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Impact of Staff Education to Clinical Documentation Integrity Team

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Walden University

College of Nursing

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Executive Summary: Staff Education Project
Impact of Staff Education to Clinical Documentation Integrity Team
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Summary

The doctoral project investigates the impact of education on Clinical Documentation Integrity (CDI) nurses in enhancing the accuracy and quality of clinical documentation within healthcare organizations. Clinical documentation plays a crucial role in accurately reflecting patient care and is essential for capturing proper diagnoses, coding, and reimbursement. In contrast, inaccurate or incomplete documentation can lead to misdiagnoses, poor patient outcomes, and financial deficits.

Due to frequent updates in clinical guidelines and coding standards, CDI professionals require continuous, specialized training to stay informed with ever-changing medical terminology, disease processes, and coding regulations. By enhancing the CDI education, the aim is to improve the quality of clinical documentation, reduce diagnostic errors, and facilitate accurate coding practices.

Through pre- and post-education reviews of claim-based data (CBD), the project assesses the effectiveness of enhanced training on diagnosis accuracy, query writing, and overall documentation quality. The goal is to measure how improved education affects the quality of queries, leading to more accurate diagnosis capture and optimal patient care quality. The project's findings include a post-education increase in clinician agreement rates and in the accuracy of diagnostic documentation through effective query writing. Through CDI education, query writing becomes more effective in providing documentation integrity and coding of valid diagnoses. Ongoing education for CDI professionals is essential to maintaining high-quality, accurate clinical documentation, reducing misdiagnosis rates, improving patient safety, and optimizing the healthcare system performance, ultimately supporting better health outcomes.

Background

Within various healthcare settings, the electronic health record (EHR) has become the single most crucial source of information for communicating patient progress, identifying the plan of care, recording healthcare received, providing rationale behind clinical decision-making, and monitoring diagnoses (Dehghan et al., 2013). However, despite being the source of truth for essential patient information, diagnosis capture errors account for 17% of adverse events in the inpatient healthcare setting, according to *Improving Diagnosis in Health Care* (Ransom, 2022). To address this, many organizations have implemented Clinical Documentation Integrity (CDI) programs, in which specialized nurses collaborate with providers to ensure the accuracy of documentation and diagnosis.

CDI professionals play a crucial role in reviewing EHRs to validate diagnoses, identify discrepancies across providers' documentation, and flag missing diagnoses. Challenges often arise because clinicians are not trained in the specialized language of coding, and CDI professionals are utilized to bridge the gap between the coding and clinical languages. CDI uses clinical evidence from the record to write clarification queries when there are discrepancies in the documentation. CDI relates education received in clinical coding guidelines as a significant factor in performing well in their work, according to a study conducted by Jebraeily et al. (2021).

The overall effectiveness of a CDI program depends on the quality of training and education provided to the CDI. The education offers a significant contribution to CDI programs by demonstrating accurate reporting of clinical conditions and reimbursement efforts (Arrowood et al., 2015; Pine et al., 2021). Given the constant evolution of clinical

guidelines and coding rules, the *Journal of the American Health Information Management Association's* article, "The Impact of Physician Engagement on Clinical Documentation Improvement Programs," suggests that ongoing education is imperative for CDI staff to stay current and maintain high-quality documentation practices. Davis and Shephard recommend targeted training to address challenges and risks in documentation. A lack of up-to-date knowledge can lead to gaps in the capture of accurate diagnoses and, consequently, affect the quality of patient care (Stocking et al., 2019). Pine and Bossen (2023) assert that CDI bridges gaps by changing clinicians' perspectives through querying efforts. According to Esper and Volansky (2025) and Rouse et al. (2022), the relevance and content of a query significantly enhance the effectiveness of documentation capture.

Staff Education Project Development

For the development of education, the key stakeholders identified for participation are the 24 CDI nurses who concurrently review patient records in an inpatient setting. The participants collectively have a range of 3-10 years of experience in CDI, and 15 hold their Certification as Clinical Documentation Specialists (CCDSs). The CDI nurses have a monthly meeting with their team, and it was determined by the CDI leaders in the department to provide the education session during this time.

The CDI team data analyst provided figures on education needs based on the types of queries submitted and the overall clinician agreement rate. An agreement rate measures the rate of documentation amendments based on clarifications in a query. The agreement rate ultimately serves as a valid indicator that documentation in the record of the diagnoses are valid through query writing.

The education needs identified in the data were presented to key stakeholders, including leaders within the CDI department, to collaborate on and decide which clinical topics to review. The clinical issues selected focus on infectious diseases: Sepsis, Pneumonia, and Encephalopathy. The current coding guidelines and compliance practices for query writing were also chosen as additional topics. Pre-education agreement rates serve as a comparison to post-education agreement rates, assessing knowledge retention and improvement in query writing, along with a pre- and post-education evaluation. The education session lasted over one hour, including the pre- and post-education evaluation portions. Post-education agreement rate data was pulled for the query agreement rate comparison two weeks after the education was delivered.

Results

The results of the education session revealed an overall increase in the number of queries written by 25%, indicating greater recognition of diagnosis capture for the CDI team during their concurrent reviews of patient charts. The agreement rate also increased in queries written after education by 15%, indicating better documentation capture of the clinical topics selected through impactful query writing. It was also noted in the data that the response rate of clinicians increased by 5% post-implementation, which was an incidental finding.

Table 1*Query Results*

Education group	Queries sent	Agreement rate	Response rate
Pre-education	160	75%	92%
Post-education	214	90%	97%

The pre- and post-education evaluations for the CDI nurses were also secondary observations. The pre-evaluation scores collectively averaged 80%, with only one CDI nurse scoring a perfect 100%. The post-education evaluation for the CDI nurses indicated an increase in the average to 95% including all participants.

Table 2*Assessment Results*

Education group	Grade average
Pre-education	80%
Post-education	95%

Utilizing education for the CDI nurses results in greater knowledge retention and Effective query writing. Impactful query writing leads to an increase in diagnosis capture. Accurate diagnosis capture results in changes to the diagnosis-related grouping (DRG), relative weight pricing, case mix index figures, major comorbid condition, severity of illness, and risk of mortality reporting for the organization.

Limitations in the project implementation include considerations for the use of technology by CDI nurses and clinicians, as queries are communicated through the

electronic health record, which may affect the overall capture of agreement rates.

Additionally, limitations in the pre- and post-evaluations may be skewed, as the CDI nurses had recently received the education, and the information was easily recalled. This post-evaluation measurement could be administered again later to assess long-term retention.

These findings demonstrate that education for the CDI nurses instills a greater knowledge base on clinical topics and beneficial query writing practices. Through effective query writing, CDI nurses enhance the quality and integrity of documentation. Better documentation leads to positive patient outcomes. CDI nurse education implemented within CDI departments can benefit the diverse population within the inpatient setting.

Conclusions

By providing education to the CDI nurses, impactful query writing practices are increased. Queries then offer a larger amount of documentation capture, resulting in improved quality of patient outcomes, enhanced data reporting of conditions, and increased fiscal opportunities for the organization. Monthly continuous education for CDI nurses, tailored to the specific needs identified in the data, should be considered by organizations to improve documentation capture. By providing continuous education for CDI nurses, organizations can directly impact on the overall quality of care provided to the diverse population served in healthcare.

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