# Knowledge, Attitude, Performance and Associated Factors Towards Nursing Documentation Among Nurses in Public Hospitals, Sana'a City, Yemen

Fouad Hussein Ali Alhawri1, Krishna Gopal Rampal1, Abdelkodose Mohammed Hussen Abdulla1 1: Faculty of Medicine, University of Cyberjaya, Persiaran Bestari, Cyber 11, 63000 Cyberjaya, Selangor, Malaysia

\*Corresponding author: Abdelkodose Mohammed Hussen Abdulla

#### Abstract:-

Background: The aim of this study was to assess knowledge, attitude, and performance (KAP) as well as to study the associated factors towards nursing records among the nurses in Al-Jomhori hospital authority, Sana'a city, Yemen. In nursing healthcare systems documentation is a powerful tool to ensure communication between health workers and continuity of the care for better patient outcomes. In addition, knowledge, performance and attitude of nurses' towards nursing documentation will effect on the quality of patients' care.

Methods: A cross sectional study was conducted among 115 nurses of Al-Jomhori hospital authority in Sana'a city, Yemen. The participants were selected by simple random sampling technique. A validated questionnaire was used to collect the data with internal reliability of Cronbach's Alpha was 72.5% for knowledge, performance and attitude questions. SPSS version 23 was used for analysis.

Results: The overall response rate was 100%. Among 115 respondents about 46.01% had good knowledge, 68.2% of participants had positive attitude (agree) and 36.78% of participants had bad nursing documentation performance (always). Gender and training were found to be statistically significant with KAP of nurses.

Conclusion: Findings of this study demonstrated that knowledge, performance and attitude among nurses working in Sana'a public hospitals on nursing documentation were poor. Therefore, each public hospital should recruit qualified nurses and should have continuity plan for training to solve this problem.

**Keywords:** Nursing Documentation, Records, Knowledge, Attitude and Performance of the nurses, Quality of Nursing Documentation.

#### I. BACKGROUND

Documentation is a specialized device that helps in the trading of data put away between guardians. Quality documentation advances organized, predictable and viable correspondence between medical care suppliers.

Nursing documentation is a critical and effective tool in health care systems to ensure quality of care and coordination between health professionals for better results for patients. The coordination of patient and quality of care is influenced by the knowledge, attitude and performance of nurses in relation to nursing documentation. This study therefore aimed to evaluate the knowledge, attitude and performance as well as to study the associated factors with nursing documentation among nurses in public hospitals in Sana'a city Yemen.

#### II. INTRODUCTION

One of the most used models in the medical field is the knowledge, attitude and performance (KAP) model. The KAP model suggests that the attitude and experience of the individual towards the behaviors defines any activities (behaviors) (Alzghoul and Abdullah 2016). Nursing records are often regarded by a nurse as a written record of acts or a mission performed and are usually written in a sequential manner. The deliberation and information used to help nursing practices or tasks are not captured by this chronological format of documenting tasks. Paper documentation systems also produce incomplete and inaccurate health records which make it difficult to measure the outcomes and retrieve data (Turley 1992).

The use of unstructured or narrative data and the fragmentation of paper health records, restricts the use and capacity to explain the interactions or relationships between evaluation observations, nursing diagnoses, treatments and anticipated results in nursing care (Müller-Staub, Needham et al. 2007).

Quality nursing documentation enables efficient contact between caregivers, which facilitates care continuity and autonomy. Using different audit instruments, the quality of nursing documentation was assessed, reflecting differences in the perception of the quality of documentation among researchers across countries and settings (Wang, Hailey et al. 2011). Nursing documentation exists as a regular fact of the work of nurses. Some view it as evidence of nursing activity and others disregard it as misrepresenting nursing care (Heartfield 1996).

The coordination and quality of care depend on the communication between nurses and other healthcare members as a team in order to ensure continuity of care for their patients. However, since there is a great deal of misunderstanding and lack of information about the procedure and quality of nursing documentation, its importance as a significant reference point in the healthcare system is undermined (Jefferies, Johnson et al. 2010) & (Machudo and Mohidin 2015).

There are currently a range of frameworks available to support nursing records, such as problem-oriented approaches, narrative diagrams, clinical pathways and concentration notes. Many nurses also face challenges such as lack of knowledge about nursing documentation, poor attitudes, time shortages and workload to maintain reliable and legally prudent documentation. This includes insufficient communication between members of the health care team which have a negative effect on the quality of nursing records (Petkovšek-Gregorin and Skela-Savič 2015) & (Blair and Smith 2012).

Although both electronic and paper-based nursing documentation have different principles, including specificity, objectivity, clearing and clarity, respecting confidentiality, comprehensive, and factuality, but the insufficient knowledge and attitude of nurses to record nursing care by implanting these principles typically makes nursing records of low quality (Alkouri, AlKhatib et al. 2016). As several studies have shown that most nurses have an insufficient knowledge of documentation and attitude globally as well as inadequate information and their acts are either properly documented or not recorded at all, creating a major problem when it comes to assessing healthcare (Nakate, Dahl et al. 2015).

Nurses carry a great load of both coordinating and executing the plan of the interdisciplinary team to record services and progress towards goals, as documentation is framework that provides a detailed account of a patient's care (Adams 2015) & (Keenan, Yakel et al. 2008). Documentation of nursing care is important for early identification of the worsening condition of patients accompanied by efficient response and communication by members of the interdisciplinary care team leading to reduced mortality in hospitals. Nurses should report what they see and not what they expect (Collins, Cato et al. 2013).

Knowledge "occurs when an individual (or other decision-making unit) is exposed to the existence of an innovation and gains an understanding of how it functions," according to (Rogers 2003). They wouldn't see the need for it or have the potential to accept innovation if people do not acquire knowledge about a new innovation; on the other hand, if they do not see the necessity for a new innovation, they wouldn't explore the knowledge. Individuals can seek their peers' input to check if their attitude and thinking towards a new innovation is rational. The consequence of the stage of persuasion is the development by the person of unfavorable or a favorable attitude towards the innovation under consideration. Knowledge and a positive attitude toward creativity should not be expected to lead to adoption. There are many developments that people are knowledgeable and have favorable attitudes toward, but are not expressed in their performance (Rogers 2003).

The low KAP of nursing care documentation by nurses have adverse effects on patients' health care, healthcare workers and are associated with the issue such as inappropriate or double medication management, absence of medications, and risk of legal damage will become high (Kebede, Endris et al. 2017). Unfortunately the public hospitals in Yemen, although it is declared the nursing care outlines, the assessment, preparation and evaluation of care must be clearly recorded, the nurses' knowledge, performance and attitude on nursing documentation still low (ALHAWRI1, et al. 2020). In addition, nurses' knowledge, performance and attitude towards nursing documentation is poor however, no attention concerning this issue was given for public hospitals. Hence, this study aimed to quantify the level of nurses' KAP regarding nursing documentation and to identify the associated factors towards nursing documentation.

#### III. METHODOLOGY

A cross-sectional study was conducted among 115 nurses in Al-Jomhori hospital authority in Sana'a city, Yemen. The participants were selected by simple random sampling technique. A pre-tested and validated self-administered structured questionnaire was used to collect the data with internal reliability of Cronbach's Alpha value 72.5 %. SPSS version 23 was used for data analysis. Descriptive statistics and ANOVA were used. The dependent variables were knowledge, attitude and performance of nurses whereas the independent variables were nurses' sociodemographic characteristics.

## IV. RESULTS

Characteristics and socio-demographic of the participants

Totally 115 nurses from Al-Jomhori hospital authority in Sana'a city were included in the study. Table 1 shows that majority of the nurses (60.9 %) were at age range of 20 to 30 years, 32.2 % of the nurses were at the age range between 30 to 40 years, and there are 4.3 % of nurses were less than 20 years of age, while 2.6% were at the age of 41 years and above. Majority of nurses were male (69.6%).

Most of them were married (59.1%) while 40.9% of nurses were identified as single. Majority of nurses (88.7%) had a diploma in nursing. About 45.2% of the nurses had a working experience between 1 to 5 years, and 28.7% of nurses had a working experience between 6 to 10 years, and

23.5% had a longer working experience of 11 to 15 years, while only 2.6% of nurses had a working experience of 16 to 20 years. However, majority of the nurses (53.9%) had not received any training on nursing documentation (Table 1)

Table 1. Characteristics and socio-demographic of the participants

Variable	N (%)		
Age			
less than 20 Y	5 (4.3%)		
20 - 30 Y	70 (60.9%)		
31 - 40 Y	37 (32.2%)		
41 - 50 Y	3 (2.6%)		
Gender			
Male	80 (69.6%)		
Female	35 (30.4%)		
Marital Status			
Single	47 (40.9%)		
Married	68 (59.1%)		
Educational			
Diploma	102 (88.7%)		
Bachelor	13 (11.3%)		
Experience			
less than 5 Y	52 (45.2%)		
6 - 10 Y	33 (28.7%)		
11 - 15 Y	27 (23.5%)		
16 – 20 Y	3 (2.6%)		
Training			
Yes	53 (46.1%)		
No	62 (53.9%)		

Table 2. Knowledge of the nurses about Nursing Documentation..

Variable	Correct (%)	Incorrect (%)
What is the most important reason for nursing documentation?	68.7	31.3
Which one of the following statements is wrong?	61.7	38.3
Which reporting measures should be implemented at the end of the shift?	60.0	40.0
Which one is more important in documentation of PRN medication effects?	53.0	47.0
How to fill out drug cards?	47.8	52.2
What is the impact of priority in documentation?	47.0	53.0
Which record is correct?	42.6	57.4
Which one is incorrect about nursing documentation?	40.9	59.1
Which of the following is true about the documentation?	40.0	60.0
How to correct the report after pouring tea on it?	35.7	64.3
What did you do when you want to correct a wrong record?	28.7	71.3
How to document patients who refuse to take the medicines?	26.1	73.9

Table 2 shows the mean percentage of the correctly answered questions by the nurses was 46.01% and the percentage of incorrectly answered questions was 53.98%.

Table 3: mean of Attitude and performance of Nurses Regarding Nursing Documentation

Attitude		Performance		
Level	Mean	Level	Mean	
Agree	68.28	Always	36.78	
No Idea	16.24	Often	23	
Completely Agree	9.89	Never	20.48	
Disagree	4.46	No Idea	10.27	
Completely Disagree	1.15	Rarely	9.48	

Table 3 shown that the chosen "Agree" has the higher mean percentage (68.28%), and the 32 nurses has no "Idea with" (16.24 %) percentage. Table 3 proves that 36.78% of the participants do nursing documentation "always", while 23 % of the nurses practice it "often" and 20.48% were not doing Nursing Documentation.

Table 4: Knowledge, attitude and Performance of the Nurses regarding Gender, Educational level, Marital Status and Training

Gender	Male (n = 80)		<b>Female (n = 35)</b>	
	Mean	Std. Deviation	Mean	Std. Deviation
Knowledge, Attitude and Performance (KAP) of the nurses about Nursing Documentation	73.01	10.61	70.22	11.6
Educational level	Diploma (n = 102)		Bachelor (n = 13)	
	Mean	Std. Deviation	Mean	Std. Deviation
Knowledge, Attitude and Performance (KAP) of the nurses about Nursing Documentation	64.96	13.27	65.8	14.1
Marital Status	Single $(n = 47)$		Married $(n = 68)$	
	Mean	Std. Deviation	Mean	Std. Deviation
Knowledge, Attitude and Performance (KAP) of the nurses about Nursing Documentation	70.9	11.5	72.9	10.5
Training	Yes (n = 53)		No $(n = 62)$	
	Mean	Std. Deviation	Mean	Std. Deviation
Knowledge, Attitude and Performance (KAP) of the nurses about Nursing Documentation	74.46	10.45	70.19	11.05

From Table 4 above mean score of male =  $73.01 \pm 10.61$ , while the mean score of female =  $70.22 \pm 11.6$ , there was a significant differences between the mean scores. That is means the KAP of the male nurses were better than female nurses regarding nursing documentation. The mean score of nurses that has bachelor degree =  $65.8 \pm 14.1$ , whilst who has diploma degree =  $64.96 \pm 13.27$ . The mean score of KAP of married nurses =  $72.9 \pm 10.5$ , however single nurses =  $70.9 \pm 11.5$ . Mean score of nurses that are already trained =  $74.46 \pm 10.45$ .

# V. DISCUSSION

# ➤ Knowledge of nurses towards nursing documentation

In our study 46.02% of the participants had correct answer regarding the knowledge about nursing documentation which less than other studies conducted in Zambia 60% (Andualem, Asmamaw et al. 2019) and Addis Ababa public hospitals 50% (MULUGETA 2015).

As compared with the percentages McDonald's standard of learning outcome measured criteria, which scores the level of knowledge/practice composite as very low if < 60%, low if percentage between 60 to 69.99%, moderate for 70 to 79.99%, high for 80 to 89.99% and very high if the percentage between 90 to 100%.

Therefore, our study percentage (46.01%) indicated low knowledge of nurses regarding nursing documentation. Our finding was lower as compared to a study conducted in Iraq (56%) (Hameed and Allo 2014). This discrepancy in findings may be due to accessibility of reading materials about nursing documentation and the tool differences. It has been also low as compared with a study carried out in Uganda 91.2% (Kizza 2012). This disparity may be due to the difference in job environment and work load that nurses had high patient load and unfavorable working environment in the current study compared to the previous studies.

In contrast the findings of our study was higher than the percentage that has been reported by researchers from Iran (14.1%) (Jasemi, Zamanzadeh et al. 2012). This might be due to instrument difference also both wards and outpatient services were included in the current study, but the previous study was carried out only in the medical-surgical ward.

## > Attitude of nurses towards nursing documentation

The findings of this study indicated that (Agree = 68.28%) of nurses had favorable attitude towards nursing documentation. These findings were consonant with studies conducted in Zambia 56% (Malama 2015) and Addis Ababa 55.7% (Hailu 2017). However, this study finding was higher than studies conducted in Zambia (54 %) (Andualem, Asmamaw et al. 2019) and Uganda (54%) (Nakate, Dahl et al. 2015). However, our study finding was lower than a study conducted in the USA (80%) (Moody, Slocumb et al. 2004). This variances may could be due to poor attention towards nursing documentation and they don't consider it as part of responsibility and professional duties. However, the study results revealed very low percentage regarding (completely agree = 9.89%), which that is the lower one compared with previous studies. It is important to encourage nurses to improve their attitude towards nursing records as it helps quality of patients care.

# ➤ Performance of nurses towards nursing documentation

In our study only (Always = 36.78%) of participants had good nursing documentation performance. Our finding was similar to a study conducted in Gondar 37.4% (Kebede, Endris et al. 2017). In addition, this study finding was lower than studies in London 47% (Law, Akroyd et al. 2010) and Addis Ababa 47.8% (Hailu 2017). Moreover, the finding was very lower than studies in Iran 100% (Aghdam, Jasemi et al. 2009), Jamaican hospital 98% (Blake-Mowatt, Lindo et al. 2013). The possible reasons for this discrepancy may include organizational set up and tool differences difference

(Aghdam, Jasemi et al. 2009), difference in familiarity of documentation guidelines, different in work load (Blake-Mowatt, Lindo et al. 2013) and difference in availability of managerial support (Taiye 2015). However, the current study finding was higher than data from Canada (20.7%) (Voyer, McCusker et al. 2014) and Felege Hiwot Referral Hospital (12.5%) (Feleke, Mulatu et al. 2015). This contrary might be due to study period difference and sample size (Ausserhofer, Zander et al. 2014), tool difference and data collection method (Kebede, Endris et al. 2017).

Factors associated with KAP of the Nurses towards nursing documentation

The current study identified factors associated significantly with knowledge, attitude and performance (KAP) on nursing documentation. Gender was significantly associated with nurses' KAP; females nurses were less likely to have good KAP on nursing documentation as compared to males (mean scores =  $70.22 \pm 11.6$  and  $73.01 \pm$ 10.61 respectively). This finding contradicted with published studies conducted in Iran (Jasemi, Zamanzadeh et al. 2012) and Zambia (Andualem, Asmamaw et al. 2019), which stated females had better knowledge in writing nursing documentation than males. One of the possible reason might be due to the ratio difference between male (n=80) to female (n=35 in which most participants of previous studies were females, however for our study males were greater in number and it might be due to the difference in working environment favorability.

# VI. CONCLUSION

The current study showed that knowledge, practice and attitude of nursing care documentation among nurses in Sana'a public hospitals were poor. Gender and training were found to be statistically significant with the knowledge, attitude and performance (KAP) of nurses. This study identified factors significantly associated with the nurses' (KAP) regarding nursing documentation. Gender was significantly associated with nurses' KAP; females were less likely to have good KAP on nursing documentation compare to males (mean scores =  $70.22 \pm 11.6$  and  $73.01 \pm 10.61$  respectively). This finding contradicted with studies conducted in Iran (Jasemi, Zamanzadeh et al. 2012) and Zambia (Andualem, Asmamaw et al. 2019), which reported females had better knowledge than males in writing nursing documentation.

## RECOMMENDATION

Based on the findings of our study it is recommended the authority in conjunction with the Ministry of Public Health and population (MoPHP), policy makers, government's and hospital managers must include nursing documentation as one of health package to implement it as an essential requirement activities in all public hospitals and health facilities. It is also recommended that MoPHP should try to consider nurses' benefits of such kind of training. It should give direction for mangers to encourage nurses to do documentation and their activities according to standard methods.

#### REFERENCES

- [1]. Adams, M. C. (2015). "A documentation standard for the maternal and child health nurse in Victoria."
- [2]. Aghdam, A. R. M., M. Jasemi and A. Rahmani (2009). "Quality of nursing documents in medical-surgical wards of teaching hospitals related to Tabriz University of Medical Sciences." Iranian Journal of Nursing and Midwifery Research 14(2).
- [3]. ALHAWRI1, F. H. A., K. G. R., A. M. and H. ABDULLA3 (2020). "Effect of Continuous Educational Intervention to Improve Nursing Documentation at a Public Hospital in Yemen." International Journal of Pharmaceutical Research Vol 12(3): 13.
- [4]. Alkouri, O. A., A. J. AlKhatib and M. Kawafhah (2016). "Importance and implementation of nursing documentation: review study." European Scientific Journal 12(3).
- [5]. Alzghoul, B. I. and N. A. C. Abdullah (2016). "Pain management practices by nurses: an application of the knowledge, attitude and practices (KAP) model." Global Journal of Health Science 8(6): 154.
- [6]. Andualem, A., T. Asmamaw, M. Sintayehu, T. Liknaw, A. Edmealem, B. Bewuket and M. Gedfew (2019). "Knowledge, attitude, practice and associated factors towards nursing care documentation among nurses in West Gojjam Zone public hospitals, Amhara Ethiopia, 2018."
- [7]. Ausserhofer, D., B. Zander, R. Busse, M. Schubert, S. De Geest, A. M. Rafferty, J. Ball, A. Scott, J. Kinnunen and M. Heinen (2014). "Prevalence, patterns and predictors of nursing care left undone in European hospitals: results from the multicountry cross-sectional RN4CAST study." BMJ quality & safety 23(2): 126-135.
- [8]. Blair, W. and B. Smith (2012). "Nursing documentation: frameworks and barriers." Contemporary nurse 41(2): 160-168.
- [9]. Blake-Mowatt, C., J. Lindo and J. Bennett (2013). "Evaluation of registered nurses' knowledge and practice of documentation at a J amaican hospital." International nursing review 60(3): 328-334.
- [10]. Collins, S. A., K. Cato, D. Albers, K. Scott, P. D. Stetson, S. Bakken and D. K. Vawdrey (2013). "Relationship between nursing documentation and patients' mortality." American Journal of Critical Care 22(4): 306-313.
- [11]. Feleke, S. A., M. A. Mulatu and Y. S. Yesmaw (2015). "Medication administration error: magnitude and associated factors among nurses in Ethiopia." BMC nursing 14(1): 53.
- [12]. Hailu, H. (2017). Assessment of Self-Reported Practice of Nursing Documentation and Associated Factors among Nurses in Selected Public Hospitals, Addis Ababa, Ethiopia, 2017, Addis Ababa University.
- [13]. Hameed, R. Y. and R. R. Allo (2014). "Assessment of nurses' knowledge about nursing documentation." kufa Journal for Nursing sciences 4(1): 137-144.

- [14]. Heartfield, M. (1996). "Nursing documentation and nursing practice: a discourse analysis." Journal of Advanced Nursing 24(1): 98-103.
- [15]. Jasemi, M., V. Zamanzadeh, A. Rahmani, A. Mohajjel and F. Alsadathoseini (2012). "Knowledge and practice of Tabriz teaching hospitals' nurses regarding nursing documentation." Thrita 2(2): 133-138.
- [16]. Jefferies, D., M. Johnson and R. Griffiths (2010). "A meta-study of the essentials of quality nursing documentation." International journal of nursing practice 16(2): 112-124.
- [17]. Kebede, M., Y. Endris and D. T. Zegeye (2017). "Nursing care documentation practice: The unfinished task of nursing care in the University of Gondar Hospital." Informatics for Health and Social Care 42(3): 290-302.
- [18]. Keenan, G. M., E. Yakel, D. Tschannen and M. Mandeville (2008). Documentation and the nurse care planning process. Patient safety and quality: An evidence-based handbook for nurses, Agency for Healthcare Research and Quality (US).
- [19]. Kizza, I. B. (2012). Nurses' knowledge and practices related to pain assessment in critically ill patients at Mulago hospital, Uganda, Muhimbili University of Health and Allied Sciences.
- [20]. Law, L., K. Akroyd and L. Burke (2010). "Improving nurse documentation and record keeping in stoma care." British Journal of Nursing 19(21): 1328-1332.
- [21]. Machudo, S. Y. and S. Mohidin (2015). "Nursing documentation study at teaching hospital in KSA." Nursing and Health 3(1): 1-6.
- [22]. Malama, M. S. (2015). "A study to determine factors influencing documentation in nursing at monze hospital."
- [23]. Moody, L. E., E. Slocumb, B. Berg and D. Jackson (2004). "Electronic health records documentation in nursing: nurses' perceptions, attitudes, and preferences." CIN: Computers, Informatics, Nursing 22(6): 337-344.
- [24]. Müller-Staub, M., I. Needham, M. Odenbreit, M. Ann Lavin and T. Van Achterberg (2007). "Improved quality of nursing documentation: results of a nursing diagnoses, interventions, and outcomes implementation study." International Journal of Nursing Terminologies and Classifications 18(1): 5-17.
- [25]. MULUGETA, E. (2015). ASSESSMENT OF ADULT POSTOPERATIVE PAIN MANAGEMENT PRACTICE AMONG NURSES WORKING IN ADDIS ABABA PUBLIC HOSPITALS, ADDIS ABABA, ETHIOPIA, 2015, Addis Ababa University.
- [26]. Nakate, G., D. Dahl, K. B. Drake and P. Petrucka (2015). "Knowledge and attitudes of select ugandan nurses towards documentation of patient care." African Journal of Nursing and Midwifery 2(1): 056.
- [27]. Petkovšek-Gregorin, R. and B. Skela-Savič (2015). "Nurses' perceptions and attitudes towards documentation in nursing." Obzornik zdravstvene nege 49(2).
- [28]. Rogers, E. (2003). "Diffusion of innovations, 5th edn Tampa." FL: Free Press.[Google Scholar].

- [29]. Taiye, B. H. (2015). "Knowledge and practice of documentation in Ahmadu Bella University Teaching hospital9Abth) Zaria, Kaduna State." IOSR Journal of Nursing and Health Science 4(6): 1-6.
- [30]. Turley, J. (1992). "A framework for the transition from nursing records to a nursing information system." Nursing outlook 40(4): 177-181.
- [31]. Voyer, P., J. McCusker, M. G. Cole, J. Monette, N. Champoux, A. Ciampi, E. Belzile, M. Vu and S. Richard (2014). "Nursing documentation in long-term care settings: New empirical evidence demands changes be made." Clinical nursing research 23(4): 442-461.
- [32]. Wang, N., D. Hailey and P. Yu (2011). "Quality of nursing documentation and approaches to its evaluation: a mixed-method systematic review." Journal of advanced nursing 67(9): 1858-1875.