

Nursing Documentation Practice and Associated Factors Among Nurses in East Guji, West Guji and Borena Zone Public Hospitals Southeastern, Ethiopia

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Abstract

Background: In health care systems, nursing care documentation is a vital and powerful tool that ensures continuity of care and communication between health personnel for better patient outcomes. The practice of nurses towards nursing care documentation affects the quality and coordination of patients' care. Hence, this study aimed to assess the practice of documentation and its associated factors among nurses working in the Guji and Borena Zone public hospitals.

Method: A hospital-based cross-sectional study design with a convergent mixed-method approach was employed from April 1 to May 30, 2022, among 502 sampled nurses working in East Guji, West Guji, and Borena Zone public hospitals in Ethiopia. Data were collected using self-administered structured and open-ended questionnaires for quantitative and qualitative data, respectively. Key informant interviews were conducted with nine respondents. Epi Data 4.6 was used for data entry, and SPSS version 26 software was used for data analysis. A logistic regression model was used to identify the determinants of nursing documentation practice, and statistical significance was declared at $P < 0.05$. A thematic analysis approach was applied for the qualitative data analysis.

Result: A total of 486 respondents provided complete responses, resulting in a response rate of 97%. The documentation practice was found to be 46.9%. Factors associated with good nursing documentation practice included the availability of guidelines [(AOR = 2.1), 95% CI (1.1-3.9)], education received in governmental institutions [(AOR = 2.6), 95% CI (1.7-4.0)], in-service training [(AOR = 1.7), 95% CI (1.01-2.7)], motivation [(AOR = 2.1), 95% CI (1.2-2.7)], favorable attitude [(AOR = 2.3), 95% CI (1.5-3.5)], documentation audit [(AOR = 2.0), 95% CI (1.0-3.7)], and good knowledge [(AOR = 2.1), 95% CI (1.2-3.5)].

The key informant interview explored factors like in-service training, lack of supply, academic background, and educational status, as well as the vast nursing care format and lack of commitment, have a major impact on nursing documentation.

Conclusion: In this study, the overall nursing documentation practice was poor. Therefore, it is important to make extra efforts to improve documentation practice by providing planned training on standards of documentation to all nurses, enhancing favorable attitudes, and increasing their knowledge by motivating them to develop a culture of good nursing documentation.

1. Introduction

Documentation is the process of creating a record of evidence and any written information about a client that explains the status, care, or service given to the patient [1]. Effective documentation gives the foundation for demonstrating nursing's valuable contribution to patient outcomes and to the institution that provides and supports quality patient care [2]. Findings from the study indicated that nursing documentation had a significant impact on quality assurance [3]. Clear, proper, accurate, and on-time documentation helps prevent medical malpractice lawsuits; it also acts as the nurse's best defense in the case of a lawsuit [4].

Documentation of nursing care is one of the key roles of nurses, according to the study conducted in Tamale Metropolis, showed that nursing documentation mistakes were made 99.8% of the time, with the most prevalent error being a nurse's failure to sign each entry in the nurse's note [5]. Nursing documentation is a written document of all findings, progress, care, and treatment provided to the patient by nurses [6]. According to an Indonesian study, the completion rate of nursing care documentation reported 76.3% in assessment, 86.4% in diagnosis, 93.3% in planning, 96% in implementation, and 92.2% in evaluation [7].

Much has been written on the need to limit destruction while collecting and administering medication, but little has been identified on the effect of interruptions on nursing documentation. A study revealed that the environment on nursing charting and documentation has a great impact [8]. Globally, one of the most challenging realities faced by practicing nurses is the documentation of nursing care, according to American nursing association, documentation of interventions and patient responses is a weak link in nursing documentation, failure to follow policies and procedures is the most frequent allegation against nurses in common charting errors and lawsuits [9]. In Europe still lacking access to nursing data, the act of documentation remains challenging. The study, reveals that errors in medical record documentation were identified in the admission examination (26.3%), followed by the discharge letter (24.3%), missing signatures (38%) and discharge letters that were too brief (13.4%) were the most common errors [10,11]. Documentation mistakes are also a continuing problem in Africa. Nursing documentation mistakes were found to be 99.8%, with the most prevalent error being a nurse's failure to sign each entry in the nurse's notes.

The incidence of medication administration errors was 56.4%. The majority (87.5%) of the medications have documentation errors, overall 46% of patient care not recorded [5,12,13]. Nursing documentation determinants such as availability of operational standards, as well as nurses' knowledge and attitudes towards documentation, all had a major impact on nursing care documentation practice [3]. The most serious issue that nurses face in Africa and the poorness of documentation appears to be due to a lack of policy-standards, procedures, and guidelines; training,

supervision, and auditing; and moreover, non-empowerment due to less payment and non-conducive working surroundings; as well as a persistent shortage of nursing staff. On the other hand, they received little guidance and help on how to record in an effective and efficient manner [14,15].

Nevertheless, nurses, due to the increased burden of different factors, do not consider documenting care as important. This makes way for increased chances of error, which not only proves fatal for the patient [16]. Inaccuracies and incompatible documentation were identified by participants, including omissions, or gaps, in the essential information necessary for the delivery of safe care, leading to potentially problematic situations for nurses [17]. The most common allegations levelled against nurses in lawsuits are those of failure to document [9].

In Ethiopia the act nursing documentation is poorly practiced and reported left not done [18]. The challenges for this due to lack of training, time, motivation, adequacy of guidelines and documentation format [19]. In addition, nurse knowledge, attitude, sex, work setting, and work experience and monthly salary were shown to be the main factors [20]. As per review of different literature, there is little information regarding nursing documentation practice and associated factors. Moreover, there are a few studies that were limited to small study areas and small sample size which makes it difficult to generalize. Furthermore, there were limitations in the research approach (self-reported tools alone may not show the actual result). And studies conducted in Ethiopia did not address important factors that were important in other African countries (regular documentation audit, work environment, nurses' learning institution type). More of researchers were recommended mixed research approach in Ethiopia, so this proposed study may add additional information regarding nursing documentation.

However, the information generated by nurses in public hospitals in Guji and Borena zones appears to be unresearched and not clearly indicated. This study tried to find the magnitude of the problem and explored the challenges of documentation by nurses. So, this study will be used as a front line to provide relatively strong and additional baseline evidence that will help to plan intervention programs for poor nursing documentation practice and to avert its effect on health care for patients, the nursing professions, hospitals. The objective of this study is to assess nursing documentation practice and associated factors among nurses and explore barriers in East Guji, West Guji and Borena zone public hospitals southeastern, Ethiopia, 2022.

2. Methods

2.1 Study Area, Period, and Design

This study was carried out in East Guji, West Guji, and Borena Zone public hospitals from April 1 to May 30, 2022. In general, there are 11 public hospitals in those three zones, with a total

of 625 nurses. These hospitals include Negele General Hospital (110), Adola General Hospital (60), Uraga Primary Hospital (30), Bore Primary Hospital (35), Bulehora General Hospital (105), Kercha Primary Hospital (35), Melka Soda Primary Hospital (30), Yabelo General Hospital (95), Moyale General Hospital (60), Mega Primary Hospital (40), and Arero Primary Hospital (25), respectively. A hospital-based cross-sectional study design with a convergent mixed-method approach was employed.

2.2 Population

All nurses who were working in East Guji, West Guji, and Borena Zone public hospitals were sources of population, and sampled nurses' who fulfilled inclusion criteria were the study population.

2.3 Inclusion Criteria: Nurses who are involved in direct patient care with work experience of 6 months and above participated in the study.

2.4 Exclusion Criteria: nurses who were on sick leave, maternity leave, or annual leave. All hospital managers were excluded (since they were recruited for key informant interviews).

3. Sample size Determination Quantitative

To determine sample size, both single and double population proportion formulas were used for the first and second objectives, and the maximum calculated sample size was taken.

For dependent variables (first objective), a single population proportion formula was used by considering the following assumptions: proportion of good nursing documentation practice, which was conducted at public hospitals in the west Gojam zone, 47.5% (20) with a 95% confidence interval, a 5% margin of error, and a 10% nonresponse sample size of 379. Sample size determination for the 2nd objective by considering the assumption that the samples from previous studies were independently and randomly selected and using OR, 95% CI, 80% power, a 1:1 ratio of unexposed to exposed, and a percent outcome in the unexposed group for each selected factor, reviewing different literature to select the variables, and then the sample size calculated for those selected variables, attempted to select the maximum sample size for the final required sample size by using Epi Info Version 7.2 Statistical Calculator for sample size software. Therefore, the maximum sample size was 456, and after adding a 10% non-response rate, the total sample size was 502 (Table 1).

Variables	CL	Power	P1	P2	OR	Ratio	NRR	Final sample	Reference
	%	%				1:1	10%		
Familiarity with OS	95	80	34.4	21.2	1.947	1:1	10%	431	(21)
In service training	95	80	16.8	30.4	0.462	1:1	10%	365	(22)
Work setting	95	80	83.1	71.7	1.94	1:1	10%	502	(23)
Attitude	95	80	49.4	30.58	2.22	1:1	10%	255	(24)
Patient to nurse ratio	95	80	40.8	23.5	2.24	1:1	10%	277	(18)

Table1: Sample Size Determination for Settled Second Objectives for Documentation Practice and Associated Factors Among Nurses in East Guji, West Guji and Borena Zone Public Hospitals Southeastern, Ethiopia 2022

KEY

NRR-----nonresponse rate

P1----- Proportion of outcome among population with the exposure of interest

P2..... Proportion of outcome among population without the exposure of interest

OS..... operational standard

For the qualitative part, a total of 22 participants were planned to be selected from each hospital, with two nurses from each hospital (one matron and one nurse). Data collection was continued until idea saturation was achieved. The sample size was determined by the point at which idea saturation was attained.

3.1 Sampling Procedure

The zones were purposely selected within eleven public hospitals, and list of all eligible nurses was obtained from each hospital by collaborating with matrons in each hospital. The sample size for each hospital was proportionately allocated to the population size

and finally participants was selected by using a random sampling technique.

3.2 For Qualitative Approach

For the qualitative part, a purposive sampling technique was used to select participants for the key informant interview: one matron and one nurse from each hospital, who are part of the study population and not included in the quantitative study, have participated in the key informant interview.

4. Data Collection Tools, Procedures and Personnel

Quantitative data was collected through a structured and pretested self-administered questionnaire, which was adapted from different literature reviews (18–20,24). The tool contained socio-demographic characteristics, nursing documentation practice, organizational and administrative factors, attitude-related items, and knowledge-related items (Annexes II). Internal reliability was checked to give a Cronbach's alpha value, which was 0.91% for attitude, 0.9% for organizational factors, 0.85 for documentation

practice, and 0.73 for knowledge questions, respectively. Six BSc nurses for data collection and three MSc nurses for supervision.

Qualitative data were collected using a semi-structured interview guide. The interview guide was developed for this study by considering the objective of the study. The guide was first prepared in English and translated into local languages, Afan Oromo and Amharic (Annex III). Primarily, the discussion guide question was translated from the English version into the local language by a certified translator. Then back translates to English and is compared with the original version to check for consistency. Next, we will receive the list of participants from the hospital medical directors for the key informant interview. The participant received information about the overall objective of the study from the principal investigator. After I got their permission, the interview was done with a tape recorder and note-taking. It was an individual interview with open-ended, non-directive questions to explore the barriers regarding nursing documentation practice.

The interview is also conducted in a quiet place (the matron's office). The interview was conducted by the principal investigator and modulated by one MSc. The mean average time it took for an interview was 30 minutes. The interview was finalized by taking the overall conclusion idea from the participant. The collected data was stored on the computer by protecting it with a password.

5. Operational Definition

5.1 Good Nursing Documentation Practice: Those respondents who scored above or equal to the mean score of practice questions had good practice (25).

5.2 Poor practice: Those respondents who scored below the mean score of practice questions had poor practice (25).

5.3 Good knowledge Toward Nursing Documentation: Those respondents who scored above or equal to the mean score of knowledge question had good knowledge (24).

5.4 Poor knowledge: the respondents who scored below the mean of knowledge questions (24).

5.5 Favorable Attitude Towards Nursing Documentation: Those respondents who scored above or equal to the mean of attitude question had favorable attitude (20).

5.6 Unfavorable Attitude: the respondents who scored below the mean of attitude questions (20).

6. Data Quality Assurance

To assure data quality for the quantitative study, the questionnaire was pre-tested on 25 nurses (5% of the total sample size) at Dila University Hospital, and necessary corrections were made before the actual data collection. From the beginning, two days of training were given to collectors and supervisors on information about the data collection tools, research objectives, eligible study subject procedures, and interview methods. On each data collection day, some percent of the collected data was examined by the authors, and any forwarded problems got an immediate solution. After the data has been collected, it is checked for completeness and coded. Then each questionnaire was entered into Epi Data version 4.6. and finally, export to the Statistical Package of Social Science

(SPSS) to screen for outliers, missing values, and fulfilment of assumptions were made through running descriptive statistics, and data cleaning measures were taken accordingly before data analysis.

To ensure the quality of the data for the qualitative study, the authors considered credibility, transferability, dependability, and conformability assumptions.

• **Transferability (related to generalizability):** Transferability is about providing enough information in an accessible language to enable another to answer the question of transferability in another setting. To maintain the transferability of the finding, appropriate probes were used to obtain detailed information on responses. Detailed field notes and digital audio recordings were made for all KII before and during analysis.

• **Dependability (related to reliability):** making sure research questions were clear and appropriate to the study design, ensuring transparency of the researcher's role, and using appropriate data collection. The prolonged engagement was made to address individuals with different ideas, and acceptance was built with participants.

• **Conformability (Related to Objectivity)**

• To ensure conformability, the interview process was conducted in a bilingual language to enable the participant to freely respond to the interview. Detailed field notes, prolonged engagement, and digital

• Audio recordings were made for all key informants. The data analysis in each sub-study was cross-checked, and the results were reviewed in relation to themes and categories to which the investigator had linked their original data. and my colleagues.

6.1 Data Process and Analysis

6.2 For Quantitative Data

After data entry and compilation, the data was exported to SPSS version 26 for analysis. Running descriptive statistics allowed me to inspect my data for outliers, missing values, and the fulfilment of assumptions. The variable was computed and recoded by the transform function of SPSS. Results were summarized using frequencies, percentages, mean, and standard deviation and presented using figures, tables, and text. The practice of nursing documentation was computed from all relevant 13 Likert practice items and dichotomized into good and poor practice. Knowledge was assessed using yes and no questions, which were levelled into 1 yes and 0 no and dichotomized into good and poor knowledge by the mean score of the cutoff point. Attitudes were assessed with 12 measuring items and dichotomized into favorable and unfavorable attitudes by the mean score cutoff point after computing.

A first bivariable analysis was used to determine the relationship between variables with a P-value of 0.25 at a 95% confidence interval. And the associated variable was entered into multivariable analysis with an AOR of 95% CI to determine the strength of the associated variables. A p-value of <0.05 was declared as an associated variable. The multicollinearity test was checked by standard error to check the interaction effect among independent variables, using 2 as a cutoff point. The model's goodness was checked through Hosmer and Lemeshow, and it was well fitted

(p-value = 0.8). The backwards selection model method was used to identify the variables remaining for the final for a qualitative approach prior to data analysis, the audio tape recording and individual interviews were heard and read aloud until reaching understanding as soon as data collection began. Transcription was done from Amharic and A fan Oromo to English verbatim to obtain the whole sense.

This translated English version was read again and again by the investigator. and narrating the individuals' ideas word for word. The collected data were analysed manually using code. The code was created in Microsoft Word using different colors manually, and each code was merged into categories, and finally themes were created based on groupings of similar categories. A comparison was made between transcripts and themes to validate the finding. Also, quotations were used to support the description of the themes.

7. Ethical Consideration

The study protocol was approved and ethical approval letter is provided by the Ethical Review Committee of Salale University with reference number IRB/884/14. The study was performed in line with the World Medical Association Declaration of Helsinki

on medical research. A supportive letter with reference number 884/2014 was given to the hospital management members and permission was obtained from all hospitals to collect data. Prior to the self-report questions and key informant interview, the aim and objective of the study were clearly explained to the participants. In addition, oral informed consent was obtained. Confidentiality and anonymity were ensured throughout the execution of the study. Nurses were assured that due to their idea, the service would not be compromised, and the information would be confidential

8. Results

8.1 Socio-Demographic Characteristics

Out of the total 502 sampled nurses, four hundred eighty-six of them participated in the study, giving a response rate of 97%. The age of the study respondents ranged from 20 to 60 years old with the mean age of 29(±5.2), in which most of the respondents fall within the range of the 25–30-year-old age group 248(51%). 301(61.9%) of respondents had 5 years or less of work experience in the nursing profession.170 (35%) of the respondents earn monthly income of 6194–7071 ETB per month. 274(56.4%) of the study participants were awarded their diploma from a government institution (Table 2).

Variables	Response	Frequency	Percentage (%)
Sex	Male	293	60.3
	Female	193	39.7
Marital status	Married	298	61.3
	Single	173	35.6
	Other	15	3.1
Educational level	Diploma	157	32.3
	BSC degree and above	329	67.6
Learning institution type	Private college	212	43.6
	Governmental institution	274	56.4
Working setting	Outpatient	268	55.1
	Inpatient	218	44.9
Work experience	5 and less	301	61.9
	6-10	128	26.3
	11 and above	57	11.7
Job position	Normal staff nurse	398	81.8
	Head nurse	88	18.1

Table 2: Socio-Demographic Characteristics of Nurses Working in East Guji, West Guji and Borena Zone Public Hospitals, Southeastern Ethiopia, 20

8.2 Organizational an Administrative Factor

Regarding organizational and administrative factors which related to nursing documentation, 259(53.3%) of participated nurses went to in-service training on nursing documentation standards. 265(54.5%) of respondents were motivated by their administrative bodies regarding their documentation activity. Most of the staff

(325, 66.9%) had guidelines and standard procedures in their service area concerning their documentation activity. Almost all nurses, 446 (91.8%), provide services to more than five patients per shift in their service area, and 289(59.5%) respond because their department is undergoing a documentation audit (Table 3).

Variables	Response	Frequency	Percentage (%)
Familiarity with operational standard	Familiar	341	70.2
	Not familiar	145	29.8
Adequacy of documentation sheet	Adequate	362	74.5
	Not adequate	124	25.5
Supervision by their matrons and heads	Yes	358	73.6
	No	128	26.3
Time adequacy	Yes	402	82.7
	No	84	17.3
Nursing station disturbance	Yes	319	65.6
	No	167	34.4
System coordinating and managing nursing staff	Yes	425	87.4
	No	61	12.5
Nurse work force plan per department	Yes	303	62.3
	No	183	37.7
Developed nurses job description	Yes	300	61.7
	No	186	38.2
Hospitals nurse staff requirement fulfilled	Yes	293	60.3
	No	193	39.7
Hospitals nurse to patient ratio fulfilled	Yes	250	51.4
	No	236	48.6

Table 3: Frequency and Percentage Distribution of Organizational Factors Among Nurses in East Guji, West Guji and Borena Zone Public Hospitals Southeastern Ethiopia, 2022.

9. Nurses' Attitude Towards Nursing Documentation Practice

As the result of attitude-related questions showed, more than half (332, or 68.3%) of study participants agreed on the equal importance of nursing care documentation as any other patient documentation, while only 132 (27.2%) respondents disagreed and 22 (6.6%) were neutral on this issue. Most study participants (458 (94.2%)) agreed on the documentation of nursing care activities to ensure the continuity of patient care, whereas only 25 (5.1%) respondents disagreed, and a few of them (3.6%) were neutral on this issue. On the other hand, a well-written nursing report can replace an oral shift report of care. Nursing care documentation was agreed upon by 376 (77.3%) of the respondents, whereas only

84 (17.2%) disagreed and 26 (5.3%) were neutral, respectively.

9.1 Overall Nurses' Attitude Regarding Nursing Documentation Practice

There were twelve attitude statements with the values of strongly disagree, disagree, neutral, agree, and strongly agree (1, 2, 3, 4, and 5), respectively. The computed mean score was 49.36 (SD: ± 8.1). Based on this mean value, half (51.6%) ($n = 251$), 95% CI (47.1–56.2) of study participants had a favorable attitude, and 48.4% ($n = 235$), 95% CI of study participants, had an unfavorable attitude towards nursing documentation practice. (Table 4).

Variables	Response	Frequency	Percentage (%)
Meaningful and give legal protection	Strongly disagree	20	4.1
	Disagree	8	1.6
	Neutral	10	2.1
	Agree	233	47.9
	Strongly agree	215	44.2
Nurse to patient relationship	Strongly disagree	20	4.1
	Disagree	6	1.2
	Neutral	8	1.6
	Agree	223	45.9
	Strongly agree	229	47.1
Benefits in the everyday work of nurses	Strongly disagree	19	3.9
	Disagree	6	1.2
	Neutral	28	5.8

	Agree	239	49.2
	Strongly agree	194	39.9
Nurses work visibility.	Strongly disagree	16	3.3
	Disagree	12	2.5
	Neutral	4	0.8
	Agree	248	51.0
	Strongly agree	206	42.4
Nursing documentation has a positive impact on patient safety.	Strongly disagree	19	3.9
	Disagree	13	2.7
	Neutral	16	3.3
	Agree	247	50.8
	Strongly agree	191	39.3
Documentation service shows task performed.	Strongly disagree	16	3.3
	Disagree	13	2.7
	Neutral	13	2.7
	Agree	246	50.6
	Strongly agree	198	40.7
Enhances the exchange of information between nurses during their change of shift.	Strongly disagree	25	5.1
	Disagree	5	1.0
	Neutral	15	3.1
	Agree	268	55.1
	Strongly agree	173	35.6
Nursing care helps other health care professionals.	Strongly disagree	25	5.1
	Disagree	5	1.0
	Neutral	14	2.9
	Agree	290	59.7
	Strongly agree	152	31.3
Important to other health provider	Strongly disagree	22	4.5
	Disagree	15	3.1
	Neutral	11	2.3
	Agree	323	66.5
	Strongly agree	115	23.7

Table 4: Attitude of Nurses Towards Documentation Practice Among Nurses in East Guji, West Guji and Borena Zone Public Hospitals Southeastern, Ethiopia, 2022

9.2 Nurses' knowledge Regarding Nursing Documentation Practice

To determine the level of nurses' knowledge regarding nursing documentation practice, a mean score of 8.5 (SD: ± 1.09) was used,

and based on this mean value, most study participants (78.6% (n = 382), 95% CI (75.1–82.2) scored above the mean, and they had good knowledge, while 21.4% (n = 104) had poor knowledge of nursing documentation practice (Table 5).

Variables	Response	Frequency	Percentage (%)
Documentation professional responsibility.	Yes	483	99.4
	No	3	0.6
Care provided by nurses.	Yes	477	98.1
	No	9	1.9
Components of documenting medication administration.	Yes	475	97.7
	No	11	2.3
documentation protects from legal suit.	Yes	466	95.9
	No	20	4.1
Effects of using nonstandard abbreviations when documenting patient care.	Yes	455	93.6
	No	31	6.4
Potential Consequences of inappropriate documentation.	Yes	451	92.8
	No	35	7.2
The main nursing Activities.	Yes	474	97.5
	No	12	2.5
Advantage of patient care documentation.	Yes	452	93.0
	No	34	7.0
Nursing care documented according to guideline.	Yes	427	87.9
	No	59	12.1

Table 5: Knowledge of Documentation Practice Among Nurses in East Guji, West Guji and Borena Zone Public Hospitals of Southeastern, Ethiopia,2022

9.3 Nursing Documentation Practice

Out of the total participants, 76.5% and 46.7% reported that they always document the medication they administer and the assessment they do for every patient, respectively, followed by 42.6% and 47.9% of them documenting the nursing diagnosis and the nursing intervention they did for every patient. Only 36.6%

of them reported that they always document the education and counselling they provide for every patient. 45.1% and 71.2% of them said they always document patient admission and discharge status and the specification and signature they do for each patient. 42% of nurses reported that they evaluate the timely implementation of nursing care documentation systems (Table 6).

Variables	Response	Frequency	percentage (%)
Timely Implementation of care	Always	205	42.1
	Sometimes	240	49.3
	Rarely	36	7.4
	Never	5	1.0
Record legibly	Always	335	68.9
	Sometimes	126	25.9
	Rarely	20	4.1
	Never	5	1.0
Immediately after care	Always	272	56.0
	Sometimes	160	32.9
	Rarely	39	8.0
	Never	15	3.1
Hydration status	Always	175	36.0
	Sometimes	159	32.7
	Rarely	89	18.3
	Never	63	13.0

Fluid administration	Always	177	36.4
	sometimes	178	36.6
	Rarely	70	14.4
	Never	61	12.6
Response of the patient	Always	191	39.3
	sometimes	230	47.3
	Rarely	55	11.3
	Never	10	2.1

Table 6: Self-Reported Documentation Practice Among Nurses in East Guji, West Guji and Borena Zone public Hospitals, Southeastern Ethiopia, 2022

9.4 Overall Nursing Documentation Practices

The mean for the practice question was 39.6 (SD: ± 7). Based on the mean value cutoff point, the overall good nursing documentation practice was 46.9% [95% CI, 42.6–50.7%], which means that the

participants had good nursing documentation practice, whereas 53.1% of them had poor nursing documentation practice (Figure 1).

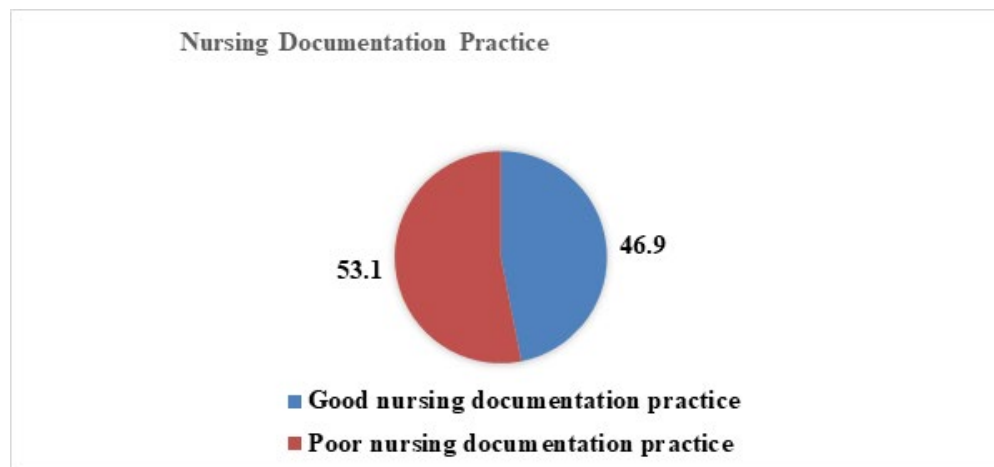


Figure 1: Level of Nursing Documentation Practice Among Nurses in East Guji, West Guji, and Borena Zone Public Hospitals of Southeastern, Ethiopia, 2022

9.5 Factors Associated with Documentation Practice

For the analysis of the data, bivariable and multivariable logistic regression were performed using binary logistic regression. The purpose was to determine the degree of association and statistical significance between nursing documentation practice and each independent variable, such as place of education, system coordinating and managing staff, job description, workforce plan, regular documentation audit, adequacy of documentation sheet, educational level, training, nurse-to-patient ratio, motivation, attitude, knowledge, and patient care per shift. Nursing documentation practice was considered statistically significant at a P-value less than 0.25.

However, multivariable logistic regression was conducted to control for potential confounders. Based on the findings, nurses who learned in government institutions were 2.6 times more likely to perform good documentation than those who learned in private institutions [AOR = 2.6 (1.7–4.0)]. Nurses who had guidelines and standard procedures in each service area were 2.1 times more

likely to demonstrate good documentation than their counterparts [AOR = 2.0 (1.1–3.9)]. Additionally, respondents who underwent nursing documentation training were 70% more likely to exhibit better nursing documentation practices than those who did not receive training [AOR = 1.7 (1.0–2.7)].

Similarly, respondents who were motivated by their administrative bodies were 80% more likely to engage in good nursing documentation practices than those who lacked motivation from their administrative bodies [AOR = 1.8 (1.1–2.9)]. Furthermore, respondents with good knowledge were 2.1 times more likely to display good nursing documentation practices compared to their counterparts [AOR = 2.1 (1.2–3.5)]. Finally, nurses with a favorable attitude were 2.3 times more likely to demonstrate good documentation practices than respondents with an unfavorable attitude [AOR = 2.3 (1.5–3.5)]. Nurses who had a documentation audit in their department were twice as likely to engage in good documentation practices as their counterparts [AOR = 2.1 (1.1–3.9)]. (Table 7).

Variables	Categories	Nursing documentation practice		Bivariable logistic regression		Multivariable logistic regression	
		Good N /%	Poor N /%	COR	P-value	AOR (95%CI)	P-value
Educational status	BSC	165(33)	164(33.8)	1.5(1.02-2.2)	0.03	1.1(0.7-1.7)	0.58
	Diploma	63(13.9)	94(19.3)	1		1	
Working setting	Inpatient	116(23.9)	102(21)	1	1	1	
	Outpatient	112(23)	156(32.1)	1.5(1.1-2.2)	0.01	0.7(0.4-1)	0.10
Attitude	Favorable	145(29.8)	106(21.8)	2.5(1.7-3.6)	.000	2.3(1.5-3.5)	.0001***
	Unfavorable	83(17.1)	152(31.3)	1		1	
Knowledge	Good	198(40.7)	184(37.9)	2.6(1.5-4.4)	.0001	2.1(1.2-3.5)	.003**
	Poor	30(6.2)	74(15.2)	1		1	
Learning institution type	Governmental	156(32.1)	118(24.3)	2.5(1.7-3.7)	.0001	2.5(1.7-4.0)	.0001***
	Private	72(14.8)	140(28.8)	1		1	
Existing system to manage staffs	Yes	195(40.1)	230(47.3)	0.7(.42-1.3)	0.2	0.4(0.2-.8)	0.12
	No	33(6.8)	28(5.8)	1		1	
Job discription	Yes	155(31.9)	145(29.8)	1.6(1.1-2.3)	.008	0.7(0.3-1.2)	0.27
	No	73(15)	113(29.8)	1		1	
Work force plan	Yes	166(34.1)	137(28.2)	2.3(1.6-3.4)	.0001	0.8(0.3-1.9)	0.75
	No	62(12.8)	121(24.9)	1		1	
Nurse requirement	Fulfilled	161(33.1)	132(27.2)	2.2(1.5-3.3)	.0001	1.7(0.8-3.7)	0.12
	Not fulfilled	67(13.8)	126(25.9)	1		1	
Patient nurse ratio	Adequate	137(28.2)	113(23.3)	1.9(1.3-2.7)	.0001	0.7(0.3-1.4)	0.34
	Not adequate	91(18.7)	145(29.8)	1		1	
Supervision	Yes	178(36.6)	180(37.1)	1.5(1.0-2.3)	0.03	0.6(0.3-1.2)	0.14
	No	50(10.3)	78(16)	1		1	
Nursing documentation audit	Yes	166(34.2)	123(25.3)	2.9(1.8-3.9)	.0001	2.0(1.1-3.7)	0.02**
	No	62(12.8)	135(27.8)	1		1	
Guideline availability	Yes	182(37.4)	143(29.4)	3.1(2.1-4.7)	.0001	2.0(1-3.9)	0.02*
	No	46(9.5)	115(23.7)	1		1	
Sheet availability	Yes	181(37.2)	181(37.2)	1.6(1.9-2.4)	0.02	0.7(0.4-1.4)	0.42
	No	47(9.7)	77(15.8)	1		1	
Documentation training	Yes	151(31.1)	108(22.2)	2.7(1.8-3.9)	.0001	1.7(1.1-2.7)	0.02*
	No	77(15.8)	150(30.9)	1		1	
Familiarity with standard	Familiar	174(35.8)	167(34.4)	1.7(1.1-2.6)	.006	0.6(0.3-1.1)	0.13
	Not familiar	54(11.1)	91(18.7)	1		1	
Caring many patients per shift	Yes	216(44.4)	230(47.3)	2.1(1.0-4.4)	0.02	1.4(0.6-3.1)	0.41
	No	12(2.5)	28(5.8)	1		1	
Motivation from administrative	Yes	154(31.7)	111(22.8)	2.7(1.9-3.9)	.0001	1.8(1.1-2.9)	0.01*
	No	74(15.2)	147(30.2)	1		1	

Notes: *(p<0.05), ** (p≤0.001), *** (p≤0.0001). COR: crude odd ratio. AOR: adjusted odd ratio.

Table 7: Bivariable and Multivariable Analysis on Study of Nursing Documentation Practice and Association Factors Among Nurses in East Guji, West Guji and Borena Zone Public Hospitals Southeastern, Ethiopia, 2022

10. Result of Qualitative Approach

10.1 Demographic Description

All the participants who were involved in the key informant interview were matrons or vice matrons from those hospitals. The mean age was 31, with the minimum and maximum being between 28 and 36 years old. Educational backgrounds are similar amongst them; all are BSC matron nurses. Regarding sex, both male and female matrons were involved. Male (n = 10) and female (n = 1), a total of 11 participants were interviewed in this qualitative study. Idea saturation happened at participant 9th. Finally, analysis begins for those nine participants with transcription; repeated reading; coding; categorization; theme-thematic analysis.

10.2 Problems with Nursing Documentation Practice (Matrons View)

Primary problems encountered by nurses in nursing documentation practice from the perspective of matron nurses were interviewed and transcribed accordingly, then after the transcribed data coded in Microsoft Word manually, it was finally viewed within these themes: (1) skill, and knowledge of documentation practice; (2) major contributing factors and challenges (3): Current level of nurse's performance related to documentation practice (4): Suggestions for improving nursing documentation practice.

Theme 1: Knowledge, Competency and Understanding of Nurses Related to Documentation Practice.

The matrons were asked about nursing documentation practice and their activities regarding nursing documentation. Most matrons agreed with the importance of documenting nursing activity, and they raised their idea regarding nursing documentation practice among nurses in the setting. All the subjects who participated understand and internalize nursing documentation practice.

... "Nursing documentation is among the most crucial types of paperwork, and it includes numerous key charts, including medication sheets, vital sign sheets, and others. Most nurses in many hospitals in Oromia don't understand the significance of documentation"(Participant, 6).

Another matron who claimed the documentation of nursing is that.

... "it is very important because hospitals are extremely beneficial. Visibility of our tasks or performed jobs is manifested through nursing documentation, because it is our proof of what we have done. It is important to patients, staff, and the institution since, without it, there wouldn't be any evidence of work being done. As a result, documentation is typically how institutions gauge their performance"(participant 1).

Matrons agreed that their staffs have various level of competency and knowledge. Educational status, training, type of educational institution, is a likely reason for their variable ability to handle nursing documentation practice.

One matron stated "We ranked the staff as top level, medium level,

and low level. For instance, those with BSC degrees do better documentation practices than those with diplomas...There is still a gap in quality because different staff mixes, such as someone coming from the health center by rotation, result in those not having the necessary skills for documentation, which ultimately influences the quality of the documentation" (Participant 2).

Another matron stated that educational background and competency issue as well as type of documentation formats are the most related one on nursing documentation practice.

"A reason is that the nursing documentation formats found in private institutions and governmental institutions are not comparable; they differ in such a way that staff members adopt different attitudes

and opposing ideas regarding documentation of knowledge, which presents challenges for hospitals. Additionally, when employees are employed collectively, there is a significant difference in performance between diploma and BSc graduates, and even their knowledge between private institutions and governmental institutions is not the same"(participant 3).

Theme 2: Contributing factors and Challenges Related to the Practice of Nurses' Documentation.

Inaccuracies in documentation were identified by participants. Nurses spoke of their frustration in systems that are incompatible, leading to potentially problematic situations: The matrons Saied that staff negligence, the skill gap, the shortage of supply, the gap on follow-up, the lack of staff commitment. And those matrons forwarded their idea in contradict with the quantitative approach.

"Even though there is a skill gap among nurses who graduated from public institutions, the issue is likely not one of professional bias but rather a lack of staff commitment, such as a Lack of updated training regarding NANDA, lack of interest in documentation, lack of awareness because nurses do not view documentation as a routine activity, and even a lack of interest to hold documentation properly are challenges" (participant 4).

The patient load and unproportionate staffs to patient ratio in each hospital were compromised the nursing documentation practice, such low situation also described by the following matron nurse.

"Because of the high patient load in our hospital. This is because nurses bear the brunt of all responsibilities while receiving low wages proportionate to the amount of work they perform, which results in a lack of awareness" (participant 6).

"We don't have enough nurses in our hospital, so the ratio of nurses to patients is too high, making it difficult to discuss documentation. A second problem is a high patient load in each department, which results in an unbalanced nurse-to-patient ratio" (participant 1).

Almost all hospitals faced to challenge regarding nursing documentation, according to those matrons claimed that.

"Challenge is that local private colleges produced many subpar nurses who were hired here because we don't have BSc as an option, like an emergency nurse, a surgical nurse, or a medical nurse, so this is a significant issue. Additionally, the issue of national instability is a hurdle because, in contrast to the past, there is currently no year-round training due to the blockade of all donor institutions"(participant, 7).

"Regarding the knowledge gap between nurses, lack of awareness, and staff negligence, its quality standards are unclear or improperly documented across all departments and by each component"(participant 9).

"The main reason for incomplete nursing documentation is the extensive content of the nursing care plan format. Based on my level of awareness, this nursing care format would be better summarized to short form because it is challenging to understand and taking time, so this makes the nurse exhaustive"(participant 8).

Theme 3: Current Level of Nurse's Performance Related to Documentation Practice

The opinions of matrons confirm the inadequacy level of nursing documentation.

"In our hospital, as in other hospitals, there is a low level of documentation practice, according to quality project reports, there is a significant gap in patient documentation, which is around forty to fifty percent." (Participant 6).

Theme 4: Proposed solution Related to Poor Nursing Documentation Practice

The matron nurses had put their best solution for the effectiveness of nursing documentation practice and the means to solve the barriers. Conducting trainings on nursing documentation, motivating staffs, building a nurse's awareness, and increasing the availability of standard documenting materials would enhance the practice of documenting the nursing care of patients/ clients. An important principle to solve the problems resulted from nurse professionals when dealing with nursing documentation practice is the need for training.

"It is not possible to change documentation practices in an easy or straightforward manner; instead, systemic change is required. This can be accomplished by raising awareness and developing reward systems because these actions can drive employees"(participant 1).

Another matron said that. *"We spoke with the relevant body how to improve those infrastructures to overcome the fact that health workers did not want to travel to our hospital due to the absence of transportation, light. In addition to the government, it is desirable to hire more people, especially those with BSc degrees"(participant 2).*

"we manage the department heads and hold them firmly in place from every department, and we check in with them frequently.

Secondly, there is chart follow-up regularly to determine whether it is properly documented or not; this can be done monthly or quarterly. Nursing care plans are regularly evaluated, and this helps us determine which departments had good practices and which performed poorly throughout the time we followed the documentation guidelines"(participant3).

As majority of participants forwarding their idea like nursing documentation is simply not their responsibility rather than the responsibility is the matrons and heads activity.

"We intend to provide in-service training on documentation practices based on their types and gaps, even by communicating with regional health department most of the time nurse staffs take into account that all nurse-related activities are the matron's responsibility, even not only staffs but also does not take nursing documentation standard training"(participant 5).

11. Discussion

This study aimed to assess nursing documentation practice and associated factors among nurses who work at East Guji, West Guji, and Borena zone public hospitals in southeastern Ethiopia. The quantitative finding showed that favorable attitude, good knowledge, motivation, availability of guidelines, learning institutions type, and in-service training and documentation audit had significant effects on nursing documentation practice as well as negligence, lack of commitment awareness bulky nursing care format were the critical issue which are raised by key informants. In this study, overall good nursing documentation was practiced by 46.9%, [95%CI, (42.6–50.7)] of nurses in studied public hospitals. which is consistent with the finding of the studies conducted in Dire Dewa (47.5%), Tigray region(47.8%) and eastern Ghana (46%) (18,19,25,26). However this finding showed high documentation practice level than the finding of study conducted in Gondar university hospital (37.4%) (24). The possible reason for this variation might be sample size. The sample size to determine the documentation practice used in this study was large, but the sample size used in those studies was small.

The other possible reason for this discrepancy might also be due to study setting. In this study, three zonal hospital nurses were involved, but in those studies, a single institution with single ward were surveyed.

In contradict with this, a high level of documentation practice was reported in Ethiopia(66%), East Java (80%), and Indonesia (76.3%),(7,27–29). This discrepancy might be due to care providers familiar with the guidelines prepared in each ward and nurses attitude regarding nursing documentation practice (26). Another possible reason for this gap may be a lack of training regarding documentation practice, in this study, there is minimal documentation training, but in those studies most nurses had a chance of documentation training (30).

Also, most of the key informant interview participants in this study revealed poor nursing documentation practice, which is

supported by quantitative data around 53%, consistent with a study done in Felege Hiwot referral hospital, Indonesia (15,31). For this study, self-reported documentation practice used to identify factors associated with documentation practice among nurses and key informant interview also to explore barriers regarding documentation practice collectively show that. A nurse who had a favorable attitude toward nursing documentation more performed good nursing documentation practice in their service area than those who have unfavorable attitude, which was found to be in line with the findings of the studies conducted in Hawassa city public hospitals, west Gojam zone public hospitals, and Dire Dewa, Tigray, Ghana (18,20,23,25,26) This might be since a favorable attitude toward nursing documentation may be a strong and baseline internal motive of nurses to practice documentation and increase their motivation to good documentation practice (26). According to the qualitative interview report, nurses who had low awareness regarding documentation practice and low-motivated nurses have an impact on good nursing documentation practice, as well as those who had a low level of awareness and dissatisfied staff, were highly linked to incomplete nursing documentation practice. The quantitative data shows that nurses who were attending standard training on nursing documentation were significantly associated with good nursing documentation practice.

This finding is comparable with the findings of the studies conducted in Dire Dewa, Amhara region private hospitals, Jima university hospital, Ghana (18,19,26,31) This might be since training may increase their familiarity with documentation procedure, and may enhance their attitude toward documentation, and may also add knowledge of their value of documenting what they have done.

It is believed that pertaining proper training increase the knowledge of nurses(2). So that good documentation practice, as a result would improve documentation performance. The most critical issue raised by those interviewed respondents, which primarily affects nursing documentation practice, is a lack of in-service training due to different reasons. Self-reported good knowledge of nurses and their academic background had a significant and positive association with good nursing documentation practice. A nurse who had good knowledge more likely perform good nursing documentation practice than those who had poor knowledge. Supported by study conducted in Ghana [26,32].

The possibility behind that is since knowledge enhances the familiarity and attachment of nurses to guidelines and operational definitions. A study affirmed that good knowledge had a positive impact on good nursing documentation [28]. And the key informant raised that the nurse documentation practice is directly related to their academic background and level of awareness regarding documentation practice. They also report as the degree nurse with a better document than a diploma nurse. A nurse who had graduated from a governmental institution was more likely perform good nursing documentation than those who had learned in a private institution. The qualitative participant raised that the nurses who graduated from a private institution less perform good nursing documentation practice. Additionally, those respondents revealed

that the nurse who awarded their diploma from private university and Government University had different attitude and awareness regarding nursing care formats and nursing documentation.

Moreover, in this study, tried to assess motivation of nurses towards documentation practice. A Nurses who were motivated by their leader regarding documentation activities were more to perform good documentation practice when compared to counterpart. Similarly, this evidence is consistent with the finding of the study conducted in Jima, Dire Dewa, Indonesia and Burundi [7,15,18,25,33-35]. This might be since motivation may enhance nurses' favorable attitude toward nursing documentation and encourage them to document their activity. A study indicates that motivated nurses had positive impact on good nursing record keeping whereas demotivate nurses also perform good record keeping less likely [33].

A nurse who had available guideline and procedure in their department more likely perform good nursing documentation practice than those who had no. This finding is consistent with the finding of the studies conducted in Eastern Ghana, and Gondar [24-26]. This might be since the availability of guidelines, policies, and procedures might increase appropriate documentation and increase the time to document their activities, which makes documentation practice more quality. and had a significant association with good documentation practice and increased documentation quality. This indicates that appropriate principles may enhance good documentation practice. The qualitative report affirmed that lack of supply, lack of workforce plan, and shortage of on-time putting formats in each department are some of the challenging issues.

Furthermore, this study tried to identify different self-reported factors and to explore barriers to the documentation practice of nurses. The nurse who had a regular nursing documentation audit was more likely to perform good nursing document than their counterpart. This is supported by the study which was conducted in Damanhur, Abu Dhabi [20]. It is believed that regular documentation audit increases the performance of nurses so that good documentation practice, as a result would improve nursing documentation practice and [36]. Based on the qualitative report, the participants explore that lack of follow-up, lack of regular documentation audit, mentioned as a major barrier to nursing documentation among nurses. The current Ethiopian health care quality strategy indicates that regular interdepartmental auditing activity increase the completeness of documentation and health care quality [37].

12. Conclusion

This study findings offer valuable information about nursing documentation practice, associated factors and barriers experienced by nurses working at East Guji, West Guji and Boren zone public hospitals in southeastern Ethiopia. In this study, the overall good nursing documentation practice was poor among nurses, as revealed by both the qualitative and quantitative reports. Good nursing documentation practice was associated with nurses learning institution type, favorable attitude, and good knowledge,

organizational factors such as motivation, availability of guidelines, documentation audit, and in-service training based on quantitative report. Based on key informant interviews, the respondents raised the issues of bulky nursing care format, lack of commitment and lack of interest, negligence, different awareness among them as the most issue forwarded by key informants. Therefore, this study concludes that nursing documentation is still difficult [22,27,29-32,34].

Recommendation: It has been accepted that nursing documentation is a very important aspect of professional practice for nurses. And so, it is better to put further effort toward improving documentation practice through enhancing the favorable attitude of nurses towards documentation by motivating them regarding documentation activities. Based on it the following recommendations forwarded.

For Studied Hospitals: availability of motivation, auditing and guidelines enhance nursing documentation practice, so hospitals better to maximize awareness, on adherent of nurses with the guidelines, and standard operation procedures regarding documentation, and motivation to enhance their attitude and to make auditing process on regular manner. Motivate the staff nurses by preparing different principle like rewarding the department those who achieved good nursing record in regular manner to develop harmonies relationship among departments.

Matrons and Nurses: on time placement of necessary formats on each department facilitate nursing documentation practice, so it is better to put the format on each department by collaborating with department heads. And to maximize the practice of nursing care documentation. Nurses better to update their expertise, to improving nursing care documentation practice.

Hospitals Quality and Monitoring Them: regular documentation audit enhances nurses' performance towards nursing documentation practice, so hospital quality them better to perform periodic documentation audit program, by involving department head nurses to create common understanding and sustained the audit activity.

Zonal and Regional Health Department: training is emphasis nursing documentation practice and work towards solving the problem it better to provide ongoing continuing regular training opportunities for nurses, as well emphasizing the teaching process of specialty nurses collaborating with regional health department.

Zonal and Regional Educational Quality Sectors: Shall support the private health college sectors like of the governmental educational institution to enable and produce competent and skill full nurses by supplementing parallel monitoring of chain, policy, strategy, and regular follow up about the learning and teaching process as per as the government institution.

Researchers: further studies are needed to carry out large scale studies to address the problem in wider context by incorporating

different stakeholders to get unreached enabler factors and to conduct pure qualitative approach.

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