Program components, impact, and duration of implementing a new nurse orientation program in hospital contexts: A scoping review

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ABSTRACT

Background: Orientation programs for new nurses play an essential role in preparing them for challenges in clinical practice. Different countries have applied varying program components and durations in organizing these programs.

Objectives: To explore the program components, impact, and duration of the orientation programs for new graduate nurses in hospital care settings.

Method: We gathered information from studies conducted in various countries. Searches were conducted on databases including PubMed, Sage Journal, ScienceDirect, EBSCO, and Wiley, with secondary searches from 2018 to 2023 using Arkey and O'Malley's Review Scoping Framework. The inclusion criteria comprised studies with primary data, both qualitative and quantitative, focusing on new nurses undergoing orientation programs in hospitals.

Results: Of the 989 articles screened, 14 were included. Methods identified included providing hands-on experience, sharing information, reflecting on work experiences, and developing technical skills. Significant findings encompassed increased competence, knowledge, confidence, and satisfaction, as well as professional development and positive organizational impacts. The duration of orientation programs ranged from 2 weeks to 2 years, depending on the program type and new graduate nurse needs.

Conclusion: This scoping review elucidates program components, impact, and duration of new nurse orientation programs in hospitals, providing valuable insights for hospital management in designing and developing improved programs.

Tweetable abstract: Exploring program components, impact, and duration of hopitals new graduate nurse orientation programs, revealing insights to enhance patient care and nursing practice@Ns_Ernawaty

What is already known about the topic

- New nurse orientation programs are crucial as they help prepare nurses for the challenges they face in clinical practice.
- New nurse orientation programs vary in implementation across different hospitals and countries.

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> **What this paper adds**
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> - We offer comprehensive information on program components, impact, and duration of new nurse orientation programs, going beyond a general understanding of their importance and worldwide variations.
> - New nurse orientation programs employed various program components, resulting in enhanced competence, knowledge, confidence, satisfaction, professional growth, and organizational benefits, with durations ranging from 2 weeks to 2 years, depending on program types and the needs of new graduate nurses.

1. Introduction

Nursing personnel surpass all other health professions in size and are nearly four times greater than the total number of hospital physicians (Hassmiller and Wakefield, 2022). Currently, the health sector faces a profound inadequacy of nursing staff (Lalithabai et al., 2021). The World Health Organization (2021) estimates that there will be a worldwide scarcity of around 5.9 million nurses in 2030. The International Council of Nurses (2022) projected a need for 13 million nurses to address the anticipated workforce deficit. There are great opportunities for new nurses to meet these needs; i.e., those who have completed formal education and have just entered clinical practice. As new graduates, these nurses are an important resource for recruiting, training, and retaining a competent nursing and midwifery workforce to address the unprecedented global health challenges related to workforce shortages (World Health Organization, 2021). New graduates often find themselves unprepared for the transition from student to healthcare professional in contemporary work settings, encountering challenges such as heavy workloads, intricate technology, and workplace violence, contributing to the phenomenon known as "reality shock" during their initial workplace experiences (Kramer, 1974; Rogers et al., 2023).

Orientation is the initial introduction to nursing employment and has the potential to impact the novice nurse's practice and patient outcomes (Riegel, 2013). Thus, an orientation program for new nurses can be defined as a series of activities and training designed to prepare them to carry out their duties and responsibilities effectively. Comprehensive new nurse orientation programs are essential for preparing new graduates to join hospitals, as mishandling their issues can result in multiple adverse consequences, including reduced effectiveness and efficiency, increased dissatisfaction, and ultimately, a higher likelihood of turnover (Mokhtar et al., 2012; Pertiwi and Hariyati, 2019; Peterson et al., 2011). A practical and well-structured orientation program has the potential to encourage positive attitudes and help new nursing staff develop competence in providing nursing care (Lalithabai et al., 2021). Therefore, hospitals need to implement an orientation program for new nurses. However, in implementing an orientation program, it is essential to note that each program likely has its weaknesses and challenges. Several researchers have highlighted that a poorly structured orientation that does not meet clinical needs may result in the program having no impact or change (Aldosari et al., 2021; Hussein et al., 2017). Therefore, careful planning and program design by the needs and characteristics of new graduate nurses are very important to increase the effectiveness of orientation programs.

The transition period for new graduate nurses is complex, and they experience reality shock due to the gap between theory and practice (Awaisi et al., 2015). Thus, hospitals must have an orientation program, periodically evaluate it, and then make changes to achieve nurse satisfaction (Lalithabai et al., 2021). Hospitals can make changes to identify best practices by looking at the program's implementation program components, impact, and length.

Previous research reviews exist, such as research by Kreedi et al. (2021) that focused on researching the transition experience of new graduate nurses, research by Kenny et al. (2021) regarding interventions supporting new graduate nurse transition and identifying intervention outcomes, and research by Pertiwi and Hariyati (2019) regarding the most effective program components in new nurse orientation programs. Conducting a thorough review that examines the program components, impact, and duration of implementing new nurse orientation programs in hospitals is essential, as it provides potentially valuable insights for hospitals to design and develop more effective programs, serving as the foundation for further in-depth research on their effectiveness and efficiency. New scoping reviews are needed to update knowledge with the latest research, provide a comprehensive overview, identify knowledge gaps, and provide a broader perspective. Scoping reviews are still required to improve the overall understanding of the topic.

2. Method

To enhance the reporting of this scoping review, we applied a five-stage approach per the PRISMA ScR guidelines by Arksey and O'Malley (2005) and used PRISMA-ScR for reporting item selection (Tricco et al., 2018).

2.1. Stage 1. Identifying research questions

We aimed to summarize the existing literature and, specifically, address the research question: What were the program components, impact, and duration of new nurse orientation programs in hospitals?

2.2. Stage 2. Identifying relevant studies and search terms

An Internet search method was employed to find articles on new nurse orientation programs in hospitals using terms based on the Population Concept Context model (Salmond and Bennett, 2021). The terms used were created by combining keywords using Boolean operators: New nurse **OR** New nurses **AND** Orientation program **OR** Transition program **AND** Hospital **OR** Hospitals. We searched five electronic databases, along with conducting secondary searches by screening reference lists from the selected articles. The initial search focused on titles, abstracts, and content to identify relevant terms and keywords (Table 1).

2.3. Stage 3: Selecting studies

During this stage, the incorporated articles consisted of primary data, encompassing both qualitative and quantitative information, meeting the inclusion and exclusion criteria outlined by the Population Concept Context model (Salmond and Bennett, 2021). The criteria for inclusion in this study were (1) the Population comprised new nurses, (2) the Concept was orientation programs, (3) the Context was hospitals, (4) full-text availability, (5) articles available in English, (6) published between 2018 and 2023. We selected the past 5 years as they were deemed to fulfil the criteria for relevance and up-to-dateness. Excluded were study protocols and orientation programs other than those for new nurses or those conducted outside hospitals.

After obtaining the articles, a screening process based on inclusion and exclusion criteria was carried out. Combining results from five databases and an additional secondary search, 989 relevant abstracts were collected into the reference manager Mendeley. Duplicates were filtered, resulting in 981 remaining articles categorized as directly related to the research question. Next, selection was carried out by reading the articles with complete text. The third stage of the search involved filtering the reference lists of selected articles to obtain an additional nine articles. Then, we removed articles that were not relevant. This selection stage resulted in 14 research studies being included and then analyzed (Fig. 1).

2.4. Reliability of study extraction

The article selection process was conducted using the Rayyan software program (Ouzzani et al., 2016). Three individuals (ER, SH, and AS) carried out the selection process. Subsequently, we thoroughly reviewed each article, including its title, abstract, and full text, employing the JBI manual method (Salmond and Bennett, 2021). Out of the initially selected 30 articles, 14 met our review criteria.

2.5. Stage 4: extracting data

Data were extracted by recording important information, including the author's name, country, year of research, research design, objectives, sample, and findings. The variables measured can be seen in (Table 2).

2.6. Stage 5: organizing, summarizing, and reporting results

We organized, summarized, and reported the results of thematic deductive analysis based on a framework by Braun and Clarke (2012). Having established the research topic at the outset (namely the program components, impact, and duration of new nurse orientation programs in hospitals), we collected data from related articles discussing new nurse orientation programs. The data sought were participant statements relevant to the research topic. Next, the statements were coded based on predetermined themes; namely, the impact of the orientation program. After completing the coding process, we analyzed the data to identify patterns and meanings related to the research themes. Finally, we compiled the results of the analysis into a systematic and detailed report (Table 3).

2.7. Ethical considerations

Ethical approval was not required for this scoping review, as it identified data only from previous studies.

Table 1
Search database.

| No	Database	Keywords	Articles	Access date
1	PubMed	(((((New nurse[MeSH Terms]) OR (New nurses[MeSH Terms])) AND (Orientation program[MeSH Terms])) OR (Transition program[MeSH Terms])) AND (Hospital[MeSH Terms])) OR (Hospitals[MeSH Terms])	656	17-7-2023
2	Sage Journal	New nurse OR New nurses AND Orientation program OR Transition program AND Hospital OR Hospitals	5	17-7-2023
	ScienceDirect	New nurse OR New nurses AND "Orientation program" OR "Transition program" AND Hospital OR Hospitals	255	17-7-2023
4	EBSCO	AB (New nurse OR New nurses) AND AB (Orientation program OR Transition program) AND AB (Hospital OR Hospitals)	30	17-7-2023
5	Wiley	"New nurse OR New nurses AND Orientation program OR Transition program AND Hospital OR Hospitals."	34	17-7-2023
6	Secondary search		9	17-7-2023
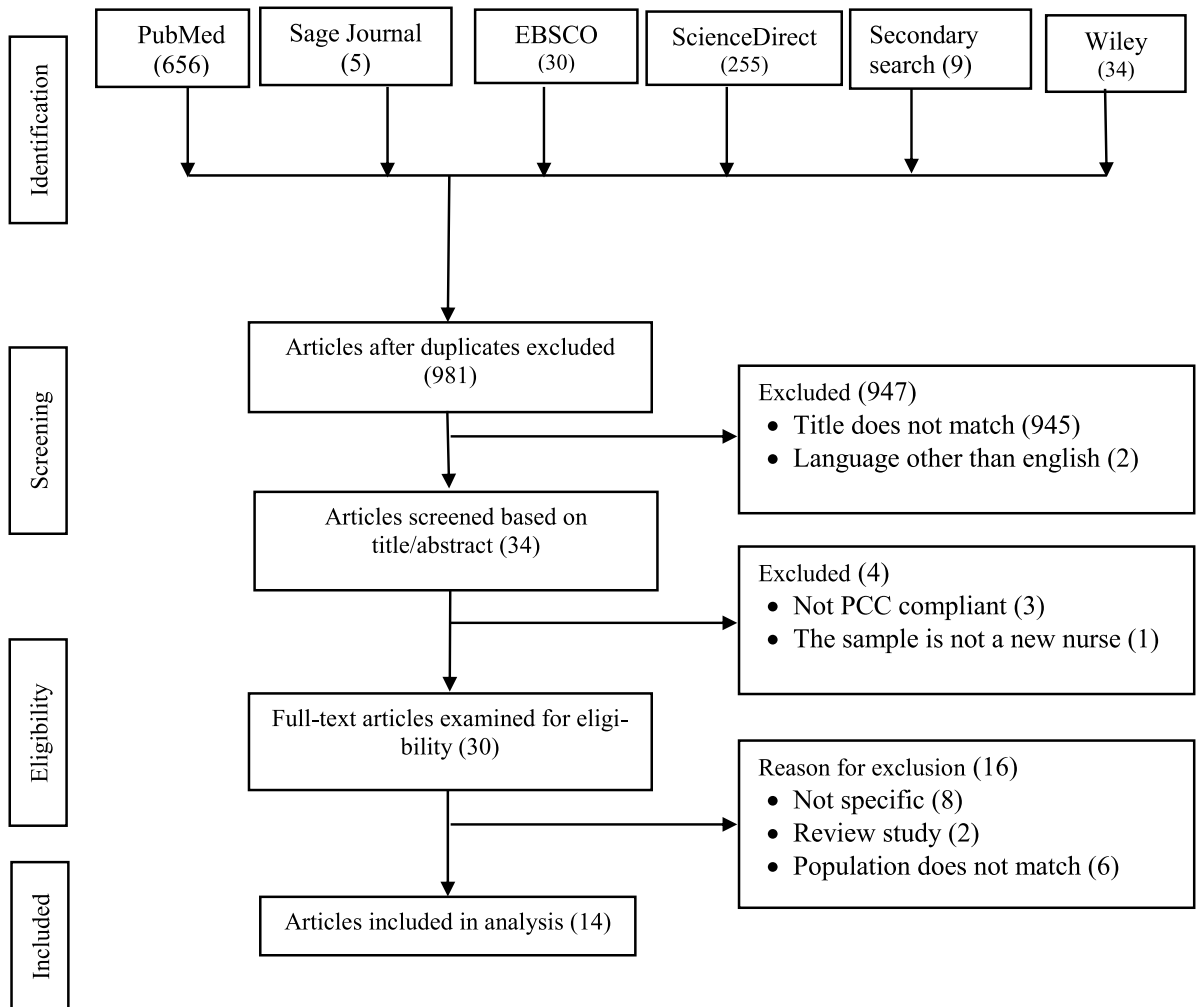
Fig. 1. PRISMA flowchart.
Notes:
● PRISMA Flowchart Adapted from Tricco AC, Lillie E, Zarin W et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation (Tricco et al., 2018).
● PCC: Population Concept Context.

3. Results

3.1. Study characteristics

Out of the 14 literature studies, originating from four continents and seven countries, the research methodologies exhibited diversity (See Table 2).

3.2. Findings related to the program components, impact, and duration of implementing the new nurse orientation program

This literature review is divided into three parts: the program components, impact, and duration of implementing the new nurse orientation program. Based on the findings (Table 4), we conducted additional groupings that helped us understand the findings more clearly.

3.3. Orientation program components

The nurse training program components used included direct experiential learning, lectures, reflection seminars, and clinical skills simulations. These program components provided a comprehensive orientation program for new graduate nurses. Preceptorship and

Table 2
Article characteristics.

No	Author (Year) Country	Purpose	Samples (N, Settings, Methods)	Results	Conclusion

1	Chen et al. (2021) China	To examine the relationship between transitional shock, preceptor support, and nursing competence in a sample of newly graduated registered nurses	• N: 215 new graduate nurses
			• Six tertiary hospitals in southeastern mainland China
			• Cross-sectional
			• Instruments
			  1. The competency inventory for registered nurses consists of 53 question items.
			  2. The transition shock scale for new graduatenurses consists of 27 items.
				• Critical thinking nursing competence (mean = 2.68, SD = 0.63)
				• The perception of preceptor support ($r = 0.56$, $p < 0.01$) was statistically significantly correlated with nursing competence.
				• Assigned receptors varied daily, and emotional challenges from transitional shock were the main predictors of nursing competence ($F = 36.86$, $p = 0.00$).
					• Results: competency improvement
					• Program components: preceptorship
					• Orientation time:
					  - Basic training: two weeks to one month
					  - Professional area-specific training for two years

2	Eklund et al. (2021) Sweden	Explore the learning process implemented in the new nurse transition program implemented in hospitals in Sweden.	• N: 31 • Six hospitals • Qualitative	Three prominent themes representing the learning process in the transition program are as follows. • Recognizing the role of new nurses as beginner practitioners, • Emphasize new nurses as learners and • Develop towards a comprehensive nursing role.	• Results: increased confidence and clinical knowledge • Program components: clinical rotation, ward work, lectures, and reflection seminars • Orientation time: 12 months
3	Lalithabai et al. (2021) Saudi Arabia	Researching orientation programs for new nurses in multicultural settings to redesign orientation programs.	• N: 70 • King Fahad Medical City Hospital, Riyadh. • Mixed methods (Qualitative-Quantitative) • Instruments: 1. The Nurse Competence Scale, comprising 73 question items.	• There was a 5.48 % increase in overall competency scores among nurses. • The results indicated that the difference in overall scores before and after the test was statistically significant ($p < 0.05$) in all dimensions except the coaching situation and teaching management, suggesting the effectiveness of the program	• Results: increased competence, satisfaction, and self-confidence • Program components: Classroom education and clinical skills simulations • Orientation time: 3 weeks (five days per week)
4	Ma et al. (2021) China	To assess the attitudes of recent graduate nurses in China toward their work environment and to identify factors influencing their perceptions	• N: 2361 • 31 rural hospitals in 20 provinces in China • Cross-sectional • Instruments: Practice Environment Scale-Nursing Work Indeks (Lake, 2002).	New nurses rated their work environment with an overall score of mean = 84.67, SD = 12.85. Multiple linear regression identified that education level, monthly income, hospital type and location, participation (or not) in standard training programs, and having (or not) mentors were factors significantly related to their perception of the work environment.	• Results: Positive perception of the orientation program • Program components: mentor/preceptor • Orientation time: > 3 months - < 24 months

5	Woo and Newman (2020) Singapore	To investigate the experiences of new graduateregistered nurses in Singapore during the initial 6–12 months of their transition from nursing students to registered nurses.	• N: 30
			• Polytechnic graduates surveyed via Gmail
			• Mixed methods study design
			• Instruments:
			  1. The transition experience questionnaire, comprising 31 questions.
			  2. The experience of their pre-registration consolidation program, comprising 11 questions.
				• The participants indicated overall satisfaction with their transition (2.97 ± 0.61).
				• The majority (83.3 %) also considered their transition to professional practice to be stressful (3.07 ± 0.74).
				• Three themes emerged from the interview: "personal transition experience," "professional transition experience," and "organizational transition experience," which intertwined to build the overall transition experience of the new nurse.
					• Results: increased competence, satisfaction, confidence, and positive assessment of the program
					• Program components: Preceptorship/Mentorship
					• Orientation time: 12–24 months

6	Charette et al. (2022) Australia	To assess the effectiveness of two new graduate nurse programs on overall competence at 3, 6, 9, and 12 months. A secondary objective was to	• N: 278 • Two hospitals • Mixed methods • Instruments:	• Significantly improved competence in Time 1 • In Time 2, although there were no significant differences in competence, participants stated	• Results: competency improvement • Program components: - Rotation every 6 months

Table 2 (*continued*)

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No	Author (Year) Country	Purpose	Samples (N, Settings, Methods)	Results	Conclusion
		evaluate the job satisfaction among new nurses at 12 months and explore their support experience.	1. The Nurse Competence Scale consists of 73 questions (Meretoja et al., 2004). 2. The Nursing Satisfaction Scale consists of 24 question items (Ng, 1993).	they were more confident and in control because they felt supported. • In Time 3, there was no significant improvement in competence. • In Time 4, competence improved significantly, with participants admitting they still had much to learn.	- Preceptorship • Orientation time: 12 months.
7	Rose and Andersson (2022) Sweden	Describe the experience of a new graduate nurse regarding intervention or mentoring provided by experienced nurses.	• *N*:18 • Sweden's easternmost hospital • Qualitative	• Researchers found one central one central theme called organizational prerequisites, which consisted of three themes. • The first theme was immobilizer, which involves the critical role of experienced nurses in creating a clear structure so that inpatient units/units become a more attractive workplace. • The second theme is "nursing support," which indicates that these experienced nurses are essential to patient safety. • The third theme is "Professional Development," which provides opportunities for the professional growth of new nurses.	• Results: professional growth • Program components: mentoring experienced nurses • Orientation time: 1 year
8	Aydogan and Ulupinar (2020) Turkey	Determine the learning needs of new graduate nurses working in the hospital.	• *N*: 459 • Six hospitals in Istanbul • Quantitative descriptive study. Instruments: a data collection tool developed by researchers. It consisted of two parts: the first consisted of 12 questions about characteristics and professionals, and the second consisted of nursing interventions according to the learning needs of new graduate nurses.	• The researchers found significant differences between the learning needs and practices of nurses. • Nurses with 0–1 months of professional experience declared themselves incompetent in nursing interventions compared to nurses with 9–12 months of professional experience. • Nurses who voluntarily selected a work unit, assessed undergraduate (theoretical) education as adequate for professional preparation, considered unit orientation programs effective in the process of adaptation and clinical problem solving, did not experience problems during the adaptation process, and declared themselves more competent in specific nursing interventions ($p < 0.05$).	• Results: increased competence • Orientation time: 12 months
9	Zhang et al. (2019) China	This study aimed to clarify how one-on-one mentorship programs differ from basic preceptorship programs and examine the effect of one-on-one mentorship programs on recent graduate nurse turnover rates.	• *N*:438 • One hospital in China • Controlled clinical trial • Instrument: Several instruments were used in this study, but a detailed description of the instruments used was missing.	• Researchers showed that the turnover rates for the experimental group were 3.77 %, 3.48 %, and 8.11 % compared to 14.07 %, 9.36 %, and 14.19 %, respectively, for the control group at the end of the first 3 years. The survival curves of the two groups differed significantly ($p < 0.001$). • The turnover rate for the first year in the experimental group was significantly lower than in the control group, but the rates in the second and third years did not differ. • The results suggested that one-on-one mentorship programs were beneficial for the retention of new graduate nurses, especially during the first year.	• Results of a decreased turnover rate • Program components: one-on-one tutoring • Orientation time: 1 year

Table 2 (*continued*)

No	Author (Year) Country	Purpose	Samples (*N*, Settings, Methods)	Results	Conclusion
10	Jangland et al. (2021) Sweden	To evaluate the implementation of a multifaceted mentorship program at a large university hospital and illustrate the value of such a program from the perspective of new graduatenurses, experienced nurses, and hospital organizations.	• *N*: 35 • One major university hospital in Sweden • Qualitative, multiple-case	• Of the 46 units in the hospital, 14 units had implemented one or more components of the mentorship program. • This program suited the needs of new graduatenurses. • It provided new career opportunities for experienced nurses and creates an attractive workplace. • The central theme, "Building confidence for new nurses, providing positive challenges for experienced nurses, and providing opportunities for organizations to learn," reflected the value of the program's supervision model for new and experienced nurses and the entire organization.	• Results: self-confidence • Program components: a mentorship program • Orientation time: 1 year
11	Koh et al. (2023) Singapore	Evaluate the impact of the transition to practice program on graduate nurse practice confidence and job satisfaction over 24 months.	• *N*: 104 • One state tertiary academic hospital, Singapore • Retrospective longitudinal	• Practice confidence increased, and job satisfaction decreased over 24 months. The total practice confidence score at 6 months and the extended trial period were factors associated with attrition over 24 months of clinical practice.	• Results: increased self-confidence • Program components: - Mentorship program - Bedside knowledge • Orientation time: 24 months
12	Zheng et al. (2023) China	To explore new nurses' experiences and feelings during the transition.	• 14 new nurses • One teaching hospital in China • Qualitative-descriptive phenomenology	• Challenges: early-stage stress and anxiety; change in mentality and perceived self-reflection; • Response: self-encouragement; self-imposition; tolerance; adaptation; peer support and affirmation; • Growth: improvement of overall clinical competence; improvement of nursing skills; increased knowledge; • Reflection: self-insufficiency; rotational benefits, benefits from different departments; lack of belonging; and • Expectations: desire to be treated equally; hope to have more opportunities.	• Orientation program results 1. Competency improvement 2. Stress reduction 3. Increased self-confidence. • Clinical rotation program component • Orientation time: 2 years
13	Wildermuth et al. (2020) United States of America	To explore the life experiences of a group of nurses as college students and recent graduate nurses during this collaborative nurse residency program transition.	• *N*: 9 • One teaching hospital in the United States • Qualitative-transcendental phenomenology	• Themes of feeling overwhelmed, feeling support, and developing self-confidence	• Results: 1. Felt exceptional support 2. Developed self-confidence • Program components: Preceptorship
14	Alsalamah et al. (2022) Saudi Arabia	To explore the perspective of recent graduate nurse transitions and the function of nurse residency programs in mediating this shift.	• *N*: 29 • Major university hospitals in Saudi Arabia • Qualitative phenomenology	• The first theme was "Transition challenges," where nurses revealed a lack of experience, high caseloads, and difficulty communicating with doctors. • The second theme was "residency transition support," in which nurses stated that the program improved their learning, communication, peer support, and ability to build working relationships.	• Results: 1. Improved learning 2. Improved communication 3. Increased peer support 4. Building working relationships.

Noted:.

N: Number of samples.

SD: Standard Deviation.

Table 3
Examples of thematic analysis of the new nurse orientation program.

No	Author (Year) Country	Theme	Sub-theme	Quotations
1	Alsalamah et al. (2022) Saudi Arabia	Improved learning	• Acquisition of new and important information • Development of soft and hard skills • Applications in the workplace	"…the residency program is quite amazing…I get to learn a lot of new and important information that I need in my workplace… new soft and hard skills that get me going daily and deal with the overwhelming workload…"
		Improved communication	• Peer support in communication • Understanding shared experiences • Enhanced empathy and rapport	"…it is beneficial to be able to communicate with other new nurses who are going through what you are going through at the same time you are going through as you get to have someone to understand your standpoint"
		Increased peer support	• Regular interactions with fellow resident nurses • Exchange of information and experiences • Normalization of challenges and stress	"… I get to meet with my fellow resident nurses now and then through shared training and we get to exchange information and experiences… it makes me feel like all the challenges and stress are normal and that I am not the only one in the world who is going through this… it is like support group…"
		Building working relationship	• Improved relationships with doctors, therapists, and managers • Development of interprofessional skills • Enhanced teamwork and collaboration	Another nurse also shared, "… building work relationships feels easier when I am in the residency program as I feel a bit more confident and I have all these friends who share my experiences… the program helped me have better relationships with the doctors and the therapists and the managers… as I learned better interprofessional skills…"
2	Wildermuth et al. (2020) United States of America	Increased self-confidence	• Positive feedback from patients • Recognition of nursing care and thoroughness • Motivation and fulfilment in a nursing role	"When I can communicate with my patients and we can build a rapport and they say you have been one of the best nurses they have had and they appreciate your care and thank you for being so thorough and explaining everything to me, that is a defining moment where I say this is why I am doing what I am doing".
		Get support from colleagues	• Assistance in challenging situations • Teamwork and collaboration in crises • Feeling supported and protected by fellow staff members	"I went in to help another nurse with a patient…he was getting up and was unsteady. We were trying to get him to sit down so he wouldn't fall, and he wasn't combative, but all of a sudden, he grabbed me by the neck and like tried to choke me. That was the worst day for me. But then everyone else came in to help out, so having your staff have your back was perfect".
3	Zheng et al. (2023) China	Increased competency	• Improvement in clinical skills • Systematic assessment of patients' conditions • Enhanced judgment in patient care • Positive impact on observation and patient care skills	"Well, I think I'm (hesitating, thinking). I improved my competencies through clinical rotation, including systematic assessment and judgment of the patient's condition. I believe it is helpful." "In general, I think rotation is quite necessary for us. In my case, I have had a huge improvement in my clinical competency, such as observation and patient care."
		Increased self-confidence	• Empowerment through knowledge acquisition • Reduced anxiety and panic in facing challenges • Improved resilience in challenging situations	"The knowledge I gained made me more empowered, and I will not be in a panic as much when encountering the difficulties."
		Reduce stress	• Shift in mentality leading to increased calmness • Coping with complex or emergencies more effectively	"I became calm when facing difficulties or emergencies, mainly due to the change of mentality. I learned that I may not feel things are as difficult as I imagined only if I am willing to experience it."
4	Jangland et al. (2021) Sweden	Increased self-confidence	• Courage to take responsibility	"This is something she's been good at discussing with me. She [the clinical supervisor] has always answered my questions and made sure that I take responsibility – that I have the courage to take responsibility, to test things and to question". (New graduatenurse).
5	Rose and Andersson (2022) Sweden	Foster professionalism	• Growth and patient safety	"Feel that you are growing as a nurse in that role and that you become safer, purely patient safety-oriented"
6	Eklund et al. (2021) Sweden	Increased self-confidence	• Embracing responsibility and knowledge	"Security comes when, ok, now I have control over a little bit of everything. It takes time no matter what you can do, and you can't force anything … you have gained more confidence somehow. You know more about what is expected of a nurse, so I go to work knowing more about my responsibility".
		Increased knowledge	• Learning routines and specializations	"You need to learn their routines. We know the medical technology, you can insert a PVC [peripheral venous catheter], and we can hang the liquid droplet. But exactly what they specializ in is what we need to learn".

Table 4

Program components, impact, and duration for implementing the orientation program.

No	Topic	Findings
1	Orientation program components	1. Preceptorship (Charette et al., 2019; Chen et al., 2021; Ma et al., 2021; Wildermuth et al., 2020; Woo and Newman, 2020) 2. Mentorship (Jangland et al., 2021; Koh et al., 2023; Ma et al., 2021; Woo and Newman, 2020; Zhang et al., 2019) 3. Clinical rotation (Charette et al., 2022; Eklund et al., 2021; Zheng et al., 2023) 4. Ward work (Eklund et al., 2021) 5. Lectures (Eklund et al., 2021; Lalithabai et al., 2021) 6. Reflection seminars(Eklund et al., 2021) 7. Clinical skills simulations (Lalithabai et al., 2021) 8. Bedside knowledge (Koh et al., 2023) 9. Support from experienced nurses (Rose and Andersson, 2022)
2	Impact of Orientation Programs	1. Increased competency (Aydogan and Ulupinar, 2020; Charette et al., 2022; Chen et al., 2021; Lalithabai et al., 2021; Woo and Newman, 2020; Zheng et al., 2023) 2. Increased self-confidence (Eklund et al., 2021; Jangland et al., 2021; Koh et al., 2023; Lalithabai et al., 2021; Wildermuth et al., 2020; Woo and Newman, 2020; Zheng et al., 2023) 3. Increased knowledge (Alsalamah et al., 2022; Eklund et al., 2021) 4. Increased satisfaction (Lalithabai et al., 2021; Woo and Newman, 2020) 5. Positive perception of the orientation program (Ma et al., 2021; Woo and Newman, 2020) 6. Foster professionalism (Rose and Andersson, 2022) 7. Decrease in turnover rate (Zhang et al., 2019) 8. Reduce stress (Zheng et al., 2023) 9. Get support from colleagues (Alsalamah et al., 2022; Wildermuth et al., 2020) 10. Improved communication (Alsalamah et al., 2022) 11. Building working relationships (Alsalamah et al., 2022)
3	Duration of the orientation program	1. Basic training 2 weeks – 1 month (Chen et al., 2021) 2. Professional training in a specific area 2 years (Chen et al., 2021) 3. 12 months (Aydogan and Ulupinar, 2020; Charette et al., 2022; Eklund et al., 2021; Jangland et al., 2021; Rose and Andersson, 2022) 4. 3 weeks (5 days per week) (Lalithabai et al., 2021) 5. > 3 months - < 24 months (Ma et al., 2021) 6. 12–24 months (Koh et al., 2023; Woo and Newman, 2020; Zheng et al., 2023)

mentorship were the most common strategies, but other approaches are necessary for a thorough education. Combining these techniques can make orientation programs more successful and efficient for new graduate nurses in hospitals (See Table 4).

3.4. Impact of orientation programs

We have shown the significant impact of orientation programs on nursing professionals, highlighting their positive outcomes. These include enhanced competency and knowledge, increased self-confidence, and increased satisfaction. These programs also contributed to professional development, fostering professionalism, gaining support from colleagues, improving communication skills, and building effective working relationships. Additionally, orientation programs reduced turnover rates, reduce stress levels, and positively influence organizational factors, highlighting the importance of these programs in hospitals (See Table 4).

3.5. Duration of the orientation program

The duration of orientation programs for new nurses varied widely, ranging from 2 weeks to 2 years, based on program type and the level of need. Reported durations included 2 weeks to 1 month, more than 3 months, and 12 to 24 months. While most articles did not specify the number of days per week or month for the orientation program, one article mentioned a 5-day-per-week orientation lasting for 3 weeks (See Table 4).

4. Discussion

An orientation program is a set of activities and training designed to prepare new nurses to carry out their duties and responsibilities. In this context, we found that various program componentswere used in orientation programs, reflecting diverse approaches to nurse training. It is important to understand that the term "program" encompasses a wide range of activities and strategies, from structured classroom sessions to mentorship programs and direct clinical experiences. This is essential to anticipate potential interpretations of what constitutes a "program" and to clarify the effectiveness of orientation programs in achieving optimal outcomes in nursing practice. One commonly used approach was hands-on learning in the work environment. In this review, we confirmed previous findings and provide a comprehensive picture of the positive impact of onboarding programs (Aldosari et al., 2021; Alshawush et al., 2022). We found that the orientation program was not only an introduction to the work environment but also a means of improving competence (Aydogan and Ulupinar, 2020; Charette et al., 2022; Chen et al., 2021; Lalithabai et al., 2021; Woo and Newman, 2020; Zheng et al., 2023), knowledge (Alsalamah et al., 2022; Eklund et al., 2021), and confidence of new nurses (Eklund et al., 2021; Jangland et al., 2021; Koh et al., 2023; Lalithabai et al., 2021; Wildermuth et al., 2020; Woo and Newman, 2020; Zheng

et al., 2023). By providing a solid foundation of knowledge and support in dealing with practical challenges, orientation programs help new nurses adapt more quickly and effectively to their roles (Pertiwi and Hariyati, 2019). However, it is essential to note that during the orientation process, support for the personality and values of nurses, especially their confidence and proactive values, is crucial (Baharum et al., 2023).

We found that an orientation program improved new nurse satisfaction (Lalithabai et al., 2021; Woo and Newman, 2020). Nurse satisfaction impacted individual well-being and contributed to the quality of care provided to patients (Piccuito & De Santis Santiago, 2023; Strauss et al., 2016). Nurses who were satisfied with their work environment tend to be more motivated, communicate better, and provide better care to patients. Furthermore, we highlighted the importance of orientation programs in the context of organizational factors, such as nurse retention (Zhang et al., 2019) and building working relationships (Alsalamah et al., 2022). By helping new nurses feel more connected to the organization and better prepared for the job demands, onboarding programs can improve work productivity and hospital operational efficiency (Anderson et al., 2009; Baumann et al., 2018; McNulty et al., 2022). The findings are consistent with reviews suggesting that new nurse transition programs can enhance nurse retention, new nurse satisfaction, and patient satisfaction (Kenny et al., 2021). Thus, we have provided a solid foundation for hospital human resource management policy and practice, emphasizing the importance of investing in orientation programs for new nurses. Measures to improve the quality and support of orientation programs can be a strategy to enhance nurses' well-being, patient care, and overall organizational performance.

Analysis of different program components in orientation programs showed that the approach used can influence the level of impact obtained. For example, orientation programs that included hands-on experience in a work environment, such as preceptorship, improved job readiness with increased clinical experience and competency (Edward et al., 2017). Rotations in various units can provide opportunities for new nurses to gain more knowledge and competency to take on a professional nursing role (Adatara and Boni, 2022). Other reviews also stated the importance of preceptorship, which is significant in providing psychosocial support and retention and facilitating the transition for new graduate nurses (Quek and Shorey, 2018). Meanwhile, lectures in the orientation program can help increase new nurses' knowledge of hospital policies and procedures. Therefore, hospital management should consider the right combination of program components to achieve orientation program goals that suit the needs of new nurses and the hospital itself.

The implication of these findings for hospital management and the future development of new nurse orientation programs underscores the importance of recognizing the value of orientation programs in improving competence, skills, and performance, which ultimately leads to better patient care outcomes and satisfaction. Based on our findings, the implementation time of the orientation program varied from 2 weeks to 2 years, depending on the needs and readiness level of new nurses. Nonetheless, in organizations with high workloads, a longer duration may be more effective to allow new nurses to adapt to clinical tasks and the work environment. However, a long duration may also increase costs and extend the training period. Therefore, when adjusting the duration of the new nurse orientation program, the balance among individual needs, effectiveness, and the organization's limited resources should be considered. According to some researchers, the correlation between a nurse's personality and the specific practice area could influence the duration of orientation, as nurses who are well-matched to their job role may adjust more rapidly (Valdes et al., 2022). However, other studies suggested that the length of the orientation program influenced self-confidence and was able to make nurses work independently (Bittner et al., 2017). The competence of new nurses improved significantly after the first 6 months of the orientation program (Lima et al., 2016). Therefore, in creating an orientation program, understanding the stages described by Duchscher (2008), such as doing, being, and knowing, can help in designing a program that suits the needs of new nurses at each stage of their transition (Duchscher and Windey, 2018). Based on these findings, nursing managers can use them as a reference to determine the implementation time of the new nurse orientation program in the hospital.

4.1. Study limitations

In this literature review, we discovered only 14 articles across 5 databases using keywords based on population, concept, and context (Arksey and O'Malley, 2005). Our review primarily focused on examining the program components, impact, and timing of implementing orientation in hospitals. However, we did not delve into studying the subsequent impact of these programs over time. Additionally, our search did not encompass the "residency program" concept, potentially resulting in the omission of relevant studies. This limitation may affect our ability to provide a comprehensive overview of orientation programs in a healthcare context.

In our endeavor to encompass as many relevant studies as possible in our analysis, we realize that the nursing transition process is highly complex and influenced by various factors. Despite our best efforts to identify and include relevant literature, we acknowledge the possibility of overlooking studies that did not demonstrate significant impacts of orientation programs, as reported in previous research by Aldosari et al. (2021). In this context, we believe that acknowledging the potential limitations in the scope of our literature review is crucial in clarifying the interpretation of our findings and promoting transparency in our analysis.

4.2. Recommendation

This scoping review has contributed to enhancing our understanding of new nurse orientation programs by examining the implementation program components, impact, and duration. Through the synthesis of existing literature, our study offers insights into best practices and potential challenges associated with these programs. Moving forward, we recommend that hospitals leverage the findings of this review to guide the development and refinement of their new nurse orientation programs. Specifically, there should be a focus on identifying implementation program components and anticipating impacts on nursing practice and patient care outcomes.

Moreover, we have highlighted the importance of carefully considering the timing and duration of orientation programs to maximize their effectiveness. By integrating evidence-based strategies derived from this review, nursing management can elevate the quality and efficiency of their orientation programs. Additionally, we recommend that researchers explore different designs and components' relations/associations to different outcomes. This gap in the research area presents an opportunity for further investigation. Ultimately, these efforts will not only enhance the transition experience for new nurses but also ensure the delivery of high-quality patient care. Therefore, we urge healthcare institutions to utilize our recommendations to optimize their new nurse orientation programs and drive continuous improvement in nursing practice and patient outcomes.

5. Conclusion

In a scoping review of new nurse orientation programs across various countries, we observed a diverse range of program components, impacts, and implementation durations. Common program componentsincluded preceptorship, mentorship, clinical rotation, and clinical skills simulations. These orientation programs were found to enhance the competency, confidence, knowledge, and satisfaction of new nurses while also reducing turnover and stress rates. The duration of these programs varied widely, ranging from a few weeks to 2 years, depending on the needs and readiness level of the new nurse. However, in organizations with high workloads, a longer duration may be more effective. It is important to note, though, that extending the duration may also increase costs and prolong the training period. Hence, when adjusting the duration of a new nurse orientation program, It is essential to strike a balance between individual needs, program effectiveness, and the organization's resource constraints. The findings from our scoping review offer potentially valuable insight for hospital management in the design and development of improved new nurse programs. By considering these insights, healthcare institutions can optimize their orientation programs to better support the transition of new nurses and ultimately enhance patient care outcomes.

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CRediT authorship contribution statement

Ernawaty Ernawaty: Writing – review & editing, Writing – original draft, Visualization, Validation, Methodology, Investigation, Data curation, Conceptualization. **Suni Hariati:** Writing – review & editing, Writing – original draft, Visualization, Data curation, Conceptualization. **Ariyanti Saleh:** Visualization, Validation, Conceptualization.

Declaration of competing interest

There are no conflict of interest regarding this study.

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