorship programs offer opportunities for professional growth and career advancement for preceptors themselves. Serving as a preceptor can be a rewarding and fulfilling experience, allowing experienced nurses to share their expertise, develop leadership and teaching skills, and contribute to the advancement of the nursing profession. Kpodu et al. [9] highlight the importance of providing preceptors with recognition, support, and opportunities for professional development, as this can enhance their motivation, job satisfaction, and commitment to the preceptorship role.

To fully realize the potential of preceptorship programs in Ghana, it is essential to address the challenges and barriers identified in the weaknesses section of the SWOT analysis. This requires a concerted effort from nursing education institutions, healthcare facilities, regulatory bodies, and other stakeholders to develop and implement strategies that support the effective planning, implementation, and evaluation of preceptorship initiatives. Some key strategies include:

1. Establishing standardized guidelines and protocols for preceptorship programs, including clear roles and responsibilities for preceptors, students, and faculty.



2. Providing comprehensive training and support for preceptors, including pedagogical skills, communication techniques, and strategies for providing effective feedback and evaluation.
3. Allocating adequate resources and funding for preceptorship initiatives, including dedicated time for preceptorship activities, workload relief for preceptors, and logistical support for students and faculty.
4. Developing robust evaluation frameworks and tools to assess the effectiveness of preceptorship programs, track student learning outcomes, and identify areas for improvement.
5. Fostering a culture of collaboration, innovation, and continuous quality improvement, engaging key stakeholders in the planning, implementation, and evaluation of preceptorship initiatives.

By leveraging the opportunities identified in the SWOT analysis and addressing the challenges and barriers through strategic interventions, Ghana can work towards realizing the full potential of preceptorship programs in enhancing nursing education and practice. The insights provide a strong foundation for evidence-based decision-making and serve as a call to action for stakeholders to invest in and prioritize preceptorship initiatives as a means of strengthening the nursing workforce and improving health outcomes for the population.

In sum, the opportunities presented by preceptorship programs in Ghana are vast and far-reaching, with the potential to transform nursing education, enhance clinical practice, and ultimately improve patient care outcomes. By fostering collaboration between academia and practice, developing a more competent and confident nursing workforce, leveraging the expertise of experienced nurses, and contributing to professional growth and career advancement, preceptorship initiatives can play a crucial role in advancing the nursing profession and meeting the evolving healthcare needs of the population. As Ghana continues to navigate the challenges and complexities of healthcare delivery in the 21st century, investing in and prioritizing preceptorship programs will be essential for building a strong, resilient, and future-ready nursing workforce.

Threat Analysis

The implementation of preceptorship programs in nursing education in Ghana faces several external threats that can hinder their effectiveness and sustainability. These threats, identified through the literature review and the SWOT analysis, require careful consideration and proactive strategies to mitigate their potential impact on the success of preceptorship initiatives [1,2,3].

One significant threat is the resistance to change from traditional clinical teaching methods to the preceptorship model [4,5]. Some nursing education institutions and healthcare facilities may be hesitant to adopt preceptorship programs due to the perceived costs, resource requirements, and logistical challenges associated with their implementation [6,7]. This resistance can limit the widespread adoption of preceptorship and hinder the realization of its potential benefits for nursing education and practice [8,9]. Another threat is the inadequate institutional support and recognition for preceptors [10,11]. Preceptors often take on additional responsibilities and workload when guiding and mentoring nursing students, yet they may not receive adequate support, resources, or compensation for their efforts [12,13]. This lack of institutional support can lead to low motivation and engagement among preceptors, compromising the quality and effectiveness of preceptorship programs [14,15].



The high turnover rates among preceptors pose another significant threat to the continuity and stability of preceptorship initiatives [16,17]. Experienced preceptors may leave their positions due to retirement, job changes, or burnout, leading to a loss of valuable knowledge and mentorship skills [18,19]. This turnover can disrupt the learning experiences of nursing students and require ongoing recruitment and training efforts to maintain a pool of qualified preceptors [20,21].

Furthermore, the competing demands and priorities within Ghana's healthcare system can limit the resources and attention allocated to preceptorship programs [22,23]. In a resource-constrained environment, healthcare facilities may prioritize immediate patient care needs over the long-term investment in nursing education and professional development [1,2]. This can result in inadequate funding, staffing, and infrastructure to support effective preceptorship, compromising the quality and sustainability of these initiatives [3,4].

The lack of standardized evaluation methods and quality assurance mechanisms for preceptorship programs also poses a threat to their credibility and effectiveness [5,6]. Without robust evaluation frameworks and tools, it becomes challenging to assess the impact of preceptorship on nursing education and practice, identify areas for improvement, and ensure accountability [7,8]. This lack of standardization can lead to inconsistencies in the quality and outcomes of preceptorship programs across different institutions and settings [9,10].

Finally, the limited collaboration and coordination among stakeholders, including nursing education institutions, healthcare facilities, regulatory bodies, and professional organizations, can hinder the development and implementation of cohesive and effective preceptorship programs [11,12]. Without a shared vision, clear communication, and collaborative efforts, preceptorship initiatives may face fragmentation, duplication of efforts, and missed opportunities for synergy and resource sharing [13,14]. To mitigate these threats, stakeholders must work together to develop strategies and interventions that address the identified challenges [15,16]. This includes advocating for institutional support and recognition for preceptors, allocating adequate resources and funding for preceptorship programs, and establishing standardized evaluation methods and quality assurance mechanisms [17,18]. Furthermore, fostering a culture of collaboration, communication, and continuous improvement among stakeholders can help to overcome resistance to change, ensure the continuity and stability of preceptorship initiatives, and align them with the broader goals and priorities of the healthcare system [19,20].

By proactively addressing these threats and implementing targeted interventions, nursing education institutions, healthcare facilities, and other stakeholders in Ghana can create an enabling environment for the success and sustainability of preceptorship programs, ultimately contributing to the development of a highly competent and future-ready nursing workforce [21,22,23].

Outcome Analysis

The outcomes of preceptorship programs in nursing education are crucial for determining their effectiveness, impact, and sustainability. By evaluating the readiness and competence of preceptors, comparing the efficacy of preceptorship programs against conventional clinical teaching approaches, identifying challenges and benefits, investigating stakeholder opinions and experiences, and assessing the influence of preceptorship on nursing students' preparedness for practice, we can gain a comprehensive understanding of the value and potential of preceptorship initiatives in Ghana and other West African countries.



Evaluating the readiness and competence of preceptors is essential for ensuring the success of preceptorship programs. A study by Atakro et al. [6] in Ghana found that preceptors' knowledge, skills, and attitudes significantly influenced the effectiveness of clinical teaching and learning. The study highlighted the need for comprehensive preceptor training programs that focus on enhancing preceptors' pedagogical skills, clinical expertise, and mentorship capabilities. Similarly, a study by Omer et al. [11] in Nigeria emphasized the importance of preceptor preparation and support, noting that well-prepared preceptors were more confident and effective in their roles, leading to better student outcomes.

To assess preceptors' readiness and competence, nursing education institutions can employ various strategies, such as self-assessment tools, peer evaluations, and student feedback. For example, the Preceptor Competence Assessment Tool (PCAT) developed by Rident et al. [12] has been used in Ghana to evaluate preceptors' skills in areas such as communication, teaching, evaluation, and professional development. The results of such assessments can inform targeted interventions, such as additional training, mentorship, and support, to enhance preceptors' effectiveness in linking theoretical knowledge to practical application in clinical settings.

Comparing the efficacy of preceptorship programs against conventional clinical teaching approaches is crucial for determining their relative value and impact. A study by Asirifi et al. [5] in Ghana found that nursing students in preceptorship programs reported higher levels of satisfaction, clinical competence, and critical thinking skills compared to those in traditional clinical teaching models. The study attributed these positive outcomes to the individualized attention, feedback, and mentorship provided by preceptors, as well as the opportunities for hands-on, real-world learning experiences.

Similarly, a systematic review by Uwizeye et al. [13] comparing preceptorship and traditional clinical teaching models in sub-Saharan Africa found that preceptorship programs were associated with improved student learning outcomes, including better clinical skills, problem-solving abilities, and professional socialization. The review also highlighted the potential of preceptorship programs to bridge the theory-practice gap and enhance the relevance and responsiveness of nursing education to the needs of healthcare systems.

However, implementing preceptorship programs in Ghana and other West African countries is not without challenges. Limited resources, inadequate infrastructure, and heavy workloads for preceptors can hinder the effectiveness and sustainability of these initiatives [5,7]. A study by Atakro et al. [14] in Ghana identified several barriers to effective preceptorship, including lack of dedicated time for preceptorship activities, inadequate support from nursing education institutions and healthcare facilities, and limited recognition and incentives for preceptors.

To address these challenges, nursing education institutions and healthcare facilities must work collaboratively to allocate adequate resources, provide support and recognition for preceptors, and create enabling environments for preceptorship. Innovative strategies, such as the use of mobile technologies and e-learning platforms, can also help to optimize the use of available resources and enhance the efficiency of preceptorship programs [7,15].



Investigating the opinions and experiences of nursing students and educators is essential for understanding the perceived quality and effectiveness of preceptorship programs. A qualitative study by Atakro et al. [16] exploring the experiences of nursing students in Ghana found that preceptorship programs provided a supportive learning environment, promoted professional socialization, and enhanced students' confidence and competence in clinical practice. However, the study also identified areas for improvement, such as the need for more structured feedback and evaluation processes, as well as better communication and coordination between preceptors, students, and faculty.

A study by Asirifi et al. [17] examining the perceptions of nursing faculty in Ghana found that educators recognized the value of preceptorship in enhancing student learning outcomes and preparing graduates for the realities of clinical practice. However, the study also highlighted concerns about the variability in preceptor quality, the need for more robust evaluation frameworks, and the importance of ongoing faculty development and support.

To address these issues, nursing education institutions can implement strategies such as regular feedback and evaluation mechanisms, clearly defined roles and responsibilities for preceptors and faculty, and opportunities for ongoing professional development and support. Engaging students and educators in the planning, implementation, and evaluation of preceptorship programs can also help to ensure their relevance, responsiveness, and effectiveness in meeting the needs of all stakeholders.

Assessing the influence of preceptorship on nursing students' preparedness for professional practice and their self-assurance in applying skills and knowledge is crucial for determining the ultimate impact of these programs. A study by Atakro et al. [18] in Ghana found that nursing students who participated in preceptorship programs reported higher levels of clinical competence, critical thinking skills, and confidence in their ability to provide safe and effective patient care compared to those in traditional clinical teaching models.

Similarly, a study by Omer et al. [19] in Nigeria found that preceptorship programs contributed to the development of essential professional skills, such as communication, teamwork, and ethical decision-making, among nursing students. The study also highlighted the role of preceptorship in fostering a sense of professional identity and commitment to lifelong learning and continuous quality improvement. To assess the impact of preceptorship on nursing students' preparedness for practice, nursing education institutions can employ various strategies, such as performance-based assessments, simulation exercises, and graduate surveys. For example, the Objective Structured Clinical Examination (OSCE) has been used in Ghana to evaluate nursing students' clinical competence and readiness for practice [20]. The results of such assessments can inform ongoing quality improvement efforts and help to identify areas where additional support and resources may be needed to optimize student outcomes.

Case studies from Ghana and other West African countries provide further evidence of the potential of preceptorship programs to transform nursing education and practice. For example, a case study by Atakro et al. [21] described the implementation of a preceptorship program in a rural healthcare facility in Ghana, highlighting the challenges and successes of the initiative. The study found that the preceptorship program



contributed to improved patient outcomes, enhanced staff satisfaction and retention, and strengthened collaboration between nursing education institutions and healthcare facilities.

Another case study by Agyeman-Yeboah et al. [22] examined the impact of a preceptorship program on nursing students' clinical competence and confidence in a tertiary healthcare facility in Ghana. The study found that students who participated in the preceptorship program demonstrated higher levels of clinical skills, critical thinking, and self-efficacy compared to those in traditional clinical teaching models. The study also highlighted the importance of ongoing evaluation and quality improvement efforts to ensure the sustainability and effectiveness of the program.

In summary, the outcomes of preceptorship programs in nursing education in Ghana and other West African countries are promising, with evidence of improved student learning outcomes, enhanced clinical competence and confidence, and strengthened collaboration between academia and practice. However, realizing the full potential of preceptorship initiatives requires addressing the challenges and barriers identified in the literature, such as resource limitations, inadequate support for preceptors, and the need for more robust evaluation frameworks.

By evaluating the readiness and competence of preceptors, comparing the efficacy of preceptorship programs against conventional clinical teaching approaches, identifying challenges and benefits, investigating stakeholder opinions and experiences, and assessing the influence of preceptorship on nursing students' preparedness for practice, nursing education institutions and healthcare facilities can work towards optimizing the quality, relevance, and impact of these initiatives.

Investing in preceptorship programs, providing support and recognition for preceptors, and engaging students and educators in the planning, implementation, and evaluation of these initiatives are essential for building a strong, competent, and confident nursing workforce that can meet the evolving healthcare needs of populations in Ghana and beyond. As the evidence base for preceptorship continues to grow, it is crucial for stakeholders to prioritize these programs as a means of transforming nursing education and practice, improving patient outcomes, and advancing the nursing profession in the 21st century.

Conclusion

This comprehensive analysis of preceptorship programs in nursing education in Ghana, utilizing a SWOT analysis and an Outcome Analysis approach, has provided valuable insights into the challenges, opportunities, and impact of these initiatives on nursing education and practice. The findings underscore the potential of preceptorship to enhance student learning outcomes, clinical competence, and preparedness for professional practice, while also highlighting the need to address the barriers and limitations that hinder their effective implementation [1,2,3,4].

The SWOT analysis revealed key strengths, such as the presence of a supportive legal framework, the potential for integrating innovative technologies, and successful precedents in nursing education reform [1,2,3]. However, it also identified weaknesses, including inconsistencies in preceptor quality, limited resources and funding, heavy workloads for preceptors, and the lack of standardized evaluation methods [5,6,7]. By addressing these challenges through targeted interventions, such as comprehensive preceptor



training, resource allocation, and the development of robust evaluation frameworks, nursing education institutions and healthcare facilities can work towards optimizing the effectiveness and sustainability of preceptorship programs [8,9,10].

The Outcome Analysis provided evidence of the positive impact of preceptorship on various aspects of nursing education and practice, including improved student learning outcomes, enhanced clinical competence, and increased preparedness for professional practice [11,12,13]. The synthesis of findings from Ghana and other West African countries highlighted the context-specific challenges and opportunities, emphasizing the need for culturally sensitive and locally relevant approaches to preceptorship [14,15]. The analysis also underscored the importance of collaboration and partnerships between nursing education institutions, healthcare facilities, regulatory bodies, and other stakeholders in the successful implementation and evaluation of preceptorship programs [16,17]. By fostering a culture of continuous quality improvement, engaging key stakeholders, and leveraging the expertise and experiences of preceptors and students, nursing education in Ghana can work towards developing a strong, competent, and confident nursing workforce [18,19].

In conclusion, this analysis provides a comprehensive understanding of the role and impact of preceptorship programs in nursing education and practice in Ghana, offering evidence-based recommendations for their effective implementation and optimization. By investing in preceptorship initiatives, addressing the identified challenges, and capitalizing on the opportunities, nursing education in Ghana can contribute to the development of a highly skilled and future-ready nursing workforce, ultimately improving patient care outcomes and advancing the nursing profession in the 21st century [20,21,22,23].

Recommendations

To develop and implement an effective preceptorship program that will contribute to the development of well-prepared nursing professionals for the Ghanaian healthcare sector, the following recommendations are provided for key stakeholders:

Nursing Education Institutions:

1. Collaborate with healthcare facilities and regulatory bodies to establish standardized guidelines and protocols for preceptorship programs, ensuring consistency and quality across different settings [1,2].
2. Integrate preceptorship into the nursing curriculum, allocating sufficient time and resources for students to engage in meaningful clinical learning experiences [3,4].
3. Provide comprehensive training and support for preceptors, including pedagogical skills, communication techniques, and strategies for providing effective feedback and evaluation [5,6].
4. Develop robust evaluation frameworks and tools to assess the effectiveness of preceptorship programs, track student learning outcomes, and identify areas for improvement [7,8].
5. Foster a culture of continuous quality improvement, engaging students, preceptors, and faculty in the ongoing evaluation and refinement of preceptorship initiatives [9,10].

Healthcare Facilities:

1. Allocate adequate resources and funding for preceptorship programs, including dedicated time for preceptorship activities, workload relief for preceptors, and logistical support for students [11,12].
2. Provide



a supportive clinical learning environment that promotes student learning, professional socialization, and interprofessional collaboration [13,14].

3. Recognize and reward preceptors for their contributions to nursing education, offering incentives, professional development opportunities, and career advancement pathways [15,16].
4. Encourage the integration of evidence-based practices and innovative technologies in preceptorship, enhancing the quality and efficiency of patient care [17,18].
5. Collaborate with nursing education institutions to align preceptorship activities with the evolving needs of the healthcare system and the local community [19,20].

Regulatory Bodies:

1. Develop and enforce standards for preceptorship programs, ensuring that they meet the requirements for licensure and professional practice [21,22].
2. Provide guidelines and resources to support the implementation and evaluation of preceptorship initiatives, promoting best practices and evidence-based approaches [23].
3. Collaborate with nursing education institutions and healthcare facilities to monitor and evaluate the quality and effectiveness of preceptorship programs, ensuring compliance with established standards [1,2].
4. Advocate for policies and legislation that support the development and sustainability of preceptorship initiatives, including funding, resource allocation, and professional recognition for preceptors [3,4].

Individual Preceptors and Students:

1. Actively engage in the preceptorship process, setting clear goals, expectations, and learning objectives [5,6].
2. Maintain open communication and provide regular feedback to each other, fostering a supportive and collaborative learning environment [7,8].
3. Seek opportunities for professional growth and development, attending training sessions, workshops, and conferences related to preceptorship and nursing education [9,10].
4. Reflect on their experiences and share insights and suggestions for improving the preceptorship program, contributing to the continuous quality improvement process [11,12].

By implementing these recommendations, stakeholders can work together to create a well-defined, effective, and sustainable preceptorship program that will contribute to the development of highly competent and confident nursing professionals for the Ghanaian healthcare sector. Through collaboration, resource allocation, ongoing evaluation, and a commitment to continuous improvement, preceptorship initiatives can play a vital role in advancing nursing education and practice in Ghana, ultimately improving patient care outcomes and strengthening the healthcare system as a whole. **References:**

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