



International Journal of Advance Research in Nursing

Volume 6; Issue 1; Jan-Jun 2023; Page No. 242-245

Received: 11-11-2022
Accepted: 15-12-2022

Indexed Journal
Peer Reviewed Journal

Performance of evidence based practice among Nurses in ICU

¹D Bhuvaneshwari, ²A Vimala and ³Dr. Gopinath Subramanian

¹Principal, Rathnamma College of Nursing, Rural, Andhra Pradesh, India

²Principal, College of Nursing, Sri Venkateswara University, Chennai, India

³Principal, Mydhili Institute of Medical Sciences, Andhra Pradesh, India

DOI: <https://doi.org/10.33545/nursing.2023.v6.i1.D.325>

Abstract

Background: The cornerstone of high-quality, patient-centered care is the use of evidence-based solutions. Researches that examine how evidence-based nursing is applied are crucial to quality improvement. The purpose of the study is to examine how evidence-based practice is used by nurses who provide intense and critical care.

Methods: This study was conducted in 2020 at the intensive care units (ICU) departments of the selected tertiary hospitals. This poll had 202 critical care nurses participate (response rate: 94.3%). questionnaire used in the research, which was anonymous. Implementing evidence-based nursing practice among nurses working in intensive care units is the study's research topic. McEvoy *et al.* (2010) created a questionnaire as a research tool. With the aid of MS Excel 2016 and SPSS 24.0, statistical analysis was carried out. Our sample was analyzed using descriptive statistics, which were then reported as percentages. Quantitative information is shown as mean and standard deviation (mSD). A p-value of 0.05 or below was regarded as statistically significant among the exploratory groups.

Results: When compared to nurses with professional or higher non-university education, nurses with higher university education claim to know evidence-based nursing language better with a statistical significance ($p=0.001$) and to have stronger self-confidence in using evidence ($p=0.001$). The use of evidence-based nursing has been found to be directly correlated with age, with younger nurses having statistically significantly greater knowledge ($p=0.001$), skills ($p=0.012$), self-confidence when applying evidence ($p=0.001$), and a more positive attitude towards the practice ($p=0.041$) than their older counterparts. The knowledge of terminology used in evidence-based practice is statistically substantially lower among nurses with work experience of more than 20 years than among those with work experience of 10 years or less ($p=0.001$). According to research, Intense and Critical. It has been determined that Intensive and Critical Care Nurses (ICU Nurses) with 10 years or less experience under their belt know the terms related to evidence-based nursing statistically significantly better ($p=0.001$) and applies evidence-based knowledge in clinical practice more often, compared to nurses who have worked in the ICU for longer, e.g., 11-20 years or more than 20 years ($p=0.006$). When using an evidence-based approach in clinical practice, nurses who have worked in the ICU for more than 20 years statistically have greater difficulties than those who have worked there for 11-20 years, 10-19 years, or less ($p=0.017$).

Conclusion: Younger nurses with higher education and less general work experience tend to have more knowledge and a more positive approach to evidence-based nursing. Nurses with more than 20 years of experience working in the ICU are more likely to experience issues with an evidence-based approach in clinical practice. Most of the nurses who participated in the study claimed that the lack of time was one of the key problems when practicing evidence-based nursing.

Keywords: Evidence-based practice, Nursing, Intensive care nursing, Critical care nursing, Evidence-based nursing practice, Application of evidence-based practice.

Introduction

The attitude towards nursing science and the boundaries of nursing competence also alter in light of changes in the healthcare system and rising societal demands, leading to an increase in autonomy and the growth of nursing science. More and more often, researchers are turning to nursing practices, evidence-based therapeutic treatments, and a holistic approach to human health. By making decisions and applying an evidence-based strategy in clinical practice, this is known as evidence-based nursing. This ensures the greatest level of patient care. Evidence-based practice creates a framework for clinical problem-solving and enables nurses to continuously develop and look for the best

outcomes in their field. The most crucial factors are providing effective, high-quality care and ensuring patient safety.

ICU In their line of work, nurses takes various clinical decisions. Every five seconds, ICU nurses are required to make clinical choices, according to the study. Therefore, it is crucial that those choices be supported by scientific data. Systematic use of evidence in intensive and critical care provides undeniable advantages for patients as well as nurses. The work happiness of nurse's increases, they gain autonomy, and they feel more confident when making choices that have an immediate impact on the health of their patients. The patients and their loved ones are aware that all

manipulations are safe and effective, as demonstrated by scientific research, that their hospitalization is shortened, that errors are avoided, and that each patient's unique requirements and requests are taken into consideration. Evidence-based nursing practice makes a big difference.

Method and Materials

The investigation was conducted in 2019 at the ICU of selected tertiary hospitals gudur. Following the presentation of the annotation and the research instrument, the Center of Bioethics at the MIMS granted permission to conduct the study. A focused sampling strategy was used. The respondents were nurses who worked in the intensive care unit at selected tertiary hospitals. A total of 202 nurses were questioned, and 94.3% of them responded. An anonymous survey using a questionnaire is the research methodology. Using evidence-based practice in nursing for intensive and critical care. The ICU nurses received a total of 20 sample questionnaires prior to the trial. The pilot concentrate on results uncovered that the inquiries given in the survey were reasonable. The attendants gave no remarks, and in this way no adjustments were made. The examination instrument was the survey ready by McEvoy *et al.* (2010). Cronbach's alpha of the poll is 0,954. It shows unwavering quality and high inward consistency. The poll was utilized with the authorization of the creators. The inquiries could be sorted as follows:

1. Segment questions decided the respondents' age, orientation, instruction, proficient experience, work insight at the ongoing organization and work positions.
2. The respondents needed to rate proof based nursing-related articulations and terms from 1 to 5 in light of the Likert scale, where 1 implied complete conflict and 5 implied all out arrangement. Factor examination assisted with arranging the 58 assertions into 5 regions: significance, hindrances, wording, practice and self-assurance.

Factual Information Investigation

Factual information investigation was directed utilizing the SPSS 24.0 (Measurable Bundle for the Sociologies) programming and MC Succeed 2016. Clear measurements, i.e., outright (n) and rate (%) values, were applied to evaluate the dissemination of the examined perspectives in the example. The quantitative information were introduced as number juggling implies (m) with standard deviation (SD). The predictability of the likelihood circulation of quantitative factors was evaluated utilizing the Kolmogorov-Smirnov test. The ANOVA test was utilized, the Fisher rule (F) was determined, and the Bonferroni change was utilized to analyze the mean upsides of parametric factors of multiple autonomous examples. Tables of related viewpoints were made to survey the associations between perspectives. The reliance of viewpoints was resolved utilizing the chi-square (χ^2) test, and the pair examinations were done through the z-test and Bonferroni change. The Pearson connection coefficient (r) was determined to evaluate the strength of the angle association fulfilling the business as usual supposition (r). On account of $0 < |r| \leq 0.3$, the qualities were somewhat reliant, on account

of $0.3 < |r| \leq 0.8$, the qualities were moderately reliant, and on account of $0.8 < |r| \leq 1$, the qualities were emphatically reliant. The relationship coefficient was positive when a worth expanded with one more worth and negative when a worth diminished with another worth. Direct relapse was utilized to survey variable reliance when the importance level was $p < 0.05$, the distinction of viewpoints in respondent gatherings was considered measurably huge and when $p < 0.001$, it was considered exceptionally genuinely critical.

Results

Information and Disposition of ICU Medical caretakers As far as Proof based Nursing

The review included contrasting proof put together nursing application regions based with respect to the respondents' schooling. Medical caretakers with higher college degree professed to know proof based nursing wording preferred with a measurable importance over attendants with proficient or higher non-college training. The examination information additionally showed that medical caretakers with higher advanced degree had genuinely altogether more fearlessness while applying logical proof than attendants with proficient or higher non-college schooling. Nitty gritty scores of proof based nursing application regions with standard deviations and their correlation are given underneath.

Direct relapse was finished to investigate the reliance of proof put together nursing application regions with respect to the age of the respondents. The outcomes showed that all areas of proof based nursing application were measurably essentially reliant upon the age of the respondents. Negative β coefficients in each of the four regions intended that as the age of the respondents expanded, their concurrence with the assertions mirroring the broke down regions diminished. More established medical caretakers considered proof based nursing to be less significant than the more youthful ones. The wording information on more established respondents was additionally less fortunate than that of their more youthful associates. Additionally, more established attendants showed less proof based nursing-related practice and lower self-assurance.

The utilization of proof based nursing in the ICU in view of the work insight of the respondents was examined. The manner in which the attendants with work insight in the ICU surveyed proof based nursing regions was thought about. It was resolved that medical attendants who have worked in the ICU for a very long time or less realized the wording connected with proof based nursing genuinely essentially better. Additionally, these attendants measurably fundamentally more frequently based their choices in clinical practice on logical proof, contrasted with medical caretakers who have worked in the ICU for longer, e.g., 11-20 years or north of 20 years. Contrasted with respondents with more than 20 years of work insight in the ICU, attendants with 10 years or less experience had measurably altogether high fearlessness in their insight and abilities to apply proof based practice in nursing. Nitty gritty data on the proof based nursing application region scores and standard deviations and their correlation with the work insight of the ICU Medical caretakers.

Table 1: Comparison of evidence-based nursing application areas based on education of respondents.

Education	Areas (maximum score), m ± SD			
	Importance (70)	Terminology (85)	Practice (45)	Self-Confidence (55)
Professional education (n=76)	55.13±7.7	50.68±11.9	21±8.4	34.72±9.1
Higher non-university education (n=52)	56.19±7.5	54.42±12.8	23.46±9.1	36.79±8.2
Higher education (n=74)	57.55±8.1	62.92±11.2*	23.93±7.9	40.57±7.7*
F (p)	1.8 (0.167)	20.4 (0.001)	1.9 (0.152)	9.3 (0.001)

Note * $p < 0.05$, compared to those with professional and higher non-university education (Bonferroni post-hoc)

Table 2: Dependency of evidence-based nursing application areas on the age of the respondents (Linear Regression).

Areas	Standardized β coefficient	p
Importance	-0.144	0.041
Terminology	-0.270	0.001
Practice	-0.177	0.012
Self-Confidence	-0.226	0.001

Table 3: Comparison of evidence-based nursing application areas with work experience of ICU nurses.

Work Experience in the ICU	Areas (maximum score), m ± SD			
	Importance (70)	Terminology (85)	Practice (45)	Self-Confidence (55)
≤10 years (n=86)	57.48±6.7	60.53±11.3*	25.05±8.5*	39.67±8.1
11-20 years (n=51)	55.65±9.7	52.88±13.8	21.57±7.7	36.35±9.1
>20 years (n=65)	55.23±7.5	52.85±9.2	20.95±8.5	35.20±8.7**
F (p)	1.8 (0.175)	9.3 (0.001)	5.3 (0.006)	5.6 (0.004)

Note * $p < 0.05$, compared with respondents working for 11-20 years and >20 years; ** $p < 0.05$, compared with respondents working for ≤10 years (Bonferroni post-hoc)

The review dissected the execution of proof based nursing by the ICU Medical caretakers at Gudur in various angles. The correlation of proof based nursing-related information and mentality, the execution of the proof based approach and fearlessness in its execution was completed concerning the training of the respondents. The outcomes uncovered that medical attendants with higher college degree had more information and fearlessness while applying logical proof in clinical practice. Bovino *et al.* introduced comparative discoveries: as per their exploration of 2017, medical caretakers with higher advanced degree (unhitched male's or alternately graduate degree) involved proof in their clinical practice more regularly and had higher fearlessness in their activities, contrasted with attendants with a lower level of schooling. As per the investigation of Balakas *et al.* (2016), the execution of proof based nursing was straightforwardly connected with the training of the attendants, i.e., those with expert's or alternately specialist's certificates showed improved brings about planning clinical inquiries, looking for the most solid proof and applying it in clinical practice. Majid *et al.* research showed that medical attendants with advanced education and taking part in proof based preparing had fewer hindrances to applying proof based practice. As per Li *et al.*, medical attendants with advanced education and positions were more skilled in applying proof based practice.

The age of the medical caretakers additionally affected the use of the proof based nursing approach. The review uncovered that more seasoned attendants confronted more deterrents while carrying out proof based nursing. They had less information and abilities connected with applying proof in nursing. As indicated by the investigation of Warren *et al.* (2016), more youthful medical caretakers (22-29 years of age) were measurably fundamentally more ready to put together their activities with respect to prove in clinical practice. Likewise, a genuinely essentially bigger number of more youthful medical caretakers had an uplifting outlook

toward proof based nursing and upheld its significance.

In view of the assessment of numerous scientists, decisive reasoning is a vital expertise for ICU Medical caretakers in settling on critical clinical choices, and the last option is essential to confirm based practice. Ludin (2018) [3] did a review with 113 ICU Medical caretakers. It was resolved that age and work insight in the ICU enormously impacted the medical caretakers' decisive reasoning and dynamic in view of logical proof, e.g., more seasoned attendants with higher work experience had genuinely essentially better abilities in decisive reasoning and pursuing clinical choices. In the meantime, the consequences of this study were the inverse: the clinical choices made by more youthful medical attendants with less work experience were all the more frequently founded on logical proof. The exploration led by Alqahtani and co-creators (2022) [5] showed that attendants working in the emergency unit crisis office have more information about proof based practice than medical caretakers from general units. Their exploration likewise presumed that attendants who took part in proof based practice courses would do well to mentalities, information, and administration abilities than medical caretakers who didn't take part.

The demeanor of the attendants is vital in a proof based approach in clinical practice. This study uncovered that more seasoned attendants considered proof based nursing less significant than more youthful medical caretakers. Medical caretakers with advanced education showed a more uplifting perspective to the utilization of logical proof in nursing: the assertion 'I have had enough of proof based nursing' acquired the understanding of 34.2% of medical caretakers with proficient training, 11.5% of medical attendants with higher non-college schooling, and 14.9% of medical attendants with higher college degree. The thing that matters is measurably critical. In light of the concentrate by Swiss specialists Pereira *et al.* (2018), medical caretakers with a more uplifting perspective towards proof based nursing generally base their clinical

choices on proof measurably fundamentally more frequently. A similar pattern was found in this review: more youthful medical caretakers, who, as referenced beforehand, considered proof based practice more significant than more seasoned attendants, put together their clinical choices with respect to logical proof genuinely essentially on a more regular basis. 507 medical caretakers partook in a concentrate co-creators (2022). 55% of members had an uplifting outlook toward proof based practice. Research showed that advanced education medical caretakers had more information about proof based practice, which prompted a more inspirational perspective to confirm based practice.

The examination information uncovered that specific obstructions existed while carrying out proof based nursing. Stavor *et al.* (2017) demonstrated that the primary deterrents to applying a proof based approach in nursing were the evasion of progress, negative demeanor and absence of time. As per a concentrate by Chinese researchers (2020), the absence of information was the primary issue in applying proof based nursing. O'Connell *et al.* (2018) recognized the two boundaries: deficient information and the resistance between the medical caretakers and the specialists. In this review, the greater part of the respondents (55.4%) said that the absence of time was one of the biggest snags to carrying out proof based nursing in clinical practice. The concentrate additionally uncovered that contrasted with more youthful endlessly nurture with less involvement with escalated and basic consideration, more established endlessly nurture with more work insight in the ICU experienced more issues while applying the proof based approach in nursing. Al-Lenjawi *et al.* led a review with 278 medical caretakers from ICU. The examination uncovered that the principal obstructions to applying proof based practice are absence of time and backing from associates, failure to grasp measurements, and negative demeanor to prove based practice. The mentorship program is one strategy to urge medical attendants to utilize proof based practice. Medical caretakers acquired information and a more uplifting outlook; there were less obstructions to applying proof based practice after the mentorship program. Following Patelarou *et al.*, proof based work on preparing unequivocally adds to more powerful medical care and ought to be the need in laying out nursing training programs. The advantages of proof based work on preparing were stressed by Ruppel *et al.* in light of the information of their review - medical caretakers with an uplifting outlook towards proof based practice actually demonstrated that preparing is vital because of an absence of information.

Consequently, decisive reasoning, an all-encompassing way to deal with a patient's medical issue, and the capacity to work and plan patient consideration in a multidisciplinary group in light of the most dependable logical proof for every individual case ought to be the day to day obligations and obligations of each medical caretaker. Studies breaking down the execution of proof based practice are significant in achieving the best outcomes in nursing and its training. The majority of this study's outcomes agree with the investigations of unfamiliar scientists. More youthful medical caretakers with advanced education have better information on applying proof based practice in nursing and have a more uplifting outlook toward it. Medical caretakers with a lower level of schooling, and in this review, more seasoned medical attendants experience more issues while applying proof in clinical practice. The fundamental snags

to executing proof based nursing are the absence of time, assets and information.

Conclusion

1. The information and demeanor of the ICU Attendants connected with proof based nursing and the execution of this approach rely upon such factors as instruction, age and work insight. More youthful medical caretakers with advanced education and less work insight in the ICU will generally have more information on proof based nursing and a more uplifting perspective toward it.
2. More seasoned endlessly nurture whose work insight in the ICU is north of 20 years' experience issues while applying logical proof in clinical practice more regularly. The greater part of the respondents accepts the absence of time is one of the significant deterrents to carrying out proof based nursing in clinical practice.
3. The examination of the idiosyncrasies of utilizing proof based nursing in the ICUs of various clinical fields uncovered that the ICU Medical caretakers of the Obstetrics and Gynecology Division considered proof based nursing to be less significant and accordingly had lower self-assurance and experienced more issues while applying a proof based approach in nursing.

Conflict of Interest

Not available

Financial Support

Not available

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How to Cite This Article

D Bhuvaneshwari, A Vimala and Dr. Gopinath Subramanian. Performance of evidence based practice among Nurses in ICU. *International Journal of Advance Research in Nursing.* 2023;6(1):242-245.

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