PENGEMBANGAN INSTRUMEN DIAGNOSIS & INTERVENSI KEPERAWATAN BERBASIS *STANDARDIZED NURSING LANGUAGE* (NANDA-I, NOC, NIC)

(Development of Nursing Diagnosis & Intervention Instrument Based on Standardized Nursing Language (Nanda-I, NOC,NIC))

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ABSTRAK

Pendahuluan: Dokumentasi keperawatan yang sesuai standar bahasa keperawatan (*Standarized Nursing Language*), masih merupakan masalah di dalam profesi perawat, khususnya keseragaman dalam penggunan bahasa diagnosa dan intervensi keperawatan. Dibutuhkan suatu instrumen untuk bisa menghasilkan dokumentasi diagnosis dan intervensi yang baik. Tujuan dari penelitian adalah meyusun pengembangan instrument diagnosis dan intervensi keperawatan berbasis *Standardized Nursing Language* (NANDA-I, NOC, NIC). **Metode:** Desain penelitian ini adalah *action reserach* dilaksanakan dalam 2 tahap. Populasi tahap 1 adalah 16 partisipan dan 9 sampel. Partisipan dan sampel dipilih dengan tehnik *purposive sampling* dengan partisipan sebanyak 15 dan sampel 7. Populasi tahap 2 adalah 13 partisipan dan 8 sampel. Partisipan dan sampel dipilih dengan tehnik tehnik *purposive sampling* dengan partisipan sebanyak 13 dan sampel 8. Analisa data menggunakan analisis deskriptif, analisis statistik *Product Moment Pearson Correlation* untuk uji validitas dan *cronbach alpha* untuk uji reliabilitas**. Hasil:** Pengembangan instrumen diagnosis dan intervensi keperawatan yang disusun berdasarkan hasil kegiatan FGD dinyatakan valid dan reliable. **Diskusi**: Setiap Rumah Sakit diharapkan selalu rutin dalam mengevaluasi instrumen diagnosis dan intervensi keperawatan yang sesuai standar dan kebijakan yang berlaku agar tercipta dokumentasi keperawatan yang berkualitas

Kata Kunci: Standarized Nursing Language, NANDA-International, Nursing Outcomes Classification, Nursing Interventions Classification

ABSTRACT

Introduction: Nursing documentation appropriate standards of nursing language (Standarized Nursing Language), was still a problem in the nursing profession, especially uniformity in using nursing diagnoses and interventions language. Instrument were needed to produce a good quality of nursing diagnosis and intervention's documentation. The purpose of the research was to develop nursing diagnosis and interventions instrument based on the Standardized Nursing Language (NANDA-I, NOC, NIC). **Methods:** This study was action reserach carried out in 2 phases. The population of phase 1 were 16 participants and 9 samples. Participants and samples selected by purposive sampling techniques with participants were 15 and samples were 7. The population of phase 2 was 13 participants and 8 samples. Participants and samples selected by purposive sampling technique with participants were 13 and samples were 8. Analyze data using descriptive analysis, statistical analysis using Pearson Product Moment Correlation for validity test and Cronbach alpha for reliability test. **Results:** Development of nursing diagnostic and interventions instruments, that was formulated based on Focus Group Discussion, declared valid and reliable. **Discussion:** Each hospital was expected to always routinely evaluate the nursing diagnosis and interventions instrument as a standard and policies in order to create a quality nursing documentation

Keywords: Nursing Diagnosis, Nursing Intervention, Standardized Nursing Language, NANDA-International, Nursing Outcomes Classification, Nursing Interventions Classification

INTRODUCTION

Documentation appropriate with standards nursing language was still a problem in the nursing profession, especially uniformity in using nursing diagnoses and nursing interventions language. In order to produce a good nursing documentation, need to be supported with good quality of nursing instrument . The phenomena that often occurs is nursing documentation instrument especially nursing diagnoses and nursing interventions instrument is still not in accordance with the rules of Standardized Nursing Language (NANDA-I, NOC, NIC) one of which occurred in Amelia Pare Hospital.

The use of the language contained in the nursing diagnosis instrument in RS Amelia Pare were less appropriate to the use of language in NANDA-I (North America Nursing Diagnoses Association- International), writing outcomes and action plans on nursing interventions instrument was already there, but it was still not fully describe all activities performed by nurses in planning actions. It was also necessary that an instrument need to be

standardized in common nursing language usage among nurses with nurse one another so as to create a good communication process which was reflected from the nursing documentation process contained in RS Amelia Pare.

Data collection on the nursing documentations in Teratai room RS Amelia Pare conducted by researchers at the date of October 4, 2015 by interview and observation. The NUM of Teratai Room said that actualliy nurses knew that their task after implementation was documented, but only certain things such as TTV, injection drug delivery, and other routine activities that documented in nursing instrument. Resut of interviews with four from the 13 nurses (30%), that the four nurses said that they had not much time to write in the instrument that has been provided for the number of actions that must be done to the patient instead of writing on the existing format/instrument. Documentation that has not been completed by a nurse is a diagnosis and intervention, nursing implementation, and evaluation. The results of observations conducted by researchers of the diagnosis and intervention instruments that contained a check list format that facilitates nurses in selecting appropriate nursing diagnoses. But there are not appropriate with NANDA-I nuring diagnoses. One sheet format consists of a variety of purposes and no nursing outcomes and the action plans mixed together with one another diagnosis that made care plan was less specific and less complete.

Nursing documentation seized almost 50% of his time nurse per shift (Gugerty et al, 2007). Most nurses in the clinical order, did not do a complete documentation. The reason why nurses did not do nursing documentation was most nurses prefer to spend their time to perform actions on the patient and not documenting it. Factors of employment, training and workload according to Siswanto, MH., Hariyati, TS., (2013) was a factor that can affect the completeness of the documentation of nursing. Work environment, high workload, and the difficulty of charging time format documentation contributes to lack of quality of nursing documentation (Okaisu, E.M., Kalikwani, F., Wanyana, G. & Coetzee 2014)

The concept of the solutions developed in this research was to develop nursing diagnoses and interventions instruments based on the Standardized Nursing Language (SNL) in a format in the form of check list (√) in patients with cases Diabletes Mellitus in order to facilitated nurses in filling nursingdiagnoses

and interventions instrument and efficiency time of nursing care. Nursing diagnosis instrument was made according to the NANDA-I (North America Nursing Diagnoses Association- International), and for nursing interventions, nursing outcome according to the NOC (Nursing Outcomes Classification), and the selection of action plans according to the NIC (Nursing Interventions Classification). The benefits of the use of standardized languages was to improve communication between nurses and other health care providers and patients, increase the visibility of nursing interventions, and improving data collection to evaluate the results of nursing care (Rutherford 2008) The strategy was increased knowledge and skills of nurses through socialization and training, as well as the practice of charging instrument nursing documentation in accordance stadardized nursing language.

Development of nursing diagnosis and intervention instrument based on Standardized Nursing Language (NANDA-I, NOC, NIC) was expected to improve the quality of nursing diagnosis and interventions. Based on the description that had been described previously so it need to be develop nursing diagnosis and intervention instrument based on Standarized Nursing Language (NANDA-I, NOC, NIC).

MATERIALS AND METHODS

Design research was action research conducted in two phases. The first phase was the preparation of nursing diagnosis and intervention instrument so that the instrument developed valid and reliable, supported by statistical analysis using Pearson Product Moment Correlation test to determined the validity and Cronbach alpha test to determined the reliability and descriptive analysis. Phase two was the process of socialization and training in the used of instruments so that the nurses were able to use the nursing diagnosis and interventions instrument based on Standardized Nursing Language (NANDA-I, NOC, NIC). Descriptive analysis was used to determined the frequency distribution of each sub-category variable.

The population of the first phase of activities FGD consists of a field of nursing, nursing committee, NUM and the nurses. Participants in the focus group were selected based on purposive sampling technique. Participants in the FGD amounted to 15. The population of the first phase to test the validity and reliability is a nurse and the selection of

the sample using purposive sampling technique gained 7 nurses. The population of the second phase that used to evaluate the capability of nurses in the charging nursing diagnoses and intervention instrument based on Standardized Nursing Language (NANDA-I, NOC, NIC) was a nurses at Teratai Room and the selection of the sample using purposive sampling technique gained 8 nurses. The population of the second phase for FGD activities consist of nursing, nursing committee, NUM and the nurse at Teratai Room. Participants in the focus group were selected based on purposive sampling technique. Participants in the FGD amounted to 13 participant.

Variables in this research was the development of nursing diagnosis and intervention instruments based on Standardized Nursing Language (NANDA-I, NOC, NIC). Phase 1 consisted of standard nursing diagnostic evaluation and assessment of nursing interventions used in hospital Amelia, drafting nursing diagnosis and intervention instrument through FGD (Focus Group Discussion), to test the validity and reliability of the instrument diagnosis and nursing interventions. Phase 2 consisted of filling training instruments based nursing diagnosis and intervention Standardized Nursing Language (NANDA-I, NOC, NIC), the evaluation of the ability of the nurse in charge of instruments and recommendations resulting from the study.

Data processing at one phase consists of a descriptive analysis of the results of the evaluation standards for diagnosis and assessment of nursing interventions used in hospital diagnosis Amelia and drafting instruments and nursing interventions through FGD (Focus Group Discussion). Inferential analysis was carried out to test the validity with Pearson Product Moment Correlation test to determine the validity and Cronbach alpha test to determine the reliability of the provisions of the table r 0.754 (by 7 respondents). The data processing phase 2 is done with descriptive analysis to determine the frequency distribution of each sub-category variable.

RESULTS

Results & Analysis Research phase 1

Characteristics of 15 participants FGD is almost part of the participants (33%) were aged> 40 years, the entire pastisipan (100%)

were women, almost half of the participants (46%) working time> 15 years, most of the last education is D3 of Nursing, and all participants (100%) is a permanent employee. This shows that the FGD participants is included in the category of productive age, with work experience long enough so that it can give an idea of the needs of the instrument nursing documentation in accordance with the conditions in each room.

Seven characteristics of the respondents, almost half of respondents (42%) aged > 31-35 years, all respondents (100%) were women, almost half of respondents (42%) work between 5-10 years old, most of the last education is D3 of Nursing, and all respondents (100%) is a permanent employee. It showed that the respondents to the category of productive age, work experience long enough at more than 5 years can be used as a benchmark of the validity and reliability of the instrument. The evaluation results of observation nursing diagnosis and interventions instrument used in the Teratai Room Amelia Pare Hospital were judged by the standards of nursing care was quite appropriate nursing diagnoses and nursing intervention instruments appropriate nursing interventions pretty standard.

Recommendations from FGD about the structure of the nursing diagnosis and nursing interventions instrument based on standardized nursing language that was be applied at Teratai Room that participants agree with the arrangement of the instruments presented by researchers was the formulation of nursing diagnoses according NANDA International with selection check list according to the standard formulation of nursing diagnosis is composed of problem, etiology, symptomp for actual and problem diagnosis, etiology for the diagnosis of risk with check list format. Nursing intervention instruments used in accordance with the NOC (Nursing Outcomes Classification) and NIC (Nursing Intervention Classification) with a check list format. Results validity and reliability of the nursing diagnosis and interventions based standardized nursing language (NANDA-I, NOC, NIC) as follows:

Table 1. The validity of the nursing diagnoses Instrument

No	Nursing Diagnosis	R hitung Uji corellation *pearson's product moment*	R table (N=7)	Conclution
1	Soal no 1	r : 0,767	0,754	Valid
2	Soal no 2	r : 0,910	0,754	Valid
3	Soal no 3	r : 0,910	0,754	Valid
	Rata-rata r hitung	r : 0,862	0,754	Valid

Table 1 shows that the validity of the Test results with SPSS to test Pearson's product moment correlation by 7 respondents, with r table was 0.754. All the items about the nursing diagnosis instruments that tested by Pearson's product moment correlation with r count> r table so that the item is declared

Tabel 2. The validity of nursing interventions instrument

No	Intervensi keperawatan	R hitung Uji korelasi *pearson's product moment*	R tabel (N=7)	Kesimpulan
1	Soal no 1	r : 0,959	0,754	Valid
2	Soal no 2	r : 0,767	0,754	Valid
3	Soal no 3	r : 0,959	0,754	Valid
4	Soal no 4	r : 0,959	0,754	Valid
	Rata-rata r hitung	r : 0,911	0,754	Valid

Tabel 3. The reliability of nursing diagnoses and interventions instrument

No	Instrumen	Hasil Uji *cronbach alpha*	R tabel (N=7)	Kesimpulan
1	Nursing diagnoses	α : 0,862	0,754	Reliabel
2	Nursing interventions	α : 0,875	0,754	Reliabel

Results and Analysis Research phase 2

8 Characteristics of the respondents, the majority of nurses (50%) were aged 26-30 years, mostly female (62%), the majority of nurses (50%) had a working time of 1-5 years, all respondents (100%) last education is D3 nursing, and all respondents are permanent employees (100%). It shows that age is still relatively young, with the last D3 nursing education is expected to receive a new science properly so as to apply the instrument developed by researchers well.

Characteristics of participants FGD stage 2 that almost half of the participants (33%) were aged> 40 years, the entire pastisipan (100%) were women, almost half of the participants (46%) working time> 15 years, most of the last education is D3 of Nursing, and the whole participants (100%) is a permanent employee. This shows that the FGD participants is included in the category of productive age, with long work experience.

Socialization and training of the charging instrument-based nursing documentation Standardized Nursing Language (NANDA-I, NOC, NIC) in the RS Teratai Amelia Pare held on 13 April 2016 in two phases with a total participant 47. Broadly speaking, the participants were able to accept material submitted by researchers. Training is conducted by nurses in hospitals Lotus Lounge Amelia's practice of charging instruments based nursing diagnosis and intervention Standardized Nursing Language (NANDA-I, NOC, NIC). The instrument has been developed for patients with a medical diagnosis of Diabetes Mellitus, so the nurse assigned to document nursing care in patients with Diabetes Mellitus. One nurse in charge of documenting a patient with Diabetes Mellitus in which the documentation is completed in a single shift. This process takes place from the date of 14 April-29 April, 2016
The instrument has been developed for patients with a medical diagnosis of Diabetes Mellitus, so the nurse assigned to document nursing care

in patients with Diabetes Mellitus. One nurse in charge of The results of the evaluation of the ability of nurses in the application of nursing diagnoses and interventions instruments based on Standardized Nursing Language (NANDA-I, NOC, NIC) Show that the ability of respondents in filling nursing diagnosis instrument as a whole (100%) was good, the ability of respondents in filling nursing intervention instrument majority (75%) is good. The Evaluation of the ability of nurses in the application of nursing diagnoses and interventions instruments based on Standardized Nursing Language (NANDA-I, NOC, NIC) at the Teratai Room shows that the ability of respondents in filling nursing intervention instrument majority (75%) is good.

Recommendations FGD phase 2, is necessary to record a list of nursing diagnoses in patients with Diabetes Mellitus to assist in a language that has been standardized, the formulation of nursing interventions in accordance with the NOC and NIC, where the target score outcome can be modified with lists the normal standard of the best conditions of the patient and also for the interventions activity need to be made in full either act independently or collaborative actions, should be evaluated on a regular basis regarding the use of language standards of nursing and nursing interventions in accordance with the standards applicable at any given moment.

Results of research findings to shape the development of the nursing diagnosis instrument based on the research that nursing diagnoses associated with causal factors for actual nursing diagnosis and risk factors for the nursing diagnosis risk in accordance languages NANDA-International, nursing diagnoses were made in accordance with the authority of nurses.

Form of nursing interventions instrument that had been developed based on the research process, namely destinations care plan is only a target date for the achievement of goals and are the outcome of the desired target can be measured using a scale according to the NOC, the action plan drawn up to resolve the issue based on nursing diagnoses of patients, the action plan in the form of a sentence instruction, concise, easily understandable language firm with appropriate NIC.

DISCUSSION

Evaluation of The Implementation of Documentation Standards in Nursing Care in Teratai Room Amelia Hospital Pare Kediri

The result evaluation of observation nursing diagnoses and interventions instrument that used in Teratai Room Amelia Hospital Pare were judged by the standards of nursing care based on Departement of Health standard. The result show that nursing diagnosis is quite appropriate standard because nursing diagnosis is still not linked to the causes of the gap and meet the needs of patients. Nursing diagnoses has been created by a nurse under the authority of nurses, nursing diagnosis actual still using one statement diagnoses, should have at least 2 statements diagnoses to actual nursing diagnosis that is labeled as a problem and explain the factors related to the etiology. nursing interventions instrument quite match the standard because there are goals that are specific and measurable, but no time limit is realistic in the goals, action plan already exists but mixed into one coloumn between the plan and purpose of some nursing diagnoses so it is unclear boundary between the action plan one with an action plan on the other nursing diagnosis, plan of action in the form of sentences instructions, quick, firm with the language easily understandable.

Development Nursing Diagnoses and Interventions Instrument Based on Standardized Nursing Language (NANDA-I, NOC, NIC).

Recommendations from FGD about the structure of the nursing diagnosis and nursing interventions instrument based on standardized nursing language that will be applied at Teratai Room, that participants agree with the arrangement of the instruments presented by researchers is the formulation of nursing diagnoses according to the NANDA International with selection check list according to the standard formulation of nursing diagnosis is composed of problem, etiology, symptomp for actual and problem diagnosis, etiology for the diagnosis of risk with check list format. Nursing intervention instruments used in accordance with the NOC (Nursing Outcomes Classification) and NIC (Nursing Intervention Classification) with a check list format.

The composition of the format used in the study of nursing diagnosis is composed of

"nursing diagnoses" relates to "causes /related factors" is marked with "symptoms / defining characteristics". In the medical record has been based electronics, sometimes do not include the component "related factors" and "symptoms". However should need also to be noted that component in order to support the nursing diagnoses. Without such data it is impossible to verify the accuracy of the nursing diagnosis that affects the quality of nursing care (Herdman & Kamitsuru 2015). Planning is part of the organizing phase of the nursing process as a guide to direct the actions of nursing in an effort to help, relieve, solve problems or to meet the needs of clients (Setiadi 2012).

Researchers develop nursing diagnoses and interventions instrument based on Standardized Nursing Language (NANDA-I, NOC, NIC) based on the results of FGD and based on the theory described in the preceding paragraph. The instrument has been designed by researchers presented and offered to the participants. In accordance with the expectations of the nurses who want their diagnosis and nursing intervention instrument which is simple, easy to use, according to the theory and efficient.

Analysis of the validity and reliability

Table 1 shows the test results of Pearson Product Moment Correlation average value of r count validity of the instrument diagnosis 0, 862> 0.754, which means valid. Table 2 shows the Pearson Product Moment Correlation average value of r count validity intervention instruments 0, 911> 0.754, which means valid. Table 3 indicating the hasul IJI cronbach alphadengan count r diagnosis and interevsni instruments are 0.862 and 0.875> 0.754 declared reliable.

The principle of the preparation of the instrument according to Nusalam, (2013) that the validity and reliability. The principle is the validity of measurements and observations imply reliability principle instrument in collecting data. The instrument must be able to measure what should be measured.

Good instrument instrument is tested for validity and reliability. Therefore, in the drafting process is very important to pay attention to the content of the instrument is able to measure what should be measured, and the results of these measurements are able to provide accurate information. A total of 7 respondents employed researchers in measuring the validity and reliability of the instrument to deliver results that truly significant

Dissemination and Training of The Development of Nursing Diagnoses and Interventions Instruments Based on Standardized Nursing Language

Dissemination and training of the development of nursing diagnoses and interventions instruments based on Standardized Nursing Language (NANDA-I, NOC, NIC) in Amelia Hospital Pare went smoothly and was held on 13 April 2016 attended by 47 participants in two stages.

Training is preparation to improve the competence and skills of staff, promotion to leadership performance improvement (Danim 2008) Indicators training methods can be viewed below (Hasibuan 2005) interest or interest on the method used; 2) harmonization of training activities with the sustainability of activities on the ground; 3) facilities adequate practice space; 4) The timeliness with trainees.

Socialization activities carried out as many as two stages in order to facilitate nurses in Teratai Room, who was on duty in the morning shift. In ethics and responsibility, it is not possible to require all nurses to follow socialization Teratai Room at a time where the nurse had to leave the patient who is being treated in the room. The existence of such training is expected to increase the knowledge of nurses about the standard language and its application.

Evaluation of the ability and the opinion of nurses regarding application of nursing diagnoses and intervention based on Standardized Nursing Language (NANDA-I, NOC, NIC)

The ability of respondents in filling nursing diagnosis instrument as a whole (100%) was good, the ability of respondents in filling nursing intervention instrument majority (75%) is good. Evaluation should have clear objectives, in accordance with the objectives set in the program. (Potter, P 2011).

Basically the development of nursing diagnoses and interventions instrument is not new for nurses. Every day nurses are faced with the activity. Therefore, it is possible in spite of the new information on how to fill out the instrument documentation with a new format, is not a difficult thing to be applied. In

reality the respondents were able to fill up easily and smoothly instruments developed.

Recommendations

Recommendations FGD phase 2, to the Amelia Hospital is necessary to record a list of nursing diagnoses in patients with Diabetes Mellitus to assist in the preparation of Stadar Nursing with a language that has been standardized, the formulation of nursing interventions in accordance with the NOC and NIC, where the target score outcome can be modified with lists the normal standard of the best conditions of the patient and also for the manufacture activity interventions need to be made in full either act independently or collaborative actions, should be evaluated on a regular basis regarding the use of language standards of nursing and nursing interventions in accordance with the standards applicable at any given moment.

CONCLUSIONS & SUGGESTIONS

Conclusions

Recommendations outcomes of the Focus Group Discussion (FGD) in the development of instrument-based nursing documentation Standardized Nursing Language (NANDA-I, NOC, NIC) in the Lotus room Amelia Pare hospital in the form of a check list that nursing diagnosis instrument based on NANDA-International, intervention nursing by NOC and NIC. Instruments of diagnosis and intervention, based nursing Standardized Nursing Language (NANDA-I, NOC, NIC) are valid and reliable. Training charging instrument-based nursing documentation Standardized Nursing Language (NANDA-I, NOC, NIC) in RS Amelia Pare went smoothly and was held on 13 April 2016 attended by 47 participants in 2 stages. Application of instrument-based nursing diagnosis and intervention Standardized Nursing Language (NANDA-I, NOC, NIC) in the Lotus room Amelia Pare Hospital showed that the ability of the nurse in charge of nursing diagnosis instrument either wholly (100%), and nursing interventions most (75%) either. Recommendations outcomes of the Focus Group Discussion (FGD) on the instrument nursing documentation that nursing documentation standard evaluation instruments need to be observed on a regular basis and can be developed according to the policies in force at any given moment.

Suggestion

The nursing committee to begin record nursing diagnosis has ever appeared in any room so he could begin to formulate the nursing care based on the Standardized Nursing Language (NANDA-I, NOC, NIC) so as to produce formulation of nursing care in the form of check list and in accordance with the standards, as well as facilitate the nurse in the filling. For further research needs to be done research on the effectiveness of using the target score ourcome compared with normal data usage for the accuracy of data on nursing interventions made by the NOC

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