

Factors Influencing Documentation of Patient's Fluid Intake and Output Among Nurses in Specialist Hospitals of Ondo State, Nigeria

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Abstract:

Fluid intake and output documentation is important for safe, effective, ethical nursing care and accountability. Anecdotal clinical experience has shown that fluid intake and output documentation is frequently poorly adhered to by nurses leading to poor quality of care with accompanying litigation and professionals conflict. This study assessed the factors influencing documentation of patient's fluid intake and output among nurses in Specialist Hospital of Ondo State. The study was carried out at Specialist Hospital, Okitipupa and Ikare respectively. Descriptive cross-sectional design was utilized. Sample size was 64 respondents using total enumeration. Self-structured questionnaire was used to collect data. Face validity of the instrument was ascertained by experts of Adult Health Nursing while reliability was ascertained through pretest with Cronbach alpha coefficient value of 0.70 and 0.72. Research questions were answered using descriptive statistics of mean and percentages. Findings revealed the perception was favourable (54.7%), but this does not translate to practice, factors identified to influence fluid documentation are Supervision 98.4%, Shortage of nursing staff 95.3%, Time management 90.6%, In-Service training 90.4%, Workload 82.4%, and Delegation of duty

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64.1%. In conclusion, fluid intake and output documentation practice was very poor among the nurses and several factors had been identified. In order to enhance the practice, Continuing Nursing Educational Unit in each hospital should organize regular seminar in order for them to stimulate nurses to change attitude positively towards documentation of fluid intake and output.

Keywords: Factors, Fluid Intake and Output, Documentation, Output,

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Introduction

Fluid intake and output recording is important for safe, effective and standard nursing care in clinical setting. Nursing care needs recording of every care carried out and intended to carry out to allow for continuity of care, planning, and accountability. Subjective clinical experience has revealed that fluid intake and output record is commonly poorly adhered to by nurses resulting in dehydration, poor quality of care, cardiac overload, professionals conflict, and morbidity with accompanying litigation.

Asfour (2016) echoes the opinion that an accurate intake and output documentation gives vital information for assessing and evaluating the patient's condition and that the balance between input and output is known as fluid balance which is essential for effective metabolic function. Documentation in nursing is a record of nursing care that is planned and given to individual patients and clients by a registered nurse or by significant others under the observation and supervision of a qualified nurse (Chrispine, 2017). As such, documentation is anything written or printed which serves as a proof of nurses' and patient actions and activities. Documenting patient's care in medical record is an essential aspect of nursing practice. Hence, nursing documentation ought to be precise, complete, and flexible enough to save clinical data, sustain continuity of care, track patient results, and reflect standards of nursing practice. Information documented in patient record provides a comprehensive account of the level of quality of care rendered to patients. Therefore, effective documentation guarantees continuity of care, saves time, and reduces the risk of errors (Potter, et al., 2013).

In health, fluid balance is maintaining equilibrium or homeostasis between amount of fluid taken and/or infused and the amount of fluid loss in the body. Invariably, fluid intake is the amount of fluid that enters the body per oral or intravenously, while fluid output is the amount of fluid that leaves the body in form of urine, perspiration and through the lungs as water vapor in the expired air, noticeable loss through the skin, and loss through the intestines in form of feces, but changes in fluid and electrolyte physiology have an implication for metabolic reaction to stress caused by disease process (Abdelalem & Fouad, 2018).

Hence, the nurse should know that fluid and electrolyte has a relationship with cellular life and should be able to assess and sustain patient fluid balance in illnesses such as renal cases, critically ill patient, malnourished patient, post-operative patient, and elderly with compromised health status. Moreover, fluid balance plays a significant role in the care of post-operative patient making the collection and accurate assessment of fluid balance data to be of great significance (Nakate et al, 2015). Often times, fluid balance data are collected during physical assessment, record keeping and monitoring activities. Precise evaluation of this fluid balance data serves as a vital part of the patient baseline information which guides nursing and medical interventions aimed at achieving physiological stability in a patient.

In addition, nurses have the duty to comprehensively record nursing care activities using suitable tools and formats to ease continuity of care as given by Nursing and Midwifery Council of Nigeria (2019) and this was in agreement with Scales and Pilsworth (2011) who earlier suggested direction for practice in fluid balance such as assessment of the patient, informing the doctor or shift leader about deterioration in the patient's health status,



handover of the fluid balance chart to the next shift, as well as accurate calculation and recording. Hence, Nursing and Midwifery Council of Nigeria (2019) has record keeping as a vital; component of the code of professional conduct of nurses.

The Intake and Output chart is used to document fluids infused, drank, or eliminated by patients' in the hospital within a certain period, usually 24 hours (Ling, et al 2011). The nurse caring for a patient is accountable for correct intake and output charts record noting the time, and any abnormal findings which should be documented and reported to the charge nurse (Kozier & Erb, 2012). Having identified the different ways of fluid intake and output documentation by various researchers, Abraham, et al (2017) suggested that record of the date, time, site of cannula insertion as well as signs of tissue infiltration or phlebitis should be recorded. Others includes complete record of patient parameters such as the name of the patient, the registration number / Medical record number and the date for which the chart is used in order not to lose the identity of the patient whose intake and output is being charted. Relevant particulars of the input and output data must be charted in the appropriate time-interval (period) under the necessary chart headings, the column and row titles. The amount of both the input and the output is to be totalled for every shift (the sub-total) and for the 24 hour period (the grand total). Moreover, data are entered into the chart during the following situation: at the beginning of putting up an Intravenous infusion, at the beginning of a shift, whenever a pack finishes and another is hanged, whenever the regime is changed and when there is any fluid output which includes urine, discharges or drainage (Jacob, Rekha, & Tarachand, 2015).

However, barriers, such as lack of time, lack of staff, ambiguity in the record process, and perceived lack of interest and/or lack of need for documentation had been discovered by researchers (Asamani, Amenorpe, Babanawo & Ofei, 2013). This confirmed the findings of Bvumbwe and Mtshali (2018) who found out that over 70% of nurse participants believed that they had insufficient time to properly record, which they attributed to limitations of work organization and environment, this is supported by Ruth and Mogileeswari (2016) who affirmed that Fluid balance recording is often insufficient or imprecise because of staff shortages, inadequate training or lack of time while Johnson, (2011) earlier discovered that nurses' levels of understanding and attitudes towards documentation was related to their intention to document.

In Ondo State, nurses viewed nursing documentation as an integral part of patient care; though not practice accurately. The researcher's clinical practice experience, together with the data from literature identified that patients' fluid intake and output documentation was generally not done correctly by nurses despite the knowledge acquired during training and it has continued to draw criticism from professionals regarding calculation errors which has led to dehydration, overload in cardiac patient sometimes, poor quality of care, prolonged hospital stay and litigation. Worried by the above, the researcher sort to assess factors influencing documentation of patient's fluid intake and output among nurses in Specialist Hospitals in Ondo State, Nigeria. This study specifically examined:

1. the perception of nurses on fluid intake and output documentation; and
2. the factors influencing fluid intake and output documentation.



Research Questions

The following research questions were raised for this study:

1. What is the perception of nurses on fluid intake and output documentation?
2. What are the factors influencing fluid intake and output documentation?

Methodology

This study adopted descriptive cross-sectional design. A questionnaire was used to determine the perception of nurses on fluid intake and output documentation among nurses and factors influencing documentation of patient's fluid intake and output among nurses. The target populations for this study were registered nurses that have been working in the hospital for at least one year and are working on the wards where patients are placed on intravenous fluid. The total number of nurses in these wards is 64, that is; 34 nurses from State Specialist Hospital, Okitipupa and 30 nurses from State Specialist Hospital, Ikare. This study employed total enumeration sampling method for all the nurses on the identified wards of the Specialist Hospitals because the population was small.

This study utilized adapted questionnaire from previous studies and based on literature review to elicit information about the perception of nurses on fluid intake and output documentation and the factors influencing the practice of fluid intake and output documentation. The instrument was given to experts in adult health nursing to check for face and content validity, to validate their appropriateness in achieving the objectives of the research. Vague and equivocal items were restructured. The questionnaire was pretested with 7 nurses being 10 percent of the population in General Hospital, Ile-Oluji. The result was analyzed using the Statistical Package for the Social Sciences (SPSS) software version 23 and the result of 0.70 and 0.72 Cronbach's Alpha was obtained for the perception of nurses on fluid intake and output documentation, and factors influencing the practice of fluid intake and output documentation respectively.

Data was collected from State Specialist Hospitals in Ondo State. The Head of nursing service was approached with the details of the study through a discussion before the commencement of the study. Data collected from the questionnaire was analysed using the Statistical Package for the Social Sciences software (SPSS) version 23.0. Descriptive statistics such as frequency, percentage, was used to explain the result.

Results

Question 1: What is the perception of nurses on fluid intake and output documentation?

Table 1: Perception of Fluid Intake and Output Documentation among Respondents

S/N	Items	Strongly Agree	Agree	Disagree	Strongly Disagree
1.	Recording the intake and output is important as other patient care activities	56 (87.5)	8 (12.5)	0(0.0)	0(0.0)
2.	Fluid intake and output documentation is important to guide nursing care of all ill patients	51 (79.7)	12 (18.8)	1 (1.6)	0(0.0)



3.	Inaccurate fluid intake and output documentation and calculation can be a risk for the ill patient.	47 (73.4)	14 (21.9)	2 (3.1)	1 (1.6)
4.	The nurse is the only person responsible for a correct fluid intake and output documentation and calculation	27 (42.2)	21 (32.8)	8 (12.5)	8 (12.5)
5.	Too many people fill in one patient's fluid intake and output chart.	7 (10.9)	23 (35.9)	17 (26.6)	17 (26.6)
6.	Nurses are satisfied with the design of the fluid intake and output chart sheet	20 (31.2)	37 (57.8)	5 (7.8)	2 (3.1)
7.	The space to write the fluid numbers on the chart is adequate	18 (28.1)	37 (57.8)	6 (9.4)	3 (4.7)
8.	Nurses may be responsible for more than one patient, so it is difficult to supervise all the fluid intake and output documentation activities	28 (43.8)	28 (43.8)	6 (9.4)	2 (3.1)
9.	I think the total amount of water intake and output which is calculated for every shift is accurate always.	4 (6.2)	13 (20.3)	23 (35.9)	24 (37.5)
10.	The 24-hour fluid balance is correctly calculated all the time	7 (10.9)	10 (15.6)	23 (35.9)	24 (37.5)
11.	I think that nurses' performance capability for fluid intake and output documentation should be evaluated.	26 (40.6)	36 (56.2)	2 (3.1)	0(0.0)
12.	I can trust the results of colleagues' fluid intake and output measurement and documentation	7 (10.9)	34 (53.1)	16 (25.0)	7 (10.9)
13.	I think that fluid intake and output documentation lacked consistency between the nurse, and between the ward.	14 (21.9)	38 (59.4)	8 (12.5)	4 (6.2)

Table 2: Summary of Perception about Fluid Intake and Output Documentation and Respondents

Perception	Frequency	Percentage
Unfavourable Perception	29	45.3
Favourable Perception	35	54.7
Total	64	100.0



Table 3: Perception about Fluid Intake and Output Documentation among Respondents by Hospital

Hospital	Perception		Total
	Unfavourable	Favourable	
State Specialist Hospital Ikare	12 (40.0)	18 (60.0)	30 (100.0)
State Specialist Hospital Okitipupa	17 (50.0)	17(50.0)	34 (100.0)
Total	29 (45.3)	35(54.7)	64(100.0)

Table 1 presents the results on the perception of nurses on fluid intake and output documentation. Results from the table shows that 56(87.5%) of the respondents strongly agreed to the perception that recording fluid intake and output is important as other patient care activities while 8 (12.5%) agreed to the concept and none has a contrary opinion. Result further showed that 51(79.7%) strongly agreed to the perception that the fluid intake and output documentation is important to guide nursing care of all ill patients, 12(18.8%) agreed to the idea while only 1(1.6%) of the respondents disagree to the perception. A number of respondents 47 (73.4%) strongly agreed that inaccurate fluid intake and output documentation and calculation can be a risk for the ill patient while 2(3.1%) and 1(1.6%) disagreed and strongly disagreed respectively to the perception that inaccurate fluid intake and output documentation and calculation can be a risk for the ill patient.

A number of the respondents 27(42.2%) strongly agreed to the perception that the nurse is the only person responsible for a correct fluid intake and output documentation and calculation, 21(32.8) agreed to the perception while 8(12.5%) and 8(12.5%) disagreed and strongly disagreed respectively to the perception that the nurse is the only person responsible for a correct fluid intake and output documentation and calculation. To the perception that too many people fill in one patient's fluid intake and output chart, 23(35.9%) of the respondents agreed, 7(10.9%) strongly agreed while 14(53.2%) has a contrary opinion. A number of the respondents 20(31.2%) and 37(57.8%) strongly agreed and agreed to the perception that nurses are satisfied with the design of the fluid intake and output chart sheet while 2(3.1%) strongly disagreed which is contrary perception. Result further showed that 18 (28.1%) of the respondents strongly agree that the space to write the fluid numbers on the chart is adequate, 37(57.8%) agreed to the concept while 6(9.4%) disagreed and 3(4.7%) strongly disagreed that the space to write the fluid numbers on the chart is adequate.

Furthermore, the result revealed that 28(43.8%) and 28(43.8%)of the respondents strongly agreed and agreed respectively with the perception that nurses may be responsible for more than one patient, so it is difficult to supervise all the fluid intake and output documentation activities while 6(9.4%) and 2 (3.1%) disagreed and strongly disagreed. A number of respondents 23(35.9%) and 24(37.5%) disagreed and strongly disagreed respectively with the perception that the total amount of fluid intake and output which is calculated for every shift is accurate always while only 4(6.2%) of the respondents strongly agreed that the total amount of water intake and output which is calculated for every shift is accurate always. Moreover, 23(35.9%) and 24 (37.5%) of the respondents disagreed and strongly disagreed



respectively with the perception that 24-hour fluid balance is correctly calculated all the time while few number of the respondent strongly agreed to the opinion.

In addition, a number of nurses 26(40.6%) strongly agreed that nurses' performance capability for fluid intake and output documentation should be evaluated, 36 (56.2%) agreed that nurses' performance capability for fluid intake and output documentation should be evaluated while only 2(6.2%) respondents disagreed with the evaluation of nurses on fluid intake and output documentation. The study further showed that 7(10.9%) of respondents strongly agreed that they can trust the results of colleagues' fluid intake and output measurement and documentation, 34(53.1%) also agreed while 16(25.0%) disagreed and 7(10.9%) of the nurses strongly disagreed with the perception that they can trust the results of colleagues' fluid intake and output measurement and documentation. A number of respondents 14 (21.9%) strongly agreed with the perception that fluid intake and output documentation lacked consistency between the nurse, and between the ward, 38 (59.4%) also agreed with the perception while 8(12.5%) and 4(6.2%) disagreed and strongly disagreed that fluid intake and output documentation lacked consistency between the nurse, and between the ward.

Table 2 shows the summary of Perception about Fluid Intake and Output Documentation and Respondents. It was revealed more than half of the respondents 35(54.7%) has favourable perception about fluid intake and output while 29(45.3%) has unfavourable perception about the concept.

Table 3 shows summary of perception about Fluid Intake and Output Documentation among respondents by Hospital. 18 (60.0%) of the respondent in State Specialist Hospital, Ikare has a favourable perception about fluid intake and output documentation while 12(40%) has unfavourable perception but the perception of respondents in State Specialist Hospital, Okitipupa is 17(50%) favourable and 17(50%) unfavourable.

Question 2: What are the factors influencing fluid intake and output documentation?

Table 4: Respondents Perceived Factors Influencing Fluid Intake and Output Documentation

	Managerial factors	Strongly Agree	Agree	Disagree	Strongly Disagree
1.	Shortage of nursing staff contributes towards poor documentation of fluid chart.	46 (71.9)	15 (23.4)	2 (3.1)	1 (1.6)
2.	Ratio of 1 nurse to 15 patients per shift.	35 (54.7)	21 (32.8)	3 (4.7)	5 (7.8)
3.	Delegating according to personnel capabilities influences documentation of fluid intake and output.	13 (20.3)	28 (43.8)	18 (28.1)	5 (7.8)
4.	Incentives will encourage available nurses to document fluid intake and output of patient.	15 (23.4)	19 (29.7)	16 (25.0)	14 (21.9)
5.	I am responsible for more than one patient; hence, it is not easy to supervise all the fluid	20 (31.2)	30 (46.9)	10 (15.6)	4 (6.2)



	documentation activities.				
6.	There are many other nursing care activities that seek attention and needs monitoring than recording the fluid intake and output for every patient on intravenous fluid.	11 (17.2)	29 (45.3)	14 (21.9)	10 (15.6)
7.	Newly employed nurses are not mentored in documenting fluid intake and output.	8 (12.5)	28 (43.8)	16 (25.0)	12 (18.8)
8.	More mentors are needed to empower nursing staff.	21 (32.8)	36 (56.2)	6 (9.4)	1 (1.6)
9.	Senior nurses too busy to guide newly employed nurses.	6 (9.4)	23 (35.9)	23 (35.9)	12 (18.8)
10.	Proper supervision of nurses will improve documentation of fluid.	37 (57.8)	26 (40.6)	1 (1.6)	0 (0.0)
	Personnel factors	Strongly Agree	Agree	Disagree	Strongly Disagree
11.	Feel overworked when on duty.	27 (42.2)	32 (50.0)	2 (3.1)	3 (4.7)
12.	Increase workload hinders accuracy of fluid intake and output documentation.	11 (17.2)	42 (65.5)	8 (12.5)	3 (4.7)
13.	There is too much work to do on the ward.	30 (46.9)	29 (45.3)	4 (4.2)	1 (1.6)
14.	There is increase influx of patient.	11 (17.2)	42 (65.6)	8 (12.5)	3 (4.7)
15.	Senior nurse's leaves routine nursing care for junior nurses, hence, junior nurses are overworked and affecting their documentation of care rendered.	21 (32.8)	25 (39.1)	14 (21.9)	4 (6.2)
16.	Professional nurses spend much time gossiping.	3 (4.7)	5 (7.8)	20 (31.2)	36 (56.2)
17.	Inadequate time management affects fluid intake and output documentation.	22 (34.4)	36 (56.2)	2 (3.1)	4 (6.2)
18.	Answering of telephone wastes time allocated for patient care.	5 (7.8)	25 (39.1)	25 (39.1)	9 (14.1)
19.	Tasks are not completed as expected and are carried over to next period.	10 (15.6)	37 (57.8)	12 (18.8)	5 (7.8)
20.	Lack of periodic in-service training contributed to poor documentation of fluid intake and output as knowledge are not updated.	23 (35.9)	35 (54.7)	5 (7.8)	1 (1.6)



21.	Lack of clarity in documentation process can influence fluid intake and output documentation.	25 (39.1)	33 (51.6)	3 (4.6)	3 (4.6)
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Table 4 presents the results on factors influencing documentation of patient's fluid intake and output among nurses. On the managerial factor, results from the table shows that 46(71.9%) and 15(23.4%) of the respondents strongly agreed and agreed that shortage of nursing staff contributes towards poor documentation of fluid chart while only minority 3(4.7%) are of contrary opinion. A large number 35(54.7%) and 21(32.8%) were of the opinion that patient ratio is about 1 to 15 and this can influence patient's fluid documentation as they strongly agreed and agreed to the concept while 3(4.7%) disagreed and 5(7.8%) strongly disagreed. The result further revealed that appropriate delegation of duty according to personnel capabilities may influence fluid documentation. This was evident as 13(20.3%) strongly agreed to this notion and 28(43.8%) agreed but about 23(35.9%) has a contrary view.

Moreover, a little above average of the respondents 34(53.1%) believed that incentives will encourage available nurses to document fluid intake and output of patients, hence, they strongly agreed and agreed but nearly half 30(46.9%) of the respondents share a different notion which implies that incentives may not encourage nurses to document fluid intake and output of patient in their care. On managerial factor, it was clearly noted that proper supervision of nurses will improve documentation of fluid intake and output by nurses as 63(98.4%) strongly agreed and agreed. Just only 1(1.6%) has a contrary opinion. This implies that when there is inadequate supervision from the nurse leaders, there might be poor documentation of fluid chart. This prompted majority 20(31.2%) and 30 (46.9%) of them to say that they are responsible for more than one patient; hence, it is not easy to supervise all the fluid documentation activities by strongly agreeing and disagreeing, but few 10(15.6%) and 4(6.2%) opposes this notion. Others 11(17.2%) and 29 (45.3%) claimed that there are many other nursing care activities that seek attention and needs monitoring than recording the fluid intake and output for every patient on intravenous fluid. Hence they strongly agreed and agreed while others disagreed and strongly disagree (14(21.9); 10(15.6)) by countering this impression.

The personnel factors revealed that Increase workload hinders accuracy of fluid Intake and Output documentation among nurses, this was established as 11(17.2%) strongly agreed and 42(65.2%) agreed while 8(12.5%) disagreed and 3(4.7%) strongly disagreed. Furthermore, the personnel factor examined the time management and the result showed that poor time management may lead to inaccurate documentation of patient's fluid intake and output. Majority of the respondents 22(34.4%) and 36(56.2%) opined to this concept by strongly agreeing and agreeing. But 2(3.1%) and 4(6.2%) disagreed and strongly disagreed respectively. It was also noted that a good number of nurses 20(31.2%) and 36(56.2%) disagreed and strongly disagreed that professional nurses spend much time gossiping which in turn affect their documentation while 3(4.7%) and 5(7.8%) supported the idea. A little above average of the nurses contradict the idea that answering of telephone call by nurse waste time allocated for patient care as 25(39.1%) and 9(14.1%)



disagreed and strongly disagreed but 5(7.8%) and 25(39.1%) strongly agreed and agreed. Also, 10(15.6%) and 37(57.8%) strongly agreed and agreed that tasks are not completed as expected and are carried over to next period but 12(18.8%) disagreed and 5(7.8%) strongly disagreed.

In addition, 23(35.9%) of the nurses strongly agreed that lack of periodic in-service training contributed to poor documentation of fluid intake and output as knowledge are not updated and 35(54.7%) of the respondents agreed while 5(7.8%) and 1(1.6%) disagreed and strongly disagreed. Thus, majority 25(39.1%) and 33(51.6) of the respondents opined that there is need of Intake and Output documentation education for nurses while 6(9.4) share different view.

Discussion of Findings

The perception of nurses on fluid intake and output documentation will sternly influence their practice of documentation either positively or negatively. Results from the table shows that 56(87.5%) of the respondents strongly agreed to the perception that recording fluid intake and output is important as other patient care activities and it is in congruence with the findings of Collins et al (2013) which is of the opinion that Nursing care documentation is essential for early recognition of patients' deteriorating condition followed by effective communication and response by members of the interdisciplinary care team which will in turn reduce hospital mortality while 8(12.5%) also agreed to the concept and non has a contrary opinion.

A good number of respondents 47(73.4%) strongly agreed and 14(21.9%) agreed that inaccurate fluid intake and output documentation and calculation can be a risk for the ill patient. This is in concord with the findings of Aslam et al (2017) which revealed that larger population of the respondents (30.77% and 34.13%) were of the opinion that inaccurate fluid intake and output documentation and calculation can be a risk for the ill patient. Moreover, majority of the nurses opined that nurse is the only person responsible for a correct fluid intake and output documentation and calculation as about 27 (42.2%) and 21(32.8%) strongly agreed and agreed to the perception. This is not contrary with the findings of Kalengo (2015) that found out that correct fluid intake and output documentation and calculation is the responsibility of the nurse no matter the cadre. Regarding the perception that too many people fill in one patient's fluid intake and output chart, 23(35.9%) of the respondents agreed, 7(10.9%) strongly agreed while 34(53.2%) has a contrary opinion. The finding is similar to Aslam et al (2017) where half of the nurses disagreed and strongly disagreed that too many people fill in one patient's fluid intake and output chart.

In relation to the various hospitals, the perception of the respondents about Fluid Intake and Output Documentation in State Specialist Hospital, Ikare is favourable 18(60.0%) while 12(40%) has unfavourable perception but the perception of respondents in State Specialist Hospital, Okitipupa is 17(50%) favourable and 17(50%) unfavourable. The mean score of perception of both hospitals are: State specialist Hospital Ikare (24.27 ± 3.25) and State Specialist Hospital Okitipupa (23.56 ± 3.42). The overall Perception of the nurse about Fluid Intake and Output Documentation is favourable as more than average 35(54.7%) has favourable perception about fluid intake and output which may be due to their level of education but does not reflect in their practice while 29(45.3%) has unfavourable perception



about the concept and it must not be overlooked since the number constitute great number of the population.

Table 4 presents the results on factors influencing patient's fluid intake and output documentation among nurses which are managerial factor and personnel factor. On the managerial factor (Situational Attribution), 46(71.9%) and 15(23.4%) of the respondents strongly agreed and agreed that shortage of nursing staff contributes towards poor documentation of fluid chart while only minority 3(4.7%) are of contrary opinion. Similar findings have been reported by Chrispine (2017) which revealed that a large percentage (81%) of the respondent reported shortage of staff in their health facilities. Also, Kalengo (2002) reported similar findings.

The result further revealed that appropriate delegation of duty according to personnel capabilities may influence fluid documentation. This was evident as 13(20.3%) strongly agreed to this notion and 28(43.8%) agreed but about 23(35.9%) has a contrary view.

Moreover, a little above average of the respondents 34(53.1%) believed that incentives will encourage available nurses to document fluid intake and output of patients, hence, they strongly agreed and agreed but nearly half 30(46.9%) of the respondents share a different notion which implies that incentives may or may not encourage nurses to document fluid intake and output of patient in their care. This result revealed mixed reaction to the concept. Milton (2013), reiterate that incentive is anything that can be given in addition to wages which can motivate an individual for work. This could either be financial or non-financial reward. Aside monetary incentive, job satisfaction, job security, and pride for accomplishment could serve as motivation for nurses to document accurately.

In addition, 23(35.9%) of the nurses strongly agreed that lack of periodic in-service training contributed to poor documentation of fluid intake and output as knowledge are not updated and 35(54.7%) of the respondents agreed while 5(7.8%) and 1(1.6%) disagreed and strongly disagreed. This finding is in concord with Lusaka (2015) who reiterated that poor In-Service training through workshops and seminars on fluid intake and output documentation may leads into inadequate knowledge among nurses and in turn inaccurate documentation of the fluid chart. Further on the managerial factor, it was clearly noted that proper supervision of nurses will improve documentation of fluid intake and output by nurses as 63(98.4%) strongly agreed and agreed. Just only 1(1.6%) has a contrary opinion. The finding is in concordance with a systematic review conducted by Snowdon, Leggat and Taylor (2017) which concluded that clinical supervision of health professionals is associated with effectiveness of care. The review found significant improvement in the process of care that may improve compliance with processes that are associated with enhanced patient health outcomes. This on the other hand implies that when there is inadequate supervision from the nurse leaders, there might be poor documentation of fluid chart.

The personnel factors revealed that Increase workload hinders accuracy of fluid Intake and Output documentation among nurses, this was established as 11(17.2%) strongly agreed and 42(65.2%) agreed while 8(12.5%) disagreed and 3(4.7%) strongly disagreed. According to Kaur and Gujral (2017), nursing workload contributes to errors such as incomplete documentation of care, mistake, and lapses which leads to unsafe patient care by reducing



attention on safety hence, violation of nursing practice, that is; deliberate deviation from the practices that is believed necessary to maintain safe or secure operation.

Furthermore, the personnel factor examines the time management and the result showed that poor time management may lead to inaccurate documentation of patients' fluid intake and output. Majority of the respondents 22(34.4%) and 36(56.2%) opined to this concept by strongly agreeing and agreeing. But 2(3.1%) and 4(6.2%) disagreed and strongly disagreed respectively. The result is verified by Hayam (2016) who reported that, time management (100%), is one of the factors affecting fluid balance monitoring and this is in agreement with Bello (2015) who revealed that majority of respondents (41.7%) were of the opinion that time constraint was a barriers to nursing documentation and likewise to a study in Sweden where most of the registered nurses ranked lack of time as the primary barrier to nursing documentation.

It was also noted that a good number of nurses 20(31.2%) and 36(56.2%) disagreed and strongly disagreed that professional nurses spend much time gossiping which in turn affect their documentation while 3(4.7%) and 5(7.8%) supported the idea. This is contrary to the finding of Habib et al (2018) who showed that Professional nurses spend much time in gossiping ($p < 0.05$). A little above average of the nurses contradict the idea that answering of telephone call by nurse waste time allocated for patient care as 25(39.1%) and 9(14.1%) disagreed and strongly disagreed but 5(7.8%) and 25(39.1%) strongly agreed and agreed.

Conclusion

It is a common knowledge that there is less attention given to fluid intake and output documentation in health care facilities. However, some factors are known to contribute largely to the inefficiency and frustration of Nurses in the documentation of fluid intake and output. Therefore, the study assessed the factors influencing documentation of patient's fluid intake and output where measuring tools availability, patient's cooperation, in-service training, handing and taking over, delegation of duty and attitude towards documentation among others were identified as either managerial or personnel factors.

Recommendations

Based on the findings of this study, it was recommended that

- i. Continuing Nursing Educational Unit in each hospital should organize regular seminar in other for them to stimulate nurses to change attitude positively towards documentation of fluid intake and output.
- ii. Officer -in-charge of each ward should ensure thorough handing and taking over. Attention should be paid to details of fluid intake and output of ill patient to prevent dehydration, acute renal failure, possible death and litigation.
- iii. Nurse leaders should always supervise the documentation of fluid intake and output and melt out disciplinary measure for defaulter. Periodic assessment and evaluation by Heads of Departments and Supervisors should be done.



References

- Abdelalem, S. & Fouad N. (2018). Effect of an Instruction Intervention about Body Fluid Balance Assessment on Knowledge and Practice among Nurses in Intensive Care Unit. *Journal of Nursing and Health Science (IOSR-JNHS)*, 7,(2), 41-48
- Abraham, S. A., Berchie, G. O., Okantey, C., Amoah, V. M. K. & Agyei-Ayensu K. (2017) Documentation of Fluid Balance of Patients on Intravenous Therapy in a University Hospital in Ghana. Paper presented at the 44th Biennial Convention of the Sigma Global Nursing Excellence, Indianapolis, Indiana, USA.
- Asfour, H. I. (2016). Fluid Balance Monitoring Accuracy in Intensive Care Units. *IOSR Journal of Nursing and Health Science*. 5(4): 53-62 <https://doi-org/10.9790/1959-0504015362>.
- Aslam, S., Afzal M., Kousar R., Waqas A., & Gilani S.A. (2017) The Assessment of Nurses Knowledge and Practices about Fluid and Electrolytes Monitoring and Administration among Cardiac Surgery Patients: A Case of Punjab Institute of Cardiology. *Int. J. Appl. Sci. Biotechnol.* 5(2): 208-215 <https://doi-org/10.3126/ijasbt.v5i2.17626>
- Bello T. H. (2015) Knowledge and Practice of Documentation among Nurses in Ahmadu Bello University Teaching Hospital (Abuth) Zaria, Kaduna State.; 4: 01-06.
- Bvumbwe T, & Mtshali N.(2018); Nursing education challenges and solutions in Sub Saharan Africa: an integrative review. *BMC Nursing*. 17(1), 3 – 9.
- Chrispine, M.B. (2017), Factors Associated with Documentation of Fluid Intake and Output in Post-Operative Patients. *International Journal of Nursing Sciences*. 3(3), 314-322
- Collins S.A, Cato K, Albers D, Scott K, Stetson P.D, Bakken S & Vawdrey D.K. (2013) Relationship between nursing documentation and patients' mortality. *Am J Crit Care*. 22: 306-313.
- Habib A., Afzal M., Hussainet M., Naseer A., Habib T.& Gilani S. A. (2018) Factors Effecting Time Management of Professional Nurses' at Public Hospital, Lahore. *Int. J. Soc. Sc. Manage*. 5(3): 231-235. <https://doi-org/10.3126/ijssm.v5i3.20606>
- Jacob A., Rekha R., & Tarachand J, S., (2015). *Clinical Nursing Procedures: The Art of Nursing Practice*. 3rd ed. Jaypee Brothers Medical Publishers, New Delhi.
- Kaur M. N., & Gujral, H. K. (2017). Work Load On Nurses And its Impact On Patient care *Journal of Nursing and Health Science* 6(5), 22-26
- Kozier & Erb's (2012) *Fundamentals of Nursing, Concepts, Process, And Practice* 9th ed. By Pearson Education, Inc, Upper Saddle River, New Jersey 07458.
- Ling W.W, Ling LP, Chin Z.H, Wong I.T, Wong A.Y, Nasef A., & Zainuddin A. (2011) Improvement in Documentation of Intake and Output Chart. *International Journal of Public Health Research Special Issue*, (152-162) 152.
- Nakate, G., Dahl, D., Drake, K. B., & Petrucka, P. (2015). Knowledge and Attitudes of Select Ugandan Nurses towards Documentation of Patient Care. *African Journal of Nursing and Midwifery*, 2(1), 056-065.
- Potter P. A., Perry A. G., Stockert P. A., & Hall A. M. (2013). *Fundamentals of nursing*. 8th ed. 3251 Riverport Lane St. Louis, Missouri



Ruth M, & Mogileeswari P. (2016) Knowledge and practice regarding fluid and electrolyte replacement therapy for patient with burns. *International Journal of Multidisciplinary Research and Development*; 3(4), 217-20.

Snowdon, A., Leggat, B. & Taylor, O. (2017) Does clinical supervision of healthcare professionals improve effectiveness of care and patient experience? A systematic review *BMC Health Services Research* 17:786 <https://doi-org/10.1186/s12913-017-2739-5>

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