Effect of Implementing Admission History Optimization on Perceived Nurse Documentation Burden

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DNP Project Proposal

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Introduction

- Nurses spend the most time interacting with Health Information Technology (HIT) than any other healthcare providing direct patient care
- The pressure on nurses to document thoroughly and completely is larger than ever
- The purpose of documentation has shifted from simply recording patient data centered to being legally, financially, and regulatory charged.

History

- Florence Nightingale is the founder of medical documentation and record keeping
- A patient chart similar to modern medical records was not used consistently worldwide until the early 1900s
- Technology expanded in the 1970s, first Electronic Health Records (EHR)
- 2009, the US Congress passed Health Information Technology for Economic and Clinical Health Act (HITECH Act)

Significance

- The effect of EHR integration on staff has not been well studied
- Average increase of 12% of documentation time when switching from a paper charting system to an EHR
- “Inefficient”, “redundant”, “difficult to use” and “irrelevant to daily work requirements
- This is essential as poor-quality documentation was found to be a contributing factor in clinically deteriorating patients

Initial Recommendations from Literature

Proposed solution is to use “essential data sets” as a way to standardize minimum documentation

The purpose of this data is to reach a consensus on medical language to be used and standards for documentation and process across all healthcare systems

Purpose Goals Aims

- Investigate how optimization of nursing admission history effects the burden of documentation on nurses
- Aim is to ultimately reduce nursing burden to allow more time for direct patient care by nurses.

PICOT

- In nurses working in a hospital, how does modification of admission history using an essential clinical data set affect perceived nurse documentation burden level after three months?

Literature Search

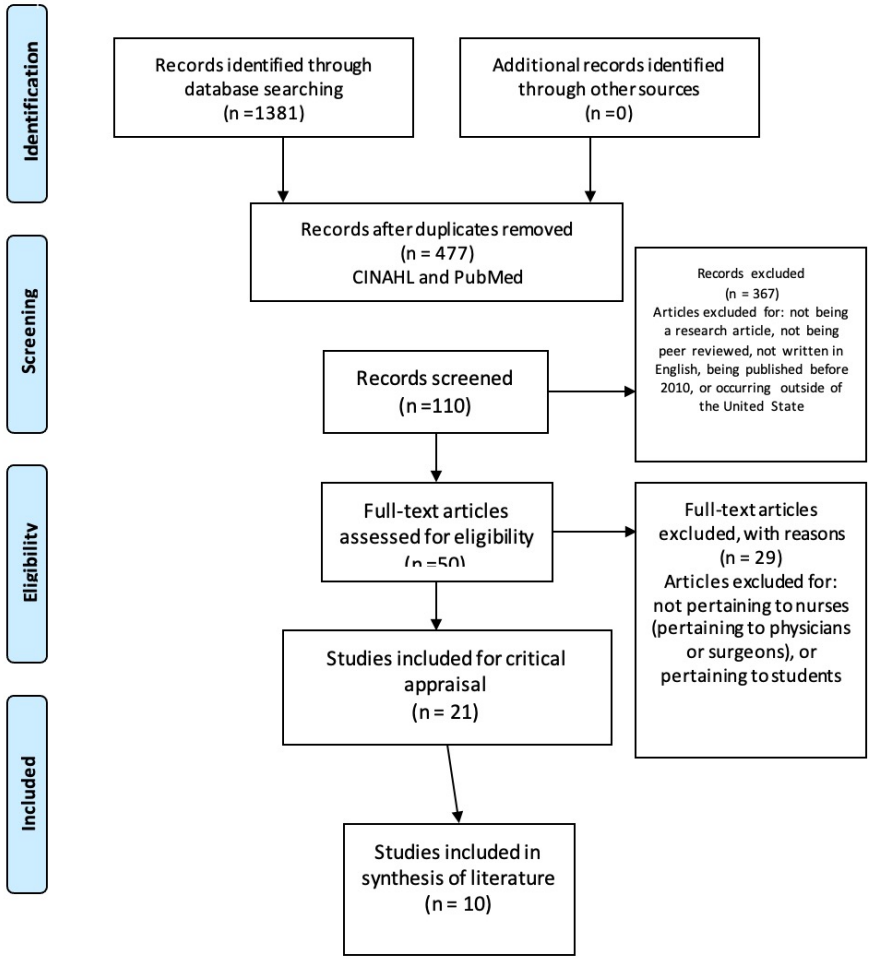

Figure 1.
Adapted PRISMA flow diagram

Karp, E. L., Freeman, R., Simpson, K. N., & Simpson, A. N. (2019). Changes in efficiency and quality of nursing electronic health record documentation after implementation of an admission patient history essential data set. *CIN: Computers, Informatics, Nursing*, *37*(5), 260-265.	No conceptual framework identified Determine whether EHR system timers and event logs can measure the efficiency and quality of a clinical process in an EHR.	Quality improvement study pre and post nonrandomized prospective cohort after implementation of essential data set	Data from 600 bed academic medical center for one month All histories completed in one setting were analyzed Pretest n=904 Posttest n=805	73% reduction in required admission history data elements and the resulting changes in documentation for nurses	• Amount of time spent on history • Number of clicks • Quality of documentation	Descriptive statistics and significance via independent sample t-test	The average active time spent documenting the admission patient history decreased by 72% from the preintervention measure (mean = 9.30 minutes) to the postintervention measure (mean = 2.55 minutes).	Strength: • Large sample size • Use of EHR tools showed decrease in documentation burden • Essential data sets reduce time spend documenting Weaknesses: • Results for only one EHR vendor • Only quantitative measures

Critical Appraisal

- Studies were reviewed using rating scales and guidelines such as the Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) to determine strength
- Level of evidence ranged from II-III
- Quality of evidence ranged from A-B

Recommendations

- 1. Evaluate necessity of required documentation to decrease documentation workload for nurses (Strong recommendation)
- 2. Implementation of an essential clinical data set for admission histories to reduce nursing documentation burden (Recommended)

Setting and Population

- 44-bed medical unit of a hospital located in East Tennessee.
- The hospital uses an electronic health record system. The 40 nurses on this unit typically have 4-6 patients each day
- Registered nurses with > 1 year of EHR use

Optimization of Admission History

- Deletion of over 120 entry elements
- Reduction of individual pages visited during history documentation
- Adoption of standardized outside records

Evaluation Tool

- The Burden of Documentation for Nurses and Midwives (BurDoNsaM) survey
- This is a 28 item survey that uses a Likert scale to establish the participants views about the value of clinical documentation, the burden of documentation, hospital leadership and documentation, and the time taken to complete documentation
- Validated by expert panel
- Developed specifically to measure the effectiveness of interventions implemented to reduce documentation burden for nurses and midwives.

Data Analysis

- Data collected using Qualtrics online survey tool. The pre-survey and post-survey compared and analyzed for any statistically significant changes.
- These included averages and percentages of responses chosen. In addition to Qualtrics software, the data will be analyzed using Statistical Package for the Social Sciences (SSPS) application.
- Given that the two samples were independent a Mann-Whitney U test was used to determine whether there was a statistically significant change in answers between the two surveys. the level of significance was set at $p < 0.05$

Results

- The responses were as follows: 1- strongly disagree, 2- disagree, 3- neutral, 4- agree, and 5- strongly agree.
- Question D1 ("Thinking about a shift when you are caring for a full patient load what percentage of your time would you estimate is spent completing paperwork/charting?") is asked on a 10-point scale, with each point increasing by 10% with a maximum of 100%. For example: 1- 10%, 2 -20%, 3- 30%, etc.

A. Views about Value of Current Admission History								
1. Generally, the documentation is easy to complete.	26	3.04	1.113	16	3.38	0.957	0.3544	-0.9261
2. Generally, the documentation I complete is complex.	26	3.27	1.079	16	2.63	0.806	0.07404	1.7864
3. The documentation I complete adds value to patient care.	26	2.46	1.029	16	2.56	0.964	0.6921	-0.3961
4. I believe documentation is essential for communication.	26	2.96	1.216	16	2.38	0.885	0.1202	1.5539
5. I believe documentation is essential for communication.	26	2.96	1.28	16	2.38	0.885	0.1549	1.4223
6. The documentation I complete ensures continuity in patient care.	26	2.81	1.096	16	2.63	0.806	0.5976	0.5278
7. The documentation I complete ensures quality in patient care.	26	3.00	1.166	16	2.81	0.750	0.6272	0.4856
8. Documentation assists new nurses and midwives to remember their professional tasks.	26	2.77	1.070	16	2.63	0.719	0.7741	0.287

B. Burden of Documentation								
1. Double documentation (duplication) is an avoidable burden.	26	4.27	0.827	16	4.13	0.342	0.1428	1.4653
2. Some of the documentation and paperwork is unnecessary.	26	4.15	0.881	16	3.75	0.683	0.05972	1.8829
3. Some documentation is completed to meet the national standards but does not assist patient care.	26	4.27	0.667	16	3.69	0.704	0.01321	2.478
4. There is too much documentation and too little time.	26	4.38	0.697	16	3.94	0.772	0.06146	1.8702
5. The volume of paperwork impedes patient care.	26	4.27	0.724	16	3.81	0.750	0.03988	2.055
6. Our documentation and paperwork creates confusion.	26	3.85	0.784	16	3.81	0.750	0.9657	0.04296

the demands documentation and paperwork place on us.								
2. I get to contribute to the development of relevant clinical documentation and paperwork.	26	3.12	1.033	16	2.56	0.892	0.08078	1.7462
D. Time Taken to Complete Documentation								
1. Thinking about a shift when you are caring for a full patient load what percentage of your time would you estimate is spent completing paperwork/charting?	26	5.81	1.443	16	5.87	1.258	0.8254	-0.2206
2. I finish work late because of outstanding clinical documentation and paperwork.	26	3.31	0.788	16	3.31	0.873	0.845	0.1956
3. There is enough time to complete paperwork/chart	26	2.62	0.941	16	2.50	0.894	0.9024	0.1226
E. Intervention Evaluation								
1. There has been a noticeable reduction in unnecessary documentation and paperwork		N/A		16	3.5	0.632	N/A	N/A
2. Since the changes to		N/A		16	3.38	0.619	N/A	N/A

Limitations

- Small sample size
- Differences in sample sizes
- Covid-19

Implications for Practice

- Increased time for patient care
- Increased employee satisfactions
- Reduce redundancy

Dissemination Plan

- Submission to Journal of Health Organization and Management
- Present to project stakeholders

Questions?

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