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A Cross-Sectional Research on Improving Clinical Confidence and Decision-Making Through One Day One Clinical Question (ODOCQ) Program

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ABSTRACT

Nurses are using knowledge sources to enhance practice through the latest and most trusted evidence-based methods. In this context, the ability to search and select knowledge can increase clinical confidence. Low clinical confidence also leads to hesitation or doubt in decision-making. As an essential element in successfully promoting achievement, the level of confidence and decision-making of the healthcare workforce should be improved. Therefore, this research aimed to determine the frequency of article sharing in improving the level of clinical confidence and decision making after following One Day One Clinical Question (ODOCQ) program. The results showed that ODOCQ was developed for nurses to enhance the capacity of online resources and publications on issues encountered in day-to-day work. A cross-sectional research using random sampling and online questionnaires was also developed to measure clinical confidence and decision-making. Inclusion criteria included one year of minimum service at the hospital, and the research was completed by 118 nurses. In addition, the frequency of article sharing as part of the ODOCQ program improved clinical confidence ($p>0.001$) and decision-making ($p>0.019$) significantly. Academic routine habits, such as the ODOCQ program and article sharing frequency, improved clinical confidence and decision-making of nurses, as well as the readiness of evidence-based nursing practice implementation. The program could be used for additional professional development and evidence-based preparation. However, further research is needed to measure the level of clinical confidence and decision-making with non-self-report measurement.

Keyword: Clinical confidence, Clinical decision-making, Evidence-based practice, One Day One Clinical Question (ODOCQ), Nursing.

1. Introduction

Orthopaedic nursing care is reported to demand a high level of clinical competence and confidence due to the complexity of musculoskeletal conditions and interventions such as open reduction internal fixation (ORIF), endoscopic procedures, and reconstructive surgeries. Nurses remain updated and capable of integrating the best available evidence into practice to ensure optimal patient outcomes since the field of

orthopaedic surgery is evolving with advancements in technology (Black & VanDenKerkhof, 2020). Therefore, access to reliable and current scientific resources is essential in addressing clinical problems and enhancing the confidence of nurses in decision-making and patient care delivery.

Nurses often have difficulty translating clinical phenomena into searchable questions. Inadequate skills, limited access, and lack of knowledge were found to be the most common barriers to searching and examining the evidence in a practice setting (Sadeghi-Bazargani et al., 2014). A frequent problem for nurses is sourcing articles and information essential for daily practice (Pitsillidou et al., 2023). Limited clinical and practical skills, new case management knowledge, and communication lead to a lack of confidence among nurses (Najafi & Nasiri, 2023).

Clinical confidence is a self-perceived ability to make appropriate decisions (Lucero & Chen, 2020). Therefore, the concept has been associated with improved patient outcomes, reduced errors, and greater professional autonomy (Whitehead et al., 2020). The willingness to start independent clinical procedures, seek help, ask for assistance, and self-evaluate abilities is influenced by the level of clinical confidence (Ramezanzade Tabriz et al., 2024). For orthopaedic nurses, confidence in managing pain, postoperative care, and complex surgical procedures is critical. However, the ability to search, appraise, and apply evidence is not innate and may require structured support and training. Most generalists are not clinically confident, and 67.1% require more training (Alomar, 2021).

Clinical decision-making is an essential nursing task and is frequent in emergencies. The capability of inexperienced decision making is linear based on a lack of professional knowledge and experience, and focuses on a particular task or issue (Gillespie & Peterson, 2009). New nurses can rely on abstract concepts after experiencing sufficient clinical duties with an expert. Programs promoting routine academic habits can build competencies and enhance a culture of evidence-based practice (Melnyk & Fineout-Overholt, 2022). Nurse managers have a very significant role in the implementation of the practice with the objective of improving a conducive culture and environment for readiness in implementing evidence-based nursing practice.

Preliminary research, including 10 nurses from various units, showed that clinical confidence and decision-making were not convincing. In this context, nurses wanted to follow an easy daily program to improve practice skills. There are many models of creating continuous development, such as training, reading tasks, workshops, supervision, and mobile self-service. A rapid evidence review of 39 research from 5 countries reported that there was no certain model to deliver and measure continuing professional development (King et al., 2021). In this research, the One Day One Clinical Question (ODOCQ) program was developed based on self-directed learning principles (Knowles, 1975) and novice to expert theory (Benner, 1984) in improving advanced beginner nurses. The frequency of article sharing was measured in enhancing clinical confidence and decision-making following the ODOCQ program.

2. Methods

This research used a descriptive analytical design and a cross-sectional method. The population comprised of nurses who participated for 12 months. The ODOCQ program (1) generated searchable queries based on daily clinical problems, (2) examined the results, (3) applied evidence for self-practice, and (4) shared the experience of evidence application in the morning briefing session with other nurses. Furthermore, the program was introduced in each unit by senior, primary, and head nurses. The trainers in each unit were trained in ODOCQ and preceptorship modules.

The descriptive instrument consisted of demographic data, online resource types, clinical questions, and frequency of experience sharing of evidence during the morning briefing session. Clinical confidence instrument, consisting of 43 items, was developed using the latest references and categorized into professionalism and nursing care process domains. Additionally, 21 clinical decision-making items were measured on a three-point Likert scale (never, rarely, always) (Duarte & Dixe, 2021; Lee, 2022; Walsh et al., 2021). The level of clinical confidence and decision-making was categorized into low, moderate, and high. This instrument was validated through content validity index conducted by 5 experts, and reliability testing with 0.85 Cronbach's Alpha. Data were collected using an online, anonymous, self-completed questionnaire distributed to all nurses who met the inclusion criteria. Out of 225 non-managerial nurses identified through total sampling, 118 completed the questionnaire, resulting in a 61% completion rate. A total of 31 nurses were excluded following the failure to meet the inclusion criteria of one year in service and completion of the ODOCQ Training. The nurses were from various units, including outpatient clinics, the emergency unit, the operating room, intensive care, inpatient wards, and other hospital units. Descriptive statistic for the respondent characteristics and bivariate analysis was used to assess categorical variables. A written explanation of the

purpose, procedure, and confidentiality assurance standards was provided to respondents. Online informed consent was obtained from all participants, and data collection was carried out for two weeks. Ethical approval (S-065A/KETLIT/RSUI/II/2025) was given by the university hospital before the data collection.

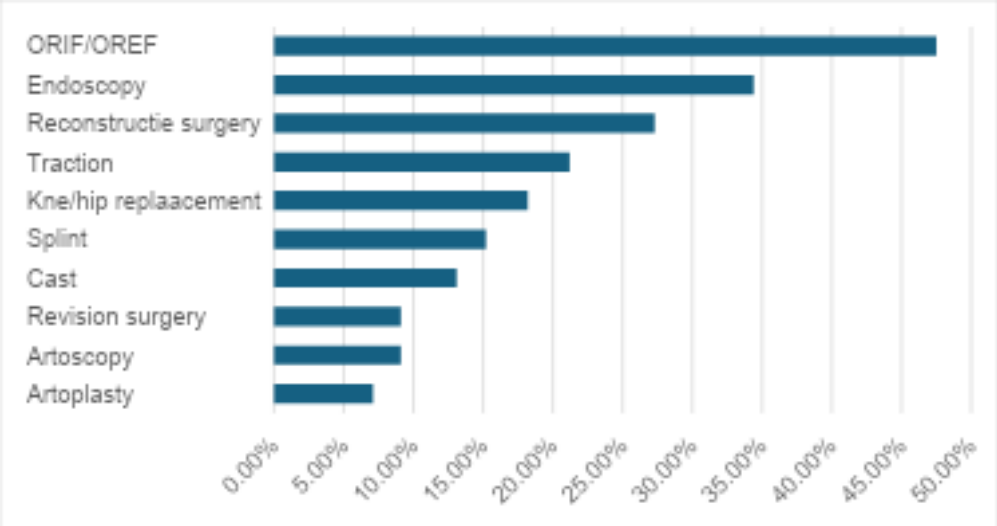
3. Results

The demographic profile of nurses in the ODOCQ program represented relatively new and young nurses. The mean age of participants was 27.58 years (SD = 2.95), with a median age of 27 years and a range between 23 and 38 years. This showed that the majority of nurses were in the early stages of the professional careers. The mean length of service was 3.57 years (SD = 2.59), with a median of 3 years, and a range of 0 to 14 years. These results reported that most participants had relatively limited work experience, suggesting the importance of structured program to support clinical development and confidence-building in early-career nurses. Participants were distributed across various clinical units, with the Adult Inpatient Unit (33.1%), Intensive Care Unit (27.1%), and Outpatient Unit (14.4%) being the most represented. Furthermore, fewer participants worked in specialized units such as the Catheterization Laboratory and others.

Table 1 Demographic data characteristics of nurses of the odocq program (n = 118)

Characteristics	f	%
Education Level		
Nursing Diploma	3	2.5
Nursing Profession (Bachelor + RN)	115	97.5
Position		
Head Nurse	2	1.7
Primary Nurse	33	28
Associate Nurse	83	70.3
ODOCQ sharing Frequency		
Once	24	28.8
Twice	25	21.2
More than three times	59	50

Most of the nurses were bachelorette plus professional degree (97,5%), and 59% nurses participated in the formation of searchable questions. Graph 1 shows the topics of the search in the ODOCQ program related to the orthopaedic questions. Open reduction of internal fixation (ORIF) and open reduction of external fixation (OREF) were the most searched (47.5%), followed by endoscopic procedure (34.4%), reconstructive surgery (27.3%), and other surgical procedures.



Graph 1 Orthopaedic search related questions

Table 2 Association between ODOCQ participation frequency and length of service

Variable	ODOCQ Participation Frequency	n	Median (min – maks)	Mean ± SD	p Value
Length of service	Once	34	3.00 (0 – 12)	3.09 ± 3.370	**0.023**
	Twice	25	3.00 (0 – 12)	3.44 ± 2.417	
	More than three times	59	4.00 (0 – 14)	0 ± 2.090	

Post-hoc Mann–Whitney U test: Length of service: once vs twice (p = 0.189), once vs ≥ 3 times (p = 0.023), twice vs ≥ 3 times (p = 0.179)

The analysis of length of service reported a statistically significant association with the ODOCQ active participation. The post-hoc test identified a significant difference between nurses who participated once and three times or more (p = 0.023). Therefore, more experienced nurses were active participants in the ODOCQ program. A significant difference was also observed in the age distribution among participants (p = 0.008, Kruskal-Wallis test). Nurses who engaged in the program more than three times had the highest mean age (28.03 ± 2.52 years) and median age (28.03 years). Meanwhile, those who participated once were the youngest group (mean = 27.03 ± 3.47 years, median = 26.5 years). Post-hoc analysis showed that the age difference between participants was statistically significant (p = 0.008).

Table 3 Association between odocq participation frequency and caring behavior, clinical confidence, and competency

Variable	ODOCQ Sharing Participation Frequency			Total		p Value
	Once	Twice	More than three times	n	%	
Clinical Confidence						
Moderate	33	1	5	39	33	**< 0.001**
High	1	24	54	79	67	
Total	34	25	59	**118**	**100**	
Clinical Decision Making						
Moderate	8	7	30	45	38	**0.019**
High	26	18	29	73	62	
Total	34	25	59	**118**	**100**	

Statistical test: Fisher Exact Test (significant at $\alpha < 0.05$)

In terms of clinical confidence, the association was highly significant (p < 0.001). A total of 24 and 54 nurses who participated in the ODOCQ twice or more reported high confidence. Meanwhile, 33 nurses who participated only once were moderately confident. A statistically significant association was observed for clinical decision-making, where 29 49.2% nurses who participated more than three times consistently showed good clinical decision-making (p = 0.019). This pattern supported the idea that greater participation in ODOCQ was positively correlated with perceived professional inclusion in clinical decision-making.

4. Discussion

A total of 97.5% respondents had a bachelor's degree in nursing plus a two-semester internship, while 67% and 62% reported a comparatively high confidence and decision-making, respectively. The level of education, experience, and structural strength had a positive effect on clinical decision-making (Sholehah et

al., 2020). According to other research, a higher educational attainment was associated with a 3.5 times higher likelihood of using an intuitive decision-making method compared to the counterpart (Kindie Abate et al., 2022). Compared to diploma nurses, bachelor's degree holders reported higher EBP competencies (Qtait, 2025). The results provided support that higher education enhanced the ability to use research and evidence-based practice.

The analysis of longer service showed a statistically significant association with ODOCQ active participation (p = 0,023). A similar significant positive correlation (p = 0.009) reported that nurses with more years of experience were more confident and possessed better EBP (Alblooshi et al., 2022). Nurses with ten years of experience or more were 3.2 times more intuitive in clinical decision-making (Kindie Abate et al., 2022).

In Indonesia, orthopaedic nursing was not a prominent focus within the Bachelor of Nursing curriculum and was conventionally addressed as a subsection within the domain of surgical nursing. Therefore, orthopaedics had limitations due to inadequate knowledge, skills, and clinical experience. Open reduction internal/external fixation (ORIF/OREF) (47.5%), endoscopy (34.4%), reconstructive surgery (27.3%), traction (21.2%), and total hip/knee replacement (18.2%) were the most frequent search topics. Additionally, the search was very relevant to orthopedic cases treated in the hospital. Fractures were the most common diagnosis (21.1%), followed by arthritis (20.3%), sports injuries (10.7%), and lower back pain (9.5%) as reported in King Fahad Specialist Hospital (Wali et al., 2023).

The ODOCQ program was proposed in a relatively new and growing university hospital, with an average of 3 years of nursing experience. However, this provided the advantages to form new patterns in self-development and the implementation of various evidence-based practices available online. Managers and nurses must have the requisite academic training, resources, and support to implement evidence-based practice (Bianchi et al., 2018). Nurse managers have been successfully cultivating a culture using early skills and principles. Qualitative research conducted in Spain suggested that ward or unit managers created a favourable environment for EBP, empowering and offering the nurses to be more responsible and give power in decision-making (López-Medina et al., 2022) Recent research conducted in a private hospital stated that the provision of a better knowledge and skills environment could improve job satisfaction and reduce intention to leave (Ariffin & Bit-Lian, 2022). Moreover, the nurse managers obtained more strategies to improve conditioning factors influencing clinical confidence and decision-making practice.

In the context of the limitations, the use of a self-reported questionnaire and limited samples may raise the potential for bias. Additionally, the unimplemented sample proportion for each unit impacts the comparison analysis. Limited external validity should be considered since the research was conducted at a single institution without a comparison model.

5. Conclusion

In conclusion, the results show the positive impact of nurses' daily habits (ODOCQ) in using online databases to improve clinical confidence (p>0.001) and decision making (p>0.019) integrated into routine unit activities. This research reports the importance of adaptive learning habits and experiences in daily practice designed to strengthen knowledge and build confidence to improve nursing care outcomes. Availability of clinicians in orthopaedics is beneficial to guide and improve the competency of the general nurse. These results should motivate policymakers and clinical educators to allocate more time and resources for professional development habit program. ODOCQ is expected to improve readiness in implementing evidence-based practice. Further longitudinal research is needed to analyze saturation, workload, and job satisfaction as well as assess the impact on self-efficacy, caring behavior, and EBP readiness.

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