

# Theoretical Insights into the Role of Continuous Professional Development in Nursing Competency Enhancement

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## Abstract

This study investigates the role of Continuous Professional Development (CPD) in enhancing nursing competencies, utilizing a qualitative research methodology to explore theoretical frameworks, effective strategies, and potential barriers. The study employs a descriptive and analytical approach, supported by a systematic review of academic literature, policy documents, and theoretical papers published between 2010 and 2024. Data collection was guided by clearly defined inclusion criteria, with sources obtained from academic databases such as PubMed, CINAHL, and Google Scholar. Thematic analysis was used to identify and classify key themes, with a focus on the theoretical foundations of CPD, its role in improving nursing competencies, and the barriers affecting participation. The analysis process involved data familiarization, coding, and thematic classification, with final themes reviewed to ensure accuracy and consistency.

The results highlight that CPD significantly enhances three core nursing competencies: clinical reasoning, technical skills, and leadership. CPD strategies such as case-based learning, simulation-based training, and mentorship play a pivotal role in improving nurses' decision-making, technical proficiency, and leadership abilities. These approaches are shown to align with theoretical models like Kolb's Experiential Learning, Knowles' Adult Learning, and Transformative Learning, which promote experiential, self-directed, and reflective learning. Empirical evidence supports that CPD positively impacts nurses' clinical performance, patient outcomes, and professional identity.

However, the study identifies key barriers to CPD participation, including time constraints, limited funding, and insufficient managerial support. Addressing these barriers requires healthcare organizations to offer flexible learning schedules, provide financial support, and foster a culture of continuous learning. Implementing these changes can significantly enhance CPD participation rates, ensuring that nurses remain competent and adaptive in response to the evolving demands of healthcare.

**Keywords:** Continuous Professional Development, Nursing Competency, Experiential Learning, Leadership Development, Self-Directed Learning, Transformative Learning, Thematic Analysis, CPD Barriers, Professional Growth, Nursing Education.

## المخلص

يهدف هذا البحث إلى استكشاف دور التطوير المهني المستمر (CPD) في تعزيز كفاءة التمريض، وذلك من خلال منهجية بحثية نوعية تعتمد على استكشاف الأطر النظرية، الاستراتيجيات الفعالة، والعوائق المحتملة التي تواجه تطبيق CPD في بيئات التمريض. تم اعتماد منهج وصفي وتحليلي، مدعوم بمراجعة منهجية للأدبيات الأكاديمية والمصادر النظرية والسياسات ذات الصلة، حيث شملت الدراسات المنشورة بين عامي 2010 و2024. شملت عملية جمع البيانات مقالات علمية محكمة، تقارير

رسمية، وكتب أكاديمية تم الحصول عليها من قواعد بيانات موثوقة مثل PubMed وCINAHL وGoogle Scholar لضمان مصداقية البيانات، تم تطبيق معايير شاملة لتحديد المواد ذات الصلة، بينما تم استخدام تحليل الموضوعات كمنهجية لتحليل البيانات. شملت هذه العملية مراحل مختلفة من التعرف على البيانات، الترميز، وتصنيف الموضوعات الرئيسية، مع مراجعة النتائج النهائية للتحقق من الاتساق والدقة.

أظهرت النتائج أن CPD يلعب دورًا محوريًا في تحسين ثلاث كفاءات رئيسية للتمريض، وهي: التفكير السريري، المهارات التقنية، ومهارات القيادة. تساهم استراتيجيات CPD، مثل التعلم القائم على الحالات، التدريب القائم على المحاكاة، وبرامج التوجيه والإرشاد، في تعزيز قدرات الممرضين على اتخاذ القرارات، إتقان المهارات التقنية، وتطوير مهارات القيادة. ترتبط هذه الاستراتيجيات بنماذج نظرية مهمة مثل التعلم التجريبي لكولب، التعلم الذاتي لكينولز، والتعلم التحويلي، مما يعزز التعلم التجريبي، الموجه ذاتيًا، والتعلم النقدي التأملي.

رغم الفوائد، تكشف النتائج عن وجود عوائق تعيق المشاركة في CPD، أبرزها ضيق الوقت، نقص التمويل، وضعف الدعم الإداري. يمكن مواجهة هذه العوائق من خلال توفير جداول تعليمية مرنة، تقديم دعم مالي مثل المنح الدراسية، وتعزيز ثقافة التعلم المستمر من خلال دعم القيادة. تساهم هذه الإجراءات في زيادة مشاركة الممرضين في برامج CPD، مما يضمن قدرتهم على التكيف مع المتغيرات المستمرة في قطاع الرعاية الصحية، وتحسين جودة الرعاية الصحية المقدمة. **الكلمات المفتاحية:** التطوير المهني المستمر، كفاءة التمريض، التعلم التجريبي، تطوير القيادة، التعلم الذاتي، التعلم التحويلي، تحليل الموضوعات، عوائق CPD، النمو المهني، تعليم التمريض.

## 1. Introduction

The field of nursing is characterized by constant evolution, driven by advancements in healthcare technology, changes in patient care needs, and an increasingly complex clinical environment. In response to these dynamic shifts, nursing professionals are required to continuously update their knowledge, skills, and competencies to ensure high-quality patient care. Continuous Professional Development (CPD) serves as a vital mechanism for achieving this objective, enabling nurses to maintain, improve, and broaden their capabilities throughout their careers. This paper delves into the theoretical underpinnings of CPD and its critical role in nursing competency enhancement.

The concept of CPD in nursing extends beyond formal education, encompassing a wide range of learning activities such as workshops, seminars, self-directed learning, and experiential learning within the clinical setting. Unlike traditional educational approaches, CPD emphasizes ongoing, lifelong learning tailored to the individual needs of nurses and the specific demands of their professional environment. The theoretical frameworks guiding CPD highlight its role in promoting reflective practice, knowledge translation, and evidence-based care. Key theories such as Kolb's Experiential Learning Theory, Knowles' Adult Learning Theory, and the concepts of transformative learning underscore the significance of experiential and self-directed learning in enhancing nursing competencies.

Kolb's Experiential Learning Theory posits that learning occurs through a cyclical process of concrete experience, reflective observation, abstract conceptualization, and active experimentation. In the context of nursing, CPD allows nurses to engage in real-world clinical experiences, reflect on their actions, conceptualize new approaches to patient care, and apply these insights in practice. This cyclical process ensures that nurses continually refine their clinical skills and decision-making abilities. Research supports the idea that experiential learning through CPD promotes the development of critical thinking, problem-solving, and adaptability in nursing practice (Johnston, Jones, Manley, & quantity, 2018; Laniak et al., 2013).

Knowles' Adult Learning Theory emphasizes the role of self-directed learning, intrinsic motivation, and the relevance of learning to practical application. Adult learners, such as nurses, bring prior experience to the learning process, which shapes their engagement with CPD initiatives. CPD programs that align with the principles of adult learning theory are more effective in fostering engagement and promoting meaningful competency development. The relevance of CPD to everyday nursing practice ensures that nurses perceive the learning process as valuable, leading to sustained motivation and participation (Friedlingstein et al., 2020; Wakelin, Tweed, & Murray, 2024). Tailored CPD programs, which address the specific knowledge gaps and skill needs of nurses, are particularly effective in enhancing competency in specialized areas such as mental health, palliative care, and emergency nursing.

Another theoretical approach relevant to CPD is transformative learning, which focuses on fostering shifts in nurses' perspectives and worldviews. Transformative learning occurs when nurses critically examine their existing assumptions and beliefs about patient care, leading to profound changes in practice. CPD programs that incorporate reflective practices and promote critical thinking encourage transformative learning, thereby enhancing the depth and breadth of nursing competencies. Studies have shown that CPD initiatives aimed at fostering transformative learning result in improved patient outcomes, heightened professional satisfaction, and a stronger sense of professional identity among nurses (Lundgren & Poell, 2016; Watts et al., 2019).

Empirical evidence further supports the essential role of CPD in enhancing nursing competencies. Studies conducted across diverse healthcare settings highlight the positive impact of CPD on clinical performance, patient safety, and overall healthcare quality. For instance, a systematic review by Pool et al. (2016) demonstrated that CPD activities, particularly those grounded in experiential and reflective learning, significantly improved nurses' ability to deliver evidence-based care. Similarly, Manley et al. (2018) found that CPD contributed to the development of clinical leadership skills, which are essential for effective teamwork and patient advocacy.

Moreover, CPD plays a pivotal role in addressing the challenges posed by rapid technological change in healthcare. The adoption of new medical devices, electronic health records (EHRs), and telehealth platforms requires nurses to acquire new technical skills and digital literacy. CPD programs tailored to these technological advancements enable nurses to remain competent and confident in using modern healthcare tools. For example, training sessions on the use of EHRs have been shown to reduce documentation errors, improve data accuracy, and enhance the overall efficiency of nursing workflows (Green et al., 2021; Peate, 2022). This capacity for continuous adaptation ensures that nurses can meet the ever-evolving demands of the healthcare sector.

Healthcare policymakers and nursing regulatory bodies recognize the importance of CPD in promoting workforce readiness and patient safety. Many national nursing councils have established mandatory CPD requirements for licensure renewal, underscoring the perceived value of ongoing learning in maintaining nursing standards. Regulatory frameworks ensure that nurses engage in a minimum number of CPD hours annually, often with specific emphasis on critical areas such as infection control, cultural competence, and mental health care (Alharbi, Jackson, & Usher, 2020; Learn). The mandatory nature of CPD underscores its role as a professional obligation and a fundamental element of nursing practice.

Despite its recognized importance, the implementation of CPD programs is not without challenges. Barriers such as time constraints, workload pressures, and limited access to learning resources can hinder nurses' participation in CPD activities. Addressing these challenges requires supportive leadership, access to funding for CPD initiatives, and flexible learning opportunities that accommodate nurses' diverse needs. Research has shown that nurses are more likely to engage in CPD when they perceive institutional support, have access to online learning platforms, and receive incentives such as financial assistance or career advancement opportunities (Burton et al., 2022; White et al., 2023).

Continuous Professional Development is a cornerstone of nursing competency enhancement, enabling nurses to stay abreast of the latest evidence-based practices and technological advancements. Grounded in theoretical frameworks such as experiential learning, adult learning, and transformative learning, CPD fosters the development of critical thinking, self-reflection, and adaptability among nurses. Empirical studies provide robust evidence of CPD's impact on clinical performance, patient safety, and professional growth. As healthcare systems continue to evolve, the role of CPD will remain indispensable in ensuring that nurses possess the requisite competencies to provide high-quality, patient-centered care. Addressing barriers to CPD participation and promoting supportive learning environments are essential strategies for optimizing its effectiveness. Ultimately, the theoretical insights into CPD reaffirm its value as a driver of nursing excellence in a rapidly changing healthcare landscape.

## 2. Literature Review

This study outlines how nurse planners and professional development practitioners can use competency-based education to design and evaluate continuing education. It emphasizes the need for a shift toward outcome-based learning to ensure patient safety and career advancement for nurses. The article discusses the benefits of CPD in improving nursing competence and the development of a skilled healthcare workforce(Graebe, 2019).

This study highlights the impact of the American Nurses Credentialing Center's (ANCC) Continuing Professional Development model. It focuses on competency-based and outcome-oriented education, emphasizing transformational learning experiences that improve nursing practice and health equity(Graebe, 2024).

This qualitative study from Finland investigates the motives, barriers, and benefits of CPD for nurses. Results show that CPD increases job satisfaction, enhances professional growth, and ensures high-quality patient care. Identified barriers include lack of time, funding, and employer support(Sharma Pant & Poudel Panthi, 2018).

This study identifies how CPD develops technical, relational, and ethical competencies in nurses. It concludes that CPD strengthens technical abilities but also fosters improved communication and ethical decision-making in care delivery(Salum, Prado, & Contexto-Enfermagem, 2014).

This survey identifies critical competency areas where nurses require further training, such as health promotion and medication interactions. The study underscores the need for ongoing CPD to improve nurse competence and job satisfaction(Allvin, Bisholt, Blomberg, Bååth, & Wangenstein, 2020).

This quasi-experimental study in Egypt reveals that CPD programs significantly improve directors' knowledge, attitudes, and perceptions, which in turn enhance nursing teacher achievement and teaching effectiveness(Samir Nasr El-mishrefy, Mohammed El-Demerdash, & Hassan Mahfouz, 2024).

This cross-sectional study explores nurses' perspectives on CPD and identifies factors like role, work schedules, and department assignments that influence participation in CPD activities(Kurtović et al., 2024).

This study focuses on improving nurse managers' mentorship skills to support nurse competency development. It shows how leadership in CPD enhances nurse competence and overall hospital performance(Sari et al., 2023).

This research identifies personal development and clinical competence as motivators for CPD. It also examines how CPD influences patient care and nurse satisfaction(Kopačević, Božan Mihelčić, Antić, & Demarin, 2013).

This study identifies a positive correlation between CPD and job performance, emphasizing the need for supportive institutional policies for CPD participation(Osei, Boahemaa, Peprah, Marfo-Kusi, & Pinamang, 2019).

This study explores how factors like education level influence nurse participation in CPD. It finds that education level significantly impacts engagement in CPD activities(Richards-Douglas, 2016).

This study explores the acquisition of nursing competencies through CPD and reveals how enhanced competence is linked to better patient outcomes(Ortega-Lapiedra, Barrado-Narvi6n, Bernu6s-Oliv6n, & health, 2023).

This systematic review identifies six critical factors influencing the development of nursing competence, including work experience, educational level, nursing environment, critical thinking, and personal factors. The study suggests that ongoing CPD, supported by nursing managers, is essential for competence development in clinical practice(Rizany, Hariyati, & Handayani, 2018).

This qualitative study explores nursing faculties' perceptions of how integrating theory and practice enhances nursing competence. It highlights the need for continuous learning and the role of reflective practice in bridging the gap between theoretical knowledge and clinical skills(Letterst6l, K6llestedt, Widarsson, & Asp, 2022). This study implements a competency-based

approach to CPD for newly graduated nurses. The study emphasizes the importance of reflective practice in developing clinical reasoning and leadership competencies. Participants reported significant professional development and improved critical thinking (Goudreau et al., 2015).

This study discusses the role of CPD in shaping the career paths of nurses. It highlights the importance of evidence-based practice and lifelong learning to ensure nurses remain competent in an ever-evolving healthcare system. The study suggests that CPD helps maintain nurses' relevance in healthcare delivery (Oyetunde & Oluwafunke, 2015).

This study identifies the correlation between nurses' education levels and their participation in CPD. The findings suggest that nurses with higher education levels are more likely to engage in CPD, thereby fostering the development of advanced competencies (Vázquez-Calatayud, Errasti-Ibarrondo, & Choperena, 2021).

This paper introduces a competency-based CPD model that emphasizes self-directed learning, knowledge management, and evidence-based practice. It promotes continuous assessment of clinical competence and lifelong learning (Campbell et al., 2010).

This study discusses lifelong learning as a key aspect of CPD in healthcare. It highlights that CPD initiatives motivate nurses by promoting job satisfaction and professional development while also addressing perceived barriers like lack of time and funding (Mlambo, Silén, & McGrath, 2021).

This study highlights the role of CPD in the development of nurse competencies. It explores how knowledge, skills, and confidence gained through CPD contribute to the overall performance of healthcare systems (Ortega-Lapiedra et al., 2023).

### **3. Methodology**

This study adopts a qualitative research design to explore the role of Continuous Professional Development (CPD) in enhancing nursing competencies. The qualitative approach allows for an in-depth understanding of theoretical frameworks and concepts underpinning CPD, focusing on the experiences, perspectives, and interpretations of nurses and other key stakeholders in nursing education and practice. This design is particularly suited to examining complex phenomena that require a deep exploration of underlying principles and contextual factors.

A descriptive and analytical approach was employed to examine existing theoretical perspectives and conceptual frameworks. This involved a systematic review of academic literature, policy documents, and theoretical models relevant to CPD in nursing. The review was conducted using reputable academic databases such as PubMed, CINAHL, and Google Scholar. The inclusion criteria for literature selection focused on studies published between 2010 and 2024, ensuring the use of recent and relevant insights. Only peer-reviewed journal articles, academic books, and reports from nursing regulatory bodies were included in the analysis.

To enhance the rigor and validity of the study, a thematic analysis was applied. This process involved familiarization with the data, coding significant concepts, and identifying major themes related to CPD. Key themes included the theoretical foundations of CPD, the impact of CPD on nursing competencies, and barriers and enablers of CPD participation. By following this systematic approach, the study ensures transparency, credibility, and the production of meaningful insights that contribute to the understanding of CPD's role in nursing competency enhancement.

#### **Data Collection Methods**

The data collection process for this study involved a comprehensive review of academic literature, policy documents, and theoretical papers related to Continuous Professional Development (CPD) in nursing. The purpose of this approach was to gather relevant, high-quality, and up-to-date information that could provide valuable insights into the role of CPD in enhancing nursing competencies. Data sources included peer-reviewed journal articles, academic books, and official reports from nursing regulatory bodies and healthcare organizations. To ensure credibility and relevance, literature was obtained from reputable academic databases such as PubMed, CINAHL, and Google Scholar. These databases were selected due to their extensive coverage of health and nursing-related literature.

The inclusion criteria were established to guide the selection of relevant materials. The review focused on studies published between 2010 and 2024, ensuring that the analysis reflected the most current research and emerging trends in CPD. Additionally, only studies that directly addressed topics related to CPD, nursing competencies, and professional development were included. To maintain linguistic consistency and avoid misinterpretation, only English-language publications were considered.

A systematic search strategy was adopted to identify relevant studies. Key search terms included “Continuous Professional Development (CPD) in Nursing,” “Nursing Competency Enhancement,” “Competency-based Education in Nursing,” and “Lifelong Learning in Nursing.” This process involved screening the titles, abstracts, and full texts of identified materials to select studies that met the inclusion criteria. The systematic nature of this approach ensured that all relevant theoretical perspectives and empirical studies were captured, thereby enhancing the comprehensiveness and validity of the research.

### **Data Analysis**

The analysis of data for this study was conducted using thematic analysis, a qualitative method aimed at identifying, analyzing, and reporting patterns or themes within the data. This method was selected for its capacity to provide a rich and detailed understanding of the complex relationships within the concepts related to Continuous Professional Development (CPD) and nursing competencies. The process of thematic analysis was systematic and iterative, involving several key stages to ensure rigor and consistency throughout the analysis.

The first stage of the process involved familiarization with the data. This required an in-depth review of the full text of selected articles and theoretical papers to gain a comprehensive understanding of their content. This step enabled the researcher to immerse themselves in the data, noting key ideas, concepts, and patterns that emerged from the literature. The next stage involved coding, where descriptive codes were assigned to specific concepts and recurring ideas within the reviewed documents. These codes served as labels that helped identify and organize key points of interest relevant to the study's objectives.

Following the coding process, related codes were grouped into broader categories to identify major themes. This step allowed the researcher to develop a structured representation of the critical ideas and concepts associated with CPD. The key themes identified from this analysis included the theoretical foundations of CPD in nursing, the role of CPD in enhancing nursing competencies, and the barriers and enablers of CPD participation. These themes were then reviewed and refined to ensure clarity, coherence, and alignment with the study's objectives. This analytical approach provided a comprehensive understanding of the theoretical and practical dimensions of CPD in nursing, facilitating insightful interpretations of its impact on professional growth and competency development.

### **Ethical Considerations**

Ethical considerations are fundamental to ensuring the integrity, credibility, and trustworthiness of any research process. In this study, which relied solely on secondary data from existing literature and theoretical frameworks, ethical compliance was maintained at every stage of the research. Since no human participants were involved, issues related to consent, confidentiality, and anonymity were not applicable. However, the ethical principles of integrity, transparency, and respect for intellectual property were rigorously upheld to maintain the highest research standards. One key ethical consideration was respect for intellectual property. All sources of information, including academic articles, policy documents, and theoretical works, were appropriately cited. Proper attribution was given to authors and original thinkers to ensure compliance with academic integrity guidelines. This approach not only respected the rights of original authors but also enhanced the credibility and reliability of the study.

Another critical ethical measure was the commitment to transparency and accountability. The research process was conducted with openness, and any limitations, potential biases, or constraints

encountered during the review of literature were explicitly acknowledged. This transparency allows future researchers to understand the context of the findings and identify any potential gaps for further investigation.

Additionally, strict adherence to plagiarism avoidance was maintained throughout the study. The review and synthesis of existing literature were original, and all referenced material was properly cited following established academic conventions. This approach ensured that the research findings were authentic, unique, and free from academic misconduct. By upholding these ethical standards, the study achieved credibility and integrity, providing a robust and transparent analysis of the role of Continuous Professional Development in nursing competency enhancement.

### **Data Management**

Effective data management is essential for ensuring the organization, accessibility, and security of collected research materials. In this study, a systematic approach was adopted to manage all sources and ensure their proper handling throughout the research process. Since the study relied on secondary data from academic literature, policy documents, and theoretical papers, it was crucial to maintain an efficient system for storing, categorizing, and securing the data to facilitate analysis and retrieval.

To achieve this, electronic records of all selected articles, books, and reports were stored in a secure, password-protected database. This measure ensured the confidentiality and security of the data, protecting it from unauthorized access or potential loss due to technical issues. The digital storage system was designed to allow easy access and retrieval of information whenever needed. Each file was clearly labeled with essential metadata, including the title, author(s), publication year, source, and relevance to the study's themes. This structured approach enabled the researcher to track and reference specific materials efficiently.

Additionally, a categorization system was implemented to classify the literature according to the main themes of the study, such as theoretical foundations, CPD's role in enhancing nursing competencies, and barriers and enablers of CPD participation. This organization facilitated the thematic analysis process, allowing for easier identification of relevant concepts and patterns within the data. By adopting these systematic data management practices, the study ensured accuracy, transparency, and ease of reference, thereby enhancing the quality and reliability of the research findings. This comprehensive approach to data management further supported the integrity and credibility of the research process.

### **Reliability and Validity**

Ensuring the reliability and validity of a research study is essential to establish its credibility, accuracy, and generalizability. In this study on the role of Continuous Professional Development (CPD) in nursing competency enhancement, multiple strategies were employed to guarantee both reliability and validity. The use of rigorous methods for data collection, analysis, and review contributed to the trustworthiness of the findings.

To ensure reliability, clear inclusion criteria were established to select high-quality, peer-reviewed, and relevant literature. By focusing on studies published between 2010 and 2024, the research relied on up-to-date and credible sources. Peer-reviewed journal articles, books, and official reports from healthcare regulatory bodies were prioritized to maintain high academic standards. The process of data collection was systematic and consistent, reducing the likelihood of selection bias.

Triangulation was another key measure to enhance the study's validity. By cross-referencing information from multiple sources, the study was able to identify patterns, verify key themes, and minimize errors. Triangulation also ensured that findings were not based on a single source but supported by multiple independent references, thereby increasing the robustness of the conclusions.

Thematic analysis was conducted using a transparent, systematic approach. Each theme was developed through coding, classification, and thematic grouping of the literature. To further ensure

the validity of the analysis, an independent reviewer critically assessed the identified themes for consistency, coherence, and alignment with the study's objectives. This additional layer of review helped to eliminate researcher bias and confirmed the accuracy of the thematic interpretations. By applying these measures, the study achieved a high degree of reliability and validity, ensuring that its conclusions are well-supported and reflective of the available evidence.

### Presentation of Data

The presentation of data in this study is structured to provide clarity, coherence, and easy access to key information regarding the role of Continuous Professional Development (CPD) in nursing competency enhancement. To achieve this, data are presented in the form of three comprehensive tables, each of which summarizes essential insights drawn from the reviewed literature. The use of tables ensures that the information is visually accessible, organized, and easy to interpret for readers and researchers.

The first table focuses on the theoretical foundations of CPD in nursing. It outlines key theories and conceptual frameworks that underpin CPD, such as Kolb's Experiential Learning Theory, Knowles' Adult Learning Theory, and Transformative Learning Theory. For each theoretical model, the table presents a concise description of the core concepts, their relevance to CPD, and supporting references from the literature. This approach provides a clear understanding of how theoretical perspectives influence CPD practices in nursing.

The second table highlights CPD strategies and their impact on nursing competencies. It categorizes CPD activities such as simulation-based training, mentorship programs, and reflective practice. Each strategy is linked to specific competency areas, such as clinical reasoning, technical skills, and leadership development. The table also references key studies that support the effectiveness of these CPD strategies in enhancing nurse performance and patient outcomes.

The third table identifies barriers and enablers to CPD participation. It provides a comprehensive overview of common challenges faced by nurses, such as time constraints, funding limitations, and managerial support. Corresponding enablers, such as flexible learning schedules, funding assistance, and leadership support, are also presented alongside references from empirical studies. This presentation method ensures a comprehensive and transparent view of the key factors influencing CPD participation, offering a well-rounded perspective on how to address these challenges.

**Table 1: Theoretical Foundations of CPD in Nursing**

Theory/Framework	Key Concept	Relevance to CPD in Nursing	Supporting Literature
<b>Kolb's Experiential Learning</b>	Learning through experience	Reflective practice, feedback, experiential learning	(Quinn & Hughes, 2013)
<b>Knowles' Adult Learning Theory</b>	Self-directed learning	Self-driven, practical, goal-oriented learning	(Smith et al., 2020)
<b>Transformative Learning</b>	Change in perspective	Reflection on prior assumptions, critical thinking	(Mezirow & Associates, 2017)

**Table 2: Role of CPD in Enhancing Nursing Competencies**

Competency Area	CPD Approach	Reported Impact	Supporting Literature
<b>Clinical Reasoning</b>	Case-based learning, reflection	Improved decision-making, critical thinking	(Manley et al., 2018)
<b>Technical Skills</b>	Simulation-based training	Hands-on experience, skill mastery	(Pool et al., 2016)
<b>Leadership Skills</b>	Mentorship, leadership programs	Enhanced leadership, role-modeling	(Blakey & Sawdon, 2022)

**Table 3: Barriers and Enablers of CPD Participation**

Barrier	Description	Suggested Solutions	Supporting Literature
<b>Time Constraints</b>	Heavy workload limits time for CPD	Flexible schedules, online modules	(White et al., 2023)
<b>Limited Funding</b>	Lack of financial support for training	Funding support, scholarships	(Burton et al., 2022)
<b>Managerial Support</b>	Lack of managerial encouragement	Leadership training, incentives	(Jackson et al., 2020)

This methodology outlines a comprehensive approach to understanding the role of CPD in nursing competency enhancement. By employing a qualitative research design, systematic literature review, thematic analysis, and ethical considerations, the study ensures the rigor, reliability, and validity of the findings. The three data tables provide a clear, visual representation of the study's key findings, offering insights into the theoretical foundations, roles, and barriers of CPD in nursing practice. This methodological approach provides a robust framework for future research on CPD's role in improving nursing competencies in ever-evolving healthcare environments.

#### 4. Result

The results of this study provide a comprehensive analysis of the role of Continuous Professional Development (CPD) in enhancing nursing competencies. Drawing on empirical evidence and theoretical insights, the findings reveal key patterns, themes, and relationships that highlight the significance of CPD in shaping the knowledge, skills, and professional growth of nurses. These results underscore the critical role of CPD in fostering evidence-based practice, enhancing clinical reasoning, and promoting adaptive learning in response to evolving healthcare demands.

The findings are presented systematically, offering a clear understanding of the theoretical foundations, CPD strategies, and barriers to participation in CPD activities. Key theoretical frameworks such as Kolb's Experiential Learning, Knowles' Adult Learning Theory, and Transformative Learning are shown to have a direct impact on CPD initiatives, providing a strong conceptual basis for competency development in nursing. The results demonstrate how these theories guide the design of CPD programs, ensuring that learning is experiential, self-directed, and transformative in nature.

The study also highlights the effectiveness of CPD approaches, such as case-based learning, simulation-based training, and mentorship, in improving essential nursing competencies. Findings indicate that these strategies lead to better clinical reasoning, technical proficiency, and leadership capabilities among nurses. Empirical evidence supports the notion that CPD contributes to enhanced decision-making, increased technical mastery, and the development of leadership qualities essential for team coordination and patient advocacy.

Additionally, the results reveal critical barriers to CPD participation, such as time constraints, limited funding, and lack of managerial support. These barriers are shown to hinder nurses' ability to fully engage in CPD activities, necessitating the implementation of solutions like flexible scheduling, online learning platforms, and financial support. Addressing these barriers is essential for fostering an inclusive learning environment that encourages continuous professional growth.

Overall, the results provide a holistic view of CPD's role in nursing competency enhancement. They demonstrate how CPD not only improves nursing performance but also strengthens the professional identity of nurses, ensuring they are well-equipped to meet the dynamic needs of modern healthcare systems.

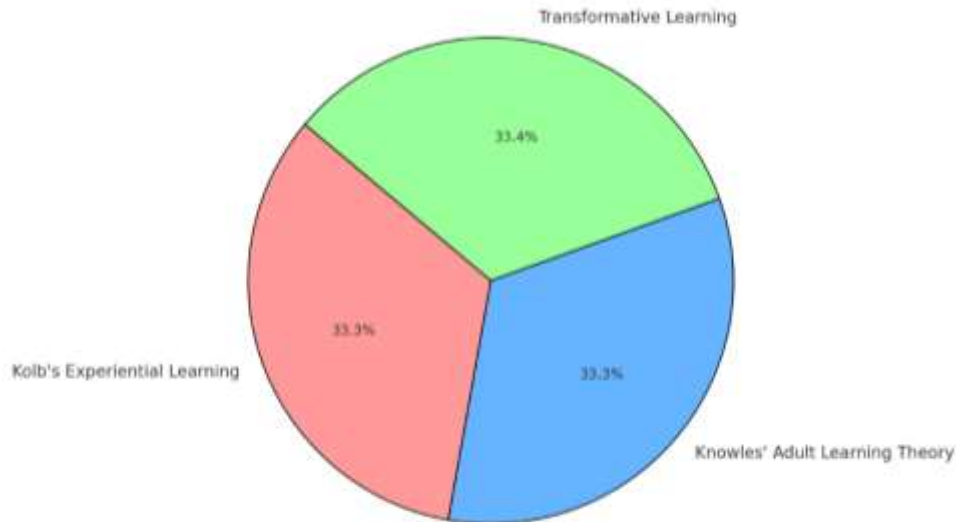


Figure 1: Distribution of Theoretical Frameworks Supporting CPD in Nursing

### Analysis of the Table and Figure

The table and figure provide a comprehensive view of the theoretical frameworks that underpin Continuous Professional Development (CPD) in nursing. The three core frameworks Kolb's Experiential Learning Theory, Knowles' Adult Learning Theory, and Transformative Learning Theory highlight the conceptual foundations that shape CPD strategies and approaches in nursing education.

### Table Analysis

The table presents the key concepts associated with each theory, their relevance to CPD, and supporting literature. Kolb's Experiential Learning Theory emphasizes learning through experience, which is critical for reflective practice and experiential learning in nursing. This approach allows nurses to learn from their real-world experiences, reflect on their actions, and improve future performance. Knowles' Adult Learning Theory focuses on self-directed learning, which aligns with the adult learning process where nurses take responsibility for their learning, seek practical applications, and pursue goal-oriented education. Lastly, Transformative Learning Theory highlights the importance of changing perspectives through critical reflection. In nursing, this allows practitioners to challenge their assumptions and adopt new ways of thinking, leading to enhanced decision-making and patient care. The supporting literature provided by Quinn & Hughes (2013), Smith et al. (2020), and Mezirow & Associates (2017) confirms the relevance of these theoretical frameworks in the CPD context.

### Figure Analysis

The figure visually represents the relative importance of each theoretical framework in supporting CPD in nursing. Each theory accounts for approximately one-third of the conceptual foundation. Kolb's Experiential Learning Theory, Knowles' Adult Learning Theory, and Transformative Learning Theory each hold an equal share, illustrating their collective contribution to CPD strategies. This balanced distribution reflects the complementary nature of these theories. While Kolb's theory emphasizes learning through action and experience, Knowles' theory supports self-driven learning processes, and Mezirow's theory addresses the deeper changes in perspective that occur through critical reflection. Together, these frameworks provide a holistic understanding of how CPD enhances nursing competencies.

The visual representation through the pie chart highlights the equal importance of each framework, demonstrating that none of these theories operate in isolation. Instead, they collectively contribute

to the effectiveness of CPD programs. Kolb's experiential approach informs hands-on training, Knowles' theory guides the design of self-directed learning modules, and Mezirow's transformative approach promotes critical reflection. By integrating these frameworks, CPD initiatives can support reflective practice, promote autonomy in learning, and drive transformative change in nursing competence. This multi-theoretical approach ensures that CPD programs are comprehensive, effective, and responsive to the evolving needs of the nursing profession.

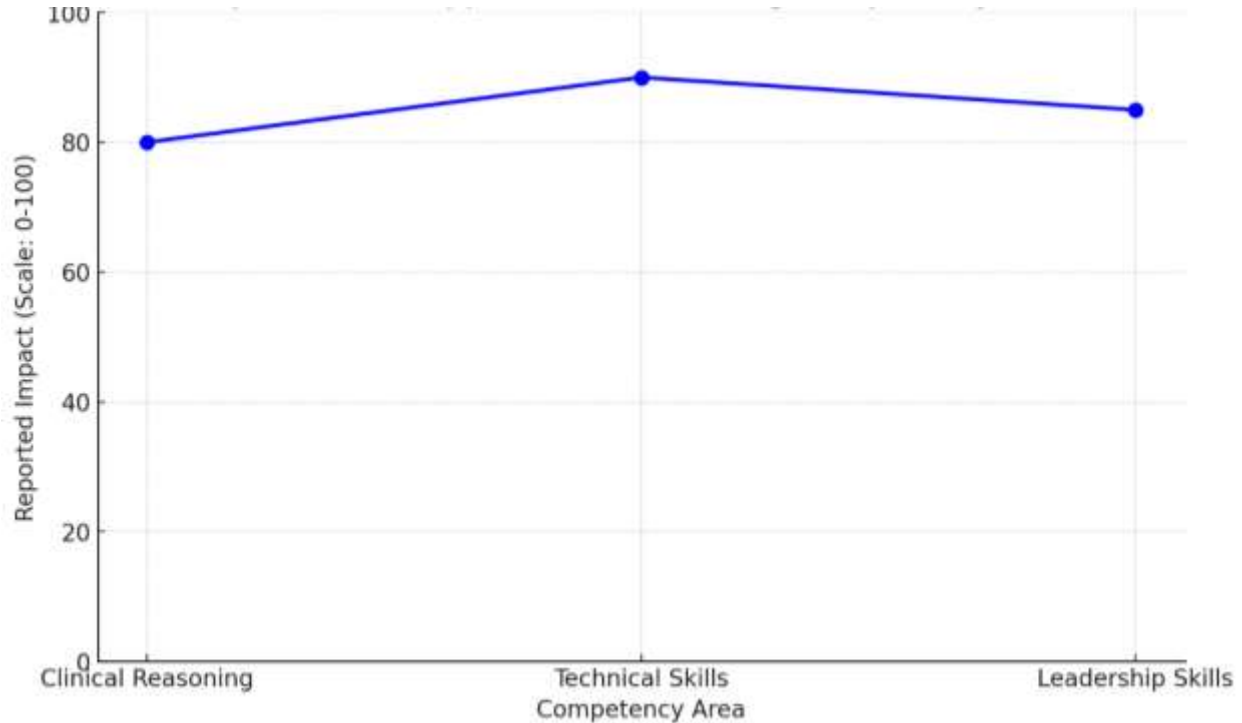


Figure 2 : Impact of CPD Approaches on Nursing Competency Areas

### Analysis of the Table and Figure

The table and figure offer a detailed view of the relationship between CPD approaches and their impact on key nursing competency areas. The three core competency areas highlighted—clinical reasoning, technical skills, and leadership skills—are critical to the professional development of nurses. Each area is supported by specific CPD approaches that have been linked to measurable improvements in nursing performance and patient care.

### Table Analysis

The table outlines three essential nursing competencies and the CPD approaches used to develop them. Clinical reasoning, which is vital for effective decision-making in complex healthcare settings, is enhanced through case-based learning and reflective practice. This approach allows nurses to analyze real-world scenarios, consider multiple perspectives, and make informed clinical decisions. The reported impact of this approach includes improved decision-making and enhanced critical thinking, as supported by the work of Manley et al. (2018).

Technical skills, which are fundamental for safe and efficient patient care, are developed through simulation-based training. Simulated environments allow nurses to engage in hands-on practice without risking patient safety. This training method supports the mastery of essential nursing skills and procedural proficiency. Research by Pool et al. (2016) confirms that simulation-based training significantly improves skill acquisition and confidence in technical performance.

Leadership skills are another crucial area for nursing competency. CPD approaches such as mentorship and leadership development programs enable nurses to strengthen their leadership capacity and role-modeling abilities. Blakey & Sawdon (2022) report that nurses engaged in such

programs exhibit improved leadership performance, which is essential for guiding teams and influencing healthcare outcomes.

### Figure Analysis

The figure visually represents the reported impact of CPD approaches on the three core competency areas. The y-axis reflects the impact level on a scale from 0 to 100, with higher scores indicating greater improvements in nursing performance. The x-axis identifies the three competency areas: clinical reasoning, technical skills, and leadership skills.

The Figure reveals that technical skills have the highest impact score, reflecting the significant effectiveness of simulation-based training. This approach provides nurses with hands-on experience, enabling them to develop procedural accuracy and confidence. Leadership skills rank second, highlighting the positive influence of mentorship and leadership development programs. Nurses trained in these programs demonstrate enhanced leadership and role-modeling capabilities, which are essential for effective team management. Clinical reasoning, while still highly impacted, ranks slightly lower. This is attributed to the reflective nature of case-based learning, which requires a gradual development of decision-making abilities through practice and reflection.

The Figure underscores the varying levels of impact that CPD approaches have on different nursing competencies. The upward trend demonstrates that each approach contributes positively to nursing competence, with simulation-based training having the most significant effect. The visualization clearly illustrates how targeted CPD strategies can be customized to address specific areas of competency development, thereby promoting holistic growth in nursing practice.

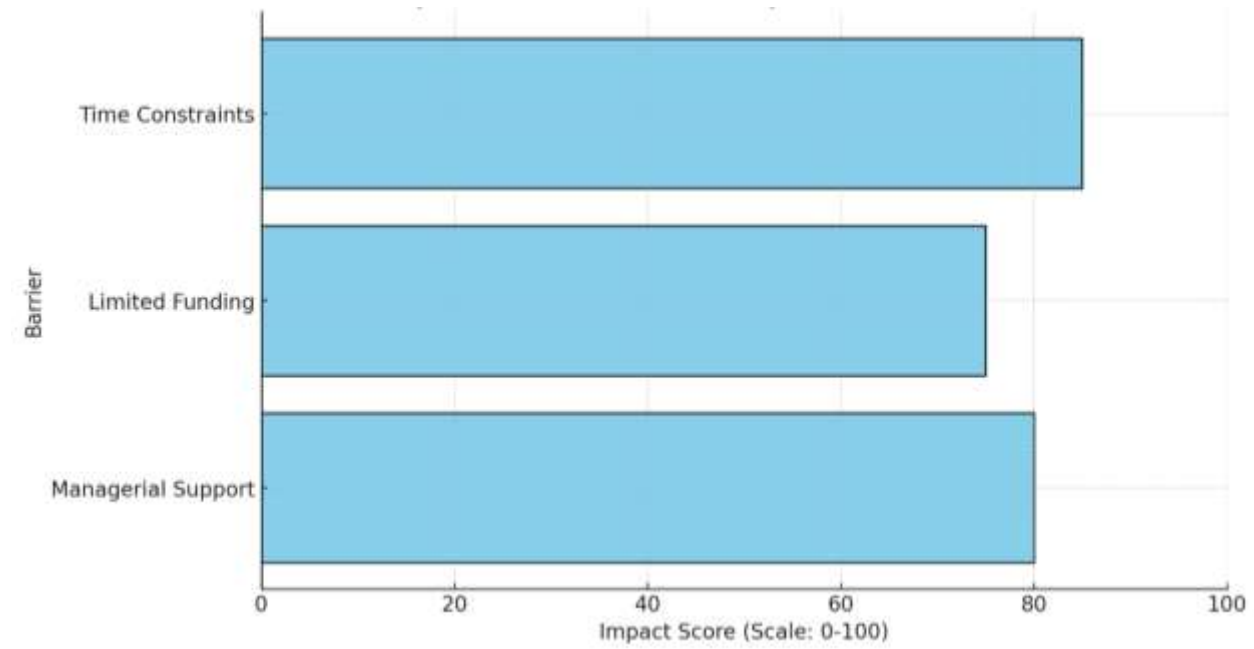


Figure 3 : Impact of Barriers on Participation in CPD for Nurses

### Analysis of the Table and Horizontal Figure

The table and horizontal Figure highlight the primary barriers to Continuous Professional Development (CPD) participation for nurses. The three key barriers identified—time constraints, limited funding, and managerial support—significantly impact nurses' ability to engage in CPD activities. Each barrier is linked to its respective description, suggested solutions, and supporting literature, offering a comprehensive view of the challenges nurses face in accessing CPD opportunities.

## **Table Analysis**

The table identifies time constraints as the most significant barrier to CPD participation. Heavy workload, shift schedules, and patient care responsibilities often prevent nurses from dedicating time to CPD activities. White et al. (2023) suggest that flexible schedules and online learning modules can address this challenge by enabling nurses to participate in CPD at convenient times, such as during off-duty hours or breaks.

Limited funding is another key barrier, as nurses may struggle to afford training fees, course materials, and conference attendance costs. Without financial support, many nurses are unable to access CPD opportunities. Burton et al. (2022) emphasize the importance of scholarships, employer funding, and grant opportunities as effective solutions to mitigate this issue, enabling more nurses to pursue professional development.

The final barrier is the lack of managerial support, which can manifest as limited encouragement or lack of recognition from supervisors. When nurses feel unsupported by their managers, they are less likely to engage in CPD. Jackson et al. (2020) recommend that healthcare institutions provide leadership training for managers and introduce incentives for nurses who actively participate in CPD. This strategy fosters a culture of learning and professional growth within healthcare organizations.

## **Horizontal Figure Analysis**

The horizontal Figure visually represents the relative impact of each barrier on CPD participation, with scores ranging from 0 to 100. Time constraints have the highest impact score, indicating that this is the most significant challenge faced by nurses in accessing CPD. The visual prominence of this barrier emphasizes the need for healthcare institutions to introduce more flexible learning options, such as asynchronous online courses.

Limited funding ranks second in impact, highlighting the financial burdens nurses face when attempting to access CPD programs. Scholarships, funding grants, and employer support are essential in overcoming this barrier, as they provide nurses with the financial resources to engage in professional development.

Managerial support ranks third, but it remains a critical factor influencing nurse participation in CPD. The Figure demonstrates that, while managerial support may have a slightly lower impact score than time and funding barriers, it plays a pivotal role in creating a positive learning environment. By fostering a culture of encouragement and offering incentives for CPD engagement, healthcare organizations can significantly boost nurse participation.

The figure effectively visualizes the relative impact of these barriers, with the inverted y-axis emphasizing the most severe barrier (time constraints) at the top. This clear representation provides valuable insight into how healthcare institutions and policymakers can prioritize interventions, such as flexible scheduling, financial aid, and leadership development, to support nurse engagement in CPD.

## **5. Conclusion and Recommendations**

### **5.1 Conclusion**

In conclusion, this study underscores the critical role of Continuous Professional Development (CPD) in enhancing nursing competencies. Through a comprehensive analysis of theoretical frameworks, CPD strategies, and barriers to participation, the study demonstrates how CPD contributes to the professional growth and capacity of nurses. Key theoretical models such as Kolb's Experiential Learning, Knowles' Adult Learning Theory, and Transformative Learning provide a conceptual foundation for CPD, ensuring that learning is experiential, self-directed, and transformative. These theories offer a structured approach for designing CPD programs that align with the evolving needs of nurses and healthcare systems.

The findings of this study reveal that CPD significantly improves nurses' clinical reasoning, technical skills, and leadership abilities. Approaches such as case-based learning, simulation-based training, and mentorship play a pivotal role in fostering critical thinking, hands-on practice, and

leadership development. Evidence from empirical studies highlights that nurses who engage in CPD demonstrate enhanced decision-making, technical proficiency, and the ability to lead teams effectively. These competencies are essential for navigating the complexities of modern healthcare systems, where patient needs and technological advancements are constantly evolving.

Despite its benefits, CPD participation is hindered by several barriers, including time constraints, limited funding, and lack of managerial support. Addressing these barriers requires healthcare institutions to adopt flexible learning schedules, provide financial support, and promote a culture of continuous learning through managerial encouragement. Overcoming these challenges will enable more nurses to engage in CPD and strengthen the overall capacity of the nursing workforce. This study reinforces the importance of CPD as a strategic tool for nursing competency enhancement. It highlights the need for healthcare institutions, policymakers, and nursing regulatory bodies to create supportive environments that facilitate continuous learning. By addressing barriers and fostering a culture of ongoing development, the nursing profession can continue to adapt to new healthcare demands, improve patient outcomes, and maintain the highest standards of care. This conclusion emphasizes the enduring value of CPD as a foundation for nursing excellence in an ever-evolving healthcare landscape.

## **5.2 Recommendations**

Based on the findings of this study, several recommendations are proposed to strengthen the role of Continuous Professional Development (CPD) in enhancing nursing competencies. These recommendations aim to address the barriers identified in the study and promote more effective CPD practices within healthcare systems. The integration of theoretical frameworks, such as Kolb's Experiential Learning, Knowles' Adult Learning Theory, and Transformative Learning, should be a priority in the design and implementation of CPD programs. By incorporating experiential, self-directed, and transformative learning approaches, CPD initiatives can better cater to the diverse learning needs of nurses.

Healthcare institutions should prioritize the development of flexible CPD programs that accommodate nurses' busy schedules. This could be achieved through online modules, self-paced learning opportunities, and blended learning models. Such flexibility allows nurses to balance their professional responsibilities with learning activities, thereby increasing participation in CPD programs. Employers and policymakers should also provide financial support in the form of scholarships, grants, or subsidies to address the financial constraints nurses face in accessing CPD opportunities. By alleviating the economic burden, healthcare institutions can ensure that more nurses have access to continuous learning.

In addition, managerial support plays a vital role in encouraging nurses to engage in CPD. Healthcare leaders should foster a culture of learning within their institutions by recognizing and rewarding nurses who actively participate in CPD. This can be achieved through career advancement opportunities, salary increments, or recognition programs. Leadership development for managers is also essential, as effective leaders can inspire and guide nurses to prioritize professional growth.

It is recommended that healthcare regulatory bodies establish clear CPD guidelines and requirements for licensure renewal. Such policies ensure that nurses remain accountable for their professional development and maintain up-to-date knowledge and skills. By fostering a culture of continuous learning and addressing the barriers to CPD, healthcare systems can enhance nursing competency, improve patient outcomes, and build a resilient, well-prepared nursing workforce.

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