

NURSES' KNOWLEDGE AND ATTITUDES TOWARD PRIMARY SURVEY IMPLEMENTATION IN THE EMERGENCY DEPARTMENT: A SCOPING REVIEW

Silvestre Dos Reis¹, Yanny Trisyani^{2*}, Aan Nuraeni²

¹Magister Program, Faculty of Nursing, Universitas Padjadjaran, Sumedang, Jawa Barat, Indonesia

²Department of Critical Care and Emergency Nursing, Faculty of Nursing, Universitas Padjadjaran, Sumedang, Jawa Barat, Indonesia

Email Korespondensi: yanny.trisyani@unpad.ac.id

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ABSTRACT

Nurses in emergency departments play a vital role in conducting initial assessments and providing rapid management for critically ill patients through the ABCDE-based primary survey. Nurses' knowledge and attitudes in performing the primary survey significantly influence patient safety and the quality of care. Objective to identify the relationship between nurses' knowledge and attitudes and the implementation of the primary survey in emergency departments. **Methods:** This study employed a narrative review design to summarize the literature related to nurses' knowledge and attitudes in the application of the primary survey in emergency departments. From the eight studies reviewed, most indicated that adequate knowledge was closely associated with nurses' positive attitudes in implementing the primary survey. Good knowledge supports professional attitudes and self-confidence, thereby improving accuracy and speed in emergency interventions. However, several studies noted that the accuracy of primary survey implementation is also influenced by other factors such as work experience, supervision, safety culture, and resource availability. Additional challenges include training gaps, heavy workloads, and variations in hospital policies that may affect the quality of implementation. **Conclusion:** Nurses' knowledge and attitudes are closely interrelated and mutually reinforcing in the successful implementation of the primary survey in emergency departments. Competency enhancement should be pursued through continuous training, simulation practice, and strengthening patient safety culture to further optimize the quality of emergency care.

Keywords: Knowledge, Initial Assessment, Nurse, Emergency Department, Attitude, Primary Survey.

INTRODUCTION

Emergency care is a vital component of the health system, particularly in dealing with acute and life-threatening conditions such as heart attacks, strokes, and the impact of natural disasters, which are common in Indonesia (Kumar, 2023; Trisyani et al., 2023; WHO, 2025). The emergency department is the first line of defense in this crisis, where nurses play a central role. They are responsible for conducting rapid assessments,

establishing priorities, initiating life-saving interventions, coordinating with the medical team and providing emotional support (Glasser, 2023; Kim J et al., 2022; Labrague, 2024). Nurses' competencies in emergency situations, including communication skills, rapid decision-making, and stress management, significantly impact patient safety and clinical outcomes (Ahmari et al., 2019). Studies show that competent nurses contribute to improved quality of care and reduced

adverse events (Labrague, 2024). In addition, emergency nurses must be adept at managing high-stress situations, multitasking, and making quick decisions under pressure, while maintaining clear communication with patients and their families. Their role extends beyond direct clinical care to include patient advocacy, education, and emotional support, underscoring their multifaceted contribution to emergency healthcare (Glasser, 2023; Trisyani et al., 2023).

The primary survey is a structured, step-by-step assessment method used in emergency care to rapidly identify and treat life-threatening conditions and manage the condition of critically ill or injured patients (Bruinink et al., 2024). This assessment follows the ABCDE (Airway, Breathing, Circulation, Disability, and Exposure) approach and is designed to prioritize the most critical issues first, following the principle of "treat what can kill first" (Bruinink et al., 2024; Resuscitation Council UK, 2024). This approach can be applied across a variety of clinical settings, from pre-hospital care to the emergency department and intensive care unit, and is suitable for patients of all ages (Kool & Blickman, 2007). By following the ABCDE sequence, healthcare providers can quickly identify and address immediate threats to life, thereby facilitating rapid clinical decision-making and improving patient outcomes (Kool & Blickman, 2007). Previous research has also shown that use of the ABCDE approach can reduce mortality and improve patient outcomes by standardizing the assessment process, especially in high-pressure environments such as the emergency department or trauma center (Thim et al., 2012).

The competence of nurses in conducting primary surveys is crucial in handling emergency patients, considering that they are often the first medical personnel to conduct an initial assessment (South African Nursing Council, 2010). Adequate knowledge and a positive attitude towards the primary survey, particularly the ABCDE approach, directly influence the speed and accuracy in identifying and managing

life-threatening conditions (So'emah et al., 2018). Nurses with a high level of knowledge and professional attitude have been shown to be more capable of conducting systematic assessments, setting appropriate priorities, and providing rapid critical interventions on all factors essential for patient safety and recovery (Durmuş et al., 2025; So'emah et al., 2018). On the other hand, lack of understanding or inappropriate attitudes can lead to delays in recognizing critical conditions, errors in decision-making, and increased risks of morbidity and mortality (Durmuş et al., 2025; So'emah et al., 2018). Studies also show that knowledge-based competencies and attitudes towards clinical practice, including primary surveys, have a significant impact on improving the quality of care and patient safety (So'emah et al., 2018).

Several studies have found that nurses' levels of knowledge about primary surveys and Basic Life Support (BLS) vary widely, which has a direct impact on the accuracy and speed of initial action taken in emergency patients (Cirana et al., 2024; Maryati et al., 2020; So'emah et al., 2018). These training and understanding gaps are often caused by a lack of ongoing formal training, limited access to specialized training programs, and differences in standard operating procedures across hospitals (Maryati et al., 2020; So'emah et al., 2018). In addition, other challenges faced by nurses in implementing primary surveys include high workloads, lack of adequate hospital policy support, and limited resources and supporting facilities in the emergency room (Aty & Blasius, 2021; Maryati et al., 2020). This condition causes some nurses to experience difficulties in carrying out quick and accurate assessments which can ultimately affect the success of patient treatment, especially in critical cases such as decreased consciousness and respiratory disorders (Aty & Blasius, 2021).

Based on the results of the literature search, a comprehensive study of nurses' knowledge and attitudes towards primary surveys in emergency services is still limited. This situation

leads to a lack of comprehensive understanding of the application of primary surveys in clinical practice. Therefore, this scoping review is important to explore and map nurses' knowledge and attitudes regarding the implementation of primary surveys (Journal et al., 2025; Marlisa, 2019). Thus, the results of this review are expected to contribute to improving the quality of emergency services and patient safety.

LITERATURE REVIEW

Nurse Knowledge about Primary Survey

Primary Survey knowledge is a fundamental skill in the initial assessment of patients to systematically identify and manage life-threatening conditions, with the ABCDE approach used in medical emergencies to improve patient safety (ATLS., 2018). Nursing knowledge is the collection of information, skills, and understanding that a nurse has to provide safe and effective care (Practice & Bloom, 2008). This primary survey knowledge covers a wide range of disciplines, such as biomedical sciences, behavioral sciences, social sciences, as well as ongoing clinical and coaching skills (Maloney et al., 2022).

The primary survey knowledge explains the understanding of the ABCDE systematic procedures in emergency conditions, which shows that there is a significant relationship between the level of nurses' understanding and the speed and responsiveness of responses to emergency conditions in the ER (Khairari, 2021). Comprehensive knowledge of primary survey is essential to use the systematic ABCDE method on patients to identify life-threatening conditions (Elbaih & Basyouni, 2020).

Nurse Attitudes toward Primary Survey

The primary survey attitude is a tendency to refer to consistency with situations or conditions observed in emergency conditions that contribute to improving the quality of implementation of good emergency services in the ER (Yulianawati et al., 2023). The attitude of professional nurses in implementing

the Primary Survey in handling emergency cases, the positive nature of which can be demonstrated through the results of the assessment, speed of decision making, and timely performance is very important to optimize the handling of emergency patients (Alanazi et al., 2022).

The nurse's attitude in carrying out the primary survey in the Emergency Room is an important aspect in providing fast, accurate, and effective services for patients in critical conditions and a good attitude reflects readiness, responsiveness, and commitment to emergency service standards based on patient safety (Andrayoni et al., 2019). The nurse's attitude in assessment covers several aspects, including monitoring the patient's condition, effective communication and patient evaluation and clinical skills (Alshehry, 2024).

METHODS

Study Design

This study employed a scoping review design. A scoping review was chosen because it provides flexibility in mapping, synthesizing, and analyzing the existing literature without restricting inclusion to specific study types (Arksey & O'Malley, 2005). This approach enables researchers to explore the breadth of available evidence, identify research trends, highlight knowledge gaps, and outline potential clinical and practical implications that emerge from the body of literature (Arksey & O'Malley, 2005).

Eligibility Criteria

The article selection process for this review was conducted by three authors. The research questions and eligibility criteria for the research articles used the PCC (Population, Concept, and Context) approach.

P (*Population*) : Nurse or Nurses

C (*Concept*) : Knowledge and attitudes towards primary survey

C (*Context*) : Emergency Departement

In this review, inaccessible full-text articles and secondary studies were excluded. Inclusion criteria included: (1) studies involving nurses in the

emergency room, (2) studies identifying nurses' knowledge and attitudes towards primary surveys or initial assessments, and (3) publications in English or Indonesian. Exclusion criteria included: review articles, editorials, case reports, and studies that did not provide relevant data regarding nurses' knowledge and attitudes in the emergency room.

Literature Search Strategy

The article search was conducted using the PubMed database and the Google Scholar search engine, with keywords applying Boolean operators: "Nurse OR Nurses OR Emergency Nurse AND Knowledge AND Attitude AND Primary Survey OR Primary Assessment OR Initial Assessment AND Emergency room OR Emergency department." The inclusion criteria for this review consisted of original research articles employing qualitative, quantitative, or mixed methods; articles written in English or Indonesian; full-text articles available in complete form; studies published within the last 10 years (2015-2025) to ensure relevance and up-to-date evidence; studies exploring nurses' knowledge and attitudes toward the primary survey or initial assessment; and studies conducted in emergency rooms or emergency departments.

Study Selection

The article selection process was carried out systematically and openly to ensure that only articles that truly fit the objectives of this review were included. All search results from the PubMed and Google Scholar databases were entered into the Mendeley application to check for compliance with the inclusion criteria. Articles that are clearly inappropriate are immediately removed. For articles that appeared to be compliant or were unclear only from the abstract, the full text was read. The author reassessed the article's suitability for inclusion. If there are doubts or differences of opinion in assessing an article, the author will discuss it with two other authors (YT and AN) so that a joint decision can be made.

Data Extraction and Analysis

All authors were actively involved in selecting studies that met the eligibility criteria. During the data

extraction process, the authors identified and recorded key information from each article using a pre-designed table format. This extraction table included information such as: author name and year of publication, country of origin, study design, sample size and characteristics, instruments used, and key findings related to nurses' knowledge and attitudes toward the primary survey. After the initial data extraction, two other authors (YT and AN) double-checked the table to ensure completeness and consistency.

Data analysis was conducted descriptively and narratively. The analysis process began by grouping findings based on key themes: knowledge, attitudes, and the relationship between the two. These findings were then summarized and presented in a structured narrative format in the results and discussion sections, while still referencing the data obtained from the articles analyzed.

HASIL

Study Selection

The initial search identified a total of 1,080 articles, consisting of 780 from PubMed and 300 from Google Scholar. After removing 35 duplicate records, 1,045 articles remained for further screening. At the title and abstract screening stage, 1,030 articles were excluded because they were not relevant to the research focus, leaving 15 articles for a more detailed assessment. These 15 articles were then screened based on comprehensiveness and inclusion criteria, particularly regarding population, intervention, and language. During this process, seven articles were excluded: one due to an unsuitable or heterogeneous population, and six because they did not address knowledge or attitudes as the outcomes of interest. Subsequently, eight articles were retrieved in full text and assessed for eligibility. All eight studies met the inclusion criteria and were therefore included in the systematic analysis. In conclusion, a total of eight articles were analyzed in the final manuscript.

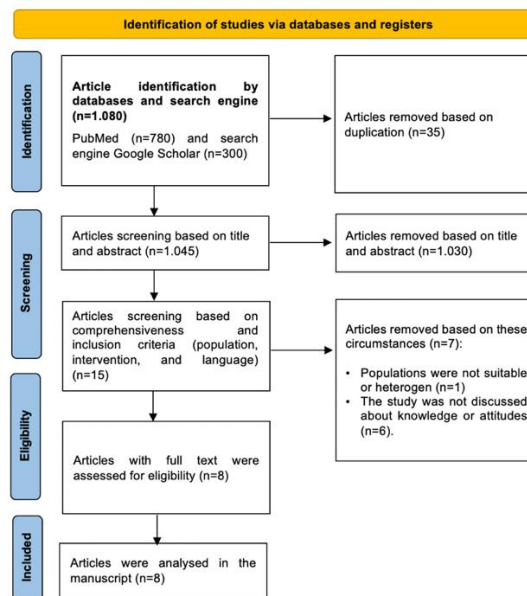


Figure 1. PRISMA Flowchart

Characteristics of Studies

In this review, several types of articles were further analyzed, including correlational ($n=8$) and mixed-method ($n=1$) designs, conducted in Indonesia ($n=7$) and Australia ($n=1$). The total number of participants was 278 nurses, with the maximum number of participants being 70 nurses by Purnamasari dan Aryani, (2020) and at least 20 nurses by study Bintang & Sumarni, (2022). All studies used a questionnaire to assess knowledge, accompanied by observation sheets or other methods to assess attitudes, skills, or implementation of the primary survey (See Table 1).

Nurses' Knowledge of Primary Survey Implementation

Based on the eight studies analyzed, the level of knowledge among nurses in emergency departments regarding the implementation of the primary survey showed considerable variation; however, the majority of nurses fell into the good to very good knowledge category. In general, nurses' knowledge levels were assessed using questionnaires that included components of the initial assessment, such as Airway, Breathing, Circulation, Disability, and Exposure (ABCDE), as well as understanding of emergency care protocols such as BTCLS (Basic Trauma and Cardiac Life Support). A study conducted by Cirana et al. (2024)

reported that 72.4% of the 29 participating nurses demonstrated good knowledge of the initial assessment, while the remaining 27.6% were categorized as having a moderate level of knowledge (Cirana et al., 2024). Similar results were found in the study by Rahmawati et al. (2023), which noted that 64.5% of 31 nurses had good knowledge of BTCLS, 32.3% had sufficient knowledge, and only 3.2% were in the poor category (Rahmawati et al., 2023). Meanwhile, a study by Yustilawati et al. (2023) showed a more even distribution of knowledge, namely 56.8% of nurses had good knowledge and 43.2% had sufficient knowledge (Yustilawati et al., 2023).

Similar results were also found in a study by Massa (2018), which stated that 73.91% of 23 nurses had good knowledge of initial assessment, while 26.09% had sufficient knowledge (Massa, 2018). Purnamasari & Aryani (2020), Of the 70 nurses studied, 61.4% showed a very good level of knowledge and 38.4% had good knowledge of the Early Warning System application which is part of the initial assessment (Purnamasari & Aryani, 2020). In addition, Bintang & Sumarni (2022) noted that 50% of the 20 nurses were in the good knowledge category, and the other 50% were in the poor knowledge category (Bintang & Sumarni, 2022). However, not all studies show positive results. A study by Wijayanto & Budianto (2023) reported that the majority of nurses (70%) were in the poor knowledge category, and only 30% were classified as adequate (Wijayanto & Budianto, 2023). Meanwhile, an Australian study by Munroe et al. (2018) using a mixed-method approach, noted that after training using the HIRAIID framework, 52.2% showed increased knowledge and confidence in assessing emergency patients.

Overall, the results of these eight studies indicate that the majority of nurses in emergency departments have a good level of knowledge regarding the primary survey, although there is variability between studies. The percentage of nurses with good knowledge ranged from 50% to 73.91%, while nurses with adequate knowledge

ranged from 26.9% to 43.2%. Only one study highlighted the predominance of nurses with poor knowledge (70%). These findings underscore the importance of ongoing emergency department training such as the BTCLS and the implementation of systematic frameworks such as HIRAID to improve the quality of initial assessment in emergency department patients.

Nurses' Attitude of Primary Survey Implementation

Nurses' attitudes towards the implementation of the primary survey in the emergency room describe the extent to which nurses' confidence, skills, and readiness to apply their knowledge in clinical practice (Cirana et al., 2024). Based on eight studies analyzed, the majority of nurses demonstrated positive attitudes and skills in conducting primary surveys, although a small proportion still demonstrated suboptimal skills. Research by Cirana et al. (2024) showed that the majority of nurses (89.7%) were classified as skilled in conducting primary surveys, while only 10.3% were considered less skilled (Cirana et al., 2024). A similar attitude was found in a study by Yustilawati et al. (2023), which noted that 73% of nurses had a good attitude towards the implementation of the primary survey, while 27% were in the sufficient category (Yustilawati et al., 2023). Rahmawati et al.'s (2023) research also supports these findings, with the results showing that 51.6% of nurses had good skills, 16.1% had adequate skills, and only 3.2% were classified as lacking (Rahmawati et al., 2023).

On the other hand, a study by Wijayanto and Budianto (2023) showed slightly more varied results, where 56.7% of nurses were assessed as having a good attitude or accuracy in carrying out initial assessments, but there were still 43.3% of nurses in the less than ideal category (Wijayanto & Budianto, 2023). Meanwhile, the results from Massa (2018) showed a fairly diverse distribution of attitudes, namely 4.35% good, 78.26% sufficient, and 17.39% less, which indicates that although the majority have sufficient attitudes, there is still room for improvement in practical skills in implementing primary surveys

(Massa, 2018). In addition, a study by Bintang & Sumarni (2022) showed an even split between nurses who were assessed as skilled (50%) and unskilled (50%) in the primary survey, reflecting a gap in skills between individuals or perhaps irregularities in training (Bintang & Sumarni, 2022). Meanwhile, Purnamasari & Aryani (2020) reported that 65.7% of nurses had a very good attitude towards the Early Warning System (EWS) application, which is closely related to initial assessment, and 34.3% were classified as good (Purnamasari & Aryani, 2020). The only Australian study by Munroe et al. (2018) with a mixed methods approach, showed an increase in confidence after implementing the HIRAID framework and educational interventions.

Overall, most nurses in the emergency department (ED) had a positive and competent attitude toward the primary survey, with skill and confidence levels ranging from good to excellent. The proportion of nurses rated as good or skilled ranged from 50% to 89.7%, while the proportion rated as adequate ranged from 16.1% to 78.26%. However, there were still nurses classified as less or unskilled (3.2%-17.39%), necessitating ongoing practical training to ensure optimal quality of initial assessment in the emergency room.

The Relationship between Nurses' Knowledge Level and Attitudes Towards Primary Survey

Most studies have shown a positive relationship between nurses' knowledge levels and their attitudes or skills in conducting primary surveys in the emergency room. Nurses with good knowledge generally exhibit more positive attitudes and higher skills. For example, Cirana et al. (2024) and Yustilawati et al. (2023) noted that the majority of nurses with good knowledge were also considered skilled in their practice (Cirana et al., 2024; Yustilawati et al., 2023). Similar findings were also found in studies by Rahmawati et al. (2023), Massa (2018), and Purnamasari & Aryani (2020), which consistently showed a correlation between high knowledge and positive attitudes (Massa, 2018; Purnamasari & Aryani,

2020; Rahmawati et al., 2023). Munroe et al.'s (2018) study from Australia added that training using the HIRAID framework increased nurses' confidence and quality of assessment (Munroe et al., 2018). However, one study by Wijayanto & Budianto, (2023) did not find a significant relationship, possibly

due to other factors influencing nursing skills (Wijayanto & Budianto, 2023). Overall, seven of the eight studies supported that the higher the nurses' knowledge, the better their attitudes and skills in conducting the primary survey (See Table 1 and 2).

Tabel 1. Data Extraction Results

Study	Country	Design	Participants	Knowledge	Attitude/Skills	Conclusion
(Cirana et al., 2024)	Indonesia	Quantitative correlational	29 nurses	Good: 72.4%; Fair: 27.6%	Skilled: 89.7%; Less skilled: 10.3%	Significant relationship between knowledge of initial assessment and primary survey implementation
(Wijayanto & Budianto, 2023)	Indonesia	Descriptive cross-sectional	30 nurses	Poor: 70%; Fair: 30%	Good: 56.7%; Poor: 43.3%	No significant relationship between knowledge and accuracy of primary survey implementation
(Yustilawati et al., 2023)	Indonesia	Quantitative cross-sectional	37 nurses	Good: 56.8%; Fair: 43.2%	Good: 73%; Fair: 27%	Significant relationship between knowledge and competence in primary survey
(Rahmawati et al., 2023)	Indonesia	Cross-sectional	31 nurses	Good: 64.5%; Fair: 32.3%; Poor: 3.2%	Good: 51.6%; Fair: 16.1%	Significant relationship between BTCLS knowledge and initial assessment skills
(Munroe et al., 2018)	Australia	Mixed-method	38 nurses	52.2% applied HIRAID 4-6 months post-training	Confidence & use of framework increased after training	HIRAID improved quality of assessment and response to deterioration
(Massa, 2018)	Indonesia	Quantitative correlational	23 nurses	Good: 73.91%; Fair: 26.9%	Good: 4.35%; Fair: 78.26%; Poor: 17.39%	Significant and strong relationship between initial knowledge and primary survey implementation
(Purnamasari & Aryani, 2020)	Indonesia	Descriptive cross-sectional	70 nurses	Very Good: 61.4%; Good: 38.4%	Very Good: 65.7%; Good: 34.3%	Significant relationship between knowledge and EWS application
(Bintang & Sumarni, 2022)	Indonesia	Cross-sectional	20 nurses	Good: 50%; Poor: 50%	Skilled: 50%; Not skilled: 50%	Significant relationship between BTCLS knowledge and primary survey skills

Table 2. Data Extraction Category Results

Category	Summary of Findings	Number of Studies	%	Supporting Studies
Nurses' Knowledge	Most nurses demonstrated good to very good knowledge;	6 studies	75 %	Cirana et al. (2024); Yustilawati et al.

Category	Summary of Findings	Number of Studies	%	Supporting Studies
	only a small proportion had fair or poor knowledge			(2023); Rahmawati et al. (2023); Massa (2018); Purnamasari & Aryani (2020); Bintang & Sumarni (2022)
Attitudes/Skills	The majority showed positive attitudes and good skills, although gaps were noted in technical performance	5 studies	62,5 %	Cirana et al. (2024); Yustilawati et al. (2023); Rahmawati et al. (2023); Purnamasari & Aryani (2020); Bintang & Sumarni (2022)
Knowledge-Attitude/Implementation Relationship	Most studies reported a significant relationship; only one study found no significant association	6 significant, 1 not significant	75 %	Significant: Cirana et al. (2024); Yustilawati et al. (2023); Rahmawati et al. (2023); Massa (2018); Purnamasari & Aryani (2020); Bintang & Sumarni (2022). Not significant: Wijayanto & Budianto (2023).

DISCUSSION

The analysis of this review shows that nurses' knowledge of primary survey implementation in the emergency department is generally quite good. Most understand the basic principles of initial patient assessment, such as Airway, Breathing, Circulation, Disability, and Exposure (ABCDE), which is supported by work experience, training such as the BTCLS, and socialization of standard operating procedures (Bintang & Sumarni, 2022; Rahmawati et al., 2023). However, nurses are still found to have less than optimal knowledge, especially in the advanced assessment and management of complex trauma (Wijayanto & Budianto, 2023). Adequate knowledge plays an important role in the success of the primary survey, because it allows for quick, targeted and systematic decision-making and action to save the patient's life (Purnamasari & Aryani, 2020).

Nurses generally showed a positive attitude towards the implementation of the primary survey in the emergency room, reflected in their commitment to carrying out procedures with a focus on patient safety and priority treatment (Yustilawati et al., 2023). This positive attitude is reflected in the nurses' readiness to prioritize patient safety and uphold emergency handling priorities, including

anticipating the possibility of a decline in clinical condition (Munroe et al., 2018). However, the consistency of this attitude is still affected by high workload, limited resources, and the complexity of multiple and trauma cases (Wijayanto & Budianto, 2023). Therefore, support through coaching, supervision, and routine simulation is needed to maintain nurses' motivation and confidence in implementing the primary survey optimally (Cirana et al., 2024). Thus, a positive and professional attitude of nurses is an important asset for improving the quality of emergency care and patient safety as a whole (Munroe et al., 2018).

Furthermore, nurses' knowledge and attitudes are interrelated in the successful implementation of the primary survey. Nearly all eight studies analyzed showed that the higher the nurses' knowledge, the more positive their attitudes toward implementing the initial assessment quickly, accurately, and in a structured manner (Bintang & Sumarni, 2022; Cirana et al., 2024; Massa, 2018; Munroe et al., 2018; Purnamasari & Aryani, 2020; Rahmawati et al., 2023; Yustilawati et al., 2023). Good knowledge provides a foundation for nurses to be more confident and motivated in making critical decisions, thus developing a proactive and responsive attitude. Several studies also

show a significant relationship between understanding the principles of the primary survey and nurses' readiness to handle emergencies according to procedures (Cirana et al., 2024; Massa, 2018; Rahmawati et al., 2023). Conversely, limited or infrequently updated knowledge can undermine nurses' positive attitudes. Several studies have noted that nurses with suboptimal knowledge tend to be hesitant, lack confidence, and slow to respond, resulting in inconsistent primary survey implementation (Wijayanto & Budianto, 2023). Continuously improving knowledge through training such as BTCLS will further foster a professional attitude and commitment to carrying out primary surveys correctly (Bintang & Sumarni, 2022; Purnamasari & Aryani, 2020).

In addition, a positive attitude of nurses can strengthen the motivation to seek new knowledge (Cirana et al., 2024; Marlisa, 2019). This means that the relationship between knowledge and attitude is dynamic and reciprocal, where knowledge influences attitude, while good attitudes also trigger active increases in knowledge (Cirana et al., 2024; Marlisa, 2019). Munroe et al.'s (2018) study even confirmed that when nurses feel confident and enthusiastic about the importance of primary surveys, they are more motivated to deepen their knowledge and skills, which ultimately impacts the quality of emergency care (Munroe et al., 2018). Thus, nurses' knowledge and attitudes are closely linked and mutually supportive. Good knowledge fosters positive attitudes, while positive attitudes strengthen motivation to continuously improve knowledge and skills. This synergy supports the rapid, accurate, and high-quality implementation of primary surveys for patient safety (Bintang & Sumarni, 2022; Cirana et al., 2024; Marlisa, 2019; Munroe et al., 2018; Suwardianto & Astuti, 2016; Yustilawati et al., 2023).

Furthermore, one study by Wijayanto & Budianto (2023) showed a different finding, showing no significant relationship between knowledge and the accuracy of primary survey implementation. This is likely influenced

by other factors such as work experience, supervision, team culture, and adherence to SOPs. Despite low theoretical knowledge, nurses were still able to correctly administer the primary survey thanks to routine practice and a supportive work environment. These findings emphasize the importance of practice-based training and ongoing supervision to ensure the quality of emergency services (Wijayanto & Budianto, 2023). Formal and ongoing training programs such as BTCLS, EWS, and HIRAID play a vital role in improving nurses' knowledge and attitudes regarding primary surveys in the emergency room. BTCLS has been shown to significantly improve nurses' knowledge, skills, and attitudes (Prakoeswa et al., 2022; Sucipto et al., 2024). EWS education and simulation-based tutorials also improved nurses' ability to identify and respond to clinical deterioration, resulting in higher knowledge scores, improved clinical performance, and increased satisfaction with practice (Damayanti et al., 2019; Nadr Ebraheim et al., 2023). HIRAID helps reduce anxiety and increase nurses' self-efficacy in emergency situations (Munroe et al., 2018). Overall, this training not only strengthens technical competencies, but also builds positive attitudes and self-confidence, which supports improving the quality and safety of emergency services (Damayanti et al., 2019; Munroe et al., 2018; Nadr Ebraheim et al., 2023; Prakoeswa et al., 2022; Sucipto et al., 2024).

Based on the results of this review, nurses' knowledge and attitudes regarding the primary survey have significant implications for nursing practice and patient safety. High levels of knowledge are associated with competence and accuracy in identifying and managing life-threatening conditions (So'emah et al., 2018; Yustilawati et al., 2023). Meanwhile, a positive attitude strengthens commitment to safety protocols and service quality, as attitudes have been shown to have a significant impact on patient safety implementation (Ilham, 2022). Nurses with strong knowledge and a positive attitude tend to act

quickly and appropriately, thereby reducing the risk of errors such as delayed recognition of critical conditions, medication errors, or incomplete assessments that can compromise patient safety (Aydemir & Koc, 2015; Ayyad et al., 2024). Conversely, a lack of knowledge or negative attitudes can increase the risk of adverse events in the stressful emergency department environment. Therefore, ongoing education and training are essential to maintain current knowledge and build a culture of safety to improve outcomes and reduce preventable risks (So'emah et al., 2018).

CONCLUSION

The results of an analysis of eight articles identified the relationship between nurses' knowledge and attitudes toward the implementation of the primary survey in the emergency room. It can be concluded that nurses generally have a good level of knowledge regarding the principles of initial assessment, especially the ABCDE and BTCLS concepts, although there is variation between studies. The majority of studies indicate that adequate knowledge is significantly correlated with positive attitudes and better practical skills in conducting the primary survey, which is crucial for ensuring the safety and prioritization of emergency patient care. However, some nurses still have suboptimal knowledge or attitudes, which can be influenced by factors such as work experience, supervision, team culture, and high workload. Therefore, it is important to implement an integrated strategy to improve nurse competency, including BTCLS training, repeated simulations, clinical supervision, and fostering a work safety culture. Continuous integration of emergency training programs is expected to strengthen the synergy between nurses' knowledge and attitudes, thereby optimizing the quality of the primary survey implementation and minimizing the risk of adverse events in the emergency room.

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