

Assessing Clinical Practice Evaluation for Nursing Students: A Systematic Review on Validity, Reliability, Practicability, and Objectivity Components

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Abstract: The evaluation of clinical practice serves as a critical foundation for assessing students' progress and determining the success of nursing education programs with the use of components such as validity, reliability, practicability, and objectivity is crucial to ensure the accuracy and reliability of evaluation results. This Study aims to provide an overview of the existing research landscape, highlighting the components of validity, reliability, practicability, and objectivity in the evaluation of clinical practice among nursing students. This systematic review utilized electronic databases accessed via journal search engines: Google Scholar, ProQuest, PUBMED, Springer, Hindawi, DOAJ, and Science Direct. The selected journals met the criteria of being open-access publications released in the past five years (2018-2023). The results of the journal search obtained 13 journals that were relevant to the keywords. Most researchers develop or create evaluation instruments by paying attention to the validity component 13 (100%), while the reliability component is 11 (85%), the practicability component is 9 (69%), and the objectivity component is 6 (46%). A better understanding of preferences for the quality components of clinical practice evaluations use can improve the evaluation's quality and ultimately improve the education quality, clinical practice, and nursing student's skills.

1 INTRODUCTION

Every nursing educational institution that carries out clinical practice should certainly have a clinical practice evaluation assessment form. This is because clinical practice evaluation is a critical basis for assessing student progress and determining the success of nursing education programs (Paler et al., 2022). However, in the application or process of creating the assessment form, many aspects need to be addressed, especially those related to components such as validity, reliability, practicability and objectivity (Oermann & Gaberson, 2019). All of these components are very important to ensure the accuracy and reliability of evaluation results because they are determining factors in whether a clinical practice evaluation can be said to be of quality or not.

Nursing education plays a vital role in producing competent and qualified health workers. One

important element in the nursing education curriculum is clinical practice, where students can hone their clinical skills through direct experience in the field (Maharani et al., 2022; Orellano & Carcamo, 2021). Clinical practice evaluation is a crucial assessment tool in assessing nursing students' abilities and development during their training (Einarsen & Giske, 2019). The accuracy and reliability of these evaluations are fundamental to ensuring that students are able to meet high nursing standards (Kahya & Oral, 2018; Koldestam et al., 2021). Therefore, attention to the quality of clinical practice evaluation is very important. Reliable and high-quality evaluation of clinical practice requires a careful approach to the selection and application of assessment instruments (Kahya & Oral, 2018). In measuring the quality of the evaluation, four main components have a crucial role, namely validity, reliability, practicability and objectivity.

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Validity measures the extent to which an evaluation instrument is able to measure what it is supposed to measure. In the context of clinical practice evaluation, it is important to ensure that the instruments used truly reflect the abilities and competencies that are intended to be assessed in nursing students (Orellano & Carcamo, 2021). Reliability is a determining factor in measuring the extent to which an instrument provides consistent and reliable results (Said & Muslimah, 2021). In clinical practice evaluation, instrument reliability is the basis for making accurate and reliable decisions regarding student progress. Practicability, which includes the ease and usability of instruments in the field, is also a key element in ensuring that evaluations can be implemented efficiently without compromising the quality of the results (Rohendi et al., 2020; Smith, 2019). Objectivity guarantees that the subjective factors of the assessor do not influence the evaluation results (Oermann & Gaberson, 2019). In the context of clinical practice, this aspect is very important to minimize potential biases that may arise during the assessment process.

The integration and correct application of these four components supports the creation of quality clinical practice evaluations, which in turn can make a positive contribution to the formation of a qualified and competent nursing workforce (Gray & Grove, 2021; Hickey & Giardino, 2019). Although the importance of these components is recognized, challenges and complexities remain in their use, particularly in the nursing context. Therefore, there is a need for a systematic review to explore the extent to which the use of these four components has been integrated into the evaluation of nursing students' clinical practice.

A careful search of the literature will open up space for an in-depth understanding of current trends and findings surrounding the use of validity, reliability, practicability, and objectivity in the context of nursing clinical practice evaluation (Holmboe et al., 2020; Mohamadirizi et al., 2021). By understanding the extent to which the use of these components has occurred, we can gain better insight into the effectiveness and challenges faced in selecting, implementing, and improving clinical practice evaluation instruments. A systematic literature review also provides an opportunity to identify best practices and innovative approaches in measuring the quality of clinical practice evaluation, which can serve as a basis for the development of guidelines and policies at the nursing education level.

Through this systematic review, it is hoped that we can answer the research question "How is the

utilization of clinical practice evaluation components?" and "Which component is most widely used among the validity, reliability, practicability, and objectivity components?" In addition, this systematic review is expected to provide a significant contribution to our understanding of how the integrity and quality of clinical practice evaluations of nursing students can be improved through the wise application of these evaluation components. As a final result, this effort is directed at providing a holistic view of the use of validity, reliability, practicability and objectivity components in order to improve the quality of clinical practice evaluations of nursing students, bringing a positive contribution to improving the quality of education and forming a competent and responsive nursing workforce.

2 METHODS

This study is a systematic review study which aims to provide a general overview of the existing research landscape, highlighting the components of validity, reliability, practicability and objectivity in evaluating clinical practice among nursing students by answering the research question, namely "How is the utilization of clinical practice evaluation components?" and "Which component is most widely used among the validity, reliability, practicability, and objectivity components?" The systematic review process was carried out by taking sources from several open electronic databases using journal search engines, such as Google Scholar, ProQuest, PUBMED, Springer, Hindawi, DOAJ, and Science Direct. The journals selected are journals from the last five years (2018-2023) so that the data obtained is the most updated and is currently used. The keywords used to obtain systematic review sources were made specifically, namely "Quality Components of Clinical Practice Evaluation among Nursing Students; Validity, Reliability, Practicability, and Objectivity". The purpose of using specific keywords is so that researchers can immediately find journals that are truly related to the topic being discussed so that they are more effective and efficient. In the search process, the words "OR/AND" are used to filter during the search process so that the search results match the keywords. Journal analysis was carried out using the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) method and analysed descriptively. The data extraction process is seen from the database and content or subject matter. Journal criteria are determined based on inclusion and exclusion criteria (Table 1).

Table 1: Inclusion and exclusion criteria for assessing identified papers

No	Assessment Level	Criteria	Assessing identified papers criteria
1	Type	Inclusion	Open access
		Exclusion	Payable access
2	Year of Publication	Inclusion	2018 until 2023
		Exclusion	Longer than 2018
3	Title and abstract (Screening)	Inclusion	- At least one operational research, quality component of clinical practice evaluation among nursing students with the name or general in the article title, journal title, or keywords. AND/OR - At least one quality component (validity, reliability, practicability, and objectivity) of clinical practice evaluation among nursing students in the article title, journal title, keywords, or abstract. AND/OR - Discuss quality components (validity, reliability, practicability, and objectivity) of clinical practice evaluation among nursing students in the abstract or method.
		Exclusion	E1: Title or journal of publication did not relevance to operational research: quality components (validity, reliability, practicability, and objectivity) of clinical practice evaluation among nursing students. E2: The abstract did not indicate the quality components (validity, reliability, practicability, and objectivity) of clinical practice evaluation among nursing students. E3: The paper did not focus on the quality components (validity, reliability, practicability, and objectivity) of clinical practice evaluation among nursing students.
4	Full Text (Eligibility)	Inclusion	- Discuss the quality components (validity, reliability, practicability, and objectivity) of clinical practice evaluation among nursing in the abstract and body of paper. - Discuss the quality components (validity, reliability, practicability, and objectivity) of clinical practice evaluation among nursing in the abstract and body of the paper, quantitative research method.
		Exclusion	E4: All which do not meet the inclusion criteria.

3 RESULT

The search was carried out on open electronic databases, namely Google Scholar, ProQuest, PUBMED, Springer, Hindawi, DOAJ, and Science Direct, following the inclusion and exclusion criteria and then analysed. The results of the journal search that has been carried out are displayed in the PRISMA flow chart as shown in Figure 1.

The flow chart (Figure 1) is the process and results of the assessment from the journal being analysed.

This flow chart was created using the PRISMA flow diagram generator application (Haddaway et al., 2022). From the assessment results, it was found that 1,253 journals were processed and analysed further. Several journals were eliminated because they were duplicates and needed to match the topic, and also fell into the exclusion criteria E1, E2, E3, and E4 (table 1). The final results of the assessment and analysis left 13 journals eligible.

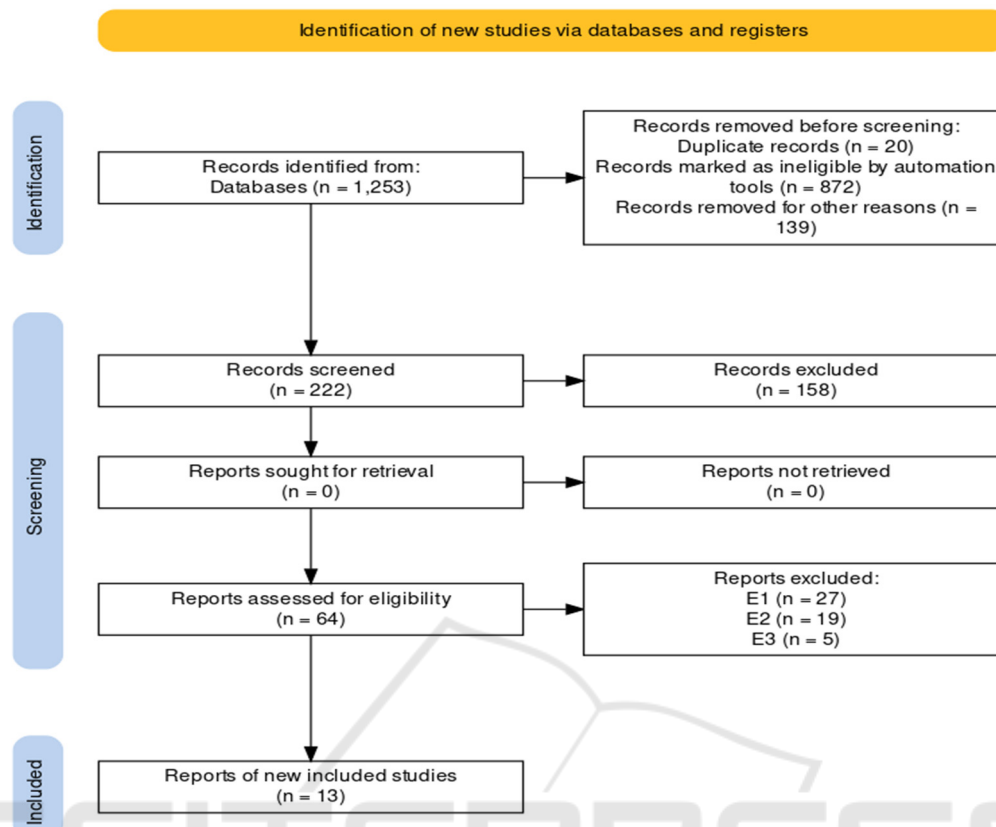


Figure 1: Flowchart of the systematic review selection stage

Table 2: Result of systematic review assessment

No	Author & year	Instrument/tool	Quality of evaluation component used			
			Validity	Reliability	Practicability	Objectivity
1	D'Aoust et al. (2022)	PRIME-NP Clinical Competency	✓	✓	-	-
2	Román-Cereto et al. (2022)	SCE (Self-Confidence Educational) Clinical Practice	✓	-	-	-
3	Park & Hwang (2021)	Evidence Based Practice (EBP)	✓	✓	✓	-
4	Belintxon et al. (2021)	CUSNUR (Cultural Sensibility Scale for Nursing)	✓	✓	✓	-
5	Todd et al. (2023)	C-CEI (Creighton Competency Evaluation Instrument) 2.0 [®]	✓	✓	✓	✓
6	Zhang et al. (2021)	HPAN Scale (Humanistic Practice Ability of Nursing)	✓	✓	✓	✓
7	Wu et al. (2022)	Self-Efficacy Scale Clinical Nursing	✓	-	-	-
8	Faraji et al. (2019)	NCS (Nursing Competence Scale)	✓	✓	✓	✓
9	Chen et al. (2023)	Mini-CEE (Mini Clinical Evaluation Exercise)	✓	✓	✓	-
10	Wang et al. (2023)	CBL-SCT (Case Based Learning with Situated Combination Theory)	✓	✓	-	-
11	Hashimoto et al. (2023)	HCT (Holistic Critical Thinking)	✓	✓	✓	✓

No	Author & year	Instrument/tool	Quality of evaluation component used			
			Validity	Reliability	Practicability	Objectivity
12	Terefe et al. (2023)	CCI (Clinical Competency Instrument)	✓	✓	✓	✓
13	Knipe et al. (2020)	DP (Deliberate Practice) and simulation scenarios	✓	✓	✓	✓

4 DISCUSSION

Based on Table 2, it is known that of the 13 journals analysed, the majority of researchers developed or created evaluation instruments by paying attention to the validity component 13 (100%), while the reliability component was 11 (85%), the practicability component was 9 (69%), and the objectivity component was 6 (46%). The use of validity, reliability, practicability and objectivity components is very important in creating an instrument, especially in evaluating nursing clinical practice. The validity component in clinical practice evaluation assures that the evaluation instrument created can indeed measure what it is supposed to measure (Mohamadirizi et al., 2021; Renton et al., 2019). Therefore, by understanding and utilizing the concept of validity, nursing educational institutions can assess the extent to which nursing students can apply the knowledge and skills they already have in the context of practice. Apart from validity, the use of reliability components is also very important, and educational institutions must ensure that the results of clinical practice evaluations are reliable and consistent (Fukada, 2018; Lorwald et al., 2018). Stable results of evaluation instruments over time provide a strong and unambiguous basis for making decisions related to nursing student abilities.

Practicality is a crucial element in evaluating an instrument because it includes the extent to which the evaluation instrument is easy to implement. The use of a clearly structured evaluation rubric, as well as efficient evaluation implementation, can significantly increase the practicality of the evaluation process (Joel, 2018; Rao, 2019). In this way, practicality not only minimizes the need for large resources but also ensures that evaluation instruments can be seamlessly integrated into daily routines. In this context, practicality is not just about efficiency but also about the ability to align evaluation with the dynamics and needs that arise in daily activities (Joel, 2018; Rao, 2019). Thus, practical implementation of evaluation can support the effectiveness of using these instruments in improving performance and achieving holistic evaluative goals.

Objectivity plays a central role in ensuring that the results of clinical practice evaluations reflect fairness and are free from bias. In an effort to achieve an optimal level of objectivity, strategic steps need to be implemented, one of which is using a standardized evaluation rubric. This rubric provides a clear and consistent framework for assessing various aspects of clinical practice, thereby reducing room for subjective interpretation (María & Moreno-mulet, 2021; Mukhoirotin et al., 2021). Apart from that, intensive training for assessors is also an important aspect of maintaining objectivity. By deeply understanding evaluation parameters and recognizing them consistently, appraisers can avoid personal biases that could influence their judgments. Therefore, the combined use of standardized evaluation rubrics and careful ratter training are critical steps in achieving the objectivity necessary to ensure fairness and accuracy in the assessment of clinical practice.

Understanding and effectively applying the components of clinical practice evaluation is very important for assessing and improving the skills and knowledge of health practitioners. Utilizing clinical practice evaluation components is not only a critical step but also an essential effort in assessing and improving the quality of education and professionalism in the health sector (Majumder et al., 2019). By realizing and optimizing validity, reliability, practicality and objectivity, educational institutions and health practitioners are able to ensure that clinical practice evaluations provide an accurate and relevant picture of the abilities and competencies possessed by health practitioners (Melnik & Fineout-Overholt, 2019; Orellano & Carcamo, 2021; Ortiz et al., 2018). These aspects create a solid foundation for measuring individual achievement and development in the clinical practice environment (Oermann & Gaberson, 2019). In addition, integrating evaluation results into a continuous improvement process is an important key. This action provides a guarantee that the resulting graduates or health practitioners are ready to face the complex demands that exist in the world of health, along with the progress and developments that continue to characterize this field.

The quality of clinical practice evaluation also involves several elements that need to be considered, such as meeting or exceeding expectations related to people, products, processes and the environment dynamic and can change at any time. Factors that influence the quality of nursing clinical practice include several key aspects. First, the role of humans has a significant impact, both bad and good, on the quality of products produced by educational institutions. Therefore, training, health insurance, motivation, career paths and other efforts need to be considered to improve the quality of teaching staff and students (Oermann & Gaberson, 2019; Smith, 2019). Second, effective management and good coordination between parts of an educational institution are important factors so that all processes run smoothly without chaos (Oermann & Gaberson, 2019; Smith, 2019). Apart from that, the financial aspect (money) is also a concern because sufficient funds are needed to maintain or improve the quality of educational products. Third, materials, including student practice areas, must also receive attention because clinical practice sites are a forum for developing students' experience and skills in providing services (Cunningham & Moore, 2020; Gibson et al., 2020; Terry & Rue, 2021). Finally, the use of machines and mechanization, as well as the application of modern technology, also influences the quality of the students produced. Better tools can improve students' abilities, while the use of outdated and incomplete equipment and evaluation methods can harm the quality of education. Therefore, before measuring the quality of clinical practice evaluation among nursing students, it is important to pay special attention to the elements and factors that have been mentioned.

5 CONCLUSIONS

This systematic review provides an in-depth understanding of the role and challenges in using the components of validity, reliability, practicability, and objectivity in evaluating nursing students' clinical practice. There is a need to understand the importance of the quality components of evaluation as a basis for developing guidelines and policies to improve clinical practice evaluation so that it becomes higher quality, as well as providing insight for further development in the field of nursing education. The analysis in this study provides an overview of which components are most widely used or prioritized in various clinical practice evaluation contexts. The findings in this systematic review may have

implications for the future development of evaluation instruments, improving rather training, and improving the overall clinical evaluation process. A better understanding of preferences for the use of quality components of clinical practice evaluations can help improve the quality of evaluations and ultimately improve the quality of education, clinical practice, and skills of nursing students.

AUTHOR CONTRIBUTION

All authors contributed to the systematic review, data analysis, interpretation, drafting, and critical article revision.

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CONFLICT OF INTEREST

The author declares no conflict of interest.

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