

## RESEARCH ARTICLE

## Nurse's individual factor may influence quality of nursing documentation in the inpatient room

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### Abstract

**Objective:** To analyse the influence of nurses' impact on the quality of documentation in an inpatient setting.

**Method:** The descriptive, correlational, cross-sectional study was conducted at two government hospitals in East Java, Indonesia, from December 2018 to February 2019 after approval from ethics review committee of Universitas Airlangga, Surabaya, Indonesia. The sample comprised nurses regardless of age and gender who had a minimum work experience of 6 months. Individual factors noted were gender, education, age, length of work, knowledge and motivation of the nurses, knowledge and motivation, while the quality of nursing care documentation was the variable dependent. Data was collected using a demographic nurses, knowledge, motivation questionnaire and nursing documentation observation sheet.

**Results:** Of the 150 nurses, 92(61.33%) were females and 58(38.67%) were males. The largest age group was that of early adults 92(61.33%), 46(30.67%) had 1-5 years of work experience, 115(76.67%) had diploma level of education, 81(54%) had less knowledge, and 86(57.33%) had strong motivation. The quality of documentation was in the good category in 74(49.33%) cases, and it had a significant relationship with education ( $p=0.011$ ), knowledge ( $p=0.001$ ) and motivation ( $p=0.001$ ).

**Conclusion:** Good quality of nursing documentation was found to be influenced by education, knowledge and motivation of the nurses.

**Keywords:** Nursing, Demographic, Healthcare, Knowledge, Motivation. (JPMA 73: S-88 [Suppl. 2]; 2023)

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### Introduction

Nursing documentation is an integral part of patient care, and nurses have an important role in this regard.<sup>1</sup> Good and correct documentation is an indicator of a nurse's professionalism. Documentation is useful for improving accreditation standards, as a communication tool among professions, as a quality service indicator, as evidence of nurses' responsibility and accountability, as a data source, and as a means of research or evidence-based policy-making.<sup>2-4</sup> Nursing documentation is also one of the virtues of the nursing process, but there are still some problems in nursing documentation related to quality, completeness and timeliness, which can reduce the effectiveness of the documentation.<sup>5,6</sup> There are several factors that affect the quality of nursing documentation, one of which is the nurse factor.

Documentation of nursing care has several problems, such as nurses are sometimes inconsistent in documenting the time of the implementation of the action,<sup>7</sup> signing off each nursing

activity is not constant, assessment and evaluation during the nursing process are lacking, and there are instruments that have not been standardised.<sup>5,8-11</sup> Studies show that the lack of implementation of nursing documentation occurs throughout the world, leading to incomplete, inaccurate and unqualified documentation.<sup>12</sup> In Indonesia also, nursing documentation problems were found below the standard 80%.<sup>13,14</sup> Nursing documentation that is harmful to the quality of care and patient safety<sup>15</sup> has a negative impact on patient care as well as professional accountability.<sup>15,16</sup>

Documentation is important to provide quality and safe nursing care to patients.<sup>2,4</sup> However, the implementation of the documentation is still not optimal, with factors including lack of standards of nursing care, inadequate supervision, various levels of nursing competence, low self-confidence and motivation on the part of nurses, lack of time, non-standardised documentation sheets, and inadequate staff.<sup>12,17</sup> More than 50% of ineffective nurse communication occurs due to failure to transfer information and the low quality of documented information.<sup>18</sup> In addition to the factors mentioned above, it is also necessary to evaluate the individual factors of nurses, such as demographic factors, knowledge and motivation. The current study was planned to determine the impact of nurses' individual factors on the quality of nursing documentation.

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## Material and Methods

The descriptive, correlational, cross-sectional study was conducted at two government hospitals in East Java, Indonesia, from December 2018 to February 2019 after approval from the ethics review committee of Universitas Airlangga, Surabaya, Indonesia. The sample was raised using purposive sampling technique. Those included were nurses regardless of age and gender who had a minimum work experience of 6 months. Those who were on leave at the time of data collection and nurses who were of some other study at the time were excluded.

Data were collected after taking informed consent from all the subjects. Motivation was assessed using a 10-item questionnaire,<sup>19</sup> which was scored on a 5-point Likert scale. The level was considered positive and strong with total score 28-40, sufficient with score 13-27, and weak with score <13.

Knowledge was assessed using a nursing documentation knowledge questionnaire,<sup>20</sup> consisting of 10 multiple choice questions (MCQs). Good knowledge was taken at score >75%, sufficient knowledge 56-75% and weak <56%.<sup>21</sup> Pearson Product Moment test and Cronbach's alpha value showed the instrument was valid and reliable.

Nursing documentation was assessed using a modified version of a Likert scale,<sup>22</sup> which consisted of 30 items divided into six domains, assessment, nursing diagnosis, planning, implementation, evaluation, and nursing documentation. Assessment was rated good at a score of 111-150, medium 71-110, and poor 30-70.

Data was analysed using chi-square and Spearman's Rho, as appropriate. The independent variables included gender, education, age, length of work, knowledge and motivation, while the dependent variable was the quality of nursing care documentation. The level of statistical significance was kept at  $p \leq 0.05$ .

## Results

Of the 150 nurses, 92(61.33%) were females and 58(38.67%) were males. The largest age group was that of early adults 92(61.33%), 46(30.67%) had 1-5 years of work experience, 115(76.67%) had diploma level of education, 81(54%) had less knowledge, and 86(57.33%) had strong motivation.

The quality of documentation was in the good category in 74(49.33%) cases, and it had a significant relationship with education ( $p=0.011$ ), knowledge ( $p=0.001$ ) and motivation ( $p=0.001$ ). No significant relationship was found with gender, age and length of work of the nurses ( $p>0.05$ ) (Table).

**Table:** Cross-tabulation of stury variables with quality of nursing care documentation.

The Quality of Nursing Documentation					
	Less n (%)	Enough n (%)	Good n (%)	Total n (%)	p-value
<b>Gender</b>					
Male	24 (16)	11 (7.33)	23 (15.33)	58 (38.67)	$p=0.164$
Female	27 (18)	14 (9.33)	51 (34.00)	92 (61.33)	
Total	51 (34)	25 (16.67)	74 (49.33)	150 (100.00)	
<b>Age</b>					
Early adulthood	32 (21.33)	11 (7.33)	49 (32.67)	92(61.33)	$p=0.641$
Middle adult	17(11.33)	13 (8.67)	20 (13.33)	50 (33.33)	$r=-0.038$
Late adulthood	2 (1.33)	1 (0.67)	5 (3.33)	8 (5.33)	
Total	51 (34.00)	25 (16.67)	74 (49.33)	150 (100.00)	
<b>Length of work (Year)</b>					
1-5	19 (12.67)	4 (2.67)	23 (15.33)	46 (30.67)	$p=0.263$
6-10	15 (10.00)	9 (6.00)	19 (12.67)	43 (28.67)	$r=0.092$
11-15	6 (4.00)	11 (7.33)	10 (6.67)	27 (18.00)	
16-20	11 (7.33)	1 (0.67)	20 (13.33)	32 (21.33)	
21-25	0 (0.00)	0 (0.00)	2 (1.33)	2 (1.33)	
Total	51 (34.00)	25 (16.67)	74 (49.33)	150 (100.00)	
<b>Education</b>					
Nursing Academy	44 (29.33)	21 (14.00)	50 (33.33)	115 (76.67)	$p=0.011$
Bachelor	7 (4.67)	4 (2.67)	24 (16.00)	35 (23.33)	$r=0.207$
Total	51 (34.00)	25 (16.67)	74 (49.33)	150 (100.00)	
<b>Knowledge</b>					
Less	43 (28.67)	21 (14.00)	17 (11.33)	81 (54.00)	$p=0.001$
Enough	5 (3.33)	4 (2.67)	20 (13.33)	29 (19.33)	$r=0.595$
Good	3 (2.00)	0 (0.00)	37 (24.67)	40 (26.67)	
Total	51 (34.00)	25 (16.67)	74 (49.33)	150 (100.00)	
<b>Motivation</b>					
Weak	29 (19.33)	23 (15.33)	12 (8.00)	64 (42.67)	$p=0.001$
Strong	22 (14.67)	2 (1.33)	62 (41.33)	86 (57.33)	$r=0.424$
Total	51 (34.00)	25 (16.67)	74 (49.33)	150 (100)	

## Discussion

The study found the relationship between gender and quality of nursing care documentation to be non-significant as most of the respondents were female although in reality there is no difference in work productivity between female and male employees<sup>7</sup>. In specialised jobs, such as those where nurses have to lift patients who are very obese, gender is very influential on attitudes and work success, but in jobs that generally can be done by everyone, gender has no effect on attitudes and work results. Factors that influence people to behave and carry out the work that is their responsibility properly, among others, is because of the motivation of the implementer not because of the gender factor.<sup>23</sup>

Age also had significant no relationship with quality of nursing care documentation In the current study even though older people are generally more responsible and more conscientious than younger people probably because younger people are less experienced.<sup>20</sup>

Studies found that age was closely related to the level of technical maturity in carrying out tasks, as well as psychological maturity. Increasing age also increases a person's ability to make decisions, control emotions, think rationally and tolerate the views of others.<sup>24,25</sup>

In the current study, age group 24-36 years represented the middle age in the sample and covered the majority of the respondents. Most of respondents in that age group had good-quality nursing documentation (Table). This is probably because they were getting older but had not yet reached the peak age in terms of maturity.

The current study also shows no significant relation of the length of work with the quality of nursing care documentation, with respondents having a long working period of 16 years and over still indulging in low-quality documentation. This was probably because the respondents were 'satisfied' with the process. The theory of needs focusses on the needs of people to live well, but in practice, it deals with what a person does to satisfy his or her needs. Motivation is found in people who have not reached a certain level of satisfaction in their lives. Needs that have been satisfied will no longer be a motivator.<sup>26</sup>

Nurse education level was related to the quality of nursing care documentation. Education is related to the level of logical, critical and systematic thinking. Learning theory and practice obtained while studying will become the main provision of nurses to do the job. A good level of education and work skills will improve performance.<sup>27</sup>

Nurse education in the current study was dominated by those having done the Nursing Academy level. One's education will be able to increase intellectual maturity so that they may take decisions in action.<sup>28</sup> Education is one of the basic human needs needed for self-development<sup>27</sup>. The higher the level of education, the easier it is for them to receive and develop knowledge and technology.

The theory conveys that someone who has a higher formal education usually has a better level of job understanding. Another opinion that strengthens understanding states that one of the situational factors that influence behaviour is social factors in which intelligence is obtained through education.<sup>26</sup>

The current results showed that knowledge was related to the quality of nursing documentation. Knowledge is needed as support in growing self-confidence as well as attitudes and daily behaviour. Knowledge is an important part of shaping one's behaviour process.<sup>29</sup> The current findings showed that the correlation coefficient was positive, which means that the better the level of knowledge of the nurses, the better was the quality of

nursing documentation. This is supported by a theory which stated that knowledge or cognitive ability is a very important domain in shaping one's actions or behaviour.<sup>26</sup> The wider the insight or knowledge, the better is the behaviour formed.<sup>30</sup> The current study still found a small number of respondents with less knowledge, indicating that it is still necessary to review coaching and education to increase knowledge about nursing care standards, especially regarding nursing care documentation, which is expected to produce a positive attitude as a basis for carrying out nursing care documentation properly and can also increase nurses' understanding of correct nursing care documentation.

The current study showed that motivation was significantly related to the quality of nursing documentation; the stronger the motivation, the better was the quality of nursing documentation. Motivation is the energy that drives a person to carry out work tasks to achieve predetermined tasks, and the work motivation of nurses has an impact on their performance<sup>26</sup>. The current findings are in line with earlier research explaining that motivation and employees' performance will increase simultaneously.<sup>31</sup>

The current study showed that the majority of nurses had strong motivation, followed by those with good documentation of nursing care. This is because motivation is a human psychological characteristic that contributes to a person's level of commitment. Motivation is a feeling or thought that drives someone to do work or exercise power, especially in behaviour. Good motivation will lead to encouragement or enthusiasm for work or, in other words, in driving morale, and is strongly influenced by the system of needs.<sup>26</sup> A study<sup>32</sup> showed that good motivation can improve the ability of nurses in carrying out good and complete documentation of nursing care. In other words, job motivation will improve, and so will nursing performance.<sup>31</sup>

The current study has its limitations. The sample size was not calculated which could have influenced the power of the study. Besides, the process of observing the quality of nursing care documentation was obtained from documenting patients managed by each nurse in the room unit and only followed by one activity. As such, the study only describes the quality of documentation of each nurse in general.

## Conclusion

The individual factors, like higher education, good knowledge, and high motivation level, were found to have a significant relationship with the quality of nursing care documentation.

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