The Implementation of Theory of Planned Behavior in Identifying Behavioral Models of Nursing Documentation in "X" Hospital

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Abstract

Documentation is one of the most important responsibilities of healthcare providers, including nurses. The behavior of documenting nursing care can be influenced by several factors. The objective of this study was to identify nursing care documentation behavior based on the Theory of Planned Behavior (TPB) in "X " Hospital.

This study used an explanative survey with a cross-sectional approach, at four wards of "X" Hospital. The sample was recruited using the proportional random sampling technique, consisting of 50 respondents, taken according to the inclusion criteria. Research variables were: background factors (age, sex, education, and knowledge), attitude, subjective norm, perceived behavioral control (PBC), intentions, and nursing documentation behavior. Data were collected using a structured questionnaire and observation sheet, they were analyzed using partial least squares (PLS).

The results showed that 1) attitude, subjective norm, and PBC were affected by background factors (knowledge), 2) intention was affected by PBC and attitude 3) nursing documentation behaviors were affected by the intention and PBC. The development of behavioral models of nursing documentation that originally only emphasized routine activity, attitude, and intentions.

So, in general, the development of the nursing documentation behavior model refers to the TPB.

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Introduction

Nursing documentation is an important element in nursing action because the official documentation contains all records of information about the patient, both from the results of the examination, action, and care to the treatment given to patients. Nursing documentation according to standards is still one of the problems in the nursing profession[1]. Some problems that are still found in nursing documentation are low quality, completeness, and timeliness, which have an impact on reducing the effectiveness of the documentation [2].

One of these problems was found in the inpatient room at a hospital in East Java. The results of research conducted at X Hospital East Java through the observation of nursing care documents on medical records showed that the documentary action taken was still lacking. This is indicated by the incomplete documentation, especially in the section on assessment, diagnosis, intervention, and evaluation.

The factors of knowledge and motivation of nurses on the implementation of the nursing care documentation are one of the causes which the application of documentation was not perfectly done. The Nursing Unit Manager (NUM) of medical ward in "X" Hospital, in an interview conducted at the same time, said that the documentation so far has not been carried out optimally. As many as 78.6% (11 out of 14 people) nurse administrators only filled out the implementation sheet with the assumption that

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the important documentation is to report what has been done. NUM of the medical ward (Melati Room) also said that until now there had been no effort to develop nurse behavior in documenting nursing care. So it is necessary to develop nurse behavior at "X" Hospital based on the theory of planned behavior (TPB).

The application of documenting nursing care is a problem commonly experienced by hospitals in Indonesia. According to Noorkasiani et al. (2015), it was found that the average completeness of nursing documentation at X Hospital in Jakarta was 57.2% (the standard set by the Indonesian Ministry of Health was 80-100%). In X Hospital in Yogyakarta, it was reported that documentation of complete nursing care was 77.5%[4]. The documentation of nursing activities at the Semarang Hospital is still below standard (80%)[5]. According to [6], the behavior of documenting nursing care at Dr. Soetomo Hospital Surabaya was obtained by both 45% and less than 55%.

Many factors cause the application of nursing care documentation to be not optimal. The lack of standards of nursing care means nurses often find it difficult to make nursing diagnoses and plans of care [7]. It was also conveyed related to inadequate supervision, various levels of nursing competence and low self-confidence and motivation from nurses, insufficient time, non-standardized documentation sheets, and insufficient staff [8,9]. More than 50% of ineffective nurse communication occurs due to failure to transfer information and the low quality of documented information [10].

Poor documentation can have an impact on poor patient safety [11]. Neglect of documenting nursing care systematically compromises the quality of care and patient safety [12], decreased quality and completeness of hospital records [13], and directly has a negative impact on patient care (e.g. patient safety), professional accountability and organization [2,4]. Based on preliminary data, it was found that the behavior of nurses in documenting was still not optimal, which was shown by documenting nursing care in the under 48% category, while the complete category was only 52% (80-100% of the Indonesian Ministry of Health Standard).

Documentation is important to provide quality and safe nursing care to patients. Furthermore, nursing documentation also serves as an indicator of service quality, evidence of responsibility and accountability of nurses, and a database for evidence-based research or policy making purposes [2,14]. However, the implementation of documentation is still not running optimally. Several factors cause nursing documentation to be not implemented following the standards, namely: the lack of nursing care standards so that nurses often find it difficult to make nursing diagnoses and care plans. [7]. In addition, it also found to be related inadequate supervision, various levels of nursing competence and low self-confidence, intention, and motivation from nurses, insufficient time, non-standardized documentation sheets, and insufficient staff. [8,9].

Nurses are health workers who have the longest time interacting with patients compared to other workers in the hospital. For 24 hours a day, the nurse is always at the patient's side. The nursing profession is required to provide quality nursing services, have a strong foundation of knowledge and skills, accompanied by professional attitudes and behavior, and adhere to nursing ethics [15]. To develop nurse behavior in documenting nursing care, it can be identified by using TPB.

In TPB, the behavior displayed by individuals arises because of the intention/intention to behave. Theory of planned behavior was originated by social psychologist Icek Ajzen and this theory provides unique insights into practical behavior and contextual commentary that examines the intentionality behind the behavior [16]. TPB attempts to provide a framework and outline for how belief attitudes, subjective norms, behavioral control, and intentions can lead to behavior[17–19].

Based on TPB, the behavior displayed by individuals arises because of the intention/intention to behave[20]. Other variables that influence intentions apart from several main factors (attitudes, subjective norms, and perceived behavioral control), are namely variables that influence or relate to beliefs and are known as background factors. Some of these variables can be grouped into three groups, namely personal, social, and information categories. Based on this, the authors are interested in researching the development of nurse behavior in documenting nursing care based on the theory of planned behavior. This research will identify background factors, which

include social categories (age, gender, education) and information (knowledge), as well as several main factors (attitudes, subjective norms, and perceived behavioral control), intention, and behavior of nursing care documentation.

Materials and methods

This study used an explanation survey design with a cross-sectional approach to explain the correlation among variables.

The population in this study was the Inpatient Room unit of "X" hospital in East Java, Indonesia which included: Melati Room, Mawar Room, Dahlia Room, and Bougenvil Room, with a population of 53 assistant nurses. The sample in this study was the X Hospital inpatient room with the respondent nurses who served in those inpatient rooms. In selecting the research sample, the researcher determined the following sample inclusion criteria (sample characteristics of a population that can be included or worthy of research) as a nurse who was on duty at the time the research was carried out. With a sample size of 50 nurses. The study also used the medical records to measure the dependent variable.

The independent variables are age, gender, education, knowledge, attitude toward behavior, subjective norms, perception of behavioral control, and intention. The dependent variable is nursing documentation behavior which consists of assessment, nursing diagnosis, planning, implementation, evaluation, and nursing documentation.

This study used two types of instruments. The independent variables are measured using a questionnaire, while the dependent variables are measured using an observation sheet. All the instruments were prepared by the researcher and have been tested for validity and reliability and have been declared valid and reliable. The questions item for the instruments have been selected using elicitation procedure to filter the main beliefs related to variables. The validity and reliability test was carried out by distributing questionnaires to several participants who were not the subjects of this study. A trial was carried out on 16 respondents in the Flamboyan and Nusa Indah Room, "X" on the ward where the room was in one area in "X" hospital and had the same nurse characteristics as the research respondents. Respondents in this questionnaire trial did not include research respondents.

Data collection and retrieval procedures carried out in this study were administration and data collection, which consist of instrument item preparation (elicitation test), instrument test, and data collection.

Data analysis was conducted by the researchers. The data were explained as the descriptive and analytic method, which consist of univariate analysis, bivariate analysis, and partial least squares (PLS).

Ethics approval for the research was obtained from the Universitas Airlangga Ethics Committee (KEPK Universitas Airlangga).

Results

The study results consisted of demographic data or background factors (age, gender, education, knowledge), followed by attitudes toward behavior, subjective norms, and behavioral control perceptions. From those, a correlation test was conducted to analyze which was then followed by nursing documentation behavior.

Background Factor	Number of Nurses	
	Frequency (f)	%
Age		
21-30 years	21	42
31-40 years	27	54
41-50 years	2	4
Total	50	100
Gender		
Male	19	38
Female	31	62
Total	50	100
Education		
Nursing academy	43	86
Bachelor	7	14
Total	50	100
Knowledge		
Less	41	82
Enough	8	16
Good	1	2
Total	50	100

Table 1. Background factors.

Table 1 informs that the age, gender, education, and knowledge of nurses shows that the age of 31-40 years, male gender, and Academy Nursing education dominate the characteristics of the respondents. Knowledge of nursing care documentation is dominated by insufficient knowledge (82%).

	Intention						Total	
	Less		Moderate		Good			
	f	%	f	%	f	%	n	%
Attitude Toward Behavior								
Negative	1	2	18	36	7	14	26	52
Positive	1	2	6	12	17	34	24	48
Total	2	4	24	48	24	48	50	100
t-Statistic = 2.807; *Path coef* = 0.275								
Subjective Norms								
Less	0	0	0	0	1	2	1	2
Moderate	2	4	23	46	15	30	40	80
Good	0	0	1	2	8	16	9	18
Total	2	4	24	48	24	48	50	100
t-Statistic = 1.597; *Path coef* = 0.528								
Perceived Behavioral Control (PBC)								
Moderate	2	4	24	48	19	38	45	90
Good	0	0	0	0	5	10	5	10
Total	2	4	24	48	24	48	50	100
t-Statistic = 2.936; *Path coef* = 0.180								

Table 2. Cross-tabulation of attitudes towards behavior, subjective norms, perceptions of behavioral control with the intention of nursing documentation behavior.

Table 2 shows that the majority of respondents have attitudes toward negative behavior (52 %) moderate subjective norms (80%), perception of lack of behavioral control (57%), good and enough intentions (48%). Partial least squares analysis test results obtained significant results between attitudes toward behavior with intention (t-Statistic = 2.807, *Path coefficient* = 0.275). The results of the subjective norm analysis test with intention show no significant results (t-Statistik = 1.597, *Path coefficient* = 0.528), while perceived behavioral control shows a significant relationship with intention (t-Statistic = 2.936; *Path coefficient* = 0.180).

	Documentation Behavior						Total	
	Less		Enough		Good			
	f	%	f	%	f	%	n	%
Intention								
Less	1	2	1	2	0	0	2	4
Enough	9	18	15	30	0	0	24	48
Good	5	10	7	14	12	24	24	48
Total	15	30	23	46	12	24	50	100
t-Statistic = 4.113; *Path coef* = 0.322								

Table 3. Cross-tabulation of intention and behavior of nurse in documentation behavior based on the TPB

Table 3 shows that the behavior of nurses in documenting nursing care is dominated by moderate criteria (46%). The intention in documenting nursing care is proven to have a significant effect on the behavior of nursing care documentation. The results of the partial least squares statistical test analysis prove that the path coefficient of the relationship is 0.322 with a p-value of 4.113 (<0,05) so that it is interpreted as significant.

Discussion

The results of the study informed that the attitude of nurses in documenting nursing care had a significant effect on the intention of nursing documentation. Good intentions tend to be influenced by the positive attitudes of nurses.

Attitude is the degree of positive or negative feelings toward an object. (favorable) or negative (unfavorable) against an object, person, institution, or activity [21]. Theory of planned behavior states that a person's attitude toward a behavior is based on one's belief in the consequences (outcome) that will be generated if the behavior is carried out (outcome evaluation) and belief strength [21].

Attitude is considered as the first antecedent of behavioral intention. Attitude is a positive or negative belief to display a certain behavior, in this case, the behavior of documenting nursing care. An individual will intend to display a certain behavior when they evaluate it positively. This will also be done by nurses who will intend (have good intentions) to display nursing care documentation behavior when they assess nursing care documentation positively.

The test results show that the relationship coefficient is positive, which indicates that the more positive the respondent's attitude, the better the nurse's intention in documenting nursing care. Based on data, negative attitudes dominate the attitudes of respondents, one of which is in the form of nurses' perceptions that documenting nursing care is one of the duties of nurses that increases workload, requires a lot of time, and takes up a lot of forms.

A negative attitude can produce an intention to display negative documentation behavior, so that here it is necessary to make improvements to increase a positive attitude, using review, coaching, and education to increase knowledge about nursing care standards, especially regarding nursing care documentation, which is expected to increase a positive attitude, which, in turn, will also increase the level of intention toward behavior.

The results of the study informed that the subjective norms of nurses in documenting nursing care did not have a significant effect on the intention in documenting nursing care. However, the results also show that the subjective norms both tend to show moderate and good intentions of the nurses, none of which show less intention (positive path relationship)

Theory of planned behavior states that, in addition to attitudes toward behavior, subjective norms are also one of the factors that contribute to increasing intention to behave [20]. Subjective norms according to Ajzen (2005) are individual beliefs or perceptions of the perceptions and expectations of others that are considered important to individuals (significant others) regarding approval of an action or behavior (normative beliefs) and individual motivation to meet these expectations (motivation to comply) [22]. In general, individuals tend to have attitudes or beliefs that are conformist or in the same direction as those they consider important. This tendency, among others, is motivated by the desire to avoid conflict with the person who is considered important.

In this study, people or groups who were quite influential (referent) on nurses in documenting nursing care were the nursing committee, the head of the room, the head of the nursing department, the head of the inpatient installation, colleagues, and other health teams. So, if the nurse believes that the referent will support the nurse in documenting nursing care, then this will be a social pressure for the nurse to do so. Conversely, if a person believes that other people who influence them do not support the behavior, then this causes them to have a tendency not to do it.

The results showed that most of the respondents' subjective norms were at a moderate level and, based on the results of statistical test analysis, it was found that the subjective norms of nurses in documenting nursing care did not have a significant effect on the intention in documenting nursing care. Some of the factors predicted to be the cause of moderate respondents' subjective norms that have an impact on intention are the strength/power of referrals to nurses in providing rewards and punishments are still minimal, and there is no strong power in making requests to nurses, and no optimal evaluation, monitoring and follow-up from referents. So that. from here.

the executive nurse feels that they do not get appropriate examples, input, and expectations from influential figures, namely from the Nursing Committee, the Head of the Nursing Division, and the Head of the Room. This is possible because nurses only have the confidence to do normative behavior (that is expected and done by others, namely colleagues) so that it has less influence on intentions.

Based on the result, there is a need for improvements that are expected to increase subjective norms which, in turn, will increase the intention. Improvements can be in the form of affirming rewards and punishments, re-encouraging supervision, evaluation, and monitoring as well as follow-up actions that are expected to increase the power of referents in making requests to nurses.

The results of the study informed that nurses' perceived behavioral control in documenting nursing care had a significant effect on their intention in documenting nursing care. Moderate intention tends to be influenced by moderate perceived behavioral control.

Most of the respondents have a poor perception of behavior control. Based on the theory of planned behavior, perceptions of behavior control are generally influenced by individual beliefs about the presence or absence of factors that hinder or support the formation of behavior (control belief) and the individual's ability to play the existing resources in controlling the inhibiting factors or supporting factors (perceived power control) for the formation of behavior [23].

The better the individual manages the resources and opportunities that exist, and the fewer obstacles and hurdles that are anticipated, the better one's perception of behavior control is. Perceived behavioral control is assumed to have a motivational influence on intention. Individuals who believe that they do not have the opportunity to behave, will not have strong intentions, even though they are positive, and are supported by referents (the people around them) [23].

The test results show the coefficient of the relationship is positive, which indicates that the more positive the respondent's perceived behavioral control is, the better the nurse's intention in documenting nursing care. In the research, it was found that good intentions were 100% produced by good perceived behavioral control. This is predicted because perceived

behavioral control is assumed to have a motivational influence on intention and there are also no conditions that cause perceived behavioral control to be unrealistic in the research place.

In the study, it was found that the perception of nurses to agree on the conditions that encourage nurses in documenting nursing care was dominated by the awareness of the importance of ethical legal evidence, the availability of infrastructure, and the need for communication with other teams. However, it was also found that the perception of nurses disagreed about the dominant conditions that encouraged nurses in documenting nursing care, namely, workload and time factors. Thus improve perceived behavior control so that it will ultimately increase intention and behavior in documenting nursing care, it is important in resolving inhibiting factors such as workload factors and nursing care formats that are not yet available in the patient's status, and many components that must be filled in need to be evaluated and resolved.

The results showed that the intention of nurses in documenting nursing care had a significant influence on nurses' behavior in documenting nursing care. The behavior of documenting good nursing care is influenced by good intentions. The current behavior of documenting nursing care tends to also be influenced by moderate intentions.

Behavioral intention factors are the core of planned behavior, but not only two determinants of intention (attitudes toward nursing care documentation behavior and subjective norms), but three with the inclusion of perceived behavioral control aspects. These three determinant factors contribute to increasing the intention to behave. The higher the value possessed by each determinant of the factor, the higher one's intention to behave [24]. In this case, these three components interact and become a determinant of intention, which, in turn, will determine whether the behavior in question, in this case, the behavior of documenting nursing care, will be carried out or not. Behavioral intention is still a desire or plan. In this case, the intention is not yet a behavior, while the behavior is real action taken. The intention is an indication of how strongly a person believes a behavior will be, and how much effort will be used to perform a behavior [25].

The intention is also a determining factor as to whether the behavior concerned, in this case, the behavior of documenting nursing care, will be carried out or not. This is following the results of research which showed that the intention of nurses in documenting nursing care had a significant influence on nurses' behavior in documenting nursing care. This influence can be predicted by the intention as a motivational factor that determines a person to document nursing care and indicates how strong a person's belief is to implement behavior, and how much effort will be used to perform the behavior.

The results of the research still showed good intentions, but the documentation behavior was moderate or lacking (10%). Intentions strongly agree and agree high on the components of the nursing diagnosis, followed by the implementation of nursing. In the documenting behavior, it was found that good conditions were dominant in the components of nursing diagnosis and assessment, while, for implementation, the good proportion was minimal. It was found that nurses' implementation tended to only write down answers from doctors' advice. This is due to the lack of reward and factors from the surrounding environment that make nurses feel that, initially, their intentions are good, finally, they just go with the flow of "documenting nursing care as long as it is done, which is important that it is not empty", and also the principle in nurses that "nursing care is easy, which is important. The patient is open and comfortable "and there are no complaints from other health teams. Apart from the above factors, it is also caused by the lack of supervision from the leadership, evaluation and monitoring, follow-up of the implementation of nursing care documentation, and unclear sanctions if there are nurses who do not document nursing care. Another factor that affects is that there is no common perception in nursing care documentation and many sheets must be filled in apart from a special format for nursing care records.

A good intention to keep producing good documentation behavior can be improved by disseminating SOPs and documentation technical instructions, re-evaluating the implementation of nursing care documentation every six months, followed by follow-up. And re-promoting the supervision carried out by both the head of the room and the head of the nursing

department.

Conclusions

TPB theory shows good results in determining the factors that influence nurses in providing good documentation behavior. The development of nursing care documentation behavior is formed by good knowledge, has an impact on the improvement of perceived behavioral control and attitudes, followed by the formation of nurse intentions. Nurses who show positive behavior in documenting nursing care begin with a strong intention formed from attitudinal factors and perceived behavioral control. Further research is expected to learn more with modification of the background factor component with Gibson's theory and/or Kopelman's theory of performance. Besides, observation in documenting behavior is done not only once, but can be followed-up several times in documenting nursing care.

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Declaration of Interest

No potential conflict of interest relevant to this article was reported.

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