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An empirical model of social and healthcare educators' continuing professional development in Finland

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Abstract

The objective of this work was to develop and test an empirical model of social and healthcare educators' continuing professional development. A cross-sectional survey study design was adopted, and a total of 422 part-time and full-time social and healthcare educators from 28 universities of applied sciences and vocational schools in different regions of Finland participated. Data were collected from October to December in 2018. The participants taught in the fields of healthcare, social services, and rehabilitation. The questionnaire included the EduProDe scale and background questions. Confirmatory factor analysis and structural equation modelling were used to develop the model, and its quality was assessed by computing goodness of fit indexes. The main finding was that when educators understand the benefits of continuing professional development, they will recognise their developmental needs and proactively seek support from their superiors. The results obtained provide insight into the preconditions for professional development and offer guidance for the design of future shared development programmes or activities for social and healthcare educators.

KEYWORDS

continuing professional development, educator, healthcare, model, social care

1 | INTRODUCTION

Social and healthcare systems are facing major challenges: societies around the world are ageing and becoming more culturally diverse, interactions are becoming increasingly technical, and clients' needs

are becoming ever more complex. Social and healthcare organisations thus require highly professional workforces. Moreover, global health policy calls for efforts to reduce health inequalities and create resilient communities and supportive environments (World Health Organization [WHO], 2013). Multiskilled, team-oriented and

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collaborative social and healthcare professionals will be central to achieving these goals.

The competence and continuous learning of social and healthcare educators have important effects on the education of future professionals (Mikkonen et al., 2019). In Finland, academic educators usually hold a master's degree in Health or Social Sciences, and most of them have completed pedagogical studies worth 60 ECTS. They educate registered nurses, public health nurses, paramedics, midwives, physiotherapists, biomedical laboratory scientists, dental technicians, dental hygienists, opticians, auxiliary technicians, radiotherapists, naprapaths, osteopaths, rehabilitation counsellors, occupational therapists, undergraduate students of the social sciences in universities of applied sciences of which education consists of 210–270 ECTS credits qualification (Government decree of the Universities of Applied Sciences, 1129/2014) or in vocational schools of which education consists of 180 ECVET credits qualification (EU Education & Training; Regulation on Vocational Education Degree 680/, 2017). Elsewhere in the world, academic educators usually hold a master's or doctoral degree and have at least 2-year clinical experience (Lahtinen et al., 2014; National League for Nursing's Academic Nurse Educator Certification Program, 2021; Paul, 2015). Although educators are highly educated, they must maintain and develop their competencies in their own subjects as well as ethics, pedagogy, management and organisation, innovation and development, collaboration, cultural and linguistic diversity and continuous development (Mikkonen et al., 2019).

Continuing professional development (CPD) is a multifaceted process encompassing both formal and informal learning throughout one's career (Avalos, 2011). Learning should be based on learning needs (McMahon, 2017), and forms of learning range include formal continuing education, collaborative activities and self-directed learning. The individual benefits of CPD are increased expertise and well-being (Dymoc & Tyler, 2018), which confer organisational benefits resulting from greater staff effectiveness (Collin et al., 2012). The main objective of professional development is to root new knowledge into practice (Van der Berg et al., 2014) in order to improve teaching and students' learning (Huang Hoon, 2016).

Previous studies have developed separate models of pedagogical approaches to social and healthcare education (Fundu et al., 2019; Buus Boje et al., 2017; Roberson, 2019) as well as models intended to enhance interprofessional collaboration (Dijkman et al., 2017; Haruta et al., 2018). Additionally, Stanley and Stanley (2019) developed a framework for the interprofessional socialisation of health educators that includes strategies for implementing socialisation and reducing barriers to interprofessional collaboration. There is a great demand for educators to find effective ways of bringing social and healthcare students into closer contact during their education in order to encourage future collaboration between social and healthcare professionals (Khalili et al., 2013). Joint CPD programmes for social and healthcare educators were recommended as one way of encouraging such outcomes because of their potential to promote collaborative practices and mutual understanding (Stanley & Stanley, 2019). A precondition for the success of such joint educational programmes is

What is known about this topic

- Continuing professional development is a multifaceted process involving both formal and informal learning
- both of which should be based on learning needs.
- Current learning needs are to enhance pedagogical and subject competence as well as ability to manage challenging teaching situations.
- Educators are developing pedagogical competence through self-directed learning.
- Recognising the benefits of professional development increases the motivation to learn

What this paper adds

- When educators understand and seek the benefits of continuing professional development
- they will recognise the need to develop subject and pedagogical competence.
- Educators who recognise the need to develop their pedagogical competence subsequently understand the need to develop subject competence and skills in managing challenging situations in teaching.
- When educators understand the benefits of professional development
- they proactively seek support from their superiors

to identify the different elements of professional development and the relationships between them.

To facilitate the identification and characterisation of these elements and their relationships, this work presents the development of an empirical model of social and healthcare educators' CPD. The model is used to explore the relationships between the concepts developed in a previous study (Author, et al. 202X) by qualitative analysis of 35 group interviews with educators. This analysis revealed several different elements that are important in CPD (Author, et al. 202X). These elements were grouped into three main categories: educators' approaches to developing professional competence, educators' CPD needs and barriers to continuing education. Educators used different approaches to develop their competences. The most common approach involved some form of collaboration such as active participation in educational events, networking, team teaching or working on projects in their institute during the course of their working activities or with international colleagues. Educators also enhanced their competence by participating in international activities at their institute, such as educator exchange programmes and teaching students from different cultures. Finally, educators also studied by themselves at work and in their free time. The participants recognised a need for planned and ongoing continuing education and needed to develop their clinical, digital, pedagogical and cultural competencies. Barriers to continuing education encountered by the participants included lack of planning, financial and time

constraints and the fact that the available education did not always meet their needs.

Previous studies have shown that educators' needs to develop pedagogical and subject competence are related. In particular, it was found that nurse educators use both academic and subject competence to promote students' learning (Bono-Neri, 2019) and that nurse educator students build their pedagogical competence on their previous professional experience as nurses (Koivusalo et al., 2014). Additionally, a study from the perspective of students found that clinical teachers with greater subject competence were better able to connect theory and practice than university teachers (Gustafsson et al., 2015). Similarly, studies have shown that students expect holistic teaching from educators who possess strong subject competence and connect it to their pedagogical knowledge (Kettunen et al., 2013) and that medical educators' ability to give students useful formative feedback depends on their clinical competence (Barr & Massagli, 2014). The need for educators to develop subject competence is also linked to self-directed learning: Hamilton Broad (2016) found that vocational educators undertook self-directed learning to enhance their subject and occupational competence.

Pedagogical development needs appear to be similarly related to self-directed learning. Development of pedagogical competence is one of the most important objectives for nurses training as nurse educators. Studies on such nurses have shown that self-directed learning is beneficial in educational programmes (Sheppard-Law et al., 2018) and that educators in higher education have been able to improve their teaching through self-development (Alshehry, 2018).

Another important relationship is that between the needs to develop pedagogical skills and skills in managing challenging situations when teaching. L'Ecuyer (2019) found that nurse preceptors are encountering growing numbers of students with learning difficulties that could cause them to drop out (Heublein, 2014). Educators need pedagogical knowledge to support these students (L'Ecuyer, 2019). Additionally, healthcare researchers have found that their programmes of study can themselves adversely affect student well-being (Hughes & Byrom, 2019). However, studies on social work education have shown that a challenging field practicum can enhance students' professional growth if they receive appropriate pedagogical support from their supervisors (Ben-Porat et al., 2020). Nursing mentors also experience challenges when guiding students from linguistic minorities (Oikarainen et al., 2018), and social work educators acknowledge difficulties with gay and lesbian students and seek ways of showing respect to minorities in pedagogical situations (Papadaki, 2017). New pedagogical practices could reduce the anxiety of linguistic or sexual minority students and create a richer pedagogical dialogue (Daddow, 2017).

Educators experience the benefits of CPD as being connected to their needs to develop subject competence. For example, midwife educators felt that their pedagogical education and teaching work strengthened their subject competence and ultimately improved maternal and newborn survival (West et al., 2017). Additionally, educators found it beneficial to participate in CPD programmes that

facilitated theoretical discussions and professional engagement with other subject specialists because it made them more familiar with subject-specific terminology and knowledge (Woolhouse & Cochrane, 2015).

The benefits of CPD are thus connected to educators' need to develop pedagogical competence. Collaborative networking as a form of professional development strengthens clinical nurse educators' pedagogical development by improving research capacity and knowledge translation (Coates & Fraser, 2014). Among medical faculty, motivation to engage with CPD depended on its perceived benefits and the identification of pedagogical development needs (Bone et al., 2020). The benefits of CPD experienced by educators seem to depend on the support that they receive. During education, social work educators who had positive attitudes towards the offered learning opportunities proactively sought support (Burton, 2020), and the motivation of teachers in higher education was related to the perceived level of organisational support and their relationship with their superiors (Pauli et al., 2018). Similarly, medical faculty found that mentor support increased the benefits of CPD programmes (Sandi & Chubinskaya, 2020). However, midwifery educators were motivated to participate in CPD but felt unsupported by the education institute in terms of their career progression and role development (West et al., 2017).

2 | METHODS

2.1 | Aim

The aim of this study was to develop and test an empirical model of social and healthcare educators' CPD.

The study was designed to answer two research questions: (a) What is the structure of social and healthcare educators' CPD and can it be modelled empirically? and (b) what are the relationships between the concepts important in CPD?

The developed model, which is based on previous research, was used to test the following hypotheses. The hypotheses, including concepts representing empirical model and relationships between the concepts, are presented in Figure 1:

H1. Needs for pedagogical development are positively related to needs for clinical development.

H2. Needs for pedagogical development are positively related to educators' self-directed learning.

H3. Needs for pedagogical development are positively related to needs to manage challenging situations in teaching.

H4. Needs to develop clinical competence are positively related to educators' self-directed learning.

H5. The benefits of CPD are positively related to needs of clinical development.

H6. The benefits of CPD are positively related to needs for pedagogical development.

H7. The benefits of CPD are positively related to leadership of educators' competence.

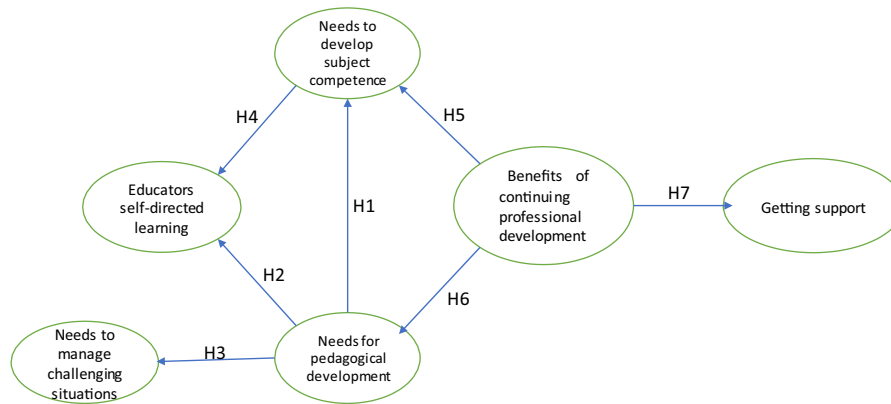


FIGURE 1 The hypothesized model of social and healthcare educators' professional development based on the previous research

2.2 | Design

A cross-sectional survey study design was adopted.

2.3 | Participants and settings

A total of 2,330 educators were invited to participate in the study, and 422 volunteered to do so, giving a response rate of 18%. This study is part of a national research project. As part of this project, a major data-gathering exercise was conducted in the autumn of 2018 to address several research aims relating to the continuing education of social, healthcare and rehabilitation educators, the development of their competences and the digitalisation of education (<https://shareducationnetwork.com/>). Educators from 21 universities of applied sciences and seven vocational schools in Finland were invited to participate in the study in the autumn of 2018. Inclusion criteria for prospective participants were part- or full-time employment as an educator in social or healthcare within an educational organisation. The sample size was considered sufficient (minimum $n = 110$) because the recommended minimum sample for confirmatory factor analysis (CFA) using structural equation modelling is five participants per variable ($n = 22$ in this study) (DeVon et al., 2007).

2.4 | Data collection

A link to the questionnaire was sent to a contact person at each participating educational organisation. The contact person then forwarded it to educators with an invitation to participate. In one organisation, the link was sent directly to educators. Data collection was performed between October and December 2018; 3–4 invitations were sent at biweekly intervals during this time.

2.5 | Instrument

The items of the Educators' Professional Development-scale (EduProDe-scale) were developed from qualitative research concepts

(Koskimäki et al., 2020). The scale's purpose is to determine how professional development is conducted. The items were analysed using exploratory factor analysis, and the final EduProDe scale contains background questions and 22 items grouped into six factors: educators' needs to develop pedagogical competence (seven items), educators' needs to manage challenging situations in teaching (three items), educators' needs to develop their subject competence (three items), leadership of educators' competence (three items), educators' self-directed learning (three items) and benefits of professional development (three items) (Koskimäki, 2021). The respondents evaluated the items using a 4-point Likert scale where scores of 1 and 4 indicate complete disagreement and complete agreement, respectively. The content and construct validity of the EduProDe scale was tested (and separately reported) using the data gathered in this work using exploratory factor analysis (Koskimäki et al., 2021). The Cronbach's alpha varied between 0.70 and 0.89.

2.6 | Ethical considerations

The ethical principles of the Declaration of Helsinki (2013) were followed strictly during the research process. All organisations participating in the study granted research permission in accordance with Finnish ethical regulations. The letters inviting educators to participate in the study contained information about the research, funding and autonomy of the respondents. Educators who read the information about the study, clicked on the link to the questionnaire and completed the questionnaire were assumed to have given informed consent to participation. The gathered data were stored in secure files in accordance with the GDPR (2016) and Personal Data Act (1050/2018).

2.7 | Data analysis

Missing data analysis was performed using the maximum likelihood method, using missing at random (MAR), missing completely at random (MCAR) and missing not at random (MNAR) approaches. The

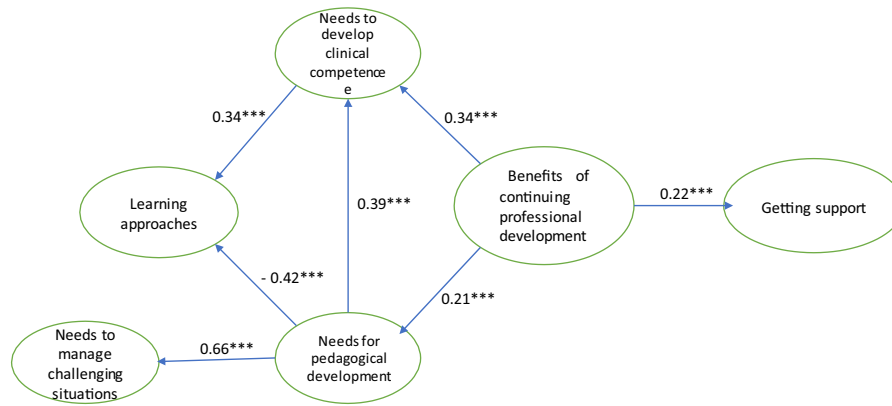


FIGURE 2 The empirical model of social and healthcare educators' continuing professional development. *** $p < 0.001$

threshold for listwise deletion was set at $\geq 5\%$ of missing data. No instances of missing data were found (Graham, 2009a). Multivariate outliers were identified by computing Mahalanobis distances (threshold: $p < 0.01$). The normality of the data was assessed using Mardia's kurtosis coefficient (the threshold was set at 3,017.86); the coefficient's value was 3,248, indicating normality (Graham, 2009). Eighteen outliers were removed to ensure normality; the remaining 404 responses were used for structural equation model (SEM) testing.

In the first phase of the modelling process, the measurement model was tested using CFA to confirm the indicators identified previously (Author 202X), the relationships between the factors and the indicator errors. In the second phase, the SEM, its various factors and their relationships were tested (Brown, 2015). The following fit indices and cut-off values were used to assess the fit of the measurement and structural models: root mean square error of approximation (RMSEA) < 0.08 , standardised root mean residual (SRMR) < 0.08 , comparative fit index (CFI) > 0.90 and Tucker–Lewis index (TLI) > 0.90 (Brown, 2015). All analyses were performed using IBM SPSS Statistics V.26 and Stata V.12.

3 | RESULTS

3.1 | Participants

The data consisted of questionnaire responses from 404 educators. The mean age of the participants was 51 years (SD 8.54 years). Most of the participants were female (90%) and had a master's degree (78%). One fifth of the sample (21%) had a doctoral degree, and all bar one of the participants had completed 60 ECTS' worth of study on pedagogy. Most of the participants (80%) worked at universities of applied sciences, but 20% were employed in vocational colleges. Their mean work experience was 14 years (SD 8.78), and most of them were lecturers (69%). Additionally, 19% were part- or full-time teachers, 10% were principal lecturers, and 2% were heads of degree programmes. Most of the educators (63%) worked in the field of healthcare, but 20% worked in social services and 8% in rehabilitation.

3.2 | Empirical model of social and healthcare educators' CPD

All but one of the model's hypotheses were confirmed. The exception was H2: whereas it was hypothesised that needs for pedagogical development would be positively related to self-directed learning among educators, the observed relationship was actually negative (-0.42). The hypothesised model was confirmed, and all connections between the concepts were significant ($p < 0.001$). In Figure 2, the empirical model and relationships of concepts are further presented.

More specifically, the model indicates that when educators understand and seek the benefits of CPD, they will recognise the need to develop their clinical (0.34) and pedagogical (0.21) competence. Additionally, recognition of the need to develop pedagogical competence leads to recognition of needs to develop subject competence (0.39) and skills in managing challenging teaching situations (0.66). Learning approaches with international contexts such as international collaboration or conferences do not support educators' pedagogical development (-0.42) but do support the development of their subject competence (0.34). Educators who recognise the benefits of professional development seek support from their superiors (0.22). The model had satisfactory goodness of fit values: RMSEA 0.068, SRMR 0.066, CFI 0.905, TLI 0.891.

4 | DISCUSSION

This study aimed to develop and test an empirical model of social and healthcare educators' CPD. The benefits that educators expect and seek from professional development are central to the model. Herzberg's two-factor theory (1959) describes motivation as an internal engine founded on the satisfaction of achievement, recognition of achievement and personal growth (Bassett-Jones & Lloyd, 2005). When developing the model presented here, motivation was evaluated on the basis of educators' statements concerning the realisation of the benefits of professional development, such as improved teaching and increased well-being as a result of recognising their pedagogical and subject competence needs (Author 202X).

Motivated learners are engaged and experience autonomy (Tjin et al., 2018).

Educators' motivation is also dependent on educational leadership and may be enhanced if superiors support their autonomy (Eyal & Roth, 2011). Superiors have a strong impact on the atmosphere of educational institutions and the degree to which they promote educators' learning and personal growth (Eyal & Roth, 2011). According to Bassett-Jones (2005), employees have 'a desire for recognition from a manager.' This desire is complex: it can be regarded as a motivator, which is the term Herzberg et al., (1959) used to describe the situation where an employee receives supportive feedback from a manager. Alternatively, the desire may arise from the probability of promotion, which is regarded as an example of external movement. The external movement does not create actual motivation; instead, the real motivation comes from within (Herzberg et al., 1959).

When educators are motivated to develop their competencies, they recognise their learning needs. Questionnaire-based methods are widely used to evaluate learning needs and develop educational programmes to meet those needs (Heidbuchel et al., 2018; Loue et al., 2015; Sockalingam et al., 2015). Previous research in this area has relied on self-assessment to evaluate the outcomes of learning processes (Karabacak et al., 2019; Sevin et al., 2016). In contrast, the model presented here is based on educators' descriptions of their professional development. Self-assessment of needs is fundamental to the andragogy approach, which emphasises the need for learners to consider why learning is essential (Knowles, 2015).

One of the tested hypotheses was unexpectedly contradicted: educators were not found to gain pedagogical competence through learning in an international context. In other words, when educators develop their language skills, attend international conferences or collaborate with international educators, there is no resulting positive impact on their teaching skills. This is surprising given the widely acknowledged need for culturally diversity pedagogy (Oikarainen et al., 2018; Ross et al., 2018), but it may be that educators mainly attend conferences to expand their subject knowledge or to get to know other participants and their culture more generally rather than from a pedagogical perspective (Witchger Hansen, 2015). Barriers to participation in international programmes may include poor language skills and financial costs (Takenouchi et al., 2017). International partnerships and programmes could potentially support different kinds of learning experiences that could enhance teaching and learning skills if planned in a way that strengthens educators' motivation and encourages relationship building, shared understanding of the partnership's aims, adaptation to different cultures and the creation of a supportive environment (West et al., 2017).

4.1 | Limitation and strengths

This study presents new knowledge about CPD for social and healthcare educators. In particular, it shows how core concepts of professional development are interrelated. However, the study has some

limitations. First, although the sample size was sufficient for SEM validation, a larger national sample would have strengthened the study's validity. The response rate was also rather low (only 18%). It is therefore important to not overstate the results and recognise that their generality may be limited.

The second limitation (which is also in some ways a strength) is that the participants all work in the same country. When attempting to generalise the results of studies in this field, it is essential to compare the educational systems in different countries. The model presented here may be difficult or even impossible to use in other national or international contexts. However, it also provides valuable evidence-based knowledge about Finnish social and healthcare educators' professional development.

A major strength of this study is the interprofessional nature of the sample: 63% of the participants work in healthcare education, 21% in social work education, 7% in rehabilitation education, and 9% in social and healthcare education. However, this study does not examine interprofessional collaboration level between the samples of this study.

5 | CONCLUSION

An empirical model of the CPD of social and healthcare educators was created, providing theoretical knowledge and understanding about professional development and its preconditions. The results presented here will help educators and superiors understand the importance of needs self-assessment, recognising the benefits of continuing learning and seeking support from the work community. The model could be used in the education of social and healthcare educators to increase students' knowledge of lifelong learning and as a tool to guide organisational recruitment. For example, organisations could emphasise motivation and efforts to seek learning situations and support during recruitment. The model may also be useful in the design of shared development programmes or activities for social and healthcare educators that could promote joint education and working practices in social and healthcare. Future work in this area could focus on retesting the model with a larger sample or in international contexts. A larger sample could also include educators from other disciplines. It would be essential to study more about social and healthcare educators' learning in an international context and the factors increasing educators' motivation in this field. Additional studies need to be conducted in examining educators' competence development and its progress according to their educational background, social or healthcare education, leadership support and motivation in self-development.

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CONFLICT OF INTEREST

All authors declare that they have no conflict of interest.

AUTHOR CONTRIBUTIONS

Minna Koskimäki, Kristina Mikkonen, Maria Kääriäinen, Leena Salminen and Meeri Koivula conceptualised the study. Minna Koskimäki and Kristina Mikkonen performed the methodology and formal analysis. Minna Koskimäki, Kristina Mikkonen, Marja-Leena Lähteenmäki, Leena Salminen and Meeri Koivula performed the investigation. Minna Koskimäki performed the writing of original draft. Minna Koskimäki, Kristina Mikkonen, Maria Kääriäinen, Leena Salminen and Meeri Koivula performed the writing - review & editing. Minna Koskimäki visualised the study. Meeri Koivula supervised the study. Kristina Mikkonen and Maria Kääriäinen are responsible for the project administration.

DATA AVAILABILITY STATEMENT

The data are not available.

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