



Research Paper

**DETERMINANTS OF IMPLEMENTATION OF NURSING PROCESS BY
NURSES OF PRIVATE SECTOR HOSPITAL**

Sarafeen Yousaf, Kousar Parveen, Muhammad Hussain and Muhammad Afzal

Lahore School of Nursing, The University of Lahore.

Abstract

Nurses are in continuous contact with the patient for better quality of nursing care provision. One of them is the practice of nursing process which is a method that systematically uses critical thinking, reasoning and problem solving in scientific way for delivering nursing care to the patients efficiently and effectively. Nursing process is an evidence based practice method use for problem solving and consisted on various steps with main goal of providing care to the patients. Nursing process is defined as a systematic way of providing nursing care and consisted on five steps namely assessment, diagnosis, planning, implementation and evaluation in an interrelated way. The study design was cross sectional descriptive and conducted at private sector hospital. All nurses working in the hospitals were used as a source population. The sample size was 98 nurses and simple random sampling technique employed to select the allocated number of nurses from each hospital. Moreover, the overall findings of this study about each phase of nursing process implementation depicted the percentages as about the assessment and planning phase of nursing process showed that assessment and planning phase of nursing process were almost 60 % performed by nurses followed by planning overall 65%, however, the degree of implementation of nursing process were 45% and evaluation 40 %. The implementation and evaluation phases of nursing process were the least practiced in this study. The findings of this study concluded that nursing process was partially (45%) implemented by nurses during their care provision. Many factors affect the implementation of nursing process so their eradication is imperative. Nursing process is a roadmap that guarantees effective nursing care and enhance the patient outcome in the form of recovery. It is a care delivery cycle that never ends as need of the patients changed the nursing care plan also changed to accommodate the patient's needs.

Key words: Nurses, Nursing Process, Determinants, Implementation.

INTRODUCTION

Nurses are in continuous contact with the patient for better quality of nursing care provision. In this regard nurses use different advance practices based on the findings of research conducted in today's era of advance technology (Abebe, Abera, & Ayana, 2014; Hagos et al., 2014). One of them is the practice of nursing process which is a method that systematically uses critical thinking, reasoning and problem solving in scientific way for delivering nursing care to the patients efficiently and effectively (Semachew, 2018).

Nursing process is an evidence based practice method use for problem solving and consisted on various steps with main goal of providing care to the patients (Manojlovich & DeCicco, 2007). It is one of widely accepted scientific method which guided many clinical procedures and ensure quality nursing care. Nursing process is defined as a systematic way of providing nursing care and consisted on five steps namely assessment, diagnosis, planning, implementation and evaluation in an interrelated way (Fernández-Sola et al., 2011; Pokorski, Moraes, Chiarelli, Costanzi, & Rabelo, 2009).

Nursing process is a roadmap that guarantees effective nursing care and enhance the patient outcome in the form of recovery. It is a care delivery cycle that never ends as needs of the patients changed the nursing care plan also changed to accommodate the patient's needs (Freitas, Queiroz, & Souza, 2007; Shewangizaw & Mersha, 2015). Nursing process helps the nurses to observe, diagnose and interact systematically with patient to provide better care (Fernández-Sola et al., 2011; Pokorski, Moraes, Chiarelli, Costanzi, & Rabelo, 2009]). The reports of different governing bodies shown that nursing practices at clinical demands the dynamic nature of nursing process for efficient use and participation of nurses professionally in activities that help to develop sound knowledge based about advance methodologies.

Moreover, World Health Organization (WHO), American Joint Commission on Accreditation of Hospital Nursing Service Standards and International Council of Nursing as health care organizations put emphasis to use the nursing process for documentation of the nursing care provided to the needy patients. Theses health care organizations encouraged to use the nursing process for care given by the nurses (Björvell, Wredling, & Thorell-Ekstrand, 2003). Nursing process is applicable in both hospital and community for caring practices (Mutshatshi, Mothiba, & Mamogobo, 2020).

Nursing process helps the nurses to observe, diagnose and interact systematically with patient to provide better care (Freitas et al., 2007; Shewangizaw & Mersha, 2015). According to Shea et al., 1997 when nurses practice by using nursing process then patients become satisfied and their length of stay in hospital reduced (Shea, McBride, Gavin, & Bauer, 1997). The findings of an interventional study depicted that when training program is given to the nurses regarding the implementation of nursing process, the nurses practices will be enhanced and patient length of study reduced with high discharge ratio.

Furthermore, training on nursing process enhanced the nurse's ability to document the care provided vigilantly, make the nurses attitude positive towards care provision, and increase the moral and confidence of the nurses which ultimately result in patient's satisfaction and enhanced the self-care ability of the patients (Yildirim & Ozkahraman, 2011). Additionally, when nurses provide care to the patients according to nursing process then patients are more satisfied because nurses spend quality time with patients and involve them assessment and implementation phase of nursing process (Newman, 2008). Nurses use holistic approach to assist the patients and their families in fulfilling the basic human needs.

Several study findings showed that nurses have enough knowledge about nursing process and not willing to apply it in the clinical practice which results in lowered quality nursing care and services become ineffective towards patient recover (Tärnkvist, Gardulf, & Strender, 1997). If nurses don't utilize the nursing process for assessment, planning, implementation and nursing evaluation then it's become difficult for nurses to make significant improvement in the provision of nursing services to the hospitalized patients.

There are different factors that affect the malpractice of nurses in regard y nursing process which ultimately affect the nursing care quality (Tapp, 1990). Inadequate knowledge, incompetent practices, work load, unfair salary packages, low reward, less recognition, bad behavior of supervisors, high patient to staff ratio, employee burnout and high turnover, lack of working polices, lack of organized structure, poor participation of patient in treatment, early discharge, all these factors affect the utilization of nursing process at clinical setting. Moreover, many personal, organizational, patient and professional factors hinder the application of nursing

process (Tarekegn, 2019). Identification and resolution of these factors are important for the implementation of all steps of nursing process.

It is thought of that up to date nursing has been formed associated recognized as an independent profession since the day of Nightingale. Being recognized as a profession, the discipline has began to establish its own abstract and theoretical framework and, of them, nursing method is that the peculiar one (Hagos, Alemseged, Balcha, Berhe, & Aregay, 2014).. Some studies indicate that the origin of nursing method is copied back to 1955 once Hall a nursing intellect represented medical care as a method (Haapoja, 2014; Yildirim & Ozkahraman, 2011). While some other authors thought that nursing process was developed and operationalized during the 1960s by Yura (Amparo, 2004).

Regardless of its origin and nominator, the nursing process is extremely suggested, widely acknowledge standard of care and used as scientific dynamic method to guide practices and quality nursing care (Association, 2010; Shewangizaw & Mersha, 2015). More recently, the process is being defined as a systematic, organized, and dynamic way used by nurses to meet the individualized healthcare needs of their patients through operating five interrelated steps: assessment, diagnosis, planning, implementation, and evaluation (Björvell, Wredling, & Thorell-Ekstrand, 2002; Pokorski et al., 2009).

Effective execution of nursing process resulted in improved care quality, enables speedy healing process of patient which minimizes patient hospital stay, enhance satisfaction, and decrease the utilization of service (Orlando, 1990). As a result of reduction in hospital stay of patients, healthcare system delivery cost decreases and working time with patient increases and lowered the economic burden. Additionally, nursing process empowers nurses with logical reasoning to perform clinical activities and enables them to play role as an independent and separate profession (Miskir & Emishaw, 2018; Orlando, 1990).

Lack of knowledge about the process, inadequate training, patient to nurse ratio, resource scarcity, low salary and poor promotion of nurses, influence from other health care members, etc. are some of the hindering factors identified by previous studies (Mahmoud & Bayoumy, 2014; Mangare, 2012; Zamanzadeh, Valizadeh, Tabrizi, Behshid, & Lotfi, 2015). In Afar region however, nursing process implementation and the

hindering factors were not known and, as to our knowledge, there was no up to date study

OBJECTIVE

- To assess the level of implementation of nursing process among nurses of Private Sector Hospital

OPERATIONAL DEFINITIONS

Implementation of nursing process

It is the application of nursing process by nurses at clinical setting. Implementation of nursing process assessed by using 31 items questionnaire consisted of 4 parts. The five point Likert scale with 1=Never, 2=Don't Know, 3= Sometimes, 4=usually, 5= Always responses be used. Moreover, the participant responses of usually and always were taken as implemented and the other responses as not implemented.

Nursing Process

It operationalized as a process in which nurses are used to solve patient's problems by using the five steps i.e. Assessment, Nursing Diagnoses, Planning, Implementation and Evaluation and patient hospital stay.

HYPOTHESIS

Null Hypothesis

- There is no implementation of nursing process by nurses of Private Sector Hospital

Alternative Hypothesis

- There is an implementation of nursing process by nurses of Private Sector Hospital

PROBLEM STATEMENT

Nursing process is an evidence based practice method use for problem solving and consisted on various steps with main goal of providing care to the patients. It is one of widely accepted scientific method which guided many clinical procedures and ensure quality nursing care. Nursing process is defined as a systematic way of providing nursing care and consisted on five steps namely assessment, diagnosis, planning, implementation and evaluation in an interrelated way. Nursing process is a roadmap that guarantees effective nursing care and enhance the patient outcome in the form of recovery. It is a care delivery cycle that never ends as needs of the patients changed the nursing care plan also changed to accommodate the patient's needs. Nursing process helps the nurses to observe, diagnose and interact systematically with patient to

provide better care. The reports of different governing bodies shown that nursing practices at clinical demands the dynamic nature of nursing process for efficient use and participation of nurses professionally in activities that help to develop sound knowledge based about advance methodologies.

MATERIAL AND METHODS

Study Design: The study design was cross sectional descriptive to assess the objective of the study.

Settings: This study was conducted at private sector hospital. All nurses working in the hospitals used as a source population.

Sample Size: The sample size was determined using single population proportion formula by considering normal distribution ($Z=1.96$) with confidence interval of 95%. Using correction formula, the final sample size becomes 98 nurses were selected for the study. The number of nurses from each hospital was obtained by proportionally allocating the final sample size and then simple random sampling technique was employed to select the allocated number of nurses from each hospital.

Sampling Technique: Simple random sampling technique was employed to select the allocated number of nurses from each hospital

Inclusion Criteria:

- Nurses available during the data collection period were included in the study.
- All nurses with an experience of more than one year & above be included.

Exclusion Criteria:

- Nurses with seriously ill during the time of data collection excluded.
- All nurses who are unwilling to participate were excluded.
- All nurses having less than 1 year work experience were excluded
- Free service worker nurses were excluded.

DATA COLLECTION PROCEDURE

Study participants were informed about the purpose and objective of the study. The researcher visited the wards and handed over the questionnaire with consent form to the nurses of each department individually for the enhancement of response rate. Participants be informed about the voluntary participation, right of withdraw at any

stage of data collection and their identity should have kept confidential. The questionnaires were delivered immediately to the researcher after completion to avoid any biasness resulted from interaction of nurses with each other. The randomly selected nurses be invited to fill the questionnaire sheet comprising of 2 sections, demographics of study participant section and the implementation of nursing process by nurses' section. This whole procedure takes maximum 20 minutes of the study participants.

DATA COLLECTION TOOL

The questionnaire regarding the implementation of nursing process were adopted from the article by Amparo (Amparo, 2004). The questionnaire was previously shown to be a valid and reliable instrument. The reliability index was 0.83.

The content of questionnaire was divided into two sections. These sections assess the different categories intended to address the construct of implementation of nursing process.

Section 1: Demographic characteristic consisted on 7 questions regarding nurse's socio-demographic information, including gender, age, nursing qualification, destination, employment status and number of patients receiving care from nurses.

Section 2: It consisted on 31 questions regarding the level implementation of nursing process by nurses section. This section has four parts.

Part-1: Assess the nurses' level of implementation of nursing process in term of assessment and diagnosis. A set of seven items were used to assess the nurses' level of implementation of nursing process in term of assessment and diagnosis by using a 5-point Likert-type scale rated from 1-5 (1= never and 5= Always). And Cronbach's alpha coefficient ($\alpha = 0.74$)

Part-2: Examined the nurses' level of implementation of nursing process in term of Planning. A set of nine items were used to assess the nurses' level of implementation of nursing process in term of planning by using a 5-point Likert-type scale rated from 1-5 (1= never and 5= Always). Cronbach's alpha coefficient ($\alpha = 0.86$)

Part-3: Determined the nurses' level of implementation of nursing process in term of implementation. A set of ten items were used to assess the nurses' level of implementation of nursing process in term of implementation by using a 5-point Likert-type scale rated from 1-5 (1= never and 5= Always). Cronbach's alpha coefficient ($\alpha = 0.76$)

Part-4: Finally, the last section examined the nurses' level of implementation of nursing process in term of evaluation. A set of five items were used to assess the nurses' level of implementation of nursing process in term of evaluation by using a 5-point Likert-type scale rated from 1-5 (1= never and 5= Always). Cronbach's alpha coefficient ($\alpha = 0.82$)

DATA ANALYSIS PROCEDURE

The aim of the present study is to assess the level of implementation of nursing process by nurse of private sector hospital. Participants were be informed about the purpose of study and their identity should kept confidential. The research should examined the questionnaire for completeness of response and carefully assign code to each of the questionnaire. The data was entered to the computer and analyzed by SPSS Version-21.0. The questionnaire sheet comprising of 2 sections, namely demographics of study participant section and level of implementation of nursing process by nurse and ranked according to the order of importance. The descriptive statistics for instance, frequencies, mean, percentages, and standard deviation for each item were be calculated. For the correlation among each item for each section were calculated.

RESULT

Demographic Characteristics

Table 1. Demographic characteristics of the respondents (n=98)

S. No	Variables	Frequency n	Percentage %	
1	Gender			
	<ul style="list-style-type: none"> • Male • Female 	5 93	5 95	
2	Age			
	<ul style="list-style-type: none"> • 20-24 years • 25-29 years • 30-34 years • 35 years and above 	45 31 19 3	45.7 32.0 18.9 3.4	
	3	Educational Status		
	<ul style="list-style-type: none"> • Diploma • Bachelor degree in nursing • Master degree in nursing 	71 25 2	72 26 2	
4	Experience			
	<ul style="list-style-type: none"> • 0-4Yrs • 5-9 Yrs. • 10 Yrs. and above 	28 45 25	29 46 25	
	5	Amount of hours' respondents working per day	98	100

	• ≤8 Hours	0	0
	• > 8 Hours		
6	Numbers of patients to whom services given		
	• <5	19	20
	• 5-10	45	45.6
	• 11-15	25	25.3
	• >15	9	9.1
7	Taught about nursing process adequately during studies at the Nursing School		
	• Yes	27	28
	• No	71	72

The purpose of this study to assess the level of implementation of nursing process among nurses of Private Sector Hospital. Table 1 shows the demographic characteristic of nurses participated for data collection in this study. It consisted on gender, age, educational status, experience, number of patients and amount of hours' respondents working per day and education about the use of nursing process to nurses etc.

The questionnaire was filled out from 98 staff nurses from different wards. The response rate was 100% because all of them return the questionnaire while 2 questionnaires not completely filled. Ninety-five percent (95%) of the study respondents were female as government sector has recruited more females than the male staff (5%) in health sector. Majority participants (45.7%) belong to age brackets 20–24 years, while most of (32%) respondents reported between the age of 25-29 years, 19% belong to age group of 30-34 years and remaining (3%) in the age brackets of 35 years and above.

Nearly 72% study participants are diploma holders, 26 % participants had BSN degree and 2% study participants were having master's degrees. Majority of the study participants 46% having experience between 5-9 Years. While other respondents (29%) had work experience less than 5 Year and 25% had experience 10 years and greater than 10 years. Hundred percent of the study respondents were working less than 8 hours per day because Pakistani health care sector assigned the duties for 6 hours per day.

Majority of study participants (46%) were serving 5-10 patients at a time and the almost (70%) nurses had given no response to the question "taught about nursing process adequately during studies at the nursing school"

Level of implementation of nursing process by nurses

Table 2: Level of implementation of nursing process by nurses (N= 98).

S. No	Statement	Never %	Don't know %	Sometimes %	Usually %	Always %
ASSESSMENT AND DIAGNOSIS						
1	Is an assessment made of new patients prior to planning	3.4	2.4	9.1	30.7	54.4
2	Is written nursing history taken using a specific form	4.7	7.1	11.5	35.9	40.8
3	Does the nursing assessment begins within 24 hours	3.6	2.9	10.2	32.1	51.2
4	Does the assessment of the patient conclude with identification of problems	7	4.2	15.1	47.5	26.2
5	Is an attempt made to find the cause of the problems	9.2	2.1	20.9	38.2	29.6
6	Are problem statements arranges in order of priority	4.2	3.5	23.9	40.7	27.7
7	Are patients'/or relatives opinions systematically takes in to account	6.7	9.1	26.6	43.8	13.8
PLANNING						
1	Is a written care plan made before carrying out nursing interventions on the patient?	9.1	4.8	23.3	31.9	30.9
2	Does the nursing care plan incorporate the nursing problems identified?	7.3	5.1	27	37.4	23.2
3	Are goals for the resolution of each one of the problems identified and documented in	5.5	2.9	28.4	39.8	23.4

	the care plan?					
4	Do the goals provide enough detail (i. e. time to be accomplished, who will accomplish what and how?)	9.2	3.7	31.3	41	14.8
5	Are nursing interventions identified and documented in the care plan?	3.1	8.6	13.8	44.1	30.4
6	Are planned nursing interventions written with enough detail?	7.4	6.9	24.1	42.9	18.7
7	Is there any systematization on the ward to take into account patient/relatives opinions regarding the goals and planned activities?	10.4	6.1	25.9	35.3	22.3
8	Are nursing care planning discussions held on the ward?	20.1	2	22.9	31.3	23.7
9	Do you periodically read professional journals or do you take part in research projects in order to update your practice accordingly?	6.2	5.5	27.1	43.9	17.3

IMPLEMENTATION

1	Is the patient's condition reassessed before implementing any planned nursing intervention in order to be sure of its appropriateness?	12.3	9.1	22.9	44.9	10.8
2	Are nursing interventions explained to patients and/or	8.4	5.8	30	38.5	17.3

	relatives and their opinions taken into account?					
3	Is the way patient and /relatives should participate in their care systematized?	4	7.9	35.1	40.3	12.7
4	Is patient allocation or primary nursing used throughout the ward all times?	7.1	4.8	38.3	33.9	15.9
5	Are nurses allocated to the same patients for several days?	13.1	10	32.6	34.3	100
6	Do nurses take part in medical round for their patients?	3.6	5.8	21.5	51.8	17.3
7	Are nurses in this hospital responsible for the planning of patient care? That is, the nurse and not the supervisor.	6.2	7.4	24.9	41.5	20
8	Is it compulsory on this ward to work with the nursing process approach?	10	9.5	30.1	31.2	19.2
9	Is nursing documentation kept once the patient has been discharged?	4.1	5.3	24.4	35.7	30.5
10	Are care plans used both day and night as a basis for giving care?	3.7	5	32.1	36.9	22.3

EVALUATION

1	Is a systematic evaluation made of the effectiveness of care given to solve patient nursing problems?"	9	5.5	33.9	30.1	21.5
2	Is the evaluation recorded in the care plans or progress notes?	1	9.4	30.1	40.2	19.3
3	Are objective measures of	6.2	7.6	28.5	46.8	10.9

	patient progress towards the identified goals used on the ward?"						
4	Are care plans modified according to the results of evaluation? (example: to add new ones, stop others,)	7.3	10.3	32	40.3	10.1	
5	Is there a systematic way in which patient/relatives participate in the evaluation of care on the ward?	9.5	8.6	40.2	32.5	9.2	

Key: 1=Never, 2=Don't Know, 3= Sometimes, 4=Usually, 5= Always

The aim of this study to assess the level of implementation of nursing process by nurses of Private Sector Hospital. Implementation of nursing process is the application of nursing process by nurses at clinical setting. Implementation of nursing process was assessed by using 31 items questionnaire consisted of 4 parts. The five point Likert scale with 1=Never, 2=Don't Know, 3= Sometimes, 4=usually, 5= Always responses be used. Moreover, the participant responses of usually and always were taken as implemented and other responses were taken as not implemented.

The table 2 depicted the percentage of nurse's responses about 4 parts of the questionnaire (assessment and diagnosis, planning, implementation and evaluation) used to assess the implementation of nursing process by nurses at clinical setting. Nurses are in continuous contact with the patient for better quality of nursing care provision. In this regard nurses use different advance practices based on the findings of research. One of them is the practice of nursing process which is a method that systematically uses critical thinking, reasoning and problem solving in scientific way for delivering nursing care to the patients efficiently and effectively.

When a diseased patient admitted in a hospital, the first and foremost duty of nurse is to thoroughly assess the patient for presenting complaint and priorities the health problem. The result of assessment and diagnosis phase of nursing process depicted that majority nurses (54.4%) agreed that assessment made of new patients prior to planning. Moreover, during assessment phase, nurses were responded positively (40.8 %) about the use of a specific written format for taking the history of the patient. The

responses of nurses about the question “Does the nursing assessment begins within 24 hours” were about half way (51.2%). Most of the nurse usually (38.2%) made an attempt to find the cause of the problems during assessment phase and this data were utilized to diagnose the health problem of patient. Majority nurses (57.6%) described that patients'/or relative's opinions systematically takes in to account during assessment and diagnosis.

After assessment and diagnosis, the next phase of nursing process is planning phase during which the nurses made a written plan containing goals, objectives and alternative course of action to resolve the identified problem of the patient. One important aspect of the nursing process is that the plan is not set in stone; it is meant to be manipulated in order to better suit the patient.

In planning all the responses of nurses fall under the choice of usually and always were combined and considered as implemented. Majority of the nurses responded to the following statements as implemented “Is a written care plan made before carrying out nursing interventions on the patient? (62.8%)” “Does the nursing care plan incorporate the nursing problems identified? (60.6%)” “Are goals for the resolution of each one of the problems identified and documented in the care plan? (63.2%)” and Do the goals provide enough detail (for example, the time to be accomplished, who will accomplish what and how (55.8%). Furthermore, majority of the study participants reported that nursing interventions identified and documented in the care plan (74.5%) for the resolution of the problem identified in the assessment phase of nursing process.

Implementation is the next phase of nursing process after planning during the working of nurses at clinical site for the better provision of nursing care to the patient. Implementation is the application of nursing process by nurses at clinical setting. The statistics given in Table 2, implementation part indicated that majority of the nurses give different responses to the questionnaire items of implementation phase of nursing process. Majority responses to questions were low indicated that nurses were not implemented the intervention for the completion of effective nursing process at clinical setting. When questions asked from nurses about the implementation of nursing process 2 out of 10 questions had usually or always responses in the range of 50 to 60 while remaining not implemented. Half of the nurses responded that the patient's condition is reassessed before implementing any planned nursing intervention in order to be sure of its appropriateness (55.7%) and 69.1 % nurses were said that they take

part in medical round for their patients. These findings indicated that nurses were not willing to apply the nursing process in the clinical practice which results in lowered quality nursing care and services become ineffective towards patient recovery. If nurses don't utilize the nursing process for assessment, planning, implementation and nursing evaluation then it's become difficult for nurses to make significant improvement in the provision of nursing services to the hospitalized patients.

Lastly, evaluation is last phase of nursing process after implementation during which nurses appraise the effectiveness of care given to patient for the resolution of identified problem. The information about effectiveness of care provided by nurses were taken from ward managers, patients and their relatives as well. On the base of evaluation, care plans modified or not. The findings in Table 2 about evaluation depicted that 51.6% nurses evaluate the effectiveness of care given to solve patient nursing problems systematically, 59.5 % nurses were recorded the evaluation in the care plans or progress notes and 50.4 % nurses agreed that care plans modified according to the results of evaluation? However, 58.3% nurses were not involved systematically the patient and their relatives in the evaluation of care on the ward.

The overall statistics of Table 2 indicated that first phase "assessment and planning" phase of nursing process were almost 60 % performed by nurses followed by planning overall 65%, however, the degree of implementation of nursing process were 45% and evaluation 40 %. The implementation and evaluation phases of nursing process were the least practiced in this study.

DISCUSSION

The aim of this study is assess the level of implementation of nursing process among nurses of Private Sector Hospital. Nursing process is an evidence based practice method use for problem solving and consisted on various steps with main goal of providing care to the patients (Manojlovich & DeCicco, 2007). It is one of widely accepted scientific method which guided many clinical procedures and ensure quality nursing care. Nursing process is a roadmap that guarantees effective nursing care and enhance the patient outcome in the form of recovery.

It is a care delivery cycle that never ends as needs of the patients changed the nursing care plan also changed to accommodate the patient's needs (Freitas, Queiroz, & Souza, 2007; Shewangizaw & Mersha, 2015). Nursing process is defined as a systematic way of providing nursing care and consisted on five steps namely assessment, diagnosis,

planning, implementation and evaluation in an interrelated way (Fernández-Sola et al., 2011; Pokorski, Moraes, Chiarelli, Costanzi, & Rabelo, 2009). Therefore, nursing process is imperative for continued nursing care delivery at clinical site.

Conversely to the importance of nursing process, the findings of present study indicated that the low rate of implementation of nurses' process were only 45% reported by study respondents. This is supported by the findings of a study conducted in 2014 which showed 52.1% implementation of nursing process by nurses (Aseratie, M., Murugan, R., & Molla, M. (2014)). There are multiple factors which hinders in the effective implementation of nursing process. Inadequate knowledge, incompetent practices, work load, unfair salary packages, low reward, less recognition, bad behaviour of supervisors, high patient to staff ratio, employee burnout and high turnover, lack of working polices, lack of organized structure, poor participation of patient in treatment, early discharge, all these factors affect the utilization of nursing process at clinical setting.

Additionally, many personal, organizational, patient and professional factors hinder the application of nursing process (Tarekegn, 2019). Identification and resolution of these factors are important for the implementation of all steps of nursing process.

Moreover, the overall findings of this study about each phase of nursing process implementation depicted the percentages as about the assessment and planning phase of nursing process showed that assessment and planning phase of nursing process were almost 60 % performed by nurses followed by planning overall 65%, however, the degree of implementation of nursing process were 45% and evaluation 40 %. The implementation and evaluation phases of nursing process were the least practiced in this study. These cited finding are lower than the result of one previous study which showed 90% assessment and evaluation performance by nurses and 74% planning was reported while diagnosis is performed better in our study as compare to previous with no diagnosis formulation (Pokorski, Moraes, Chiarelli, Costanzi, & Rabelo, 2009).

The findings of our study is greater in all phases of nursing process as compare to a study conducted by Mangare which result ranges from 15% to 30 % in four phases of nursing process implementation (Mangare, 2012). This differences in results were due to Lack of knowledge about the process, inadequate training, patient to nurse ratio, resource scarcity, low salary and poor promotion of nurses, influence from other health care members, etc. are some of the hindering factors identified by previous studies

(Mahmoud & Bayoumy, 2014; Mangare, 2012; Zamanzadeh, Valizadeh, Tabrizi, Behshid, & Lotfi, 2015). For successful application of nursing process, it is important that every nurse knowledgeable about the nursing process and its parts. Majority of nurses were agreed that lack of knowledge about different parts of nursing process hinder the implementation of it at clinical setting by registered nurses. This is supported by similar findings in various prior studies whose findings depicted that lack of preparedness about nursing process impeded its implementation for effective quality care provision to the diseased person.

Regardless of its origin and nominator, the nursing process is extremely suggested, widely acknowledge standard of care and used as scientific dynamic method to guide practices and quality nursing care (Association, 2010; Shewangizaw & Mersha, 2015). More recently, the process is being defined as a systematic, organized, and dynamic way used by nurses to meet the individualized healthcare needs of their patients through operating five interrelated steps: assessment, diagnosis, planning, implementation, and evaluation (Hagos, Alemseged, Balcha, Berhe, & Aregay, 2014). Effective execution of nursing process resulted in improved care quality, enables speedy healing process of patient which minimizes patient hospital stay, enhance satisfaction, and decrease the utilization of service (Amparo, 2004; Lee, 2005). As a result of reduction in hospital stay of patients, healthcare system delivery cost decreases and working time with patient increases and lowered the economic burden. Additionally, nursing process empowers nurses with logical reasoning to perform clinical activities and enables them to play role as an independent and separate profession (Mahmoud & Bayoumy, 2014; Mangare, 2012; Zamanzadeh, Valizadeh, Tabrizi, Behshid, & Lotfi, 2015).

In the present study lack of knowlegde could be improved throgh teaching and training. Nursing process helps the nurses to observe, diagnose and interact systematically with patient to provide better care (Freitas et al., 2007; Shewangizaw & Mersha, 2015). According to Shea et al., 1997 when nurses practice by using nursing process then patients become satisfied and their length of stay in hospital reduced (Shea, McBride, Gavin, & Bauer, 1997). The findings of an interventional study depicted that when training program is given to the nurses regarding the implementation of nursing process, the nurses' practices will be enhanced and patient length of study reduced with high discharge ratio.

Furthermore, training on nursing process enhanced the nurse's ability to document the care provided vigilantly, make the nurses attitude positive towards care provision, and increase the moral and confidence of the nurses which ultimately result in patient's satisfaction and enhanced the self-care ability of the patients (Yildirim & Ozkahraman, 2011). Additionally, when nurses provide care to the patients according to nursing process then patients are more satisfied because nurses spend quality time with patients and involve them assessment and implementation phase of nursing process (Newman, 2008). Nurses use holistic approach to assist the patients and their families in fulfilling the basic human needs.

CONCLUSION

Nursing process is an evidence based practice method use for problem solving and consisted on various steps with main goal of providing care to the patients. It is one of widely accepted scientific method which guided many clinical procedures and ensure quality nursing care.

The findings of this study depicted that nursing process was partially (45%) implemented by nurses during their care provision. Many factors affect the implementation of nursing process so their eradication is imperative.

Nursing process is a roadmap that guarantees effective nursing care and enhance the patient outcome in the form of recovery. It is a care delivery cycle that never ends as need of the patients changed the nursing care plan also changed to accommodate the patient's needs.

Preferably, every nurse is expected to implement the nursing process in every setting for resolution of patient problems efficiently and effectively. But, practically nurses are not applying every step of nursing process adequately at clinical setting.

STRENGTHS OF THE STUDY

- This study utilized a reliable and validated tool to measure the implementation of nursing process by registered nurses.
- Self-administered questionnaire is considered as convenient method of data collection.
- The sample size was probably representative of the target population.

LIMITATIONS OF THE STUDY

- There is a chances of response bias resulting from misunderstanding of the items in questionnaire and perception of study participants to answer the questions that are socially acceptable.
- The present study findings are not generalizable to other settings because it was conducted in only one hospital.

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