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Collegiality Competence Profiles of Social- and Healthcare Educators – Cross-sectional Study

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Abstract

This study focuses on collegiality competence among social and healthcare educators, aiming to identify profiles and factors linked to these profiles. The importance of collegiality for educators' career growth and workplace well-being has been recognized, but less attention has been given to specific profiles and their underlying factors. Data from educators in vocational institutions and universities of applied sciences were collected using the CollegialityComp instrument, assessing five competence areas: 1) individual-centered collaboration, 2) educator action and fairness, 3) collaboration among colleagues, 4) collaboration outside the organization, and 5) communication and trust. Three educator profiles emerged: Profile A displayed high competence in all areas, Profile B showed strong competence in certain areas, and Profile C demonstrated intermediate competence across all. Education and job title significantly linked to specific profiles. Educators with doctoral degrees had lower collegiality levels. The findings suggest the importance of facilitating external collaboration for educators and providing extra support for high-degree educators to enhance their collegial behavior. Additional resources may be needed to bolster the collegiality competence of educators with significant responsibilities.

Introduction

Social and healthcare educators play an important role in training new healthcare professionals (Mikkonen et al., 2022) to work in multi-professional environments (Schot et al., 2020). To succeed in this, they must possess diverse competences in areas including collaboration, communication, and evaluation skills (Salminen et al., 2021; WHO, 2016), all of which are elements of collegiality (Koskenranta et al., 2022a). A previous systematic review of the literature has shown that the collegiality of social and healthcare educators is very wide-ranging, including not only collaboration but also ethics, the sharing of knowledge and expertise, and communication. In addition, mentoring and collaboration between nursing educational institutions are associated with collegiality. Competence in collegiality is beneficial in many ways for both educators themselves and for their work communities; among other things, it gives educators a sense of community, reveals new ways of thinking, and enhances their confidence in their own professional skills. In addition, collaboration between educators can improve students' performance, which in turn improves the success of educational institutions (Koskenranta et al., 2022a). However, although the competence of social and healthcare educators in other contexts has been

studied, there has been relatively little research on their collegiality competence. Previous studies have examined elements related to collegiality, including collaboration competence (Mikkonen et al., 2020) and international collaboration (Kotilainen et al., 2020). Although collegiality encompasses several elements that social and healthcare educators need to know and master in their work (WHO, 2016; Salminen et al., 2021), no previously reported study has focused solely on the collegiality competence of these professionals.

An instrument for measuring educators' collegiality was developed in an earlier study (Shah, 2011), but its design focuses on secondary school educators. In addition, Lund et al. (2010) developed an instrument including a section on collegiality behaviors for use in a study on faculty members. In addition, an instrument for assessing collaboration, which is an integral part of collegiality, has been developed for use in healthcare contexts. (Orchard et al., 2012). Davis et al. (2022) examined the workplace collegiality of nurse educators using the Survey of Collegial Communication (SCC), the Job Satisfaction Survey (JSS), and the Michigan Organizational Assessment Questionnaire (MOAQ). However, to our knowledge, the only instrument created specifically to assess the collegiality of social and healthcare educators is the CollegialityComp instrument developed by Koskenranta et al. (2022b).

Davis et al. (2022) and Palaniandy (2017) have previously highlighted the need to study the collegiality of nurse educators and collegiality in higher education in general, respectively. This paper seeks to fill these research gaps by describing the collegiality of social and healthcare educators working in higher and secondary education institutions, namely universities of applied sciences and vocational institutions, respectively (Ministry of Education and Culture, 2021). This is done using the CollegialityComp instrument, which was developed and validated for this purpose (Koskenranta et al., 2022b). The aim of this study is to describe the collegiality competence of social and healthcare educators, to distinguish between different educator profiles, and to identify factors associated with specific competence profiles in order to identify future opportunities to develop and strengthen the collegiality competence of educators.

Aim and Research Questions

The aim of this study was to describe the collegiality competence of social and healthcare educators, to distinguish between different educator profiles, and to identify factors related to belonging to a particular competence profile. The research questions were:

1) How do the self-assessed collegiality competence levels of social and healthcare educators cluster into profiles?
2) What factors are associated with the level of collegiality competence among social- and healthcare educators' profiles?

Methods

Study Design

A descriptive cross-sectional study was used.

Participants

Social and healthcare educators (N=1179) from ten randomly selected universities of applied sciences and ten vocational institutions were invited to participate in the study. The power analysis described by Mikkonen et al. (2019) was used to estimate the sample size needed to obtain acceptable statistical power in this work. In this analysis, the effect size is evaluated in terms of Cohen's d, which is calculated using a two-tailed test with a power of 1.0, setting the probability and significance of the beta error to $p < 0.05$. Based on a previous report (Mikkonen et al., 2019) describing a study similar to that presented here, it was anticipated that 200 respondents would be needed to achieve a moderate effect size (d=0.5), and that a response rate of 10-20% would be obtained. Of the social and healthcare educators invited to the survey, n=243 participants responded to the survey, corresponding to a response rate of 20.6%.

Instrument

The CollegialityComp instrument used in this work was developed to assess the collegiality competence of social and healthcare educators (Koskenranta et al., 2022b). The instrument measures knowledge, skills, attitudes, and educators' activities, which are also considered part of competence (Cowan et al., 2007). CollegialityComp consists of 35 items structured into five sum variables: *Individual-centered collaboration* (11 items); E*ducator action and fairness* (nine items); *Collaboration among colleagues* (six items); *Collaboration outside the organization* (four items); and *Communication and trust* (five items). Each item is scored on a four-point Likert rating scale (1 - Completely disagree; 2 - Partially disagree; 3 - Partially agree; and 4 - Completely agree). The instrument has been validated with respect to both content and construct validity, as reported previously (Koskenranta et al., 2022b). The reliability of the instrument was assessed based on its internal consistency, which was evaluated by calculating Cronbach's alpha; the obtained values of Cronbach's alpha were between 0.83 and 0.86, and thus exceeded the acceptable value of 0.7 (DeVon et al., 2007).

Data Collection

Data was collected during the winter of 2020-2021 using the Webropol online survey tool (Webropol, 2023), which is the most widely used survey tool in the Nordic countries. The Webropol online survey tool allows secure data collection in a questionnaire format providing an easy and secure accessible link to respondents. Eligible respondents received an email inviting them to participate in the study via their institution's contact person. These invitations were sent a total of three times, with reminders sent every second week. The survey included the 35 items of the CollegialityComp instrument and 15 background questions covering factors such as age, gender, education, work experience, job title, and educational qualifications in pedagogy.

Data Analysis

The gathered data were analyzed using IBM SPSS (version 26; IBM Corporation, Armonk, NY). Descriptive statistics (means, frequencies, standard deviations, and percentages) were calculated. Three competence profiles

were identified by K-means clustering. K-means clustering is the process of grouping sum variables into groups (clusters) that are as similar as possible according to participants' competence levels self-evaluation. The clustering analysis is based on the calculation of Euclidean distances. (Rauf et al. 2012.) Competence levels were classified as low when the mean value was < 2.49, intermediate when the mean value was between 2.50-3.49, and high when the mean value exceeded 3.50, in accordance with the meaning of the Likert scale. Associations between the three profiles and demographic variables were assessed using one-way analysis of variance (ANOVA) and the Chi-square test. Fisher's exact test was used in cases where the expected frequency was below 20%. Significant differences in variables between the three profiles were found using the Kruskal-Wallis test and Mann-Whitney test with Bonferroni correction, and one-way ANOVA with the Bonferroni correction was used for sensitivity testing. Since the data were skewed, the results of nonparametric tests are presented in the results section and the tables of this manuscript. The threshold for statistical significance was set at $p < 0.05$ (Munro, 2005).

Ethical Issues

Good scientific practices were followed throughout this study (Finnish National Board on Research Integrity, 2012). A research permit was obtained from each participating organization as part of the SHaREducation network's project. As the participants were not in a vulnerable position or under 15 years of age and the study caused no physical and/or psychological harm (Declaration of Helsinki, 2013; Medical Research Act 488/1999), the approval of the ethics committee was not required according to Finnish personal data regulation (Data Protection Act 1050/2018). Participation in the study was voluntary. Participants received information about the survey before answering, including information about the purpose and conduct of the survey, and a statement that respondents could stop responding to the survey at any time. Responding to the questionnaire was considered to indicate informed consent. (Finnish National Board on Research Integrity, 2019.) Participants' privacy was protected throughout the process by ensuring that all gathered data was password-protected and accessible only to the researchers. Once the study's aims are met, the data will be archived in protected files (Finnish National Board on Research Integrity, 2019; GDPR, 2016).

Results

The analysis identified three significantly different educator profiles, designated A (high level of competence, mean value average 3.73), B (upper intermediate level of competence, mean value average 3.37), and C (lower intermediate level of competence, mean value average 2.94). Profile A (high level of competence) educators exhibited high competence in all five competence areas (Table 1). Profile B (upper intermediate level of competence), educators exhibited intermediate competence in the *Educator action and fairness* and *Collaboration outside the organization* areas and high competence in all other areas. Profile C (lower intermediate level of competence) educators exhibited intermediate competence in all five competence areas. The only demographic variables exhibiting significant differences between these profiles were education ($p < 0.001$) and current job title ($p=0.003$) (see Table 2; Figure 1).

Table 1. Collegiality Competence Scores of Social- and Health Care Educators based on the CollegialityComp Instrument (n=243)

Collegiality competence	**Profile A (high level of competence) (n=116) mean**	**SD**	**Profile B (upper intermediate level of competence) (n=86) mean**	**SD**	**Profile C (lower intermediate level of competence) (n=41) mean**	**SD**	**p-value & Cohen's d**	**Comparison between profiles using Mann-Whitney test with Bonferroni correction, p-value**	
Individual centered collaboration	**3.75**	**.21**	**3.61**	**.25**	**3.07**	**.36**	**<0.001 1.71**	**A-B A-C B-C**	**.001 <.001 <.001**
I can take the opinions of my colleagues into account	3.89	.31	3.77	.42	3.20	.45			
I can listen to my colleagues	3.90	.33	3.80	.40	3.32	.47			
I can have constructive and reciprocal discussions with all my colleagues	3.80	.40	3.66	.54	3.07	.64			
I try to discuss things with my colleagues face to face	3.79	.44	3.71	.48	3.17	.70			
I can give feedback on my colleagues' work	3.51	.58	3.20	.73	2.68	.87			
I value my colleagues' competence	3.94	.27	3.87	.33	3.27	.59			
I have enough competence to work in a team with my colleagues	3.97	.18	3.84	.37	3.34	.65			
I can collaborate in the assessment of students with my colleagues	3.97	.18	3.93	.25	3.34	.57			
I can correct the situation if conflicts arise during team teaching in the	3.70	.53	3.48	.62	3.05	.66			

Collegiality competence	**Profile A (high level of competence) (n=116) mean**	**SD**	**Profile B (upper intermediate level of competence) (n=86) mean**	**SD**	**Profile C (lower intermediate level of competence) (n=41) mean**	**SD**	**p-value & Cohen's d**	**Comparison between profiles using Mann-Whitney test with Bonferroni correction, p-value**	
presence of students									
I let a colleague implement the instructions in their own way	3.40	.72	3.36	.61	2.73	.74			
I can act to prevent loneliness in the work community	3.47	.61	3.16	.61	2.68	.72			
Educator action and fairness	**3.70**	**.21**	**3.36**	**.38**	**2.90**	**.41**	**<0.001 1.74**	**A-B A-C B-C**	**<.001 <.001 <.001**
I know how to face challenges in my work	3.91	.29	3.71	.48	3.24	.58			
I can act flexibly in my work when changes occur	3.88	.32	3.65	.50	3.22	.65			
I can challenge my competence by taking on new challenges (e.g., tasks or working methods)	3.87	.33	3.55	.66	3.12	.71			
I will be heard in my work community	3.66	.52	3.28	.69	2.49	.74			
I can act as an employee for the benefit of the work community	3.92	.26	3.67	.49	3.15	.61			
I am able to develop my own competence in relation to the organization's strategy	3.61	.57	3.03	.72	2.73	.59			
I can contribute to the goals set by the organization through my own activities	3.78	.41	3.45	.52	2.90	.62			

Collegiality competence	**Profile A (high level of competence) (n=116) mean**	**SD**	**Profile B (upper intermediate level of competence) (n=86) mean**	**SD**	**Profile C (lower intermediate level of competence) (n=41) mean**	**SD**	**p-value & Cohen's d**	**Comparison between profiles using Mann-Whitney test with Bonferroni correction, p-value**	
I can hold on to my own rights at work	3.43	.57	3.08	.69	2.76	.73			
I feel that I am valued as an educator, and I get enough feedback from it	3.26	.81	2.88	.84	2.54	.86			
Collaboration among colleagues	**3.88**	**.18**	**3.80**	**.21**	**3.21**	**.61**	**<0.001 2.86**	**A-B A-C B-C**	**.038 <.001 <.001**
I ask my colleagues for advice on matters that are unclear to me	3.97	.15	3.98	.15	3.39	.77			
I want to work communally with my colleagues	3.91	.29	3.91	.29	3.20	.62			
I want to share my own learning materials with colleagues	3.78	.47	3.72	.54	3.20	.81			
I can produce learning materials in collaboration with my colleagues	3.91	.32	3.80	.40	3.22	.82			
I can share my own ideas openly with my colleagues	3.87	.36	3.70	.46	3.20	.74			
I help my colleagues with orientation	3.89	.36	3.73	.51	3.07	.81			
Collaboration outside the organization	**3.55**	**.33**	**2.52**	**.42**	**2.88**	**.55**	**<0.001 1.75**	**A-B A-C B-C**	**<.001 <.001 .006**
I can develop multidisciplinary collaboration networks to develop	3.65	.48	2.55	.56	2.95	.59			

Collegiality competence	**Profile A (high level of competence) (n=116) mean**	**SD**	**Profile B (upper intermediate level of competence) (n=86) mean**	**SD**	**Profile C (lower intermediate level of competence) (n=41) mean**	**SD**	**p-value & Cohen's d**	**Comparison between profiles using Mann-Whitney test with Bonferroni correction, p-value**	
operations									
I can develop collaboration in working life with different parties (e.g., public sector and third sector organizations or companies)	3.73	.44	2.73	.62	3.10	.66			
I can make extensive use of the opportunities for collaboration in teaching between working life and educational organizations	3.65	.48	2.72	.56	2.98	.65			
I can develop international and multicultural collaboration	3.19	.70	2.10	.73	2.51	.84			
Communication and trust	**3.75**	**.28**	**3.57**	**.35**	**2.66**	**.46**	**<0.001 2.19**	**A-B A-C B-C**	**.004 <.001 <.001**
I have opportunities to talk to my colleagues about my own feelings and experiences	3.72	.50	3.51	.58	2.34	.69			
I have opportunities to talk to my colleagues about the problems I face	3.78	.45	3.60	.49	2.59	.63			
I can discuss non-work matters with my colleagues	3.80	.44	3.69	.55	2.68	.78			
I can trust my	3.67	.54	3.56	.56	2.80	.71			

Collegiality competence	Profile A (high level of competence) (n=116) mean	SD	Profile B (upper intermediate level of competence) (n=86) mean	SD	Profile C (lower intermediate level of competence) (n=41) mean	SD	p-value & Cohen's d	Comparison between profiles using Mann-Whitney test with Bonferroni correction, p-value
colleagues								
I can go straight to the point when talking to colleagues	3.82	.38	3.53	.58	2.90	.70		

Means are average scores on a 4-point Likert scale (1-4) where 1 = Completely disagree, 2 = Partially disagree, 3 = Partially agree, and 4 = Completely agree

Low competence level: score < 2.49; intermediate competence level: score between 2.50-3.49; high competence level: score > 3.50

P-values satisfying the criterion for statistical significance ($p<0.05$) are shown in bold

Profile A (high level of competence) included a total of 116 participants, with a mean age of 51.2 ± 8.4 years. More than half of them (63.8%) had a master's degree from a university, while 17.2% held a master's degree from a university of applied sciences. Profile A included a higher proportion of respondents holding a master's degree from a university of applied sciences than profiles B or C. A large proportion (72.4%) of the educators in this group were lecturers, while 13.8% were full-time teachers.

Profile A educators had a high level of competence in each competence area. The area in which their competence was highest was ***Collaboration among colleagues*** (mean 3.88 ± 0.18). Within this competence area, the items with which profile A educators agreed and disagreed most strongly were *I ask my colleagues for advice on matters that are unclear to me* (mean 3.97 ± .15) and *I want to share my own learning materials with colleagues* (mean 3.78 ± .47), respectively. The second strongest competence areas of profile A educators were ***Individual centered Collaboration*** (mean score 3.75 ± .21) and ***Communication and trust*** (mean score 3.75 ± .28). The ***Individual centered Collaboration*** items with the highest scores were *I have enough competence to work in a team with my colleagues* (mean 3.97 ± .18) and *I can collaborate in the assessment of students with my colleagues* (mean 3.97 ± .18), while that given the lowest score was *I let a colleague implement the instructions in their own way* (mean 3.40 ± .72). The ***Communication and trust*** items with the highest and lowest scores were *I can go straight to the point when talking to colleagues* (mean 3.82 ± .38) and *I can trust my colleagues* (mean 3.67 ± .54), respectively. ***Educator action and fairness*** was rated as the third strongest competence area of Profile A educators, with a mean score only slightly lower than those of the previous two (3.70 ± .21). In this area, the items with the highest and lowest ratings were *I can act as an employee for the benefit of the work community* (mean 3.92 ± .26) and *I feel that I am valued as an educator, and I get enough feedback from it* (mean 3.26 ± .81), respectively. The weakest competence area of these educators was ***Collaboration outside the organization*** (mean 3.55 ± .33), for which the items with the highest and lowest scores were *I ask my colleagues for advice on matters that are unclear to me* (mean 3.97 ± .15) and *I want to share my own learning materials with colleagues* (mean 3.78 ± .47), respectively.

Profile B (upper intermediate level of competence) consisted of 86 educators with a mean age of 51.49 ± 8.92 years. Most educators belonging to this profile had a master's degree from a university (80.2%) and the second largest group had a master's degree from a university of applied sciences (12.8%). Educators in this profile mainly worked as lecturers (77.9%) or full-time teachers (18.6%). Profile B educators had high competence in three areas and intermediate competence in two. Their most highly rated competence area was ***Collaboration among colleagues*** (mean 3.8 ± .21), for which the items having the highest and lowest scores were *I ask my colleagues for advice on matters that are unclear to me* (3.98 ± .15) and *I want to share my own learning materials with colleagues* lowest (3.72 ± .54), respectively. The competence area with the second highest mean score was ***Individual centered collaboration*** (mean 3.61 ± .25), for which the items with the highest and lowest scores were *I can collaborate in the assessment of students with my colleagues* (mean 3.93 ± .25) and *I can act to prevent loneliness in the work community* (mean 3.16 ± .61), respectively. The third highest competence area was ***Communication and trust*** (mean 3.57 ± .35), with the most highly rated item being *I can discuss non-work matters with my colleagues* (mean 3.69 ± .55); the item with the lowest score in this area was *I have opportunities to talk to my colleagues about my own feelings and experiences* (mean 3.51 ± .58). High levels of competence were reported in all three of the above areas. In the remaining two areas, they had intermediate competence. In the ***Educator action and fairness*** area (mean score 3.36 ± .38), the items with the highest and lowest scores were *I know how to face challenges in my work* (mean 3.71 ± .48) and *I feel that I am valued as an educator, and I get enough feedback from it* (mean 2.88 ± .84), respectively. Their self-assessed competence in the ***Collaboration outside the organization*** (mean 2.52 ± .42) area was only just above the low level; the items in this area with the highest and lowest scores were *I can develop collaboration in working life with different parties (e.g., public sector and third sector organizations or companies)* (mean 2.73 ± .62) and *I can develop international and multicultural collaboration* (mean 2.10 ± .73), respectively.

Profile C (lower intermediate level of competence) included 41 participants with a mean age of 53.8 ± 8.67 years. The majority (70.7%) had a master's degree from a university, while 19.7% held a doctorate. Most of the educators worked as lecturers (65.9%), while full-time teachers and head teachers (principal lecturers) both comprised 14.6% of the respondents with this profile. The educators in this profile had intermediate competence in all areas. ***Collaboration among colleagues*** (mean 3.21 ± .61) was the area in which their competence was highest, with the highest- and lowest-scored items being *I ask my colleagues for advice on matters that are unclear to me* (mean 3.39 ± .77) and *I help my colleagues with orientation* (3.07 ± .81), respectively. The second strongest competence area of profile C educators was ***Individual centered collaboration*** (mean 3.07 ± .36). The most highly rated items in this area were *I can collaborate in the assessment of students with my colleagues* (mean 3.34 ± .57) and *I have enough competence to work in a team with my colleagues* (mean 3.34 ± .65), while the items with the lowest ratings were *I can act to prevent loneliness in the work community* (mean 2.68 ± .72) and *I can give feedback on my colleagues' work* (mean 2.68 ± .87). The mean competence scores of profile C educators in the remaining competence areas were all below 3. The items with the highest and lowest scores in the ***Educator action and fairness*** area (mean score 2.9 ± .41) were *I know how to face challenges in my work* (mean 3.24 ± .58) and *I will be heard in my work community* (mean 2.49 ± .74), respectively. For ***Collaboration outside the organization*** (mean score 2.88 ± .55), the highest and lowest scoring items were *I can develop collaboration in working life with different parties (e.g., public sector and third sector organizations or companies)* (mean 3.10 ± .66) and *I*

can develop international and multicultural collaboration (mean 2.51 ± .84), respectively. The area with the lowest overall competence score among profile C educators was ***Communication and trust*** (mean 2.66 ± .46), for which the highest and lowest scoring items were *I can go straight to the point when talking to colleagues* (mean 2.90 ± .70) and *I have opportunities to talk to my colleagues about my own feelings and experiences* (mean 2.34 ± .69), respectively.

Table 2. Characteristics of Educators belonging to Profiles A, B, and C (n=243)

Characteristics	**Profile A (high level of competence) (n=116)**	**Profile B (upper intermediate level of competence) (n=86)**	**Profile C (lower intermediate level of competence) (n=41)**	**p-value**
Age, years (mean, SD)	51.20 (8.44)	51.49 (8.92)	53.80 (8.67)	0.241[a]
Gender, n (%)				0.547 [c]
– Male	9 (7.8)	8 (9.3)	5 (12.2)	
– Female	105 (90.5)	78 (90.7)	35 (85.4)	
– Other/ does not want to say	2 (1.7)	0 (0.0)	1 (2.4)	
Education, n (%)				**<0.001** [c]
– Bachelor´s degree (University of applied sciences)	1 (0.9)	1 (1.2)	1 (2.4)	
– Master's degree (University of applied sciences)	20 (17.2)	11 (12.8)	1 (2.4)	
– Master's degree (University)	74 (63.8)	69 (80.2)	29 (70.7)	
– Doctoral degree (University)	19 (16.4)	1 (1.2)	8 (19.5)	
– Other	2 (1.7)	4 (4.7)	2 (4.9)	
Teacher training (pedagogical education, 60 ECTS), n (%)				0.188 [b]
– Vocational teacher training	57 (49.1)	34 (39.5)	17 (41.5)	
– Teacher training in health sciences	51 (44.0)	38 (44.2)	21 (51.2)	
– Teacher training in educational sciences	8 (6.9)	14 (16.3)	3 (7.3)	
Work experience as an educator, years (mean, SD)	13.51 (8.57)	13.31 (8.84)	14.65 (8.21)	0.701[a]
Current job title, n (%)				**0.003** [c]
– Part-time teacher	0 (0.0)	0 (0.0)	2 (4.9)	
– Full-time teacher	16 (13.8)	16 (18.6)	6 (14.6)	
– Lecturer	84 (72.4)	67 (77.9)	27 (65.9)	
– Principal lecturer	7 (6.0)	0 (0.0)	6 (14.6)	
– Head of education	3 (2.6)	0 (0.0)	0 (0.0)	

Characteristics	Profile A (high level of competence) (n=116)	Profile B (upper intermediate level of competence) (n=86)	Profile C (lower intermediate level of competence) (n=41)	p-value
– Other	6 (5.2)	3 (3.5)	0 (0.0)	
Educator's current working field, n (%)				0.803 [c]
– Social services	27 (23.3)	20 (23.3)	10 (24.4)	
– Health care	73 (62.9)	60 (69.8)	28 (68.3)	
– Rehabilitation	8 (6.9)	4 (4.7)	2 (4.9)	
– Other	8 (6.9)	2 (2.3)	1 (2.4)	

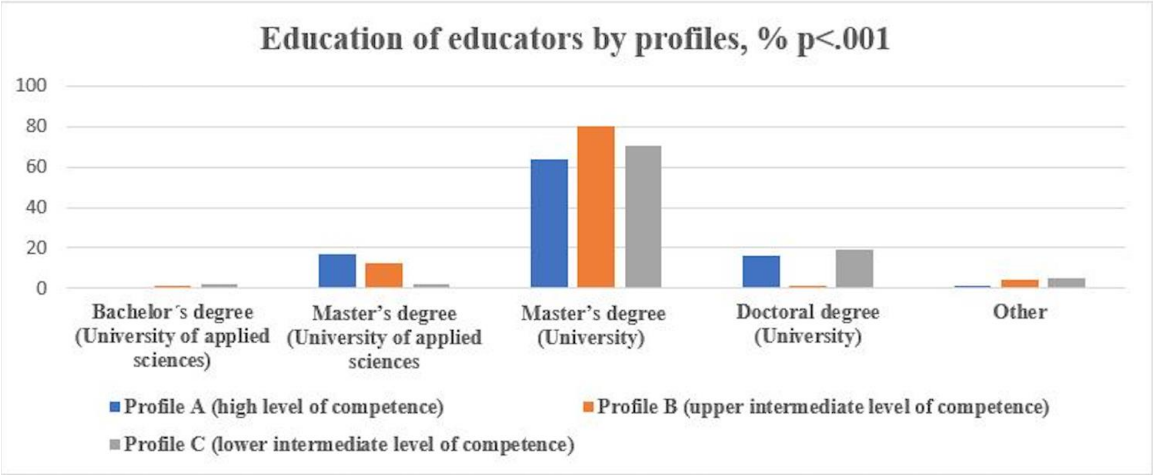
SD=standard deviation

One-way analysis of variance [a]

Pearson's Chi-square test [b]

Fisher's exact test [c]

P-values satisfying the criterion for statistical significance (p<0.05) are shown in bold



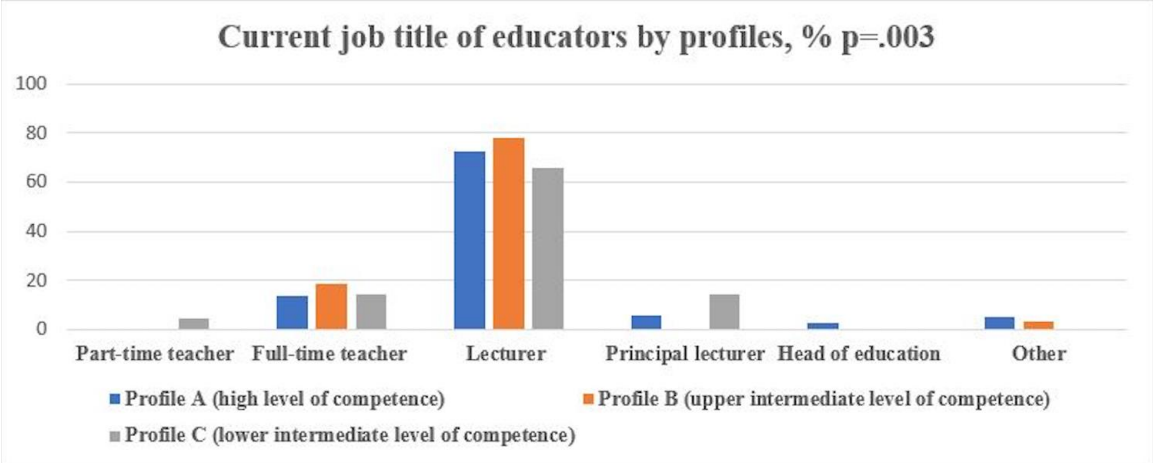


Figure 1. Educators' Current Job Title and Education by Profiles

Discussion

The aim of this study was to describe the collegiality competence of social and healthcare educators, to distinguish between different educator profiles and to identify factors related to belonging to a certain competence profile. Three distinct competence profiles were identified A = high level of competence, B = upper intermediate level of competence, and C = lower intermediate level of competence, and members assigned to these profiles reported different scores for different aspects of collegiality competence. Statistical analysis showed that both education ($p < .001$) and current job title ($p = .003$) were significantly associated with belonging to a specific profile as self-assessed by educators.

It is important that educators assess their own competence, as critical evaluation of their own competence can strengthen professional development (Koskimäki et al., 2021a). The results of this study suggest that social and healthcare educators' collegiality competence decreases as their level of education increases, as Profile C educators, who had the highest percentage of doctoral graduates compared to educators in other profiles, rated their competence as the lowest compared to the self-assessed collegiality competence of educators in other profiles. This result can be considered significant, as one might expect that the level of competence would correlate with a higher level of education. This relationship between educational level and competence was seen in a different direction, for example, in a study by Youssef et al. (2018), where educators with a doctoral degree rated their competence in evidence-based practice higher than those with a master's degree. This difference was also evident in a Koivula et al. (2011) study, in which doctoral graduates rated their competence higher than master's graduates.

The second highest percentage of Profile C educators were head teachers (principal lecturers). One explanatory factor (particularly for PhDs) may be the workload, which limits educators' experience of the extent to which they can collaborate extensively with others. This is consistent with the fact that Profile C educators were more likely to feel that they were not listened to at the workplace, that they were unable to develop international or multicultural collaboration, and that they needed to have the opportunity to discuss their feelings and experiences. This is also in line with Saaranen et al. (2020), who found that social and healthcare educators were dissatisfied with their workload, the emotional strain of their work and the adequacy of mental health support and available resources.

For instance, in Finland, to work in a vocational institution, an educator must have a higher university degree, three years of practical work experience in a field related to teaching content and 60 credits of teacher training. Alternatively, an appropriate University of Applied Sciences degree and five years of professional experience are required. (Government Decree amending the Decree on qualification requirements for teaching personnel 1159/2017.) Similarly, at the University of Applied Sciences, the qualification requirement for an educator in social and healthcare is a higher university degree and at least three years of professional experience in a field related to the degree (Government Decree on Universities of Applied Sciences 1129/2014). Hence, social and healthcare educators very often have a higher degree, so from this point of view, there should be no differences in their education that would affect collegiality competence. However, a doctoral degree is not a requirement to

act as an educator in social and healthcare, but is seen as an encouragement in leadership. It is essential that educators undertaking higher responsibilities in research and education, would need more support with recourses to be able to have time to network and receive support from their working environment and leadership.

The competence area with the highest score in all three profiles was *Collaboration among colleagues*; profile A and B respondents both rated their competence in this area highly whereas those in profile C reported intermediate competence in this area. This is notable because collaboration is an important part of collegiality (Koskenranta et al., 2022a) and collegial relationships encourage collaboration between educators (Ning et al., 2015). This enables sharing of ideas, which was previously identified as a skill in need of further development among social and healthcare educators, and particularly among new educators (Charner-Laird et al., 2016). When educators cooperate and interact with each other, collegiality can increase openness in this context (Shah, 2012). However, in a study by Lane et al. (2021), more than half of social and healthcare educators had experienced colleagues refusing to openly discuss work-related issues. It is important that openness is fostered beyond interactions, as it promotes collaboration (Nissilä et al., 2015) through, for example, mentoring (White et al., 2010). In this way, openness enables the parties to establish a mutual connection that emphasises collegiality and mutual learning (Wilson et al., 2010). Competence in helping colleagues orient themselves is also an important part of this competence area (Koskenranta et al., 2022b). As a result, these new educators are better retained in the organisation and their teaching work (Charner-Laird et al., 2016.) In a study by Saaranen et al. (2021), less than half of the educators felt that the orientation of new employees to the work and the work unit had been successful. In addition to orientation, mentoring can help educators facilitate new educators' transition to work (McAllister et al., 2014) and increase their professional growth (Attard Tonna, 2019). However, a recent systematic literature review showed that many organizations lack clear mentoring guidelines (Koskenranta et al., 2022a) despite the evidence that orientation and mentoring increase educator retention (Shuls and Flores, 2020; Pogodzinski et al., 2013). Still, there is a lack of mentoring (Peters 2014), although there are benefits to it (Ephraim, 2021). The need for mentoring was also highlighted in a study on novice social and healthcare educators in continuing education (Nokelainen et al., 2019), and Ephraim (2021) recommended a greater focus on mentoring in social and healthcare organizations.

Educators in profiles A and B had high competence in *Individual centered collaboration*, whereas profile C educators claimed an intermediate level of competence in this area. In all three profiles, this was the area with the second highest scores. This individual centered collaboration includes the ability to listen to colleagues and to take their opinions into account. Previous research had found that social and healthcare educators had experienced inappropriate behaviour, which manifested itself, for example, in an unwillingness to listen to others (Lane et al., 2021). McClendon et al. (2021) found similar results in their study of social work educators only. According to Salminen et al. (2013) study, educators who rated themselves as fairer to others were also more respectful of others' views. A study by Zeb et al. (2019) described the experiences of healthcare educators when more experienced educators needed to respect the opinions of new educators. It is vital for social and healthcare educators to consider their colleagues' views because then educators can experience a sense of community (Chiang et al., 2010). In turn, the experience of community has an impact on educators' psychological empowerment (Zeb et al., 2019). When working collegially, educators should allow their own colleagues to implement the instructions

given in their own way. This pedagogical freedom is part of, for example, the Finnish education system. Rauhansalo and Vytautas (2017) recommend using pedagogical freedom as part of teaching. Individual-centred collaboration as part of collegiality and collegiality competence also means that educators know how to prevent loneliness in their work unit through their actions. Educators rated profiles B and C of this item as the lowest. Lane et al. (2021) reported that more than half of educators in the social and healthcare sector had personally experienced or witnessed situations in the past year where someone had been deliberately excluded from activities. McClendon et al. (2021) reported the same in their study. Furthermore, the covid pandemic has posed challenges in recent years, as educators may have experienced isolation and loneliness while working remotely (Liesveld et al., 2021).

Educator action and fairness was the collegiality competence area with the third highest scores in all profiles. Educators in profile A rated their competence in this area highly, while those in profiles B and C had intermediate competence in this area. Important characteristics of this aspect of collegiality competence include accepting challenges, flexibility, advancing organizational goals, upholding one's own rights, and being heard and valued (Koskenranta et al., 2022b). They should also feel valued as educators and receive good feedback on their work. The experience of being respected as an educator and receiving feedback on their work was rated lowest in each profile. In terms of collegiality, educators should feel that they belong to a work community where their unique contribution is valued (Alleman et al., 2017). In a study by Saaranen et al. (2021), 73% of healthcare educators felt that others valued them as employees. In addition, 72% felt that their work was valued by the work community. The result of this study partly contradicts the above-mentioned study, as in this study the educators rated the value they received as the lowest item. It is important for educators to be heard in their work community, to be able to act as employees for the benefit of their work community and to contribute to the goals set by the organisation. Educators should also be able to develop their competence in relation to the organisation's strategy. According to Mikkonen et al. (2019), educators are committed to the strategy when they have participated in the development or creation of the organisation's strategy. In addition, this strategy should include the development of educators' competencies as an essential goal. According to Nokelainen et al. (2019), educators in the social and healthcare sector wished to receive continuing education that met their needs. These included the need for education that included collegial interaction, where educators share their experiences, receive peer support, and have the opportunity for multi-professional discussion. Providing education that meets educators' needs can avoid situations where educators are offered an education that is not relevant to their work (Koskimäki et al., 2021b). Having developed their competence, educators can later, when working collegially, share this competence with others in collaboration, whereby competence is passed on, and colleagues can develop their educator (Koskimäki et al., 2021b) and social and/or healthcare professional competencies (Nokelainen et al., 2019).

Collaboration outside the organization was the fourth most highly scored competence area for profiles A and C; profile A educators rated their competence in this area highly while those in profiles B and C reported their competence in this area to be intermediate. Of the items in this area, *I can develop international and multicultural collaboration* had the lowest scores for all three profiles even though most social and health educators participate in international networks (Konkola et al., 2021) and collaborations (Gillund et al., 2013). Direko and Davhana-Meselesele (2017) have argued that collaboration outside one’s own organization is important; stakeholders

consider such collaboration to improve academic and professional development, to promote the development of teaching and learning skills, and to increase partnership in research projects. In contrast, professional development affects educators' occupational well-being (Saaranen et al., 2020). Moreover, Kuivila et al. (2020) found that students of health science teaching consider networking to be an important part of educator competence, and it was been reported that networking allows educators to stay up to date with information (Koskimäki et al., 2021b).

Profile A and B educators rated their competence in *Communication and trust* highly while those in profile C considered their competence in this area to be intermediate. This area had the second highest competence score among profile A respondents (jointly with *Individual centered collaboration*), but it had the second lowest score among profile B respondents and the lowest for profile C respondents. Collegiality means that educators could talk to their colleagues about their feelings and experiences. This was rated lowest by educators in Profiles B and C. This result can be seen as a worrying sign of a lack of collegiality, as in a collegial atmosphere, educators should have the opportunity to talk about issues in a way that makes colleagues listen to them (Palaniandy, 2017). Trust is an important part of collegiality, and health and social care educators should be able to trust their colleagues. Profile A educators rated trust in colleagues as the lowest. This result may indicate a lack of collegiality, as trust is defined as part of collegiality (Ning et al., 2015). According to a study by Saaranen et al. (2021), 73% of healthcare educators felt that their work community trusts others to do their job. According to Nissilä et al. (2015), a positive work environment promotes trusting relationships between educators. Therefore, it would be necessary for educators to work together to achieve a working environment that supports mutual trust. In this way, they would also have the opportunity to learn from each other thanks to mutual trust (Attard Tonna, 2019). Hauge (2019) highlights that trust is a prerequisite for successful collaboration. Trust is increased when educators successfully carry out their tasks and responsibilities and show patience and mutual kindness to each other. Trust can also increase the success of the mentoring process (Doyle et al., 2019) and thus also contribute to educators' career development (Ephraim, 2021). Furthermore, Patterson (2012) highlights the role of trust in international partnerships, which according to Mikkonen et al. (2019), social and healthcare educators should be able to build and develop. Rincón-Gallardo and Fullan (2016) also highlight the importance of trust in partnerships and networks.

Limitations

Although the results of this study can reasonably be generalised to social and healthcare educators in Finland, international generalisation is impossible without further research. This is because their generality is limited by Finland's prevailing culture, which may differ in some important ways from the prevailing cultures in other parts of the world (Ning et al., 2015). The reliability of the results is also weakened somewhat by the fact that the only factors significantly associated with the three educator profiles were education and current job title. Previous studies have shown that work experience influences the self-assessment of social and health educators (Mikkonen et al., 2018), but no significant effect of this factor was identified here. However, the reliability of the results is supported by the fact that the data were collected using a validated, dedicated instrument (Koskenranta et al., 2022b). In addition, the quality of the presented study was improved by following the Strengthening of the Reporting of Observational Studies in Epidemiology (STROBE) checklist (von Elm et al., 2007). Cohen's d values

ranged from 1.71 to 2.86, indicating a very large effect size (Cohen, 1992; Lakens, 2013), which contributes to the reliability of this study (see Table 1).

Conclusions

The conclusion of this study is that the self-assessed collegiality competence of social and healthcare educators was either at a high or intermediate level and the competencies were associated with the educators' education and current job title. The identification of different profiles and factors associated with collegiality competence will help in the development and delivery of continuing education for social and healthcare educators. This study shows that there is room for improvement, especially in the development of international and multicultural collaboration as part of collegial competence. Through this and other forms of collaboration and networking, educators can develop their skills and keep up to date with new knowledge. Therefore, investing in collegiality and collegiality competence is essential. In this way, the level of collegiality competence among educators can be further developed and supported by leadership and organisational culture.

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