Review

A programme theory for a transition programme for novice nurses in emergency departments: A realist review

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ABSTRACT

Aims: To develop a programme theory for a transition programme for novice nurses working in emergency departments.
Design: A realist review was conducted, guided by the Realist and Meta-narrative Evidence Synthesis–Evolving Standards publication standards.
Data sources: PubMed, CINAHL, Web of Science, Scopus, and the Wiley Online Library.
Review methods: A realist review methodology was used to consider the contexts, mechanisms, and outcomes of transition programmes implemented in emergency departments. The Population, Concept, Context framework was used to develop a search strategy. Four reviewers independently screened the records using Rayyan. Conflicting decisions were evaluated against the inclusion and exclusion criteria to reach a consensus. The data were extracted literatim to a Google form and exported in an Excel spreadsheet. The frequencies for categorical data were calculated, and the textual data were thematically analysed. The theories supporting the programme theory were identified using a Behaviour of Interest, Health context, Exclusions and Models or Theories (BeHeMoth) search.
Results: Eleven reports of the 1275 records met the inclusion criteria. Three contextual factors influencing the transition programme, namely, the characteristics of the novice nurse, interpersonal relationships, and the emergency department, were identified. Mechanisms were classified as resources, including programme champions, learning and teaching activities, and responses to the programme. The primary outcomes included novice nurses and emergency departments. Secondary outcomes included the establishment of educational support structures. The final programme theory was developed based on the review results and supporting theories.
Conclusion: Novice nurses with specific characteristics will most likely become proficient in a well-equipped and well-maintained emergency department when sufficient support is offered while maintaining healthy interpersonal relationships. A transition programme that is provided by experts and codesigned is one way of supporting novice nurses.

1. Introduction

Global nursing shortages necessitate the employment of novice nurses in speciality areas, such as emergency departments (Yaghmaei et al., 2022; Eckerson, 2018). In these departments, novice nurses encounter a broad spectrum of patient populations presenting with clinical instability and diverse emergency conditions (Bam et al., 2020). The demanding pace and nature of emergency care require nurses to acquire specialised skills and knowledge to care for critical patients (Curtis et al., 2020). Globally, there is a significant theory-practice gap between nursing competencies in the emergency care context and undergraduate nursing programmes (Zhao et al., 2021; Innes and Calleja, 2018). Evidence shows that most undergraduate nursing programmes provide novice nurses with general nursing practice, limited basic emergency knowledge and skills, and inadequate emergency department exposure (Ndung'u et al., 2022; Saxton and Nauser, 2020; Sterner et al., 2018). As a result, novice nurses enter the emergency departments unprepared with insufficient competencies and experience (Lee, 2024; Ndung'u et al., 2022; Duchscher and Painter, 2021; Johnson et al., 2013). In the emergency departments, nurses undertake essential tasks

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such as rapid health assessment, emergency care, triage, resuscitative care, evaluation, coordination, and implementation of safe and timely evidence-based interventions (Rutherford-Hemming et al., 2022; Zhao et al., 2021; Duchscher and Painter, 2021; Jones et al., 2020; Vand Tamadoni et al., 2020). Novice nurses in the emergency departments feel inadequate and unprepared to perform these essential tasks (Duchscher and Painter, 2021; Vand Tamadoni et al., 2020). Employing novice nurses lacking the requisite competencies affects patient care and increases exposure to occupational stress, consequently reducing job satisfaction and burnout (Dulandas and Brysiewicz, 2018; McDermid et al., 2020).

Health organisations employing novice nurses in specialised roles are encouraged to facilitate their transition (Faraz, 2019; Institute of Medicine, 2010). Inexperienced nurses may find themselves in a new environment where the required competencies differ from their previous work setting (Murray et al., 2019; Yuliandari, 2019; Benner et al., 2009). Efforts have been made to support and ease the transition of novice nurses working in emergency departments in developed countries such as Australia (Jones et al., 2020), Canada (Baumann et al., 2019), the United States (Powers et al., 2019), and developing countries, particularly sub-Saharan Africa (Wolf et al., 2012).

Despite having an African Emergency Nursing Curriculum (Brysiewicz et al., 2021), most emergency departments in sub-Saharan African countries, including South Africa, have yet to develop and implement formal transition programmes. Consequently, novice nurses in these settings become overwhelmed and have reported frustration and increased work-related stress (Cunningham et al., 2017). Furthermore, the specific context and timeframe for developing and implementing programmes to facilitate the transition of novice nurses are inadequately reported (Harrison et al., 2020; Spector et al., 2015). Therefore, this review aims to develop a programme theory for transition programmes of novice nurses working in the emergency departments. The objectives were as follows: 1) Describe the contexts in which transition programmes occur for novice nurses in emergency departments, 2) Describe the mechanisms influencing the transition of novice nurses, and 3) Describe the outcomes of transition programmes.

2. Methods

2.1. Research design

A realist review is well suited for synthesising the literature on the complexity and diversity of transition programmes in emergency departments (Skivington et al., 2021; De Brún and McAuliffe, 2020). We aimed to determine what works for whom under what circumstances. We explored the relationships between the context and mechanisms associated with intervention outcomes (Hunter et al., 2022; Wong et al., 2013). The protocol was registered with the Open Science Framework (doi:10.17605/OSF.IO/DPNHZ). The review process comprised five stages: 1) defining the scope, concept mining, and initial theory development; 2) searching for relevant studies; 3) study selection; 4) data extraction; and 5) data analysis and synthesis (Wong et al., 2013).

2.2. Defining the scope, concept mining, and initial programme theory development

Concept mining facilitated the consistent use of contexts, mechanisms, and outcomes, focusing on novice nurses and transition programmes. The working definitions of our review terms were 1) Context - preexisting conditions, background circumstances, or unmet needs in which programmes are introduced and can influence the success or failure of different interventions (Sinclair et al., 2021); 2) Mechanism - the impact of resources and the influence on the response and reactions of participants (De Weger et al., 2020; Makumbang et al., 2018; Lawal et al., 2019). Our review's mechanisms included *Mechanism resources and Mechanism responses or reactions*. Mechanism resources *were the*

underlying determinants or components introduced or provided by the intervention (Hunter et al., 2022; Sinclair et al., 2021; Adhikari et al., 2019) and m*echanism responses or reactions* - the reactions of participants to the intervention (Mathisen et al., 2022; Sinclair et al., 2021; De Brún and McAuliffe, 2020); 3) *Outcome* - intended or unintended consequences of the programme because of mechanisms operating within the context (Mathisen et al., 2022; Sinclair et al., 2021; De Brún and McAuliffe, 2020); 4) *Novice nurse – a* nurse who does not have experience or a nurse who has experience in a particular area yet become novice when they enter a new environment where the competencies required differ from the previous work setting (Murray et al., 2019; Yuliandari, 2019; Benner et al., 2009) and 5) *Transition programme - o*rientation, onboarding, nurse residency, and nurse internships programmes designed to ease the transition of new employee in a new working environment by increasing their confidence and competence, improve their professional adjustments, and retention (Weller-Newton et al., 2022; Bakon et al., 2018).

The authors (KM, YB, CF, and TH), three emergency department nurses and clinical facilitators, conducted an informal literature search and drew on their own experiences to develop an initial programme theory. The concept mining results influenced search term selection. Fig. 1 depicts the initial programme theory on transition programmes for novice nurses in emergency departments, showing the complexity and interrelationships among novice nurses, the physical environment, relationships, programme design, and enactment to attain personal and organisational outcomes. The initial programme theory guided the subsequent review process.

2.3. Searching for evidence

In consultation with academic information specialists, we developed a search strategy using the Population, Concept, Context framework: Population: 'novice nurses or inexperienced nurses or new graduate nurses'; Concept: 'transition programme or transition to speciality practice programmes'; Context: 'emergency department or unit or room'. Information specialists searched PubMed, CINAHL, Web of Science, Scopus, and the Wiley Online Library, with no time limits. The records (titles and abstracts) were exported into EndNote 20 Reference Management software. The records ($n = 1275$) were then imported into Rayyan Systematic Reviews software. Duplicate records ($n = 124$) were removed before screening.

2.4. Study selection

Four blinded reviewers screened the records on Rayyan, based on inclusion and exclusion criteria. Peer-reviewed primary research, grey literature, and reviews specifically addressing educational interventions for novice nurses transitioning into emergency departments were included, regardless of study design. Disagreements were resolved through revisiting original records and online discussions between the four reviewers until a consensus was reached. A rationale for excluding a record was documented. Full-text reports were retrieved and screened following a process similar to the records.

2.5. Data extraction

Data were extracted using a piloted data extraction form, including demographic characteristics, context, mechanisms, and outcomes (Supplementary 1). Weekly meetings were held to ensure the accuracy and consistency of the collated data (Mogre et al., 2014).

2.6. Analysis and synthesis of the data

Frequencies described the demographic characteristics, while textual data were coded using thematic analysis. Consensus on the findings was reached during online discussions, and original articles were revisited as
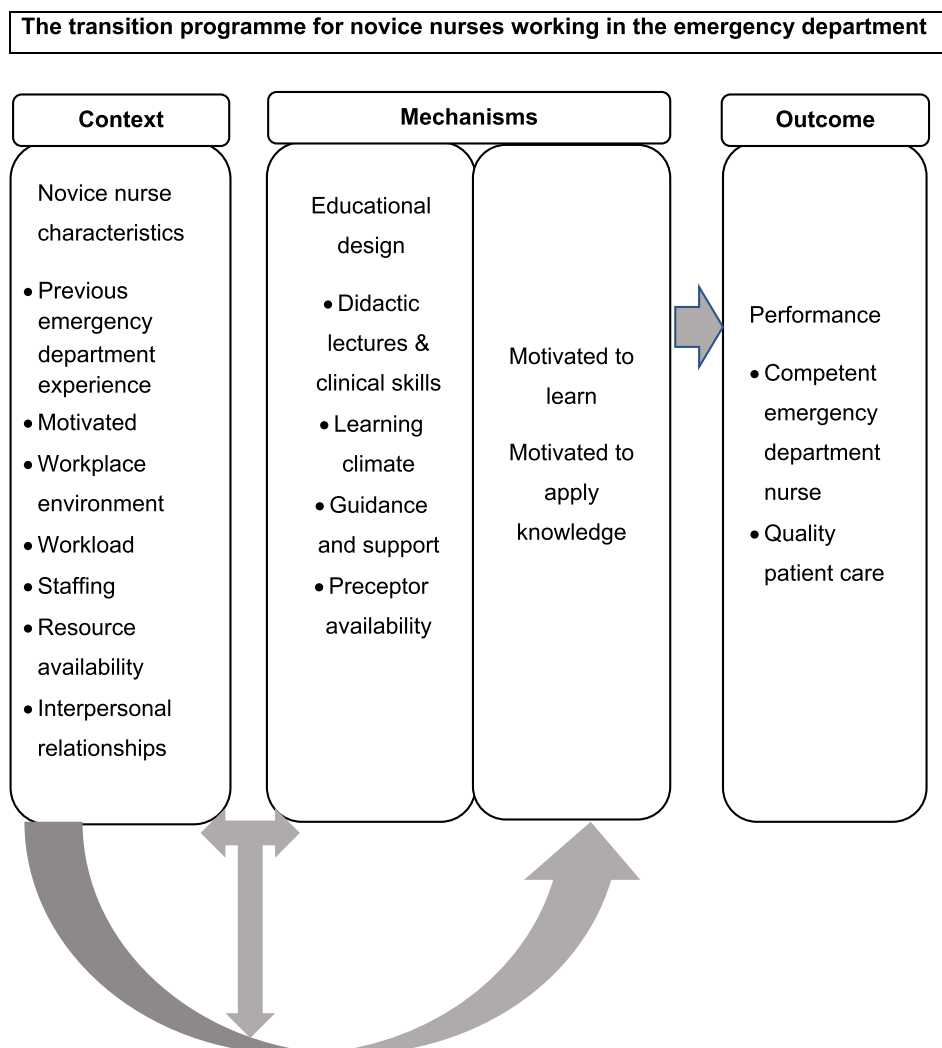
The transition programme for novice nurses working in the emergency department

Context	Mechanisms		Outcome

Context

Novice nurse characteristics

- Previous emergency department experience
- Motivated
- Workplace environment
- Workload
- Staffing
- Resource availability
- Interpersonal relationships

Mechanisms

Educational design

- Didactic lectures & clinical skills
- Learning climate
- Guidance and support
- Preceptor availability

Motivated to learn

Motivated to apply knowledge

Outcome

Performance

- Competent emergency department nurse
- Quality patient care

Fig. 1. Initial programme theory.

needed. Categories were compared and interpreted to identify contexts, mechanisms, and outcomes. The data were further synthesised by identifying theories supporting the refinement of programme theory through the Behaviour of interest, Health context, Exclusions and Models or Theories search strategy.

2.7. Rigour

The authors rigorously followed the realist review steps, holding continuous online discussions to ensure agreement on including reports, data extraction, coding, and interpretation of findings. The Realist and Meta-narrative Evidence Synthesis - Evolving Standards publication standards for realist review (Wong et al., 2013) were used as reporting guidelines.

2.8. Ethical considerations

We acknowledged the original authors' work by conducting the primary studies and cited relevant sources.

3. Results

3.1. Characteristics of the reports

The five databases yielded 1275 records, with 124 duplicates. We excluded 1137 records, and after retrieval and assessment, 14 reports were screened for eligibility, with three further exclusions. Eleven articles met the inclusion criteria and were included in the review (Fig. 2).

Most of the reports originated from the Global North, the US ($n = 6$), Australia ($n = 1$), and Canada ($n = 1$). Only one article originated from southern China ($n = 1$). Two reports did not report the country of origin. The reports were published between 2002 and 2023 ($n = 11$), with two in the past three years. Three studies used qualitative designs, three applied mixed-method designs, and five did not specify a design (Supplementary 2).

3.2. Contexts, mechanisms, and outcomes

The review findings are presented as contexts, mechanisms, and outcomes. Table 1 summarises the results and related sources.

3.3. Contexts

The contextual elements included novice nurses, interpersonal relationships (person-centred and team approach), and emergency departments. Novice nurses were included in transition programmes based on criteria such as self-motivation, interest, dedication, previous experience, and academic performance (Zhao et al., 2021; Casse, 2019; Glynn and Silva, 2013; Johnson et al., 2013; Morphet et al., 2016; Turner and Goudreau, 2011; Patterson et al., 2010; Loiseau et al., 2003;
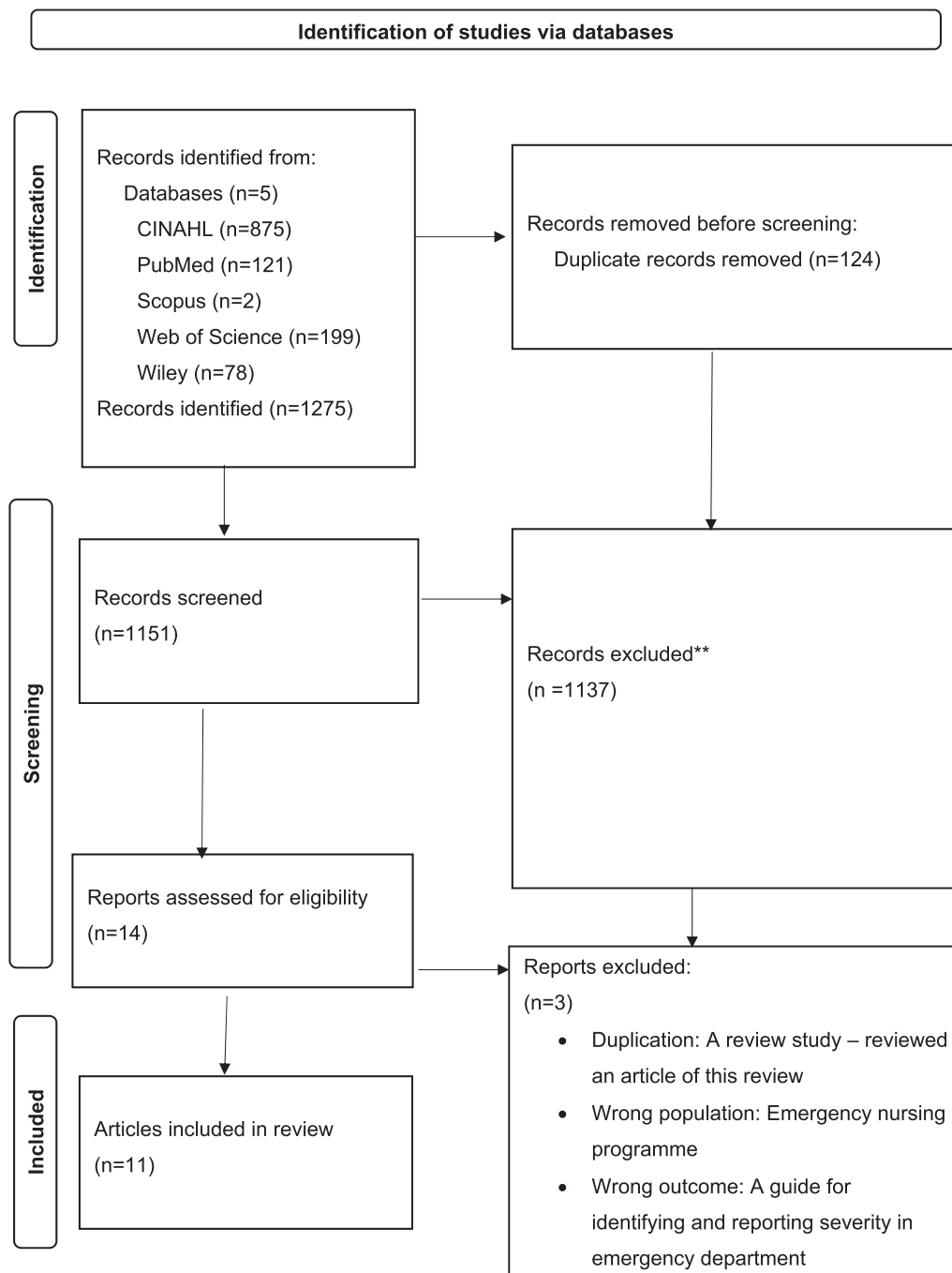
Identification of studies via databases

Identification

Records identified from:
    Databases (n=5)
      CINAHL (n=875)
      PubMed (n=121)
      Scopus (n=2)
      Web of Science (n=199)
      Wiley (n=78)
Records identified (n=1275)

Records removed before screening:
    Duplicate records removed (n=124)

Screening

Records screened
(n=1151)

Records excluded**
(n =1137)

Reports assessed for eligibility
(n=14)

Reports excluded:
(n=3)
- Duplication: A review study – reviewed an article of this review
- Wrong population: Emergency nursing programme
- Wrong outcome: A guide for identifying and reporting severity in emergency department

Included

Articles included in review
(n=11)

Fig. 2. PRISMA 2020 flow diagram (Page et al., 2021).

Gurney, 2002). Interpersonal relationships emphasise a person-centred and team approach, encompassing staff attitudes, buy-in, programme codesign, collaboration, and recruitment of potential participants (Zhao et al., 2021; Roncallo et al., 2020; Casse, 2019; Johnson et al., 2013; Patterson et al., 2010; Loiseau et al., 2003; Schmidt et al., 2003).

Staff attitudes toward novice nurses directly impacted programme outcomes, with negative attitudes leading to unintended outcomes and positive attitudes contributing to intended outcomes (Glynn and Silva, 2013 & Turner and Goudreau, 2011). Strategies to mitigate negative attitudes and secure staff buy-in included notices, internal emails, informal conversations, staff briefings, and communicating programme goals. Stakeholder collaboration and codesign were deemed essential for fostering support (Zhao et al., 2021; Roncallo et al., 2020; Johnson et al., 2013; Turner and Goudreau, 2011; Patterson et al., 2010; Loiseau et al.,

2003; Schmidt et al., 2003).

Most transition programmes were implemented in Level I trauma centres and large emergency departments, characterised by comprehensive onsite resources, technology, and the availability of specialised medical teams (Roncallo et al., 2020; Casse, 2019; Morphet et al., 2016; Turner and Goudreau, 2011; Schmidt et al., 2003). The contextual factors that inspired the development of transition programmes in emergency departments included knowledge deficits, skills, and communication; staff turnover; nurse shortages; and an increased novice nurse workforce (Roncallo et al., 2020; Schmidt et al., 2003; Gurney, 2002).

Table 1

Summary of the contexts, mechanisms and outcomes associated with transition program for novice nurses in emergency departments.

	Requirements	Description	Sources
Context			
Individual capabilities and characteristics of key actors			
Novice nurse	Characteristics	Interest in emergency department Committed, Enthusiastic Motivated Professional Hardworking Academically excelling Level of training ranging from diploma to degree qualified Positive recommendations from nurse managers Undergone interviews and essay describing interest in the programme Having emergency department experience • Nursing experience ranging from newly graduated to two years post registration	Casse, 2019; Loiseau et al., 2003 Zhao et al., 2021; Casse, 2019; Glynn and Silva, 2013; Johnson et al., 2013; Morphet et al., 2016; Turner and Goudreau, 2011; Patterson et al., 2010; Loiseau et al., 2003; Gurney, 2002
		Programme recruitment • Advertised at colleges • Flyers to colleges and universities, • Career days, open house	Casse, 2019; Loiseau et al., 2003
Interpersonal relationships			
Team approach/ person-centred	Collaboration	Codesign or collaboration when developing the intervention	Zhao et al., 2021; Roncallo et al., 2020; Johnson et al., 2013; Turner and Goudreau, 2011; Patterson et al., 2010; Loiseau et al., 2003; Schmidt et al., 2003
	Staff attitude		
	Communication		
		Positive staff attitudes toward novice nurses Staff buy-in	Zhao et al., 2021; Roncallo et al., 2020; Glynn and Silva, 2013; Johnson et al., 2013; Turner and Goudreau, 2011; Patterson et al., 2010; Loiseau et al., 2003; Schmidt et al.,

Table 1 (*continued*)

	Requirements	Description	Sources
		Communication deficits Negative staff attitudes toward novice nurses	2003; Gurney, 2002 Roncallo et al., 2020; Glynn and Silva, 2013 & Schmidt et al., 2003
Institutional setting			
Emergency department	Well-equipped and maintained	Level of emergency department or trauma centre: • Level I trauma centre • Tertiary-care university hospital emergency room • Large metropolitan emergency departments • Principal referrals; Knowledge and skills deficits; Nursing turnover Increased novice nurse workforce Nursing shortage Increased hospital cost	Roncallo et al., 2020; Casse, 2019; Morphet et al., 2016; Turner and Goudreau, 2011; Schmidt et al., 2003; Roncallo et al., 2020; Casse, 2019; Schmidt et al., 2003; Gurney, 2002
	Sufficient human resources		
Mechanism: resources			
Programme champions			
Preceptor	Trained	Handpicked Volunteered Qualified Knowledgeable Experienced Desire to teach Dedicated Showing willingness to work in emergency department Committed Enthusiastic Having interest Resilience Professional Good communication skills Participated in previous class or programme. Remuneration of preceptors and reduced workload (patient assignment). Inexperienced preceptors were capacitated through workshops.	Zhao et al., 2021; Casse, 2019; Johnson et al., 2013; Patterson et al., 2010; Loiseau et al., 2003; Gurney, 2002 Turner and Goudreau, 2011; Loiseau et al., 2003; Gurney, 2002
		Clinical facilitation, role modelling, teaching, coaching, mentoring, confidants, guiding, supporting, encouraging, understanding, evaluating Facilitating: • Professional socialisation • Transition into emergency departments	Casse, 2019; Glynn and Silva, 2013; Johnson et al., 2013 Loiseau et al., 2003; Schmidt et al., 2003; Gurney, 2002

Table 1 (*continued*)

	Requirements	Description	Sources
		• Acceptance of novice nurses by staff.	
Programme educators Nurse educator	Experts to facilitate learning	Develop learning materials Conducting classes Coaching Guiding Mentoring Clinical practicum, clinical facilitation, and supervision Resolve conflicts Confederate Programme implementing.	Roncallo et al., 2020; Patterson et al., 2010; Turner and Goudreau, 2011
Experts		Conducting classes (presentations)	Turner and Goudreau, 2011; Patterson et al., 2010
Physicians		Conducting classes (lectures) Collaborated in programme implementation	Casse, 2019; Glynn and Silva, 2013; Johnson et al., 2013; Turner and Goudreau, 2011; Patterson et al., 2010; Loiseau et al., 2003; Gurney, 2002
Clinical nurse specialist		Teaching	Glynn and Silva, 2013
Programme coordinator		Teaching with instructor Supervising High program coordinator-novice nurse ratio resulted in a negative experience	Patterson et al., 2010
Staff	Support	Conducting classes (lectures) Collaborating Helpful and supportive Understanding Offering one-to-one orientation	Casse, 2019; Glynn and Silva, 2013; Johnson et al., 2013; Turner and Goudreau, 2011; Patterson et al., 2010; Loiseau et al., 2003; Gurney, 2002
Emergency department directors		Overall control Monitor progress	Zhao et al., 2021; Schmidt et al., 2003
Programme activities			
Orientation		Emergency department orientation • 4 months orientation • 6 months (4 to 6 hours specialty area orientation) • Two 12-h sheets Trauma orientation programme • 3-hours interprofessional	Roncallo et al., 2020; Casse, 2019; Morphet et al., 2016; Loiseau et al., 2003; Schmidt et al., 2003; Gurney, 2002

Table 1 (*continued*)

	Requirements	Description	Sources
		simulation in simulation center • Brief simulation center orientation • Detailed interprofessional orientation Fundamental orientation	
		• Orientation in observation area • Days ranging from 1 to 20, Emergency department inpatient nursing orientation	
		• 2 weeks orientation in ambulatory area	
Facilitation of learning	Work integrated learning Variety of facilitation methods	Wednesday afternoons • Didactic content - weekly 4-hour classes • Nursing assessment and interventions - 1-hour end of nurses' shifts Bimonthly education days 8-hour shifts	Casse, 2019; Morphet et al., 2016; Glynn and Silva, 2013; Loiseau et al., 2003
		• Respiratory therapy team • Intravenous team • Emergency medical services • Mobile stroke unit • General paediatrics; Daytime hours Mostly 8-hour shifts Occasional 10 and 12 hour shifts, Eight 9-hour shifts- last h counted as classroom and one 8-h shift 12-hour shifts - trauma orientation program, Intensive care units	Casse, 2019; Morphet et al., 2016; Patterson et al., 2010; Loiseau et al., 2003
		• 3 days-medical • 3 days-surgical • 2 days-neuro1 day-burn Didactic and the clinical time • Clinical rotations • Simulation • Assessments • Teaching strategies included: • Evidence-based practice discussions • Articles • Podcasts • Clinical scenarios • Structured case studies • Lectures • Presentations • Demonstrations • Workshops	Zhao et al., 2021; Roncallo et al., 2020; Casse, 2019; Glynn and Silva, 2013; Johnson et al., 2013; Morphet et al., 2016; Turner and Goudreau, 2011; Patterson et al., 2010; Loiseau et al., 2003; Schmidt et al.,

Table 1 (*continued*)

	Requirements	Description	Sources
		• Critical care didactic content • Reflective practice • Online training • Flipped classroom • Generative learning sessions • System based self-learning.	2003; Gurney, 2002
		• Weekly debriefings and meetings: measure progress • Set goals • Critique specific behaviours • Resolve issues early • Manage feedback forms • Share experiences • Role modelling peer support.	Roncallo et al., 2020; Casse, 2019; Johnson et al., 2013; Turner and Goudreau, 2011; Loiseau et al., 2003; Schmidt et al., 2003; Gurney, 2002
Performance monitoring			
Assessment methods	Variety of assessment methods	End of year presentations • Weekly debriefing • Weekly assessments, • Psychomotor skills review • Presentations • Periodic assessments • Completion of a competency checklist • Satisfactory levels of clinical performance • Acceptable attendance • Acceptable course participation record • Structured case studies • Before the training (new nurse's ability assessment) • After the training immediate ability test • Bedside scenario simulation assessment • Bilateral evaluations	Zhao et al., 2021; Casse, 2019; Glynn and Silva, 2013; Turner and Goudreau, 2011; Patterson et al., 2010; Loiseau et al., 2003; Schmidt et al., 2003; Gurney, 2002
Responses/reactions			
Responses or reactions to programme resources	Flourish vs wilt	Flourish • Increased confidence • Empowered • Feeling competent • Growth (personal, professional and leadership development) • Coping • Credibility • Improvement of soft skills (communication and emergency cooperation skills)	Zhao et al., 2021; Roncallo et al., 2020; Casse, 2019; Glynn and Silva, 2013; Johnson et al., 2013; Turner and Goudreau, 2011; Patterson et al., 2010; Loiseau et al., 2003; Gurney, 2002
		• Motivation to support others • Leadership development • Encouraged to continue education • Feeling more secure • Experiencing comfort in role transition • Fulfilment of responsibilities • Felt trusted and accepted by staff	
		Wilt Unsupported novice nurses (inconsistent presence, lack of preceptor, and multiple preceptors) • Decreased confidence • Overwhelmed • Difficulty with role transition • Feeling insecure and unsupported	Glynn and Silva, 2013; Gurney, 2002
	Preceptor-novice assignment	Matching personalities One-to-one assignment Consistent presence	Casse, 2019; Glynn and Silva, 2013; Johnson et al., 2013; Loiseau et al., 2003; Schmidt et al., 2003; Gurney, 2002; Patterson et al., 2010
		Multiple preceptors Inconsistent presence Lack of preceptors	Glynn and Silva, 2013; Patterson et al., 2010; Loiseau et al., 2003
Primary outcomes			
Novice nurses	Proficient emergency department nurse	Improved knowledge and skills Sense of self-efficacy Increased resilience Improved communication Staff satisfaction Professional and skill development Successful transition	Zhao et al., 2021; Roncallo et al., 2020; Casse, 2019; Glynn and Silva, 2013; Johnson et al., 2013; Turner and Goudreau, 2011; Patterson et al., 2010; Loiseau et al., 2003; Schmidt et al., 2003
Emergency department	Retention Patient outcome Teamwork	Improved recruitment Decreased turnover Reduced cost Enhanced teamwork Improved interpersonal relationships Increased staff involvement and participation Increase retention Increased quality of	Zhao et al., 2021; Roncallo et al., 2020; Casse, 2019; Glynn and Silva, 2013; Johnson et al., 2013; Morphet et al., 2016; Turner and

Table 1 (*continued*)

	Requirements	Description	Sources
		nurses Improvement care quality and safety	Goudreau, 2011; Patterson et al., 2010; Loiseau et al., 2003; Gurney, 2002
Secondary outcomes Organisational level	Educational support structures	Establishment of mentorship committee, leadership development Development of Emergency Department Inpatient Nursing position Articulation to postgraduate study Establishment of 'Trauma Thursdays' orientation programme Establishment of teaching management professional committee	Zhao et al., 2021; Roncallo et al., 2020; Casse, 2019

3.4. Mechanisms

The mechanisms were categorised into resources and responses. Resources that enhanced transition included programme champions, programme activities, teaching-learning resources, social resources, and performance monitoring. Programme champions included nurse educators, nurse managers, physicians, experts, staff, clinical nurse specialists, programme coordinators and emergency department directors, with preceptors being preferred (Zhao et al., 2021; Roncallo et al., 2020; Casse, 2019; Glynn and Silva, 2013; Johnson et al., 2013; Patterson et al., 2010; Turner and Goudreau, 2011; Loiseau et al., 2003; Gurney, 2002). Preceptors were either handpicked, volunteered, or recruited based on qualifications, competence, interest, and willingness to participate in the programme (Zhao et al., 2021; Casse, 2019; Johnson et al., 2013; Turner and Goudreau, 2011; Patterson et al., 2010; Loiseau et al., 2003; Gurney, 2002). Matching personalities and ensuring consistent one-to-one interactions were deemed essential for fostering positive relationships (Loiseau et al., 2003; Schmidt et al., 2003). Some programmes incentivised preceptors with remuneration and workload reduction (Casse, 2019; Turner and Goudreau, 2011; Loiseau et al., 2003; Gurney, 2002). Preceptor responsibilities included guidance and support to facilitate socialisation and staff acceptance (Zhao et al., 2021; Glynn and Silva, 2013; Turner and Goudreau, 2011; Gurney, 2002).

Programme activities typically involved orientation, didactic lectures, and integrated learning (Roncallo et al., 2020; Casse, 2019; Morphet et al., 2016; Loiseau et al., 2003; Schmidt et al., 2003; Gurney, 2002). Novice nurses were oriented toward the functioning of the emergency depatment, demarcated areas and educational environment through a blend of didactic lectures and clinical skills training (Roncallo et al., 2020; Casse, 2019; Glynn and Silva, 2013; Patterson et al., 2010; Loiseau et al., 2003; Schmidt et al., 2003; Gurney, 2002). The ED demarcated areas included triage, ambulatory care, minor care, critical, acute, resuscitation and observation areas (Roncallo et al., 2020; Loiseau et al., 2003; Gurney, 2002). The educational environment included clinical exposure, which mainly occurred in emergency departments and simulation centres, with rotation through critical care, paediatric, psychiatric crisis, burn and labour and delivery units (Zhao et al., 2021; Casse, 2019; Patterson et al., 2010; Schmidt et al., 2003).

The teaching-learning resources included learning tools, training books, enrolment in courses such as Essentials of Critical Care Orientation, computer-assisted instructional programs, cardiology and Heartsaver Cardiopulmonary Resuscitation (Zhao et al., 2021; Roncallo et al., 2020; Morphet et al., 2016; Patterson et al., 2010; Loiseau et al., 2003; Gurney, 2002). The various teaching strategies are summarised in Table 1.

Social resources are a key aspect of transition programmes. Novice nurses reported experiencing emotional distress when transitioning to the emergency department. The wide variety of patients, the type of care, and the depth and breadth of knowledge and skills required in the fast-paced emergency department environment subjected novice nurses to distress (Roncallo et al., 2020; Glynn and Silva, 2013; Patterson et al., 2010). Novice nurses reported feeling unsupported and unwelcomed by staff, experiencing heavy workloads, insufficient preparation to provide care, and encountering continuously new challenging situations (Turner and Goudreau, 2011; Patterson et al., 2010; Schmidt et al., 2003; Gurney, 2002). However, the implementation of the transition programmes proved to adequately prepare novice nurses for many situations encountered in the emergency department, increased their emergency care capacity and boosted their confidence (Zhao et al., 2021; Glynn and Silva, 2013; Johnson et al., 2013; Turner and Goudreau, 2011). Transition programmes included social resources such as weekly to monthly debriefing sessions, sharing experiences, setting goals, critiquing specific behaviours, managing the programme, peer support, feedback, role modelling, and measuring progress (Zhao et al., 2021; Roncallo et al., 2020; Casse, 2019; Johnson et al., 2013; Turner and Goudreau, 2011; Loiseau et al., 2003; Gurney, 2002).

The progress of novice nurses was monitored through formative and summative assessments. The assessments included end-of-the-year presentations, weekly assessments, psychomotor skills reviews, presentations, periodic assessments, completion of a competency checklist, satisfactory levels of clinical performance, acceptable attendance, acceptable course participation records, structured case studies, training before training (new nurses' ability assessments), training immediately after training, bedside scenario simulation assessments and bilateral evaluations (Zhao et al., 2021; Casse, 2019; Glynn and Silva, 2013; Johnson et al., 2013; Turner and Goudreau, 2011; Patterson et al., 2010; Loiseau et al., 2003; Gurney, 2002).

After going through a transition programme, novice nurses indicated the following responses: empowered and competent, able to cope, motivated to support others, felt secure and comfortable in their role transition, capable of fulfilling their responsibilities, confidence, resilience, improved soft skills (communication, emergency, cooperation, and teamwork skills), trusted and accepted by staff, and were encouraged to continue education (Zhao et al., 2021; Roncallo et al., 2020; Casse, 2019; Glynn and Silva, 2013; Johnson et al., 2013; Turner and Goudreau, 2011; Patterson et al., 2010; Loiseau et al., 2003; Gurney, 2002).

3.5. Outcomes

Intended outcomes for novice nurses included improved knowledge and skills, a sense of self-efficacy, staff satisfaction, professional and skill development, and successful transition (Zhao et al., 2021; Roncallo et al., 2020; Morphet et al., 2016; Glynn and Silva, 2013; Johnson et al., 2013; Turner and Goudreau, 2011; Patterson et al., 2010; Loiseau et al., 2003). The emergency department outcomes included improved recruitment, decreased turnover, reduced costs, enhanced teamwork, improved interpersonal relationships, increased staff involvement and participation, increased retention, competent emergency department nurses, and improved patient care (Zhao et al., 2021; Roncallo et al., 2020; Casse, 2019; Glynn and Silva, 2013; Johnson et al., 2013; Turner and Goudreau, 2011; Patterson et al., 2010; Loiseau et al., 2003). The unexpected organisational outcomes included the establishment of a mentorship committee, leadership development, the development of an emergency department inpatient nursing position, articulation to postgraduate studies, the establishment of a 'Trauma Thursdays' orientation

programme, and the formation of a professional teaching management committee (Zhao et al., 2021; Roncallo et al., 2020; Casse, 2019; Morphet et al., 2016).

3.6. Refined programme theory

Our refined programme theory is depicted in Fig. 3, and the related context-mechanism-outcome configurations are as follows:

Context-Mechanism-Outcome 1: If the selected novice nurses have the ideal characteristics (C) to attend the codesigned transition programme (M), then novice nurses will become proficient and experience increased job satisfaction (O).

Context-Mechanism-Outcome 2: If there are healthful interpersonal relationships (C) among novice nurses and programme champions (M), then the retention of novice nurses, positive patient outcomes and improved teamwork will be evident in the ED (O).

Context-Mechanism-Outcome 3: If the ED is well equipped and maintained with competent staff (C) and the transition programme includes orientation and a variety of facilitation and assessment methods (M), then the intended outcomes will be reached (O).

Context-Mechanism-Outcome 4: If the context is optimal (C) and the mechanisms are realised (M), then the novice nurse will flourish, and the intended outcomes will be reached (O).

Although Context-Mechanism-Outcomes are reported as linear statements, they are interrelated.

3.7. Theoretical support for the refined programme theory

We used the Behaviour of interest, Health context, Exclusions and Models or Theories search strategy to identify theories that support programme theory (Table 2) (Booth and Carroll, 2015).

The Behaviour of interest, Health context, Exclusions and Models or Theories strategy yielded five transition theories, namely, Meleis's

Table 2
BeHEMoTH search strategy (adapted from Booth and Carroll, 2015).

Search strategy	Search terms
Be: Behaviour of interest	job satisfaction OR work satisfaction OR employee satisfaction OR retention OR recruitment competent AND
H: Health contexts	Transition program OR Programmes OR orientation program OR nurse residency programs OR training programs AND
E: Exclusions	Transitional care models OR non transitional models OR theories OR promotional models OR economic models AND
MoTH: Models or theories	Models OR theories model OR theories OR framework OR concept OR conceptual

(2010) transition theory, Bauer and Erdogan's (2011) organisational socialisation theory (2011), Donovan and Darcy's (2011) transfer of learning theory, and Bronfenbrenner's (1979) and Duchscher's (2008) transition theories. We excluded Bronfenbrenner (1979) and Duchscher (2008) because they did not focus on transition programmes. Bronfenbrenner's (1979) theory focused on human development, while Duchscher's (2008) theory described the path of novice nurses entering a new working environment.

We examined Meleis's (2010) transition theory, Bauer and Erdogan's (2011) organisational socialisation theory, and Donovan and Darcy's (2011) transfer of learning theory to guide our programme theory. According to Meleis (2010), transition theory explains the process for achieving successful outcomes and the resources influencing the transition process. Additionally, Bauer and Erdogan (2011) referred to the transition of novice nurses into a new environment as organisational socialisation, which they defined as helping new employees learn the skills, knowledge, and behaviours needed in their new environment.

According to the transfer of learning theory, student characteristics and motivation to learn and transfer, educational design, workplace environment, and transfer climate influence students' performance and may cause programme failure (Donovan and Darcy, 2011).
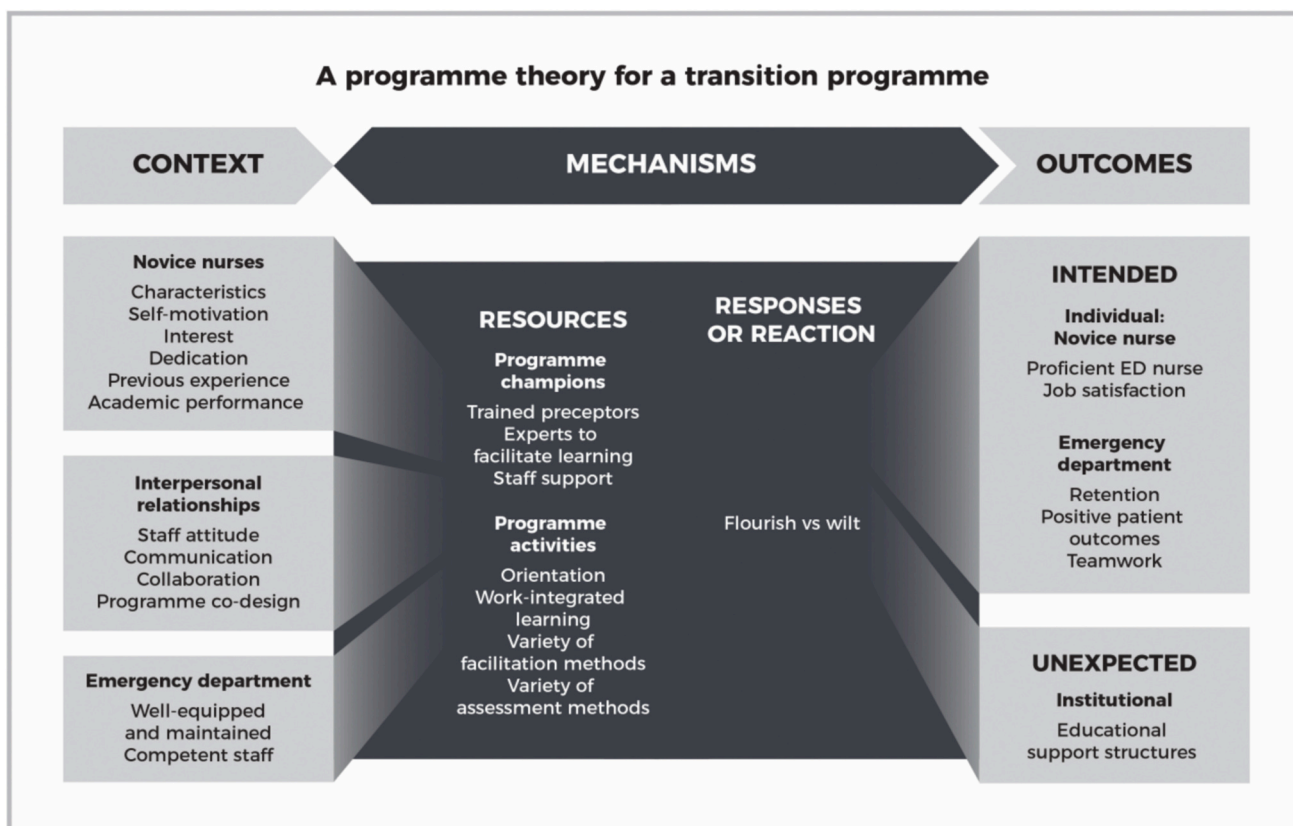

Fig. 3. Refined programme theory.

Supplementary 3 shows the programme theory elements and how the identified theories support our programme theory. In addition, we provide associated empirical studies for each theory.

4. Discussion

Novice nurses working in emergency departments often face overwhelming challenges, leading to periods of instability, confusion, and distress (Zhan et al., 2022; Eklund et al., 2021). Strategies that promote practice and facilitate transition may reduce novice nurses' stress. Successful transition requires an understanding of contextual factors and mechanisms. We identified three contextual factors influencing the successful transition of novice nurses: the characteristics of novice nurses, interpersonal relationships, and the emergency department environment.

The characteristics of novice nurses were associated with successful transition programmes. They included dedication, motivation, interest in the emergency department, commitment, enthusiasm, hard work, professionalism, academic excellence, previous emergency department experience, and level of training. The supporting theories of Meleis (2010), Bauer and Erdogan (2011), and Donovan and Darcy (2011) underscore the significance of these characteristics (Supplementary 3). Positive characteristics are linked to a desire to work in emergency departments, provide quality care, critical thinking, manage the workload faster, and increase self-efficacy (Kim and Yeo, 2019; Johnson et al., 2013; Loiseau et al., 2003). A lack of these characteristics may hinder role transition and increase discomfort and stress (Kurniawan et al., 2019).

The second contextual factor, interpersonal relationships, centred on staff attitudes and communication. Open communication and positive staff attitudes are linked to successful transition programme outcomes (Wakefield et al., 2023; Innes and Calleja, 2018). In contrast, communication deficits and negative staff attitudes negatively impacted transition programme outcomes. The importance of staff attitudes and communication during transition is supported by Meleis (2010), Bauer and Erdogan (2011), and Donovan and Darcy (2011) (Supplementary 3). Araujo and Figueiredo (2019) emphasised the role of polite nursing staff attitudes and behaviours in promoting a pleasant work environment. Staff buy-in and briefing positively impacted successful transitions and enhanced the emergency department environment. Transition programmes should be developed in collaboration with emergency department stakeholders to enhance their practical relevance and alignment with novice nurses' needs.

Third, transition programmes were primarily implemented in Level I trauma centres and large emergency departments. Consistent with our review, resource availability in these environments, including competent staff and well-equipped facilities, enhanced the transition of novice nurses. All three identified theories confirm the elements of our programme theory (Supplementary 3). Bauer and Erdogan (2011) highlighted the importance of resource alignment with job demands for a successful transition. Novice nurses are more likely to thrive in environments with supportive resources, ensuring engagement and growth during transition (Calleja et al., 2019).

Mechanisms, including resources and responses, formed core elements of the transition programme theory. Resources included programme champions and programme activities. Programme champions, notably preceptors, seemed to have facilitated transition programmes (Labrague, and De los Santos, J. A. A., 2020; Calleja et al., 2019). Preceptors positively influenced the transition of novice nurses. The three theories of Meleis (2010), Bauer and Erdogan (2011), and Donovan and Darcy (2011) support the importance of the value of preceptors (Supplementary 3). Preceptors provide novice nurses with continuous support, mentoring and guidance, which subsequently promotes successful transitions (Alsalamah et al., 2022).

Programme activities, including orientation, work-integrated learning, various facilitation and assessment methods, and social support, were pivotal in aligning learning with job requirements and enhancing transition. Supported by the theories of Meleis (2010), Bauer and Erdogan (2011), and Donovan and Darcy (2011) (Supplementary 3), effective orientation and learning activities eased transition and improved competence. Novice nurses should receive resources aligning with their working conditions to help them deal with stressful transitions (Innes and Calleja, 2018). Blending lectures and experiential clinical learning supports students in the workplace (Hugo and Botma, 2019). Instead of separating the didactic and clinical components, studies indicated that blending classroom lectures, simulations, and hands-on clinical training reinforces knowledge and skills and effectively prepares novice nurses for the fast-paced emergency department environment (Glynn and Silva, 2013; Johnson et al., 2013; Patterson et al., 2010). Effective orientation and learning activities eased transition and improved the competence of novice nurses (Rush et al., 2019; Siburian et al., 2019).

Regarding mechanisms, resources are linked to responses. Adequate resources were related to novice nurses' responses, specifically, increased confidence, feeling empowered, feeling competent, professional growth, leadership development, coping, credibility, improvement of soft skills, motivation to support others, feeling more secure in the emergency department, experiencing comfort in role transition, fulfilling responsibilities, and being trusted and accepted by staff. Consistent with the theories of Meleis (2010), Bauer and Erdogan (2011) and Donovan and Darcy (2011), our findings indicated that novice nurses responded in various ways to transition programmes (Supplementary 3).

Transition programmes had either intended or unexpected outcomes. The intended outcomes included proficient nurses, teamwork, retention, and positive patient outcomes, which aligned with the theories of Meleis (2010), Bauer and Erdogan (2011), and Donovan and Darcy (2011) (Supplementary 3). Transition programmes may yield unexpected organisational outcomes. Our review identified educational support structures such as mentorship committees, leadership development, the development of an Emergency department inpatient nursing position, articulation to postgraduate study, the establishment of the 'Trauma Thursdays' orientation programme, and the establishment of a professional teaching management committee (Zhao et al., 2021; Roncallo et al., 2020; Casse, 2019).

5. Recommendations for future research

Our programme theory provides guidance for emergency department authorities wishing to support novice nurses transitioning to these departments. Further research is needed to develop and test the conceptual models and frameworks of transition programmes for novice nurses in emergency departments.

6. Strengths and limitations

Our study has several limitations. First, we sourced only eleven relevant reports. These few reports demonstrate a knowledge gap and weak evidence base on transition programmes for novice nurses working in emergency departments. Some reports did not describe the programmes in sufficient depth to allow for the identification of contexts, mechanisms, and outcomes. All the included reviews yielded successful programmes; however, this may indicate possible publication bias, which may be caused by underreporting unsuccessful programmes. This review has several strengths. The findings from this review support our initial programme theory. Moreover, the included reports involved the transition of novice nurses to emergency departments and not to any other speciality. We used the Realist and Meta-narrative Evidence Synthesis–Evolving Standards publication standards (Wong et al., 2013) as guidelines for reviewing and synthesising the literature.

7. Conclusion

Based on the findings of this review, we suggest that knowledge of contexts and mechanisms may influence the success of transition programmes. This review provided insights into how transition programmes may achieve their outcomes if an understanding of the underlying contextual factors and generative mechanisms informs them. The programme theory developed in this review helps to better understand how contexts such as novice nurses, interpersonal relationships and emergency departments interact with mechanism resources such as programme champions and activities to produce transition programme outcomes.

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CRediT authorship contribution statement

Kapari Mashao: Writing – review & editing, Writing – original draft, Validation, Formal analysis, Data curation, Conceptualization. **Yvonne Botma:** Writing – review & editing, Writing – original draft, Validation, Supervision, Formal analysis, Data curation, Conceptualization. **Celia Filmalter:** Writing – review & editing, Conceptualization. **Tanya Heyns:** Writing – review & editing, Writing – original draft, Supervision, Formal analysis, Data curation, Conceptualization.

Declaration of competing interest

The authors declare no conflicts of interest.

Data availability statement

The authors confirm that the data supporting the findings of this study are available in supplementary materials.

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