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Review

An integrative review of the continuing professional development needs for nurse educators

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ABSTRACT

Objectives: The study aimed at describing the field of research in continuing professional development for nurse educators and the continuous education and development needs of nurse educators by asking: What research has been done in the field of continuing professional development of nurse educators? What are the continuing education and development needs and requirements reported *for* and *by* nurse educators?
Design: An integrative review of peer-reviewed academic literature following a systematic search design.
Data sources: Qualitative, quantitative, and mixed methods publications in CINAHL, Cochrane Library, Web of Science, Embase, ERIC, and PubMed.
Review methods: Search results were screened for full text and assessed for quality using the Mixed Methods Assessment Tool. Full texts were then thematic analysed using an inductive and reflective process.
Results: The number of published academic articles about the continuing professional development for nurse educators is small (n = 13). The themes produced from the articles identify heterogenous development needs for nurse educators, clustered around four themes: (1) professional competencies (2) management and resources, (3) communication and collaboration, and (4) agency. The findings of this review show that nurse educators have multiple roles which have specific and multiple personal and institutional needs.
Conclusions: The results of this review show that the continuing professional development needs are heterogenous between nurse educators, yet share commonalities across departmental teams as a whole, and across different countries. This raises the issue of how these needs can or should be, focused on the sustainable development of nurse educators.

1. Introduction

Continuing professional development (CPD) can be defined as a self-directed post-graduate learning process where professionals reflect on their competence, identify learning opportunities and develop their required competencies (Drude et al., 2019). Continuing professional development is an integral part of nurse educator competence (Mikkonen et al., 2019). Moreover, continuing professional development promotes occupational well-being as continuous learning is connected to job satisfaction (Saaranen et al., 2007; Arian et al., 2018).

Nurse educators need continuing learning opportunities as their working fields are constantly evolving. This results in local and global challenges and changes (Czabanowska and Kuhlmann, 2021; WHO, 2021a, 2021b) and unpredictable changes that may drastically affect the

work and competence requirements of nurse educators. This rapid change in teaching and learning contexts was seen in March 2020, when the Covid-19 pandemic required an immediate transition to distance learning (Martin-Delgado et al., 2021; Bao, 2020; Monforte-Royo and Fuster, 2020). The ability to react to changes in healthcare needs, is a key element, in the quality of nurse education (Global Pillars for Nurse Education, 2019; WHO, 2021a, 2021b). Nurse educators have an integral role to play in these processes and therefore require continuing education to maintain and develop standards of excellence (WHO, 2021a, 2021b).

The development of new teaching technologies and learning environments increase the need for nurse educators to consistently develop their competence (Oermann et al., 2021; Mikkonen et al., 2019; WHO, 2016). Nurse educators should have pedagogical and research competence, skills in international networking, leadership, and management (McAllister and Flynn, 2016, Kuivila et al., 2020), and wide-ranging knowledge of clinical work. They should also master digital learning environments (Van Laar et al., 2017; Zlatanovic et al., 2017; Ryhtä et al., 2020), professional cooperation, and evidence-based practice (Fitzgerald et al., 2020). Nurse educators should be self-directed (Töytäri et al., 2016; Mikkonen et al., 2018) and be able to adapt their teaching to global and future health issues (Shustack, 2020), such as pandemic diseases (WHO, 2020, Phan, 2019, WHO, 2016). All these competencies need to be maintained and developed through continuing professional development.

Requirements for continuing professional development and even the formal education of nurse educators vary significantly between countries and continents (WHO, 2020; Rogan, 2014). Some countries have explicit educational requirements, but career routes into nurse educators vary significantly (Jackson et al., 2009; Mickool, 2021). Similarly, continuing professional development is considered an obligation in some countries, whereas in other countries it is merely recommended (Bullin, 2018; Grassley et al., 2020; Mikkonen et al., 2021). Apart from being an obligation, continuing professional development is also a part of the empowerment of nurse educators through increased motivation, engagement, and autonomy (Koskimäki et al., 2021, 2022). Mentoring, as a form of continuous learning, has shown to be beneficial for job satisfaction, for both mentors and mentees (Arian et al., 2018). Professional competence and opportunities to develop competence are related to educators' occupational well-being and job satisfaction (Saaranen et al., 2007; Laine et al., 2018; Arian et al., 2018). Employers who offer nurse educators resources and possibilities to utilize and develop professional competence must be noticed (Singh et al., 2020, Vauhkonen et al., 2020) and considered as workload factors depending on the situation in the workplace (Saaranen et al., 2020). Educators in healthcare experience work stress, mental strain, and heavy workloads (Saaranen et al., 2020, Singh et al., 2020), which can reduce their possibilities and motivation for continuing professional development.

Nurse educators' continuing education and development needs refer to mentoring, workshops in teaching and learning, orientation, leadership, career development (Behar-Horenstein et al., 2019) and theoretical and practical competence development (Bilal et al., 2019). Those continuing education and development needs not only refer to requirements for nurse educators' continuing professional development set by regulators, but also refer to nurse educators own intrinsic motivation and needs for continuing professional development. The continuing education and development needs of nurse educators are an understudied and underdeveloped area of nursing scholarship (Zlatanovic, 2019).

In order to retain nurse educators and to achieve the highest quality and most efficient education systems, the continuing education and development needs of nurse educators are paramount to a sustainable workforce of nurse educators (United Nations, 2015). This review explores the field of continuing education and development of nurse educators and the continuing education needs of nurse educators. In this article, a nurse educator is defined as an educator, who teaches the theoretical and practical contents to nursing students in the educational institutions (WHO, 2021a, 2021b).

1.1. Objectives

The study aims to describe the field of research in continuing professional development for nurse educators and the continuing education and development needs of nurse educators.

1.2. Research questions

1. What research has been done in the field of continuing professional development of nurse educators?
2. What are the continuing education and development needs reported *for* and *by* nurse educators?

2. Methods

The design of this integrative review followed the suggestions by Whittemore and Knafl (2005), namely problem identification, literature search, data evaluation, data analysis and presentation. Qualitative, quantitative and mixed methods research was included in the search strategy. An overview of the included and excluded literature is presented in the Preferred Reporting Items for Systematic Review and Meta-Analyses (PRISMA) diagram (Fig. 1 Page et al., 2021). The review protocol is registered with PROSPERO International Prospective Register for Systematic Reviews (Ref: RD42021247155). The search was conducted in April 2021 and updated in November 2021.

Comprehensive searches of six databases (CINAHL, Cochrane Library, Web of Science, Embase, ERIC and PubMed) were conducted. The search strategy, including key terms is available in the registered review protocol (reference blinded for review).

The first author was responsible for carrying out the literature searches using the search terms agreed by the author team. The author team was then divided into smaller reviewer teams. All teams independently screened titles and abstracts for eligibility using our inclusion and exclusion criteria (Table 1). Regular meetings of the whole review team ensured consistency in our approach and offered opportunities to discuss any issues that arose during this process. The same approach was used to independently assess the identified articles for potential inclusion using the updated Mixed Methods Appraisal Tool (MMAT) (Hong et al., 2018). The searches were performed on titles and abstracts in English, however, full text articles written in a language spoken by a member of the wider research team were considered for inclusion, if appropriate. This led to the inclusion of two articles published in Finnish that underwent the same independent review as described above by our Finish review team colleagues.

Following on from this assessment process the final list of included articles was once more distributed amongst the reviewer team for data extraction. Studies were again independently reviewed and assessed by four reviewers (blinded for review). Any disagreements or uncertainties were discussed first within the smaller assessment team and then the wider reviewer team. Studies with less than 20 % of criteria were excluded since it is indicative of low quality.

A standardised data collection form was uploaded into a shared folder and used by all reviewers for data extraction.

2.1. Data analysis

Data analysis followed an inductive and reflective approach and aimed at, firstly, mapping the terrain of nurse educators' continuous education and development needs and secondly, a qualitative description of the identified patterns (Miake-Lye et al., 2016). We did not attempt in theorizing our findings and this decision was based on the scarcity, and thus lack, of data. Instead, we focused on shared characteristics/patterns across studies in developing our themes.
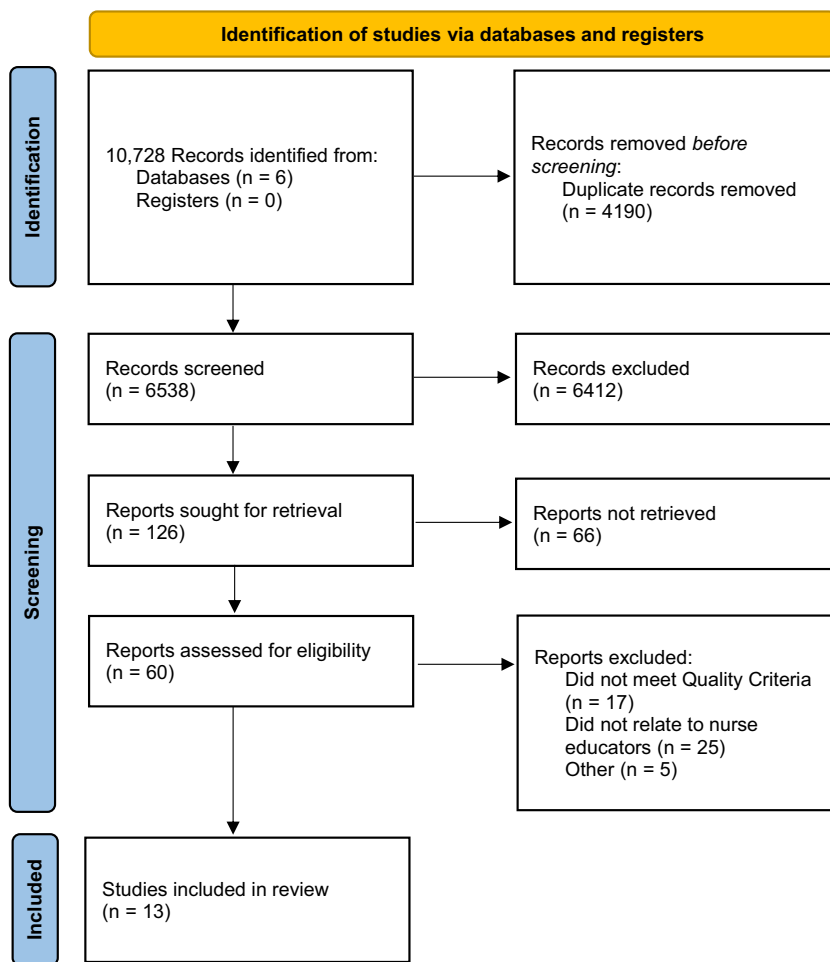
Fig. 1. PRISMA flow chart.

Table 1

Inclusion/exclusion criteria.

Criteria	Inclusion	Exclusion
Language	English Abstract, and full text available in a language spoken by a member of the international research team (English, Finnish, French, Swedish, Norwegian, German, Spanish, Slovakian).	Other languages
Type of publication	Peer-reviewed journals	Non-peer reviewed, gray literature, policy documents, review papers, discussion papers or editorials.
Topic/content	Nurse educators' education in Europe and internationally Continuing professional education for nurse educators	Pre-registration nurse education Post-registration nurse education *not* specific for nurse educators. Clinical mentorship.
Timeframe	No time limitations.	–

Data analysis followed generic qualitative data analysis processes by four authors starting to independently reading included articles, writing notes on insights and ideas, developing descriptive codes, reflecting on codes, developing categories and developing themes (e.g. Flick, 2018; Gibbs, 2018). Throughout this time, we had regular meetings discussing our thoughts and developing analysis. Through this reflective process and latent content analysis (Braun and Clarke, 2022; Kleinheksel et al., 2020) and four themes were developed: (1) professional competencies (2) management and resources, (3) communication and collaboration, and (4) agency.

3. Findings

3.1. Research in the field of continuing professional development for nurse educators

Thirteen articles were included for analysis in this review. Eleven of the articles were available in English language and two were available in Finnish. The initial search was limited to European countries, but the apparent lack of research required to include any publication that met the inclusion and exclusion criteria, increasing the article numbers for analysis from five to 13. The sample sizes of the studies ranged from n = 9 to n = 359, with varied methodologies (Table 2). One study was published in 1992 others after 2007, however, most were published after 2015.

Table 2
Articles retrieved and included in analysis.

Authors & country	Research aims	Methodology & methods	Sample/participants	Main findings
Bachman et al. (1992). USA	Identify participants specific learning needs and to determine the extent to which settings influenced participants level of interest	Self reported learning needs of nurse educators using the Questionnaire for Nurse Educators (QNE)	359 Nurse Educators in a southern state of the USA	There is an identified need for continuing education programs designed specifically for nurse educators. Educators perceive unmet learning needs in their continuing professional development.
Bigbee et al. (2016). USA	Assess the interests and preferences of nurse educators related to CPD content and delivery.	Cross-sectional survey design	156 nursing and medical faculty and administrators in California	Well-designed needs assessment strategies are essential components of effective educational program planning. Needs assessment data also provide critical information to justify the investment of resources by educational institutions in faculty development to support their educational, research, and service missions
Ephraim (2021). USA	Investigate the relationship between nurse educator mentor's perception of their mentoring effectiveness and nurse educator mentee's perception of their mentor's effectiveness.	Survey design using the Principles of Adult Mentoring Inventory (PAMI)	119 nurse educators	Continuous improvement and training are critical to acquiring and reinforcing effective mentoring skills. Evaluation and follow up for mentors could result in increased satisfaction for both mentor and mentee and improve retention of new faculty in academia.
Garner and Bedford (2021). USA	Explore the lived experience of early-career nursing faculty.	Semi-structured interviews	9 early career nursing faculty (less than 5 years experience as a nurse educator)	Four themes: (1) balance between theory and practice (2) socialization to the role (3) real-world experience (4) ownership for ongoing learning.
Jackson et al. (2015). Australia	Explore the experiences and perceptions of academic nurse mentors supporting early career nurse academics	Evaluation of a mentorship program for nurse educators using qualitative semi-structured interviews	16 established nurse educators	Four themes: (1) high motivation for mentoring (2) importance of constructing the relationship (3) establishing safe boundaries (4) managing expectations
Koskimäki et al. (2021, 2022). Finland	How do social- and health-care educators describe continuing professional development?	Group interviews and analysed with inductive content analysis.	35 established nurse educators from 8 educational institutions across Finland	Diversity in needs for nurse educators. Continuing professional development takes place through both formal continuing education and informal collaboration at daily work. Barriers to continuing education are often cited the lack of planning and a lack of resources. The continuing education needs of social- and health-care educators are highly individual and should not only reflect organizational goals.
Matthew-Maich et al. (2007). Canada	Explore the meaning and experiences of faculty participating in a collaborative faculty development program.	Qualitative program evaluation of nursing faculty development program through content analysis of focus groups.	33 nurse educators from 2 educational institutions	Strategic faculty development program using a comprehensive evaluative model to guide and direct the faculty development process are highly successful. Nurse educators benefit from a collaborative faculty development program that guides future faculty development.
Menezes, K. R., & Novaes, M. R. C. G. (2020) Brazil	Identify the aspects related to professional training and autonomy of undergraduate nursing teachers.	Mixed methods study using semi-structured questionnaires that included parametric questions and qualitative measures.	77 nurse educators.	Understanding the meaning and degree of autonomy perceived by teachers can improve reflective practice and enhance their job enjoyment and performance.
Mikkonen et al. (2019). Finland	Describe social and healthcare educators' perceptions of their competence in education.	Qualitative focus groups and interviews with nurse educators, analysed with inductive content analysis.	48 nurse educators from nine educational institutions.	The educators' competence was defined as a multidimensional construct: including categories of educators' competences in practicing as an educator, subject, ethics, pedagogy, management and organization, innovation and development, collaboration, handling cultural and linguistic diversity, and continuous professional development. Educators recognised the need for developing competence in innovation to meet rapid changes in a competitive and increasingly global sociopolitical environment. Enhancement of adaptability to rapid changes was recognised as a necessity.
Nokelainen et al. (2019). Finland	Describe the needs of continuing education for health and social care teachers starting their career.	Group interviews of health and social care teachers.	14 health and social care teachers	Teachers felt that they need to develop their own work, co-operation and collaboration, personal professional development,

Table 2 (*continued*)

Authors & country	Research aims	Methodology & methods	Sample/participants	Main findings
				development of teaching competencies and digital competencies. Educators wanted to have education which answered to their subjective learning needs, were useful and included collegial interaction and were pedagogically high-quality and they wanted resources and effective organization of continuing education organized by the employer.
Oprescu et al. (2017). Australia	Explores practical issues around professional development needs of nurse educators	Online survey	138 nurse educators in Queensland.	High levels of engagement and enthusiasm for CPD; however, lower levels of confidence in their skills or feelings of being expert. Reports of desire to develop technology skills, assessment and technical knowledge in CPD.
Vilén and Salminen (2016). Finland	Describe both the continuing education and the needs of the continuing education of health care teachers in universities of applied sciences.	Cross-sectional study design	79 nurse educators from across Finland	Development of competence area identified as biggest need. Teachers also focused on updating their relevant clinical practice. The biggest barriers to participate continuing education were low financing and time pressures. The majority of the teachers reported that the possibilities to participate continuing education were good or reasonable. In practice, participating continuing education were almost always arranged case specific and not institutionally mandated. The most common organizations to arrange the continuing education, were private organizations, even the teachers' primarily wishes were that continuing education would be organized by universities or other higher education institutions. According of the findings, the conclusion is that demands for continuing education have not been met.
Zlatanovic (2019) Norway	Explore the possibilities for nurse teachers' professional development as perceived by nurse teachers	Interpretative qualitative design using observation, email communication and interviews.	10 nurse educators from a single institution.	Three main themes which facilitate nurse educators professional development: (1) organizational support and frameworks (2) departmental and institutional collegiality (3) characteristics and qualities of the nurse teachers

3.2. The continuing education and development needs reported for and by nurse educators

The thematic analysis of the articles produced four broad themes which are interconnected. These themes are: (1) professional competencies (2) management and resources, (3) communication and collaboration, and (4) agency. First, the findings of this review were modelled to represent how the information is themed and clustered (Fig. 2). Modelling in qualitative data analysis is not new (Briggs, 2007) and this approach enabled us to see and describe the wider context of
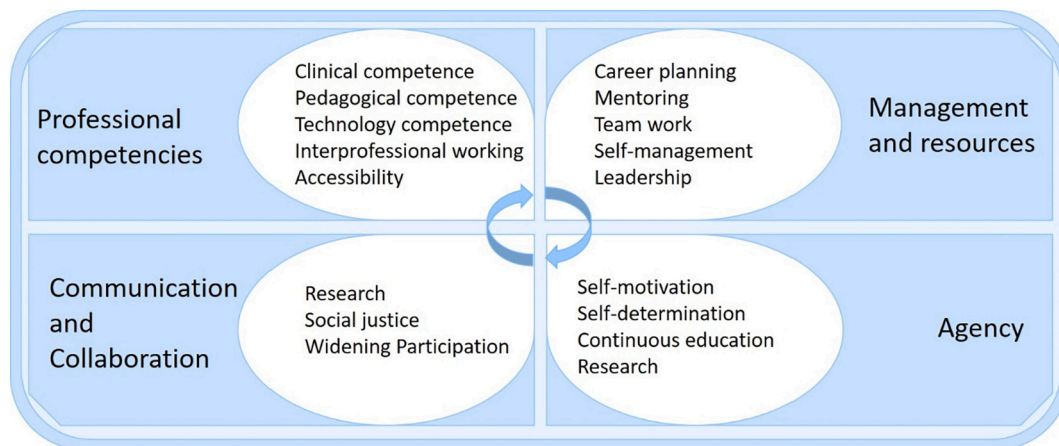

Fig. 2. Thematic analysis of the continuing professional development needs for nurse educators.
Note: Some of the sub-themes from our analysis are not mutually exclusive to each theme; the sub-themes fit into more than one broad category. There is a dynamic relationship and overlaps between themes which are discussed below.

our findings. The model of our findings was then situated within a model of the context of this review, as outlined in the background of this article. The context is illustrated on the outer ring of the model in Fig. 3, and the direct findings are towards the centre of the model. The model was developed to support communicating the findings of this review and establishing the relationships between each finding. The findings of this review show that nurse educators have multiple roles which have specific and multiple personal and institutional needs and that these are related to the needs of nurse educators development. The findings are a result of an inductive analysis, alongside a synthesis of the analysis, which reflects the method of reflective analysis used (Braun and Clarke, 2022; Kleinheksel et al., 2020).

3.3. Professional competencies

Professional competencies have an impact on nurse educators' continuous professional development (for example Oprescu et al., 2017). The theme professional competencies refers to clinical, pedagogical and technology competence, interprofessional working, and accessibility (Fig. 2).

The professional competencies required for nurse educators is very broad, ranging from making learning accessible, pedagogical development to maintaining clinical proficiencies (Bachman et al., 1992, Vilén and Salminen, 2016, Koskimäki et al., 2021, 2022). Ephraim (2021) suggests that many of the rules for nurse educator development are not clear and can be obscured by institutional frameworks, or what Koskimäki et al. (2021, 2022) describe as heterogenous opinions on the competencies required for nurse educators (Table 3).

This multi-faceted pedagogical approach is compound by the necessity to stay up to date and develop student and educator competencies (Nokelainen et al., 2019). Nurse educators need to have in-depth substance knowledge in each of these areas, alongside pedagogical understandings of how to approach these multiple modes of education (Vilén and Salminen, 2016; Nokelainen et al., 2019). The multi-faceted characteristics of nurse educators is viewed as an opportunity for innovation and development (Bigbee et al., 2016).

The diverse professional competency needs of nurse educators are closely linked in the literature to the themes of mentorship and

Table 3
Summary table of source country and research design of articles included.

Country	Qualitative	Quantitative	Mixed methods	Total
USA	1	3	0	4
Finland	3	1	0	4
Australia	1	1	0	2
Brazil	0	0	1	1
Canada	1	0	0	1
Norway	1	0	0	1
Total	7	5	1	13

communication. Ephraim (2021) and Jackson et al. (2015) both identify that mentorship is a competency that should be developed with and for nurse educators of all levels.

3.4. Management and resources

Management and resources have an impact on nurse educators' continuous professional development (Mikkonen et al., 2019) and this theme refers to career planning, mentoring, teamwork, resources and leadership (Fig. 2).

Educators need to be competent in management skills for their self-management and management within an organization. Autonomy is closely linked to self-management and is valued in the development of nurse educators. Nurse educators need to be strategic and political aware and able to manage colleagues, students, institutions, collaborations, and research projects (Mikkonen et al., 2019). Adopting an appropriate leadership style in self-management supports nurse educators to flourish in their institutional settings. Menezes and Novaes (2020) assert that developing management skills, in the context of professional autonomy, allows nurse educators participating in the ongoing development of their institution which in turn supports career development.

Institutional endorsement of nurse educator development is also reported as essential for nurse educators to flourish. It is widely reported that nurse educators perform developmental activities in their own time outside of work because there is limited time for these activities in their job roles (Koskimäki et al., 2021, 2022, Mikkonen et al., 2019, Bachman
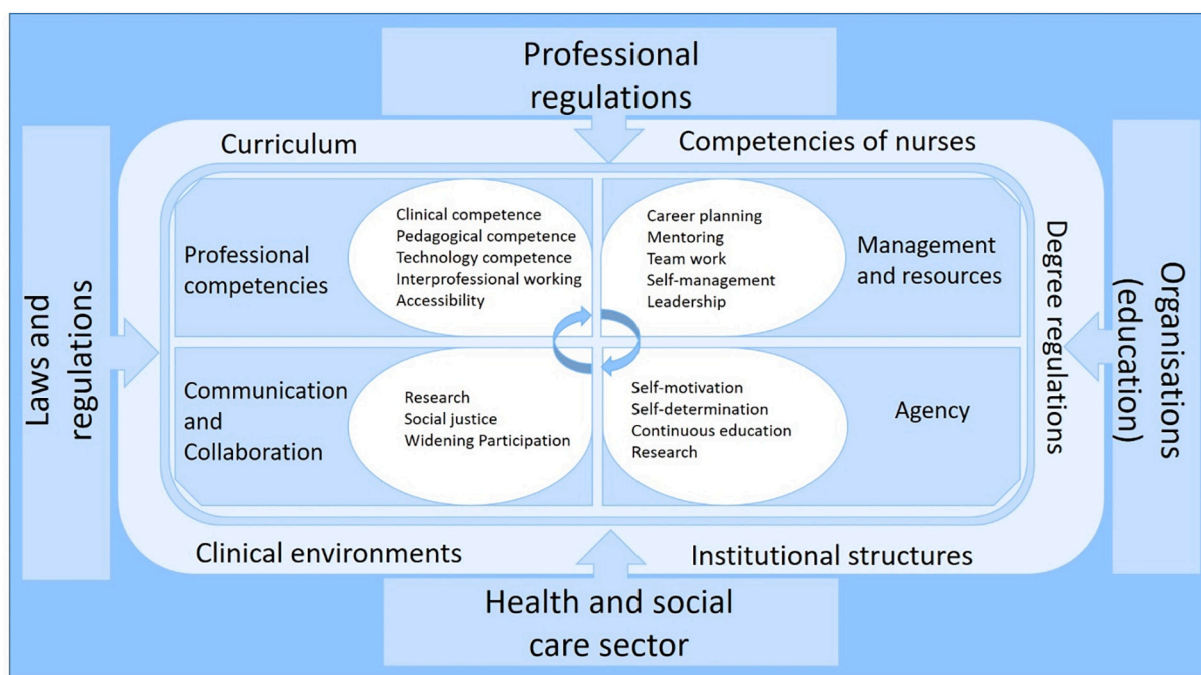

Fig. 3. Model of review analysis findings and contextual relationships for the continuing development needs of nurse educators.

et al., 1992, Zlatanovic, 2019). This is despite highlighting the importance of institutional support for programs such as mentoring to develop and retain nurse educators (Ephraim, 2021, Jackson et al., 2015). It is essential that institutions value 'faculty development activities' (Matthew-Maich et al., 2007 p. 81) and formalized forms of mentorship are also required (Jackson et al., 2015). The institutional value of nurse management is fundamental in effectively developing nurse educators.

Resources (including funding) to meet the needs of nurse educators were not always institutionally available (Bachman et al., 1992, Koskimäki et al., 2021, 2022). Despite institutions outlining that nurse educator development is an institutional priority, financial support does not always follow (Matthew-Maich et al., 2007, Zlatanovic, 2019). The tension between nurse educators' needs for continuing education and resource limitations is further reflected in the lack of time allocation in their contracted hours for professional development (Nokelainen et al., 2019, Vilén and Salminen, 2016, Koskimäki et al., 2021, 2022, Matthew-Maich et al., 2007). Resources are an ongoing issue in addressing the needs of nurse educator development.

Institutional management and leadership are competences that are essential to nurse educator development and access to resources make developing these competencies possible (Zlatanovic, 2019). Effective institutional leadership is formative in advancing the development of nurse educators (Zlatanovic, 2019); however, no decision is made in isolation or individually. Nurse management and leadership is characterized as a process in which team members and leaders are involved, especially in the context of limited resource. Nurse educators report how 'financial issues led to the budget becoming everyone's issue' (Zlatanovic, 2019 p. 50), which demonstrates the need of nurse educators to have a good understanding of institutional processes. This issue links with the finding of Matthew-Maich et al. (2007) and the need of nurse educators becoming more aware of their situatedness in their institution.

3.5. Communication and collaboration

The theme communication and collaboration refers to research, social justice, and widening participation (Fig. 2). Effective communication and collaboration were outlined in all the included articles as needs for nurse educators. This theme emerged repeatedly in different context throughout the literature and, as subthemes, includes interpersonal skills, teamwork within teams and with students, teamwork within the wider institutions, effective use of novel technologies and international collaboration (Bigbee et al., 2016, Ephraim, 2021, Koskimäki et al., 2021, 2022).

Affirmative and constructive peer support and feedback, in the form of mentorship, was reported as important to nurse educator development (Ephraim, 2021). Teamwork and communication within teams is essential to continuing professional development (Ephraim, 2021), alongside constructive peer critique in nurse educator development (Koskimäki et al., 2021, 2022, Nokelainen et al., 2019). These processes are multi-directional, and include more junior team members feedback to more senior team members and vice versa (Bigbee et al., 2016). There inter-team practices can also be helpful when things do not go to plan or there are challenging situations to deal with (Koskimäki et al., 2021, 2022). Good communication within teams builds efficient work communities that promote excellence in teaching and research and also institutional communities in which people are more likely to enjoy their work and trust their colleagues (Matthew-Maich et al., 2007; Zlatanovic, 2019).

Nurse educator development in academic institutions is often contingent on collaboration with external partners and other institutions. Nurse educators need to have the skills and resources to collaborate effectively with international partners as international collaboration is reported as integral to nurse educator development and success in their careers (Koskimäki et al., 2021, Oprescu et al., 2017). This links with skills of project management in developing teaching and research projects that support the development of nurse educators

(Nokelainen et al., 2019). Today, international collaboration today requires skills and knowledge of digital technologies (.e.g. software, collaboration platforms), and competent use of more routine digital technologies. For example, nurse educators need to respond quickly to challenges in work life with working with new technologies, such as hybrid teaching (in person and online) or fully online education (Vilén and Salminen, 2016). Nurse educators must also use other clinically relevant digital education skills e.g. clinical simulation, mentoring research students online and online networking as relevant for nurse educator development (Bigbee et al., 2016, Koskimäki et al., 2021, 2022). Novel technologies and digital competence are viewed as vital in today's role of nurse educators, therefore, this fits in this theme and with professional competencies (Nokelainen et al., 2019).

Effective communication enhances cooperation in work life (Koskimäki et al., 2021, 2022, Zlatanovic, 2019) and is a way to share experiences and learn from each other (Nokelainen et al., 2019). Exchange programs for students and educators can be supported with digital technologies and communication skills to improve and develop learning experiences for everyone (Koskimäki et al., 2021, 2022). These skills also extend to multi-cultural education so that nurse educators can develop in a way that addresses issues of social justice, and increase accessibility to educational and career prospects (Koskimäki et al., 2021, 2022). Nurse educators are often engaged with diverse cohorts of students and colleagues requiring cultural sensitivity and competence to ensure equity in education and development (Bigbee et al., 2016).

3.6. Agency

The theme agency refers to the nurse educators' need to develop self-motivation and autonomy to recognise and seek opportunities to meet their own needs for continuing professional development. Agency, as used here, describes the ability of nurse educators to reflect upon their needs and to have the power and resources to act upon their perceived development needs. All articles included in this review discussed the concept of nurse educators needing to be autonomous in multiple ways, such as being highly committed to encouraging one's own professional practice (e.g. Mikkonen et al., 2019; Zlatanovic, 2019) or engaged in self-study (e.g. Koskimäki et al., 2021, 2022). This concept was described in different ways and is explored below. The data coalesced around a theme of successful development for nurse educators having self-determination in their development. Autonomy and self-determination are described here as agency and refers to self-motivation, continuous education, and research (Fig. 2).

Agency is closely related to self-motivation, impacting on nurse educators' interest in their role and affecting where their worked. Nurse educators with more autonomy of shaping their role were often happier and more likely to stay in their job (Bachman et al., 1992). Higher degrees of perceived autonomy by nurse educators are also related to higher motivation and better performance in their role (Menezes and Novaes 2020). Nurse educators valued autonomous, or learner centered, professional development. Continuing professional development is more valued by nurses than other educators in other healthcare professions (Bigbee et al., 2016).

Nurse educators were more successful in meeting their continuing development needs when both their employers and themselves recognise and adapt to this (Mikkonen et al., 2019; Zlatanovic, 2019). New nurse educators often do not know what to do when transitioning into education, even if they are experienced nurses, and the lack of a developmental structures increases the likelihood of nurse educators attrition (Garner and Bedford, 2021). Mentorship is a way of supporting (new) nurse educators in this environment (Jackson et al., 2015). Mentoring can promote self-determination and autonomy in nurse educators and address the demands of this environment. Nurse educators, especially new nurse educators, do better when they are supported to become 'certain in the midst of uncertainty' (Matthew-Maich et al., 2007, p. 78).

Agency is related to a nurse educators' self-defined ongoing learning needs, and their autonomy in self-determining their continuing professional development ensures their motivation and success while also having the capacity and possibilities to meet those needs (Garner and Bedford, 2021; Zlatanovic, 2019). This included recognising research as being part of nurse education and remaining up to date with the current state of knowledge (Zlatanovic, 2019). Changing contexts require nurse educators to respond quickly to meet needs of service provision (Mikkonen et al., 2019). Nurse educators often perceive autonomy as a concept that allows independent development and performance of their role, rather than in the context of the institution (Menezes and Novaes 2020). Competence in recognising this in oneself as a nurse educator was reported as an attribute and competence that enable staff development. The necessity to remain up to date on an ongoing basis in an evidence-based profession was also supported by nurse educators seeking out learning opportunities such as attending conferences (Koskimäki et al., 2021, 2022).

Agency was found to be an essential characteristic of nurse educator continuous professional development. Self-motivation, self-determination and the ability to be able to progress and grow while managing a dynamic environment was found to strongly support nurse educators' development. This self-determination does not equate to self-sufficiency in personal development as it is contingent on an effective work culture and adequate space and resources for staff development.

4. Discussion

The aim of this integrative review was to describe the field of research in continuing professional development of nurse educators and continuous education and development needs for nurse educators, and while there is a strong desire by nurse educators for continuing professional development (Oprescu et al., 2017, Jackson et al., 2015) continuing professional development is often deprioritized (Koskimäki et al., 2021, 2022). At the same time, continuing professional development has been described in several studies as a way of maintaining educators' continuous education needs (Mikkonen et al., 2018, 2019; Salminen et al., 2013, 2021; Zlatanovic et al., 2017), but the actual needs of nurse educators in these processes have been less well researched. Some of the sub- themes fit into more than one broad category which may reflect the issue that when describing the continuing education needs, the developmental needs are more complex than simple educational needs.

As discussed earlier in this article, domains of competence for nurse educators are outlined and describe a framework to address the development needs of nurse educators (WHO, 2016). The diverse role of the nurse educator has been found in previous studies and literature (e.g. McAllister and Flynn, 2016, Kuivila et al., 2020, WHO, 2016) and this study reflects this diversity also in nurse educator continuing professional development.

The competencies required for nurse educators are very broad, ranging from professional development to maintaining clinical proficiencies (Bachman et al., 1992, Vilén and Salminen, 2016, Koskimäki et al., 2021, 2022). Ephraim (2021) suggests that many of the rules for nurse educator development are not clear and can be obscured by institutional frameworks, or what Koskimäki et al. (2021, 2022) describe as heterogenous opinions on the competencies required for nurse educators.

In an article by Koskimäki et al. (2021) an assessment of social and health care educators' continuing professional development scale was developed and tested. Continuing professional development was assessed in terms of pedagogy, self-direction, clinical competence, management and benefits. They also created an empirical model of Finnish social and healthcare educators' continuing professional development (Koskimäki et al., 2021c). While the continuing education and development needs of nurse educators are heterogenous, there is no lack of opportunity to better organize, coordinate and strategise the continuing education and development needs of nurse educators.

The domains for nurse educators' competence from the WHO point towards a comprehensive model that encompasses all aspects of academic and nurse educator development. When juxtaposed with the findings of this review, the question is raised about how realistic and pragmatic this is for nurse educators. Given that nurse educators report often attending to their continuing education and development needs in their own time, does a nurse educator need to be expert in everything in order to maintain high standards of practice? We suggest that this is a model which aims to create nurse educators that are excellent in all spheres of academic and nursing practice – as a research group we have called this the all-round nurse educator model. The findings of this review suggest that creating an all-round nurse educator model of nurse educator could be unrealistic because of the breadth of competencies and the dynamic characteristics of providing nurse education. The model below situates the analysis and findings of this review in the context outlined in the background section.

We suggest that our model is useful in identifying and framing the wider needs of nurse education because, as is evident in this systematic review, the needs of nurse educators and health systems are broad. However, the expectation of a nurse educator to be expert in all areas as suggested in previous research is a broad claim. This claim is also not clear, if this type of approach to nurse educator development should be applied to an individual or is it applied across teams and departments. The findings of this review question how the all-round nurse educator model of nurse educator development should and could be applied. Given the breadth of expectations on nurse educators and the resources available, should nurse educator continuing professional development be consider at the individual as well as the departmental level? Within nurse educator teams, individual members could be supported (mentorship and resources) in the competencies and fields in which they are interested (agency) and make links with others working in their fields of interest and expertise (communication and collaboration).

4.1. Limitations

This review has some limitations. First, the inclusion of literature from around the world could lead to poor comparisons because the role of nurse educator varies between countries. We tried to limit this, by considering only European literature, however a dearth of research on the topic led to the inclusion of eight articles outside the European context, providing rich insights into the context of nurse educator continuing professional development. This breadth of search may also be a strength because it demonstrates a comprehensive and holistic review of the topic, however, may also by a limitation. Second, the variety in the definition of continuing education and educational contexts in the included studies was high due to the diversity of educational settings, therefore, the comparisons made between contexts and countries may require further investigation and research.

5. Conclusions

The findings of this review support working with existing frameworks of nurse educator development but with increased clarity around how these should translate to the individual needs of nurse educators. The continuing professional development needs are heterogenous between nurse educators, yet, share commonalities across teams as a whole and across different countries. Mentorship has been shown to be a way of coordinating and giving structure to nurse educators in addressing and navigating these situations, especially in the dynamic and changing environments of healthcare education.

The shortage of research in the field of nurse educator education is an opportunity to develop international continuing professional development frameworks for nurse educators. Developing continuing professional development at this level could be an effective way of supporting nurse educators' development which is independent of country specific

formal requirements for being a nurse educator while externally validating the individual needs of nurse educators. There are multiple opportunities for further research in this area that focuses on the continuing professional development needs in different phases of nurse educator careers and across the different roles for nurse educators, as well as in different contexts and countries. There is an identified need for longitudinal research into the continuing professional development, alongside intervention studies that investigate how competence develops in the various spheres of continuing professional development. This research is essential to address the continuing professional development needs of and for nurse educators.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix 1

Table 4
Search terms per databases.

Database	Search terms
CINAHL	Subject headings: Education, Masters OR Outcomes of Education OR Education, Nursing, Diploma Programs OR Education, Nursing Associate OR Education, Interdisciplinirary OR Adult Education OR Models, Educational AND "nurs* teacher*" OR "nurs* educator*" OR "nurs* facult*" OR "nurs* academic*" OR "nurs* professor*" OR "nurs* lecturer*" OR health* N4 lecturer* OR "nurs* tutor" OR health* N4 teacher* OR health* N4 educator* OR health* N4 facult* OR health* N4 professor* OR health* N4 academic* AND "profess* train*" OR "profess* develop*" OR "profess* develop*" OR "career develop*" OR "continu* develop*" OR "continu* educat*" OR "life long learn*" OR cpd OR "staff develop*" OR "faculty development" OR "lifelong learn*" OR training OR "life-long learn*" OR competenc*
Cochrane Library	"Higher education" OR "further education" OR "postgraduate education" AND "nurs* teacher*" OR "nurs* educator*" OR "nurs* facult*" OR "nurs* academic*" OR "nurs* professor*" OR "nurs* lecturer*" OR health* N4 lecturer* OR "nurs* tutor" OR health* N4 teacher* OR health* N4 educator* OR health* NEAR/4 facult* OR health* NEAR4 professor* OR health* N4 academic* AND "profess* train*" OR "profess* develop*" OR "profess* develop*" OR "career develop*" OR "continu* develop*" OR "continu* educat*" OR "life long learn*" OR cpd OR "staff develop*" OR "faculty development" OR "lifelong learn*" OR training OR "life-long learn*" OR competenc*
Web of Science	"Higher education" OR "further education" OR "postgraduate education" AND "nurs* teacher*" OR "nurs* educator*" OR "nurs* facult*" OR "nurs* academic*" OR "nurs* professor*" OR "nurs* lecturer*" OR health* N4 lecturer* OR "nurs* tutor" OR health* N4 teacher* OR health* N4 educator* OR health* NEAR/4 facult* OR health* NEAR4 professor* OR health* N4 academic* AND "profess* train*" OR "profess* develop*" OR "profess* develop*" OR "career develop*" OR "continu* develop*" OR "continu* educat*" OR "life long learn*" OR cpd OR "staff develop*" OR "faculty development" OR "lifelong learn*" OR training OR "life-long learn*" OR competenc*
Embase	"Higher education" OR "further education" OR "postgraduate education" AND "nurs* teacher*" OR "nurs* educator*" OR "nurs* facult*" OR "nurs* academic*" OR "nurs* professor*" OR "nurs* lecturer*" OR health* N4 lecturer* OR "nurs* tutor" OR health* N4 teacher* OR health* N4 educator* OR health* NEAR/4 facult* OR health* NEAR4 professor* OR health* N4 academic* AND "profess* train*" OR "profess* develop*" OR "profess* develop*" OR "career develop*" OR "continu* develop*" OR "continu* educat*" OR "life long learn*" OR cpd OR "staff develop*" OR "faculty development" OR "lifelong learn*" OR training OR "life-long learn*" OR competenc*
ERIC	"Higher education" OR "further education" OR "postgraduate education" AND "nurs* teacher*" OR "nurs* educator*" OR "nurs* facult*" OR "nurs* academic*" OR "nurs* professor*" OR "nurs* lecturer*" OR health* N4 lecturer* OR "nurs* tutor" OR health* N4 teacher* OR health* N4 educator* OR health* NEAR/4 facult* OR health* NEAR4 professor* OR health* N4 academic* AND "profess* train*" OR "profess* develop*" OR "profess* develop*" OR "career develop*" OR "continu* develop*" OR "continu* educat*" OR "life long learn*" OR cpd OR "staff develop*" OR "faculty development" OR "lifelong learn*" OR training OR "life-long learn*" OR competenc*
PubMed	MeSH terms: Teacher Training OR Professionalism OR Educational Personal OR Education OR Education, Continuing OR Education, Nursing, Continuing AND "nurs* teacher*" OR "nurs* educator*" OR "nurs* facult*" OR "nurs* academic*" OR "nurs* professor*" OR "nurs* lecturer*" OR health* N4 lecturer* OR "nurs* tutor" OR health* N4 teacher* OR health* N4 educator* OR health* NEAR/4 facult* OR health* NEAR4 professor* OR health* N4 academic* AND "profess* train*" OR "profess* develop*" OR "profess* develop*" OR "career develop*" OR "continu* develop*" OR "continu* educat*" OR "life long learn*" OR cpd OR "staff develop*" OR "faculty development" OR "lifelong learn*" OR training OR "life-long learn*" OR competenc*

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