



**FACTORS MILITATING THE EFFECTIVE UTILIZATION OF THE NURSING
PROCESS IN PATIENT CARE: A DESCRIPTIVE SURVEY OF NURSES IN A
TERTIARY HOSPITAL IN NORTH WEST, NIGERIA**

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ABSTRACT: *Nursing process is the systematic, patient-centered approach used by nurses to guides individualized nursing care; thereby enhance quality of patient care and outcomes for both the patient and family members, as an organized framework for the practice of nursing. The purpose of this study was to investigate the factors militating against effective utilization of nursing process in patient's care among nurses in a Tertiary Hospital in north-west, Nigeria. The research design employed in the study was across sectional survey, sample size of 108 but 97 valid for data analysis. The nurses who were proportionately selected participated in the study. The data were derived from the administration of copies of questionnaire. The instrument was validated by the researcher's supervisor and two other experts from faculty of nursing Ladoke Akintola University of technology. A Cronbach's alpha reliability coefficient of 0.82 is indicative of the reliability of the instrument. Data collected were analysed using SPSS version 20 version. Hypothesis was tested using Chi square set at p value 0.05. The findings revealed that greater number (92%) understood that nursing process is a problem solving technique for nurses and (80, 83%) utilizes nursing process in patients care. Majority of participants 63.9% (Mean = 1.71) established that shortage of human resources, 59.8% (Mean = 1.86) lack motivation and 53.6% (Mean = 1.53) different approaches adopted by nurses were seen to impact the use negatively. Experience, and educational Level were statistically found to be significant determinants for nursing process utilization ($p=0.00$, and 0.02). Based on the findings, it can be concluded that there exist a significant relationship between nurse's years of experience and knowledge of nursing process utilization and the rate of utilization. Recommendation that adequate and relevant materials be provided for nurses in order to achieve and perform their respective tasks at the optimal best, the management should equally employed more nurses to breech the chronic shortage of man power.*

KEYWORDS: Nursing Process, Patient Care, Effective-Utilization, Nurses.



BACKGROUND OF THE STUDY

Nursing process (NP) is a systematic, patient-centered approach used by nurses to ensure quality care (Sahra et al., 2021). It involves six essential distinct interrelated steps (Sahra et al., 2021; Semachew, 2018), which includes the assessment, diagnosis, outcomes identification, planning, implementation, and evaluation, a strategy for providing patient care that employs scientific reasoning, problem solving, and critical thinking to guide nurses in providing effective care (Sahra et al., 2021; Itamier, 2018). The acronym ADOPIE depicts an easy way to remember the American Nurses Association (ANA) Standards. (ANA, 2021). This stages focus on crucial actions that need to be performed in order to handle related issues or difficulties that affect the patient needs (Sahra et al., 2021; Smelter et al., 2010). As it is a dynamic and cyclical, problem-oriented, cognitive processed (Owusu-Ansah & Agyeman-Yeboah, 2022). Study by Obonyo et al., (2019) accent that the process begins with assessing the patient, identifying problems, setting goals with expected outcomes, implementing care to achieve goals and finally evaluating the effectiveness of the care given. Consequently, all registered nurses, regardless of function, population, specialization, or setting, are expected to perform actions and behaviors competently, particularly, when delivering care patients, clinical reasoning and clinical judgment must be applied (ANA, 2021). Thus Tadzong-Awasum et al., (2022) alluded that the process is the basis on which nurses provide holistic care to patients in all settings and enhancing communication and continuity of care.

For this reason, it is imperative for all nurses to be knowledgeable about the use of nursing process on the plan of action for the patient care and its documentation. The use nursing process guides nursing care, thereby enhance quality of patient care and outcomes for both the patient and family members, as an organized framework for the practice of nursing (Obonyo et al., 2019). Study conducted by Mwangi et al. (2019), opine that the use of the nursing process in the clinical area is an effective and efficient paradigm that boosts the provision of high-quality of nursing care, the patient health outcomes, promotes nursing profession as a scientific discipline, and promotes communication between nurses in relation to various aspects of patient care (Sahra et al., 2021). Rajabpoor et al., (2018) in their study state that the process improves quality of healthcare and patient-centered approach care instead of the traditional methods. Owusu-Ansah & Agyeman-Yeboah, (2022) uphold that the process offers nurses a unique opportunity to offer personalized care to patients.

According to Bibi et al. (2020), the nursing process is widely utilized in hospitals to guide nursing interventions. Study conducted in Pakistanby Iqbal et al., (2023) affirmed that many nurses' willingness to implement the nursing care process, as the process is gear to offer comfort, care, and reassurance to patients, with the ultimate goal of maintaining their health (Bibi et al. 2020).. Consequently, Mutshatshi and Mothiba (2020); Semachew, (2018) also affirmed that it is used to detect, prevent and treat both actual or potential health problems and promote wellness within an individual patient. Hence, Obonyo et al., (2019) posit that the process encompasses every step a nurse takes to deliver patient care, including assessing the patient, formulating nursing diagnoses, identifying outcomes with both short- and long-term goals that are measurable and achievable, planning the care with specific goals and criteria, implementing the care plan while incorporating patient education, and evaluating the outcomes. A study conducted



at Limpopo by Mutshatshi and Mothiba (2020) reported that nurses initiate the use of nursing process from the point of admission. Additionally, Bibi et al., (2020) revealed that 74% nurses apply nursing process in their daily routine.

Inversely, the process faces several challenges globally with Nigeria inclusive, nevertheless, despite the challenges; the use of nursing process has been reported to be beneficial to patient care and nursing profession in places where its application is done effectively (Anna et al., 2020). Emphasis by Mutshatsh and Mothiba, (2020) depict that when nurses apply nursing process, they are faced with multiple traits that hinder the effective utilization, and these hindrance compromised by various internal and external factors (Mwangi et al., 2019). Study by Anna et al., (2020), reported that negative perceptions, inconsistency in NP practice, inadequate staffing, missing supportive supervision and inadequate resources were among the factors influencing utilization of nursing process, nurse workload and supply of relevant tools (Mbithi et al., 2018). Rajabpoor et al., (2018) also reported high number of patients under the care of each nurse, lack of continuous monitoring and control of the performance of the process, lack of correct and principal training of the process during studentship, allocation of insufficient and short time to its training, lack of retraining, absence of an instrument to facilitate the implementation of the process, and the absence of a process record sheet in the medical records of the patients lack of computer (IT resources) for planning care, poor education, and lack of time, high workload, and lack of motivation, and insufficient practical knowledge on the nursing process among nurses in various health facilities across the world (Abdelkader & Othman, 2017; Agyeman-Yeboah et al., 2017; Mangare et al., 2016; Hagos et al., 2014; Afolayan et al., 2013). Mutshatsh and Mothiba, (2020) poor monitoring and supervision, lack of standard for writing, and duplicative substitution of nurses characteristics such as rank, years of experience and educational qualification were not significant (Owusu-Ansah and Agyeman-Yeboah 2022; Mangare et al., 2016).

In study conducted in Kenya by Anna et al., (2020) reported that nurse to patient ratio was very high in all the units/wards and this hindrance non-utilization of NP in care delivery to patients,. It is on this background that the study sought to assess factors militating Effective Utilization of the Nursing Process in Patient Care: A Descriptive Survey of Nurses in a Tertiary Hospital in North West, Nigeria. The study investigated knowledge, utilization level and revalidated the factors militating effective utilization of nursing process in patient's care among Nurses in a Tertiary Hospital in North West, Nigeria



METHODS

Research Design

The study employed a quantitative design using a cross-sectional descriptive approach to investigate the factors militating effective utilization of the nursing process in patient care among Nurses in a Tertiary Hospital in North West, Nigeria.

Research Setting

The Ahmadu Bello University Teaching Hospital (ABUTH) in Zaria, Kaduna state, is the research area. The ABUTH was founded in 1968. Located in Shika, Giwa Local Government, Kaduna State, Northwest Nigeria, is an ultra-modern structure. The Hausa people and other ethnic groups in Nigeria make up the majority. One of the federal institutions in the area is ABUTH, and the two main religious communities in Zaria are Islam and Christianity. One of Kaduna State's postsecondary medical facilities is Ahmadu Bello University Teaching Hospital Shika. The hospital can accommodate 1220 patients and offers approximately 59 specialized clinics, outpatient care, and round-the-clock emergency services. By decree 10 of January 1, 1985, it changed its name to ABUTH while keeping its three branches in Kaduna, Zaria, and Malumfashi. It consists of a number of departments, including nursing, with professionals in a range of healthcare-related professions.

Target Population

All of the nurses employed by Ahmadu Bello University Teaching Hospital in Shika, Zaria, are the study's target group. The population is made up of 322 nurses. The study's inclusion criteria include the willingness of all nurses to participate and their current employment status with ABUTH. Nurses who are unwilling to engage in the study or who are on leave or absent from the study site are among the exclusion criteria.

Sample Determination

Sampling size

The sample size was calculated using Mugenda and Mugenda formula (2003), who stated that, when the study population is less than 10, 000, a sample size of between 10 to 30% is a good representation of the target population. Hence 30% is adequate for analysis. The accessible population for this study was 322 Nurses. Therefore, the total population of Nursing Officer are 150($150 \times 0.3 = 45$), Senior Nursing Officers are 69 ($69 \times 0.3 = 21$), Principal Nursing Officers are 53($53 \times 0.3 = 16$), Assistant Nursing Officers are 20($20 \times 0.3 = 6$) and Chief Nursing Officers are 22 ($22 \times 0.3 = 7$) Assistant Director of Nursing are 8($8 \times 0.3 = 2$) was considered making a sample size of 97 respondents. A 10 percent attrition rate was added which gives a total of 107.



Sampling Technique

The study deploys multistage sampling technique using purposive, cluster and proportionate sampling method. The hospital was purposively selected while the wards were clustered into five (5) wards/units; a) medical wards, b) surgical wards, c) pediatrics and special babies care unit, d) obstetric, maternity, and e) maxillofacial units/ward and proportionate/simple random sampling method was used to select nurses across the cadre.

Instrument for Data Collection

Latif et al.'s (2021) thirteen-item standardized knowledge questionnaire was modified, and a self-structured 10-item questionnaire on factors militating effective utilization was also employed. In total, there were twenty-eight items in the tool. "Factors Militating Effective Utilization of Nursing Process in Patient's Care Questionnaire" is the name of the questionnaire (FMEUNPPCQ). This was broken up into four parts: The questionnaire's Section A covers the respondents' socio-demographic profile, including their age, rank, qualification, gender, marital status, and religious affiliation. The knowledge of nurses on the nursing process is covered in Section B, the Utilization level of the nursing process are covered in Section C, while factors militating effective utilization of nursing process were covered in Section D. Modified Likert-scales was used in the following format, which was make up: Strongly disagree (SD) 1 point, disagree (D) 2 points Agree, (A) 3 points and Strongly agree (SA) 4 points, were used to elicit response for factors. Never (N) 1 point, Occasionally (S) 2 points, Frequent (F) 3 points, and Very Frequent (VF) 4 points were equally used for level of utilization and Yes, No were used to elicit responses for knowledge where Yes = correct knowledge while No = incorrect.

Method of Data Collection

Data collection was done using modified and self-administered questionnaires from the 97 eligible nurses that met the inclusion criteria, they were asked to give informed consent and only after signing the consent forms and providing their informed consent were they allowed participating in the study as a sign of voluntary participation. The questionnaires were distributed to the respondents in Ahmadu Bello University Teaching Hospital Shika Zaria. Each respondent were given the opportunity to respond on his/ her opinion and retrieved back immediately.

Method of Data Analysis

The data collected was sorted, coded and entered and analyzed using the statistical package for the social science (SPSS) version 20 and presented with the use of frequency table, percentage, and mean. Hypothesis was tested using chi- square at 0.05level of significance.

Ethical Consideration

A letter of introduction from the Directorate of Open and Distance Learning (ODL) Ladoko Akintola University of Technology Ogbomosho was sought. This document was used to obtained approval from the ABUTH Health Research Ethical Review Committee (HRERC). With Ref No: ABUTH/HREC/UG/6. The HRERC approval was used to seek permission from



the Head of Department of Nursing service through Director of Nursing. Informed consent was obtained from the participants, before the commencement of the study.

RESULTS

Table1:Socio-Demographic Statistics of the Respondents (n=97)

Socio-Demographic Characteristics	Frequency	Percentage(%)
Age of the Respondents		
21-30 years	40	41.4
31-40 years	32	32.9
41-50 years	20	20.2
51-60 years	5	5.5
Sex of the Respondents		
Male	20	20.2
Female	77	79.8
Marital Status of the Respondent		
Single	38	39.8
Married	46	47.0
Divorced	6	6.0
Widow	7	7.2
Religion of the Respondent		
Islam	67	69.9
Christianity	30	30.1
Professional Qualification		
RN	34	35.5
RM	15	15.6
RN, RM	25	25.8
B. Sc	20	20.1
M. Sc	3	3.0
Rank of the Respondent		
AND	2	2.0
CNO	7	7.2
ACNO	6	6.9
PNO	16	16.9
SNO	22	22.0
NO	44	45.0
Year of experience		
1-5yrs	45	46.9
6-10yrs	16	16.8



11-15yrs	17	17.3
16-20yrs	8	8.5
21-25yrs	8	8.5
26-30yrs	3	3.0

Table 1 above shows that little above two-third (77, 79.8%) of the nurses constituted female and large portion (40, 41.4%) of them were between the age bracket of 21 – 30years. A third (34, 35.5%) of the participants possessed registered nurse certificate, inversely a portion (45, 46.9%) had between 1 – 5 years' experience, on a relative portion (44, 45.0%) was within the rank of nursing officer.

Table2 Participants' knowledge about nursing process (n=97)

S/N	Statement	Correct (%)	Incorrect (%)
1	Nursing process is problem solving technique for nurses.	90 (92.8%)	7 (7.2%)
2	Nursing process utilizes NIC and NOC	90 (92.8%)	7 (7.2%)
3	Steps in nursing process are often interrelated	90 (92.8%)	7 (7.2%)
4	The nursing process have 5 unique steps	2(2.6%)	95(97.4%)
5	Nursing process should not be instituted in emergency units	4 (4.2%)	93 (95.8%)
6	Nursing process does not promote individualize care	2 (2.6%)	95(97.4%)
7	Nursing process can not measure quality of care	0(0.0%)	97(100%)
8	Nursing process does not allow continuity of care	1(1.03%)	96(98.7%)
9	Nursing process is only used for critically ill patients	5(5.0%)	92(95.0%)
10	Nursing process are used to develop nursing care plan	90 (92.8%)	7(7.2%)

Table2 illustrates the knowledge of nursing process among participants. Greater number (92%) understanding that nursing process is problem solving technique for nurses while 97% have correct adequate knowledge that nursing process promote individualize care. Interestingly, 100% know that nursing process measure quality of care. Moreover, a significant portion (92%) reorganized that steps in nursing process were interrelated, and almost (97%) disapproved that nursing process have 5 unique steps. In the expression of knowledge, 95% against the thought that nursing process should not be instituted in emergency unit. Overall, the findings highlight varying domain of knowledge regarding nursing process among participants and it was established that participants have correct knowledge about nursing process.

Fig. 1 Participants' utilization level of nursing process (n=97)

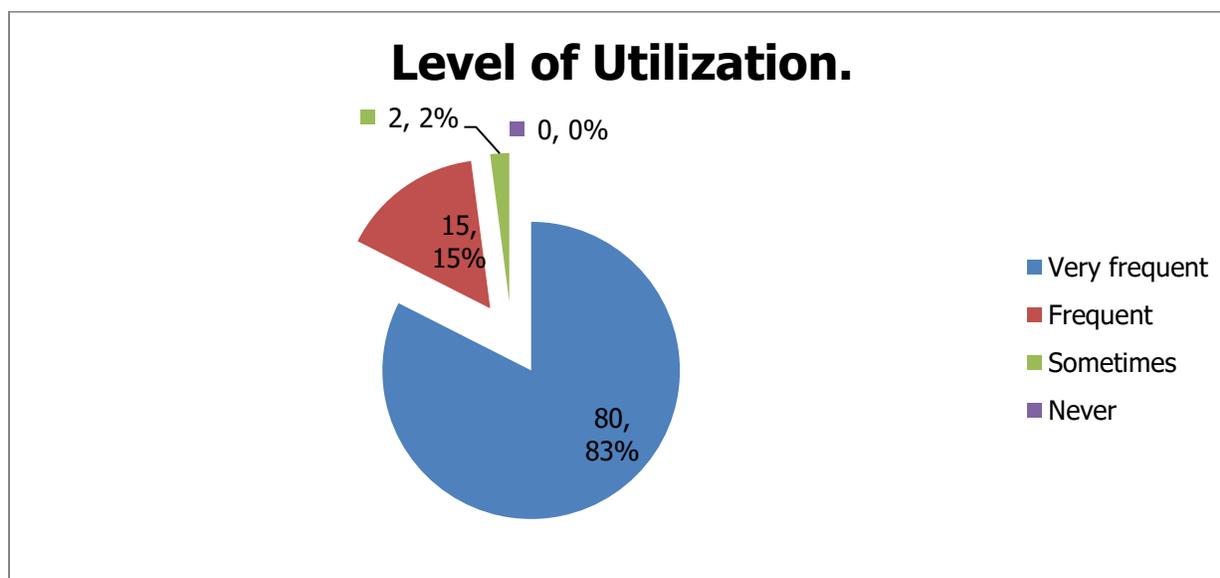


Figure 1. above shows that majority (80, 83%) of the participants utilizes nursing process. This signifies that the participant uses nursing process in their daily nursing care very frequently.

Table3: Factors influencing effective utilization of nursing process (n=97)

S/N	Variables	SA	A	SD	D	Mean
1.	Utilization of NIC and NOC is cumbersome	5 (5.0%)	15 (15.0%)	9 (9.9%)	68 (70%)	1.99
2.	Nursing process consumed time than necessary	5(55.0%)	8(8.1%)	9 (9.9%)	75 (77.0%)	2.25
3.	There is lack motivation	58 (59.8%)	19(19.8%)	5 (5.0%)	15 (15.0%)	1.86
4.	There is no effective monitoring strategies for its compliance	40(41.4%)	15(15.0%)	17(17.2%)	25(25.7%)	1.75
5.	Different approaches adopted by nurses	52(53.6%)	20(20.6%)	11(11.4%)	14(14.4%)	1.53
6.	Multiple responsibilities in the ward	40(41.3%)	25(25.8%)	12(12.3%)	20(20.6%)	1.49
7.	Hospital policies not supportive for utilization of nursing process	15(15.5%)	2(2.0%)	20(20.6%)	60(61.9%)	1.75
8.	Lack of supply of material needed for nursing process	55(56.7%)	20(20.6%)	10(10.3%)	12(12.4%)	1.76
9.	Shortage of human resources	62(63.9%)	20(20.6%)	5(5.5%)	10(10.0%)	1.71
10.	High work overload	50(51.6%)	25(2.8%)	7(7.1%)	15(15.0%)	2.16



members, as an organized framework for the practice of nursing. Additionally, finding revealed majority reorganized that steps in nursing process were interrelated. These findings concur with the results of another study by Sahra et al., (2021); Itamier, (2018), where they uphold that the process involves six essential distinct interrelated steps that include the assessment, diagnosis, outcomes identification, planning, implementation, and evaluation. Notably, majority of the participants asserted that nursing process should be instituted in emergency unit. This is consistent with the findings of Mutshatshi and Mothiba (2020) where they highlighted that nurses initiate the use of nursing process from the point of admission. The finding was further corroborated by Bibi et al., (2020) where they reported nurses apply nursing process in their daily routine. However, findings of study opposed the studies previously conducted the world including Nigeria by Abdelkader & Othman, 2017; Agyeman-Yeboah et al., 2017; Mangare et al., 2016; Hagos et al., 2014; Afolayan et al., 2013) where they reported insufficient practical knowledge regarding nursing process among nurses.

Furthermore, the findings established that the participants utilize nursing process. The finding attested to study conducted by Iqbal et al., (2023) that many nurses implement the nursing care process, as the process is gear to offer comfort, care, and reassurance to patients, with the ultimate goal of maintaining their health (Bibi et al. 2020). This signifies that the participant uses nursing process in their daily nursing care very frequently. Additionally, the results indicate that the participant's utilization of nursing process may likely be influenced by the factors such as shortage of human resources. The finding of this study is concord with study by Anna et al., (2020), where they reported that inadequate staffing, and inadequate resources are factors influencing utilization of nursing process. Revelation from this study shows that participants attest to lack of motivation. The finding is in consonant with the report by Rajabpoor et al., (2018) where they also found out that lack of motivation hinders effective utilization of nursing process. In addition, findings also revealed that lack of supply of material needed and different approaches adopted by nurses seem to impact the use negatively. This is consistent with the findings of Mutshatsh and Mothiba, (2020) where they highlights that poor monitoring and supervision, lack of standard for writing, and duplicative substitution of nurses were the factors influencing utilization of nursing process. Likewise, Anna et al., (2020), Mbithi et al., (2018), and Rajabpoor et al., (2018) acknowledged that missing supportive supervision, lack of continuous monitoring and control of the performance of the process and inadequate resources were the hindrances to the practice of nursing process. However, participants disagreed that nursing process consumed time than necessary, followed by utilization of NIC and NOC is cumbersome. The findings were in contrary with findings of study conducted by Rajabpoor et al., (2018) where they reported that lack of time, lack of correct and principal training of the process during studentship, allocation of insufficient and short time to its training, and lack of retraining were factors influencing utilization of nursing process. This signify that participants in this study has no problem using nursing process to promoting care of their patients, this may be because they were well training on how to used the process. The analysis of associations between selected socio-demographic variables and nursing process utilization relationship between nurses' years of experience (p -value = 0.000), and knowledge of nursing process nurses' level of education (p -value = 0.002) and utilization of nursing process. The finding is in disagreement with study by



Owusu-Ansah and Agyeman-Yeboah (2022) nurses characteristics such as rank, years of experience and educational qualification were not significant.

CONCLUSION

Based on the findings, it can be concluded that there exist a significant relationship between nurses' years of experience and knowledge of nursing process among nurses in Ahmadu Bello Teaching Hospital, Shika, Zaria, Kaduna State. In essence, it is not surprising that nurses who have between 1 to 5 years working experience do not possess the same level of knowledge as their superiors who have spent 10 years and above in the nursing practice. Also, the findings shows that there is a statistically significant relationship between nurses' level of education and utilization of nursing process among nurses in Ahmadu Bello Teaching Hospital. This again underscores the importance of educational qualification in the effective implementation of nurses' processes.

RECOMMENDATIONS

Based on the findings of this study, the following are recommended to ameliorate the barriers influencing the effective utilization of nursing process among nurses in Ahmadu Bello University Teaching hospital, Shika, Zaria, Kaduna State.

1. Considering the fact that there is a relationship between educational qualification and utilization of nursing process, it is recommended that adequate resources be put in place in educating and sponsoring nurses for nursing process courses. This will enormously bridge the gap in understanding how to effectively utilize the nursing process. Study leaves should also be granted to nurses in pursuit of more academic qualifications.
2. From the study, the respondent strongly agreed to the existence of work overload. To curb this, there should be a significant increase in the recruitment of educated nurses in order to promote the division of labor and ease the burden of the limited staffers on ground. Proper external recruitment will also cater for the shortage of human resources.
3. The study further reveals the shortage of materials needed for quality nursing process. Without proper and adequate materials, no worker can perform at his or her optimal best. As such, it is recommended that adequate and relevant materials be provided for nurses on order to achieve and perform their respective tasks at the optimal best.
4. There is the need for proper monitoring and oversight on nurses in terms of how they dispense their services using the nursing process. This will further serve as a checkmate ad push for the nurses in order to further improve their skills towards the discharge of their duties.
5. Lastly, nurses should ensure they continue to create a relaxing atmosphere for patients by utilizing the enormous information available in the various phases of nursing processes.



LIMITATION

The study was limited to only nurses of Ahmadu Bello Teaching Hospital, Shika, Zaria, Kaduna State. A more holistic approach could have been taken by exploring the possibility of expanding the target population to hospitals in the North-Western part of the country. However, such expedition would have not only been tedious mentally but also draining financially. For future research, the hospitals in north western region should be studied holistically in order to achieve a more comprehensive and reliable result.

IMPLICATION OF THE STUDY TO NURSING PRACTICE

There is the recurrent infamous perception that nurses do not follow the due process in nursing process. This has been attributed to a host of factors such as low incentive, shortage of human resources, lack of adequate knowledge to exhibit the nursing process. There is the need to however utilize the recommendations suggested herein as this will help eradicate this erroneous belief and once again reposition the credibility image of nurses in Nigeria.

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Conflict of interest

The authors declare that no conflict of interest exist

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