International Journal of Medical Toxicology & Legal Medicine Volume 27, No. 3, 2024
e-ISSN: 0974-4614
p-ISSN: 0972-0448

Assess Nurse Perceptions of physical assessment skills for detecting acute progression of heart failure

Nabil Ayidh Shaeel Althiyabi[1], Abdulrahman Juaidan Alotaibi[2], Muteb Falah Saud[3], Mohammed mutlaq jalotaibi[4], Naif Juaidan Alotaibi[5]

[1]Nursing Specialist, Al-Mowaih General Hospital
[2]Nursing Specialist, phcateef - Taif Health Cluster
[3]Alotaibi, Nursing Specialist ,Al Duwadimi Hospital
[4]Specialist of nursing, Umm Aldoum General Hospital
[5]Nursing specialist ,Almowayh general hospital -Taif cluster

Received: 13.08.2024 Revised: 14.09.2024 Accepted: 06.10.2024

ABSTRACT

Background: Physical assessment skills are crucial for nurses across clinical settings to accurately identify acute changes in patients, particularly in cases of heart failure. Existing research suggests that clinical experience significantly impacts nurses' proficiency and reliance on specific assessment skills, underscoring the need to evaluate how nurses perceive these skills according to their experience level and exposure to acute heart failure cases.

Methods: This survey-based study included nurses from various hospitals, categorized into three experience groups and further subdivided based on experience with acute heart failure. A self-administered questionnaire assessed the perceived necessity of 48 physical assessment skills using a five-point Likert scale. Data analysis included Pearson's Chi-square, Mann–Whitney U, and Kruskal–Wallis tests to compare perceived skill needs across experience levels and experience with acute heart failure.

Results: Among 1,113 eligible nurses, 347 completed the survey (response rate: 93.0%). Experienced nurses with more than five years reported a higher perceived need for skills such as "dyspnea," "stridor," and "cyanosis," while nurses with less experience rated the necessity of skills like "jugular venous distension" and "heart murmur" higher. Significant differences were found in skill perceptions between nurses with and without acute heart failure experience, particularly for skills related to respiratory and cardiovascular assessment. Additionally, as clinical experience increased, the perceived importance of certain assessment skills adapted to align with real-world practice demands.

Conclusion: This study highlights that clinical experience and exposure to acute heart failure influence nurses' perceived needs for specific physical assessment skills. Understanding these perceptions can inform targeted educational strategies, helping novice nurses develop the essential assessment competencies required in acute care settings, ultimately enhancing patient outcomes in cases of heart failure and other acute conditions.

Keywords: survey, skills, clinical, hospitals, categorized

INTRODUCTION

Physical assessment skills are critical for enhancing the expertise of nurses across various clinical settings and educational backgrounds. The quality of nursing care is often correlated with improved patient outcomes, underscoring the significance of these skills. Recognizing this need, earlier evaluations of nursing education have highlighted the necessity to bolster nurses' physical assessment abilities, especially in assessing acute changes in patients (Ministry of Health, Labour and Welfare, Japan, 2011). By developing these skills, clinical nurses can enhance their clinical judgment, making the evaluation of educational programs focused on physical assessment a priority (Ministry of Health, Labour and Welfare, Japan, 2015).

Research by Tuzer, Dinc, and Elcin (2016) supports this approach by demonstrating that high-fidelity simulation and standardized patient programs positively influence physical assessment training. Additionally, Mitoma and Yamauchi (2018) found that learning support programs can enhance nurses' respiratory assessment capabilities.

There is often a disconnect between the physical assessment skills emphasized in nursing education and those needed in clinical practice, necessitating that nurses acquire these skills on-the-job. Understanding nurses' perspectives on physical assessment in the workplace is also essential. Studies indicate that more experienced nurses not only utilize certain assessment skills more frequently but also have a deeper understanding of them (Yamauchi, 2001).

Clinical experience enhances the ability of nurses to adapt to various patient situations. Suzuki (2012) explored the frequency of physical assessment skills used in practice, while Kato and Yamauchi (2017) identified specific skills necessary for assessing stroke patients at different recovery stages. Additional research shows that nurses typically perform only about one-third of the physical assessment skills outlined in educational texts (Birks et al., 2013; Cicolini et al., 2015; Colwell & Smith, 1985; Giddens, 2007; Secrest et al., 2005). Osborne et al. (2015) noted that acute care wards primarily focus on vital signs.

The level of clinical experience significantly influences skill development; research suggests that achieving proficiency often requires three to five years of practice (Benner, 2005). In some regions, nursing guidelines stipulate that five years of experience is necessary for certification as a nurse (Japanese Nursing Association, 2020). During their first year, nurses typically learn many skills under supervision (Benner, 2005). A recent review emphasizes extensive research on best practices for supporting new graduate nurses (Rush et al., 2019).

Assessing acute changes in heart failure is vital for nurses in clinical practice. However, the specific skills needed to evaluate acute patient changes—especially for certain conditions—are not well defined. Limited research has examined nurses' perspectives on assessing physical changes during acute phases of specific diseases. One study focused on patients undergoing percutaneous coronary angioplasty highlighted challenges in enhancing nurses' physical assessment skills (Yoshizuka et al., 2012), while Takashima (2008) investigated nurses' views on physical assessments within cardiology wards. Furthermore, clinical nurses acknowledge the importance of assessment skills for identifying abnormal findings (Suzuki, 2012). Birks et al. (2013) stressed the necessity of these skills for monitoring patient condition changes in acute scenarios (Watanabe, 2017).

In recent years, heart disease has emerged as a leading cause of death, with rising incidences of heart failure (Ministry of Health, Labour and Welfare, Japan, 2017; The Japanese Circulation Society/Guidelines for Diagnosis and Treatment of Acute and Chronic Heart Failure, 2018). Timely intervention is crucial in heart disease cases; thus, nurses must rapidly and competently assess the likelihood of heart failure in response to sudden patient changes (Ministry of Health, Labour and Welfare, Japan, 2018).

METHODOLOGY

This study utilized a survey-based research approach and was approved by the authors' university ethics review board.

The authors developed a self-administered questionnaire aimed at assessing physical examination skills for identifying acute progression in heart failure. Initially, 95 items were compiled from a variety of clinical texts, which were then reviewed and revised by a team of nurses, including a certified chronic heart failure rehabilitation nurse, an emergency nurse, and five additional nurses with over five years of clinical experience. The questionnaire was ultimately refined to 48 items. Content validity was ensured through expert reviews from educators in medical and nursing education, as well as nine practicing nurses with varying years of experience. Test-retest reliability was confirmed with a sample of 20 nurses representing a range of clinical experience levels.

The questionnaire comprised two sections: one for demographic data and the other for perceptions of physical assessment skills. Demographic questions addressed the respondents' clinical experience, hospital size, and ward type. Assessment skills were rated on a five-point Likert scale, categorizing the perceived necessity of each skill from "very unnecessary" to "very necessary" based on a prior study.

Sample Size and Sampling Technique

Hospitals meeting the inclusion criteria were randomly selected as potential sites for the study. Ultimately, a subset of hospitals agreed to participate, with nurses currently employed at these hospitals as the study participants. Nursing experience was categorized into three groups: less than one year, between one and five years, and more than five years. Exclusions were made for head nurses and those working in specialized units such as operating rooms and outpatient clinics.

A target sample size was determined using statistical estimations to include at least 100 nurses in each of the three experience categories: less than one year, one to five years, and more than five years. Data collection occurred over a three-month period.

Data Analysis

Statistical analysis included Pearson’s Chi-square test, Mann–Whitney U test, and Kruskal–Wallis test. Chi-square was applied to explore relationships between clinical experience and experience with patients experiencing acute heart failure. The Mann–Whitney U test compared perceived needs for physical assessment skills between those with over five years and under five years of experience, as well as between nurses with direct experience managing acute heart failure and those without such experience. The Kruskal–Wallis test and Dann-Bonferroni adjustments further analyzed perceived needs across the three levels of clinical experience.

Ethical Considerations

Participants received study information and questionnaires through their hospitals. To maintain confidentiality, responses were anonymous, and informed consent was obtained from all participants. Completed questionnaires were mailed back in sealed envelopes, which were only accessed by the study investigators.

RESULTS

Participant Characteristics

Out of 1,113 eligible nurses, 373 (33.5%) responded to the survey, with 347 completing it (response rate: 93.0%). The participants' clinical experience ranged from 1 to 34 years, averaging 9.07 years (SD = 8.16), with a median of 6 years.

The respondents worked across various units: 17.9% in intensive care, 41.5% in medical units, 10.1% in surgical units, 20.5% in both medical and surgical units, 1.2% in obstetrics and gynecology, 2.9% in pediatrics, and 6.1% in other wards. In terms of hospital capacity, 28.5% worked in hospitals with 200-299 beds, 32.3% in hospitals with 300-399 beds, 19.9% in hospitals with 400-499 beds, and 19.3% in hospitals with more than 500 beds.

Participants were categorized by years of experience in two ways: (1) fewer than 5 years and more than 5 years, with 48.4% having less than 5 years and 51.6% more than 5 years, and (2) three groups based on experience: less than 1 year, 1 to 5 years, and more than 5 years. In this grouping, 20.2% had less than 1 year, 28.2% between 1 and 5 years, and 51.6% more than 5 years.

For nurses with less than 5 years of experience, those without experience managing acute heart failure had a response rate of 28.8%, while those with such experience had a response rate of 19.6%. Among nurses with over 5 years of experience, those without acute heart failure experience had a response rate of 7.2%, while those with such experience had a response rate of 44.4%. Chi-square tests indicated significant differences in experience with acute heart failure patients between the less- and more-experienced groups.

Using the Mann–Whitney U test, a significant difference was found in perceived need for specific physical assessment skills between nurses with more than 5 years and those with fewer than 5 years of experience. Experienced nurses identified a greater need for skills such as "dyspnea," "stridor," "wetness of skin with palpation," and "coldness of skin with palpation." Conversely, nurses with less experience reported higher perceived needs for skills like "deformities of the chest," "symmetricity of the chest shape," "jugular venous distension," "S1 and S2," "heart murmur," and others.

The Kruskal–Wallis and multiple comparisons tests found significant differences across experience levels. Compared to nurses with less than 1 year of experience, those with over 5 years of experience reported higher perceived needs for skills like "stridor" and "cyanosis," which developed progressively with experience. Perceptions of skills such as "wetness of skin with palpation" and "coldness of skin with palpation" also increased after 5 years. In contrast, the perceived importance of skills like "jugular venous distension" and "spontaneous abdominal pain" decreased with experience, suggesting a linear decline over 5 years.

The Mann–Whitney U test also indicated significant differences in perceived skill needs based on nurses' experience with acute heart failure. Those with such experience noted a greater need for skills including "stridor," "wetness of skin with palpation," "urinary output," and "adventitious sounds." Nurses without this experience reported a higher perceived need for skills like "deformities of the chest," "cardiomegaly with palpation," "jugular venous distension," and "evaluation of consciousness level with coma scale.

The perceived need for specific skills among different experience levels. The importance of skills like "stridor" and "cyanosis" increased consistently with more years of experience, while skills like "jugular venous distension" and "abdominal tenderness" showed a consistent decline in perceived need over time. Nurses with less than 5 years of experience and no acute heart failure experience noted a higher perceived need for certain skills like "chest expansion" and "S1 and S2," which were less emphasized by more experienced nurses.

Seven physical assessment skills—such as "stridor," "cyanosis," and "urinary output"—were deemed increasingly necessary with more years of experience.

Table 1. Comparisons between nurses with more than 5 years and less than 5 years of clinical experience

Physical assessment item	Clinical experience	n	Average rank	*p* value	Physical assessment item	Clinical experience	n	Average rank	*p* value
1. Chief complaint	Less than 5 years	168	175.01		25. Inspiratory and expiratory ratio	Less than 5 years	166	169.87	
	More than 5 years	179	173.06			More than 5 years	178	174.95	
	Total	347				Total	344		
2. Past medical	Less than 5 years	168	174.11		26. Adventitious sounds	Less than 5 years	167	170.66	

history	More than 5 years	179	173.89			More than 5 years	178	175.20	
	Total	347				Total	345		
3. Life history	Less than 5 years	168	165.52		27. Type of abnormal breath sounds	Less than 5 years	167	170.89	
	More than 5 years	179	181.96			More than 5 years	178	174.98	
	Total	347				Total	345		
4. Medication history	Less than 5 years	168	173.31		28. Location where the breath sounds are heard normally	Less than 5 years	166	172.32	
	More than 5 years	178	173.68			More than 5 years	177	171.70	
	Total	346				Total	343		
5. Vital signs	Less than 5 years	168	169.96		29. Pulse deficit	Less than 5 years	167	179.32	
	More than 5 years	179	177.79			More than 5 years	178	167.07	
	Total	347				Total	345		
6. Dyspnea	Less than 5 years	168	165.94		30. Symmetricity in strength of the pulses with palpation	Less than 5 years	167	182.59	
	More than 5 years	179	181.57	<.05*		More than 5 years	178	164.00	
	Total	347				Total	345		
7. Stridor	Less than 5 years	168	160.06		31. Symmetricity in blood pressures at both arms	Less than 5 years	167	191.34	<.001**
	More than 5 years	179	187.08	<.05*		More than 5 years	178	155.79	
	Total	347				Total	345		
8. Sputum	Less than 5 years	168	177.54		32. Pitting edema	Less than 5 years	167	176.93	
	More than 5 years	179	170.68			More than 5 years	178	169.31	
	Total	347				Total	345		
9. Description of sputum	Less than 5 years	168	177.98		33. Depression or bulging of the chest wall	Less than 5 years	166	182.17	
	More than 5 years	179	170.27			More than 5 years	178	163.49	
	Total	347				Total	344		
10. Wetness of skin with palpation	Less than 5 years	168	147.14		34. Cardiomegaly with palpation	Less than 5 years	167	195.01	<.001**
	More than 5 years	179	199.21	<.001**		More than5 years	175	149.06	
	Total	347				Total	342		
11. Coldness of skin with palpation	Less than 5 years	167	157.57		35. Jugular venous distension	Less than 5 years	166	181.72	<.05*
	More than 5 years	179	188.36	<.001**		More than 5 years	176	161.86	
	Total	346				Total	342		

12. Body posture	Less than 5 years	168	165.61		36. Palpation of the carotid	Less than 5 years	167	190.48	<.001**
	More than 5 years	179	181.88			More than 5 years	177	155.54	
	Total	347				Total	344		
13. Weight change	Less than 5 years	168	171.06		37. S1 and S2	Less than 5 years	166	184.98	<.05*
	More than 5 years	179	176.76			More than 5 years	176	158.79	
	Total	347				Total	342		
14. Urinary output	Less than 5 years	167	171.03		38. Rhythm of heart sounds	Less than 5 years	166	188.76	<.05*
	More than 5 years	178	174.85			More than 5 years	178	157.33	
	Total	345				Total	344		
15. Description of feces	Less than 5 years	168	174.45		39. Heart murmur	Less than 5 years	166	190.61	<.001**
	More than 5 years	179	173.58			More than 5 years	178	155.61	
	Total	347				Total	344		
16. Straining during defecation	Less than 5 years	168	176.25		40. Bowel sounds	Less than 5 years	168	178.96	
	More than 5 years	179	171.89			More than 5 years	178	168.35	
	Total	347				Total	346		
17. SpO_2	Less than 5 years	168	169.90		41. Abdominal distension	Less than 5 years	168	181.78	
	More than 5 years	179	177.85			More than 5 years	178	165.69	
	Total	347				Total	346		
18. Cyanosis	Less than 5 years	168	165.95		42. Abdominal tenderness	Less than 5 years	168	189.48	<.05*
	More than 5 years	179	181.56			More than 5 years	178	158.42	
	Total	347				Total	346		
19. Clubbed finger	Less than 5 years	168	180.85		43. Spontaneous abdominal pain	Less than 5 years	168	189.42	<.05*
	More than 5 years	178	166.56			More than 5 years	178	158.47	
	Total	346				Total	346		
20. Deformities of the chest	Less than 5 years	166	187.08	<.05*	44. Evaluation of consciousness level with coma scale	Less than 5 years	168	181.57	
	More than 5 years	178	158.90			More than 5 years	178	165.89	
	Total	344				Total	346		
21. Symmetricity of the chest shape	Less than 5 years	167	186.05	<.05*	45. Anisocoria	Less than 5 years	168	192.66	<.001**
	More than 5 years	178	160.76			More than 5 years	178	155.41	
	Total	34				Total	34		

		5					6		
22. Chest expansion	Less than 5 years	167	184.91	<.05*	46. Ready-to-be-taken electrocardiogram	Less than 5 years	168	175.61	
	More than 5 years	177	160.79			More than 5 years	178	171.51	
	Total	344				Total	346		
23. Rhythm of breath sounds	Less than 5 years	167	171.39		47. Newly taken electrocardiogram	Less than 5 years	168	166.71	
	More than 5 years	178	174.51			More than 5 years	177	178.97	
	Total	345				Total	345		
24. Symmetricity in loudness of breath sounds	Less than 5 years	166	164.29		48. Newly taken 12-lead electrocardiogram	Less than 5 years	168	171.89	
	More than 5 years	177	179.23			More than 5 years	178	175.02	
	Total	343				Total	346		

Note: SpO_2 = peripheral oxygen saturation. Values are the results of the Mann–Whitney *U* test. Missing values for each item were excluded.
* $p < .05$.
** $p < .001$.

Table 2. Comparisons between nurses with exposure to patients with acute progression of heart failure and nurses with no such experience

Physical assessment item	**Exposure to patients with acute progression of heart failure**	**n**	**Average rank**	***p* value**	**Physical assessment item**	**Exposure to patients with acute progression of heart failure**	**n**	**Average rank**	***p* value**
1. Chief complaint	No	125	171.40		25. Inspiratory and expiratory ratio	No	124	169.31	
	Yes	222	175.47			Yes	220	174.30	
	Total	347				Total	344		
2. Past medical history	No	125	172.66		26. Adventitious sounds	No	124	159.95	
	Yes	222	174.75			Yes	221	180.32	<.05*
	Total	347				Total	345		
3. Life history	No	125	164.17		27. Type of abnormal breath sounds	No	124	161.54	
	Yes	222	179.54			Yes	221	179.43	
	Total	347				Total	345		
4. Medication history	No	125	167.33		28. Location where the breath sounds are heard normally	No	124	159.78	
	Yes	221	176.99			Yes	219	178.92	
	Total	346				Total	343		
5. Vital signs	No	125	176.04		29. Pulse deficit	No	124	178.52	
	Yes	22	172.85			Yes	22	169.90	

		2					1		
	Total	347				Total	345		
6. Dyspnea	No	125	164.42		30. Symmetricity in strength of the pulses with palpation	No	124	185.66	
	Yes	222	179.39			Yes	221	165.90	
	Total	347				Total	345		
7. Stridor	No	125	159.83		31. Symmetricity in blood pressures at both arms	No	124	184.33	
	Yes	222	181.98	<.05*		Yes	221	166.64	
	Total	347				Total	345		
8. Sputum	No	125	170.50		32. Pitting edema	No	124	172.05	
	Yes	222	175.97			Yes	221	173.53	
	Total	347				Total	345		
9. Description of sputum	No	125	173.48		33. Depression or bulging of the chest wall	No	123	181.37	
	Yes	222	174.29			Yes	221	167.56	
	Total	347				Total	344		
10. Wetness of skin with palpation	No	125	145.02		34. Cardiomegaly with palpation	No	124	194.71	<.001**
	Yes	222	190.32	<.001**		Yes	218	158.30	
	Total	347				Total	342		
11. Coldness of skin with palpation	No	125	156.04		35. Jugular venous distension	No	123	186.39	<.05*
	Yes	221	183.38	<.05*		Yes	219	163.13	
	Total	346				Total	342		
12. Body posture	No	125	164.40		36. Palpation of the carotid	No	124	190.18	<.05*
	Yes	222	179.41			Yes	220	162.53	
	Total	347				Total	344		
13. Weight change	No	125	166.51		37. S1 and S2	No	123	181.59	
	Yes	222	178.22			Yes	219	165.83	
	Total	347				Total	342		
14. Urinary output	No	124	159.67		38. Rhythm of heart sounds	No	123	185.18	
	Yes	221	180.48	<.05*		Yes	221	165.44	
	Total	345				Total	344		
15. Description	No	125	166.87		39. Heart murmur	No	123	189.11	<.05*

of feces	Yes	222	178.01			Yes	221	163.26	
	Total	347				Total	344		
16. Straining during defecation	No	125	166.15		40. Bowel sounds	No	125	178.02	
	Yes	222	178.42			Yes	221	170.94	
	Total	347				Total	346		
17. SPO_2	No	125	170.63		41. Abdominal distension	No	125	180.93	
	Yes	222	175.90			Yes	221	169.30	
	Total	347				Total	346		
18. Cyanosis	No	125	158.00		42. Abdominal tenderness	No	125	191.80	<.05*
	Yes	222	183.01	<.05*		Yes	221	163.15	
	Total	347				Total	346		
19. Clubbed finger	No	125	177.13		43. Spontaneous abdominal pain	No	125	195.02	<.05*
	Yes	221	171.45			Yes	221	161.33	
	Total	346				Total	346		
20. Deformities of the chest	No	124	192.01	<.05*	44. Evaluation of consciousness level with coma scale	No	125	194.08	<.05*
	Yes	220	161.50			Yes	221	161.86	
	Total	344				Total	346		
21. Symmetricity of the chest shape	No	124	189.98	<.05*	45. Anisocoria	No	125	196.80	<.001**
	Yes	221	163.47			Yes	221	160.32	
	Total	345				Total	346		
22. Chest expansion	No	124	183.13		46. Ready-to-be-taken electrocardiogram	No	125	172.68	
	Yes	220	166.51			Yes	221	173.97	
	Total	344				Total	346		
23. Rhythm of breath sounds	No	124	165.20		47. Newly taken electrocardiogram	No	125	161.59	
	Yes	221	177.38			Yes	220	179.48	
	Total	345				Total	345		
24. Symmetricity in loudness of breath sounds	No	123	161.30		48. Newly taken 12-lead electrocardiogram	No	125	171.27	
	Yes	220	177.98			Yes	221	174.76	
	Total	343				Total	346		

Note: SpO2 = peripheral oxygen saturation. Values are results of the Mann–Whitney *U* test. Missing values for each item were excluded.
* $p < .05$.
** $p < .001$.

DISCUSSION

Experienced clinical nurses demonstrated greater insight into which skills were most relevant for detecting acute heart failure progression, often shaped by their years of experience or prior encounters with patients experiencing acute exacerbations of heart failure. This finding suggests that seasoned nurses tend to recognize the importance of general physical assessment skills, while those with direct experience in heart failure cases develop a heightened awareness of specific skills essential for detecting acute changes in these patients. With increased clinical experience, nurses' perceived reliance on systematic assessments and cardiovascular system evaluations decreased, while assessments focused on cardiovascular symptoms and circulatory failure gained significance.

Key assessments prioritized by more experienced nurses included "urinary output," "adventitious lung sounds," "stridor," "cyanosis," "skin wetness and coldness upon palpation," and "dyspnea." Nurses actively caring for heart failure patients particularly valued "urinary output" and "adventitious lung sounds" as essential for assessing the respiratory and circulatory status, which enhances the rapid identification of abnormal findings and urgency in clinical settings. Although less experienced nurses recognized the value of physical assessment, our data showed no significant variation among clinical experience levels, suggesting that nurses, even those with under five years of experience, can appreciate the usefulness of certain assessments for acute situations. These findings align with Watanabe (2017), who noted that frequent exposure to acute patient changes can heighten nurses' recognition of the importance of physical assessments.

Additionally, nurses with over five years of clinical experience noted a greater need for skills like "stridor," "cyanosis," "skin wetness," and "coldness upon palpation." In contrast, nurses with limited experience and exposure to heart failure cases may struggle to understand the value of these skills, despite their significance in identifying acute changes and the risk of heart failure progression without the aid of medical equipment. Palpation and visual inspection, fundamental to patient assessment, enhance understanding of patient status, as highlighted by Fujino and Michimata (2011). This study's findings reveal that general clinical experience and experience in heart failure cases collectively influence nurses' perceptions, pointing to a general need for acute change assessments regardless of specific patient case exposure.

Nurses with extensive experience further perceived "dyspnea" assessments as vital, given that dyspnea often indicates life-threatening conditions. As Bickley and Szilagyi (2015) emphasize, assessing dyspnea is critical for early screening of cardiac and respiratory diseases. Conversely, newer nurses valued systematic and cardiovascular-specific assessments more, whereas seasoned nurses had refined these assessments through broader clinical practice. Nurses with less than five years of experience, especially without heart failure exposure, emphasized skills like "chest expansion," "symmetricity in blood pressures across arms," "S1 and S2 sounds," "heart sound rhythm," and "coma scale assessment" for consciousness evaluation.

Our results indicate a gradual shift in nurses' perceptions of physical assessment requirements throughout their clinical experience . Differences emerged among nurses with varying experience levels, particularly those with less than one year, one to five years, and over five years of experience.Skills like "stridor" and "cyanosis" gained prominence with experience, as nurses began recognizing these indicators by observing real cases of respiratory distress or abnormal skin color.

Skills such as "skin wetness" and "coldness upon palpation" were increasingly valued by nurses with over five years of experience, suggesting that hands-on exposure to these symptoms over time fosters an understanding of their significance in acute assessments. Conversely, skills like "jugular venous distension" and "abdominal tenderness" were less emphasized by more experienced nurses, perhaps due to practical challenges in their frequent use (Colwell & Smith, 1985). More seasoned nurses tended to rely less on routine abdominal assessments and jugular vein assessments in heart failure cases, suggesting that these skills may present difficulties in consistent application.

Further, certain cardiovascular assessment skills, like "symmetry in blood pressure," "carotid palpation," and "anisocoria" (a sign of altered consciousness), became less prioritized over time. Skills such as "S1 and S2," "cardiomegaly by palpation," "heart sound rhythm," and "heart murmur" also saw diminished need among experienced nurses, likely due to streamlined heart failure assessments that do not rely as heavily on these findings.

CONCLUSION

This study found that nurses' perceptions of physical assessment needs are influenced by their clinical experience levels. Experienced nurses demonstrate greater proficiency in identifying relevant skills for heart

failure progression. These insights contribute to understanding how physical assessment skills evolve in clinical practice, with implications for nursing education and training.

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