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Attitudes and Development Needs Connected to Interprofessional Identity Formation

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Abstract

To achieve better quality and efficiency of care and services for clients, social and health care professionals should be educated to adopt an interprofessional way of working and thinking. This requires the development of an interprofessional identity alongside a professional identity. The process must be facilitated comprehensively in social and health care operations. The aim of this observational and cross-sectional mixed-method study was to investigate readiness and perceived development needs concerning interprofessional work among social and health care students and professionals. Furthermore, the aim was to examine the formation of an interprofessional identity in relation to the theoretical framework of interprofessional socialization. In our results, development needs, expressed by the respondents, were categorized at the system, profession, and individual levels of social and health care. Although, positive attitudes were established among students and professionals, our findings demonstrate that the formation of an interprofessional identity requires comprehensive support from social and health care operations. Interprofessional identity can be enhanced especially by applying and developing interprofessional education and lifelong learning.

Introduction

Effective and properly timed interprofessional collaboration (IPC) increases client satisfaction, improves client and patient safety and workforce well-being, as well as the overall quality and outcomes of social and health care services (Institute of Medicine, 2003; Interprofessional Education Collaborative, 2016; World Health Organization, 2010). In interprofessional collaboration, social and health care professionals share responsibility and combine knowledge, skills, and expertise to form a common and comprehensive understanding of the goal of providing a client-oriented service (D'Amour et al., 2005; Isoherranen, 2012; Kenny, 2002).

To collaborate effectively, future professionals should be educated to adopt an interprofessional way of working and thinking (Khalili & Price, 2022). Interprofessional education (IPE) is the key to promoting and achieving interprofessional collaboration (Pelling et al., 2011; Reeves, 2013) as well as developing an interprofessional identity (Khalili & Orchard, 2020). According to the World Health Organization (2010), interprofessional education occurs when students from two or more professional disciplines learn interactively about, from, and

with each other to accomplish effective collaboration. In interprofessional learning (IPL), students utilize the paradigms of their given disciplines (Oandasan & Reeves, 2005) allowing their professional expertise to be used in the problem-solving and decision-making of teams with an aim to meet the client's needs (Ministry of Social Affairs and Health, 2020). To achieve a collaborative practice-ready workforce, interprofessional education, organized in the social and health care system (Institute of Medicine, 2003; Interprofessional Education Collaborative, 2016; World Health Organization, 2010), should facilitate a wider change in attitudes toward an interprofessional and collaborative culture. According to Khalili and Price (2022), this comprehensive interprofessional socialization (Khalili et al., 2013) should be applied at multiple operational levels, namely system, profession, and individual ones, to support the development of an interprofessional identity.

In this study, we investigated the attitudes toward interprofessional collaboration and the development needs of students and professionals operating in social and health care environments. The aim was to provide an overall picture of their readiness, and the development that need to be introduced at the system, profession, and individual levels (Khalili & Price, 2022) to encourage interprofessional identity construction in social and health care.

Background

Integrating Interprofessionality into Social and Health Care Work Culture

Social and health care requires an interprofessional work culture to support effective work between different disciplines. The main process of advancing interprofessional collaboration involves a shift from a profession-specific work culture to an interprofessional one (Keshmiri, 2022; Khalili & Price, 2022). Such a change requires development at various levels of social and health care operations (e.g., Bronstein, 2003; Clark, 1997; D'Amour & Oandasan, 2005; Isoherranen, 2012; Khalili et al., 2014; Obichi et al., 2020). Khalili and Price (2022) emphasize the role of interprofessional socialization, which refers to building a work culture that values the unique aspects of different professions as well as interprofessional collaboration. In their literature-based report on the comprehensive adoption of interprofessional approach, they address a change needed in operations at the system, profession, and individual levels (Khalili & Price, 2022). Earlier research (e.g., Bronstein, 2003; D'Amour & Oandasan, 2005) also supports the division presented by Khalili and Price (2022).

A system-level change requires valuing interprofessionality as an important premise when planning and implementing education and practice in social and health care (Khalili & Price, 2022; see also Hall, 2005; Health Professions Accreditors Collaborative, 2019; Khalili et al., 2013). Previous studies have highlighted the importance of political, socioeconomic, and cultural factors. For instance, influencing policy decisions through legislation (D'Amour & Oandasan, 2005; Isoherranen, 2012) and the allocation of funding (Bronstein, 2003; D'Amour & Oandasan, 2005) can create opportunities for interprofessional collaboration in practice. The social and health care services and the education system should have a shared view of the importance of interprofessional collaboration. For example, the implementation of workplace-based interprofessional learning in the service system is an effective method for promoting collaboration between disciplines. (D'Amour & Oandasan, 2005; Wilhelmsson et al., 2009.)

A change at the profession level refers to the collective regulation and operations of the interprofessional

community. It also means making pedagogical choices on professional education that support interprofessional education. (Khalili & Price, 2022; West et al., 2016; see also Appelbaum et al., 2019; Health Professions Accreditors Collaborative, 2019.) Faculties should facilitate interprofessional learning and recognize professionals' beliefs and attitudes toward cooperation which are also affected by the system level (D'Amour & Oandasan, 2005; Khalili & Price, 2022). According to previous research, equal appreciation of all professional cultures is important. Different expectations and traditions, values, and ethical fundamentals attached to professions can have an impact on interprofessional collaboration. (Bronstein, 2003.)

Traditionally, professional socialization has mainly focused on building knowledge and skills based on the role of professionals (Clark, 1997), creating a one-dimensional professional identity that may not promote an interprofessional approach (Baker et al., 2011; Khalili et al., 2013; Mönkkönen & Kekoni, 2020; Tervaskanto-Mäentausta, 2018). A change at the individual level means increasing the individual's understanding of other disciplines and professions, breaking prejudices, and having a broader sense of belonging (e.g., Price et al., 2014). This refers to having a new perspective on one's professional identity, including a strong sense of identification with both a professional and an interprofessional community (Khalili et al., 2013). Interprofessional collaboration also requires competencies, such as interaction and reflection skills, and an understanding of roles and responsibilities as well as a capacity for shared leadership (Isoherranen, 2012), mutual respect, trust, appreciation, and willingness to work together (Bronstein, 2003; D'Amour & Oandasan, 2005). Theoretically, interprofessional work culture is obtained through comprehensive interprofessional socialization, which is influenced by system, profession, and individual factors, ultimately encouraging the development of an interprofessional identity (Khalili & Price, 2022).

Socialization to an Interprofessional Approach

Diverse professional socialization (Snell et al., 2020) and motivations driving group commitment (Caricati et al., 2016) guide how professional groups perceive themselves and their approach to others. Interprofessional socialization brings together professional cultures (Hall, 2005), as well as supports professional and interprofessional growth and collaborative practices (Haugland et al., 2019). Combining different expertice in interprofessional collaboration also requires professional identity development, defined as a sense of membership in a professional group with a unique expertise (Reinders & Krijnen, 2023). In this study, the term interprofessional identity was selected to explain how professional identity is extended toward a broader understanding of the benefits of interprofessional collaboration, respect for all professions and their unique expertise, and a sense of belonging to professional and interprofessional communities (Adapted from Khalili et al., 2013, Khalili & Price, 2022; McGuire et al., 2020; Reinders et al., 2018; see also Cantaert et al., 2022; Reinders & Krijnen, 2023; Tong et al., 2020).

The interprofessional socialization framework (Khalili et al., 2013), based on the social identity theory (Tajfel & Turner, 1986) and the intergroup contact theory (Pettigrew, 1998; see also Allport, 1954), refers to a process where individuals from different professional groups are brought together to learn with, from, and about one another (World Health Organization, 2010). Interprofessional socialization framework includes removing barriers

to interprofessionality and challenging preconceptions through open interaction, forming an understanding of the professional roles through collaboration practices, and creating a wider sense of belonging resulting in both professional and interprofessional identity development (Khalili et al., 2013).

Social identity theory (Tajfel & Turner, 1986) describes how individuals create identities by defining themselves through social comparisons and distinctive group memberships in order to maintain a positive self-image (Hogg & White, 1995). According to Allport (1954), contacts between social groups can enhance attitudes between individuals, especially if equal status, shared objectives, collaboration, and structures facilitate it. In addition, Pettigrew (1998) has stated that if groups learn from each other in a favorable environment, it can lead to group reunification. Therefore, if positive self-concepts are supported in an interprofessional context, it can improve pro-interprofessional positioning and enable interprofessional identity formation. This increases interest in interprofessional collaboration as learners transition to working life. It has been found that an interprofessional identity has a positive effect on interprofessional collaboration. (Reinders & Krijnen, 2023.) However, the formation of the interprofessional identity and the factors supporting it must be further studied (Polansky et al., 2023; Wood et al., 2022).

Aim of the Study

The aim of this study was to investigate the baseline attitudes and readiness of social and health care professions for interprofessionality. Furthermore, we examined what should be developed at the system, profession, and individual levels (Khalili & Price, 2022) to enable more effective interprofessional working or learning. The research question was: how are these perceived development needs related to the interprofessional identity formation?

Methods

Research Design

The research was conducted as an observational and cross-sectional mixed-method study among social and health care students and professionals in Eastern Finland. The study involved undergraduate students in medicine, nursing, nutrition, physiotherapy, social advising, and social work, and professionals in primary social and health care services and specialized medical care. The students were in different stages of their education. The professionals were also a heterogeneous group and had different educational and work experience backgrounds. The researchers did not have knowledge of the respondents' prior interprofessional experience or education before the study.

Data Collection

Data collection was carried out from November 2021 to February 2022. A survey instrument for data collection was developed by an interdisciplinary team of researchers from medicine, nursing science, social psychology, and social work. The structured electronic survey included the following items: demographics (age group, gender,

field of education, stage of studies, work organization, professional sector, work experience), and amount of interprofessional work during the work week. In addition, the survey included questions about the significance of interprofessional collaboration from the perspective of the implementation of the services, the quality of work, and coping at work. The survey also contained an open question considering any development needs related to interprofessional learning and working. In addition, the survey included a standardized questionnaire (the Finnish version): The Readiness for Interprofessional Learning Scale (RIPLS) created by Parsell & Bligh (1999). The scale was translated into Finnish and applied in the Finnish context by Tervaskanto-Mäentausta (2018). The survey was administered before an interprofessional education intervention to gain a baseline understanding of the context.

The RIPLS questionnaire consists of 19 items. The subscales of the RIPLS are based on a previous study by McFadyen et al. (2005), which is based on the original scale of Parsell and Blight (1999), adding one subscale to it. The subscales were named according to McFadyen's (2005) study: Teamwork and Collaboration (items 1-9), Negative Professional Identity (items 10-12), Positive Professional Identity (items 13-16), and Roles and Responsibilities (items 17-19). Teamwork and Collaboration include variables that measure the value of learning together with other professions and the respect of other professionals. Positive Professional Identity and Negative Professional Identity comprise variables measuring the tendency to value and see benefits in interprofessional collaboration for the individual. Roles and Responsibilities comprise variables that concern hierarchy, understanding the professional role, and acquiring knowledge and skills.

Respondents replied to the items on a 5-point Likert scale (5: strongly agree, 4: agree, 3: neutral, 2: disagree, 1: strongly disagree). Higher scores indicated that participants perceived a higher level of readiness for interprofessional collaboration. The wording of the statements was modified to also cover the social care profession, as the original conceptualization of the RIPLS scale had a focus on health care. This modification did not affect the original purpose of the statements.

Data Analysis

Statistical Analysis

The data are presented as means with standard deviations (SD) or frequencies with percentages. RIPLS subscales are also presented using normalized scores (z-scores) with confidence intervals. Statistical comparisons between groups were made by t-test, permutation test, and $\chi 2$ test, as appropriate. The normality of continuous variables was assessed graphically and with the Shapiro–Wilk W test. All analyses were performed using STATA software, version 17.0 (StataCorp LP, CollegeStation, TX).

Qualitative Analysis

A total of 88 people responded to the open question regarding the developmental needs related to interprofessional learning and work. Qualitative data were analyzed using theory-guided content analysis (Schreier, 2012; Tuomi & Sarajärvi, 2018). The analysis started by identifying what kind of interprofessional development needs the

participants described. Descriptions were collected, compared with each other, and sorted inductively into subcategories, which were named according to the theme of their content. In line with the division presented by Khalili and Price (2022), the categories were organized deductively into main categories to describe system, profession, and individual development needs. A combined category was formed deductively based on the main categories (Khalili & Price, 2022) guided by the interprofessional socialization framework by Khalili et al. (2013). The descriptive quotations were chosen and translated from Finnish into English to corroborate the themes. The formation of all subcategories, main categories, and combined category are presented in the results section.

Ethical Considerations

Information about the study and an invitation to participate in it was sent to potential respondents by email. Written informed consent was obtained from the participants. The participants were informed that participation was not mandatory to them. Responding to the survey did not affect the students' grades. The Committee on Research Ethics of the University of Eastern Finland conducts research reviews. A review was deemed unnecessary by the researchers based on the instructions of the Finnish National Board on Research Integrity (2019).

Results

A total of 130 people responded to the survey. Most of the respondents were professionals (N=108, 83.1%) and a clear majority (87% of the health group and 100% of the social group) were women (Table 1.). Among the social and health care professions, the majority of the respondents were aged ≥ 40 years and most of the respondents had > 10 years of work experience. The professions of the respondents were broken down as follows: 26.9% nurses, 16.9% practical nurses, 11.5% social advisors, 11.5% social workers, 10.8% medicine, 8.5% physiotherapy, 3.1% nutrition therapy, and 10.8% other fields (midwife, occupational therapist, psychologist, service coordinator, speech therapist, etc.).

Table 1. The Characteristics of Social and Health Care Professions

	Health N=98	Social N=32	P-value
Women, n (%)	85(87)	32(100)	0.037
Age, year, n (%)			0.32
18-30	24(24)	5(16)	
31-40	20(20)	7(22)	
41-50	19(19)	6(19)	
≥51	35(36)	14(44)	
Work experience, years, n (%)			0.14
None	7(7)	4(13)	
<2	13(13)	7(22)	

	Health N=98	Social N=32	P-value
2-5	13(13)	5(16)	
6-10	11(11)	2(6)	
>10	54(55)	14(44)	
Amount of interprofessional work, hours/week, n (%)			0.069
<1	22(22)	1(3)	
1-3	24(24)	13(41)	
4-5	15(15)	4(13)	
6-8	14(14)	6(19)	
>8	23(23)	8(25)	
Number of other professions to collaborate with/month, median (IQR)	5(3.6)	5(5.7)	0.11
Perceived importance of interprofessional work, n (%)			
Benefits to client	95(97)	32(100)	0.99
Quality of work	94(96)	32(100)	0.57
Coping at work	92(94)	30(94)	0.99

Interprofessional Attitudes

The responses to all four RIPLS factors (Teamwork and Collaboration "TC", Positive Professional Identity "PPI", Negative Professional Identity "NPI" and Roles and Responsibilities "RR") showed high mean scores representing the positive attitudes of the participants toward interprofessional learning and working together (Table 2). Internal consistency was high in TC (Cronbach $\alpha = 0.90$; 95% CI: 0.81 to 0.95) and PPI (Cronbach $\alpha = 0.88$; 95% CI: 0.80 to 0.92) and moderate in NPI (Cronbach $\alpha = 0.60$; 95% CI: 0.45 to 0.75) and RR (Cronbach $\alpha = 0.62$; 95% CI: 0.32 to 0.91). The mean scores were relatively similar between the social and health care professions, although the mean scores for social care were slightly higher (see Table 2 and Figure 1).

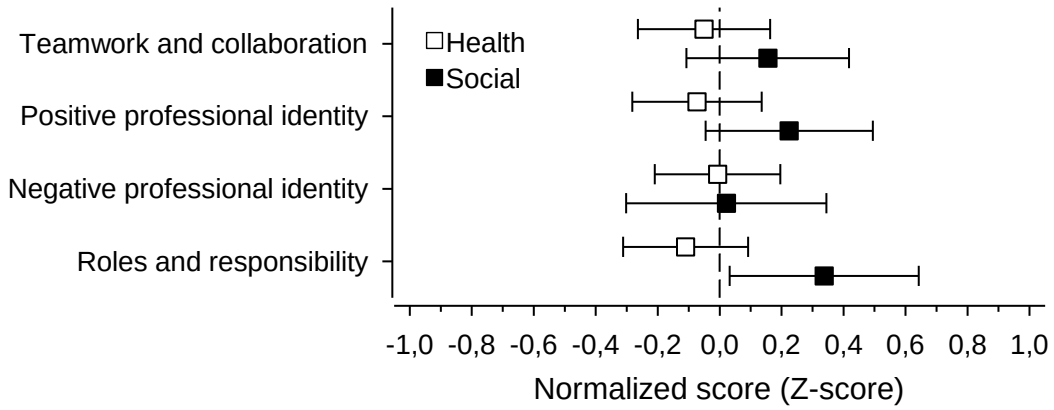

Figure 1. RIPLS Subscales Presented with Normalized (Z-) Scores

Table 2. Mean RIPLS Scores and Subscales of Professions

	Health Professions N=98 Mean (SD)	Social Professions N=32 Mean (SD)	P-value
Teamwork and Collaboration	39.5 (5.6)	40.6 (3.8)	0.33
Positive Professional Identity	16.0 (3.2)	16.9 (2.4)	0.15
Negative Professional Identity	12.2 (2.0)	12.2 (1.8)	0.95
Roles and Responsibilities	11.6 (2.2)	12.6 (1.9)	0.028
Total RIPLS	79.0 (10.5)	82.3 (6.9)	0.12

Interprofessional Development Needs

Table 3 shows the division of the combined category "A culture supporting interprofessional collaboration and the formation of an interprofessional identity" (Khalili et al., 2013) into system, profession, and individual categories (Khalili & Price, 2022) and subcategories.

Table 3. Categories of the Interprofessional Development Needs

Subcategory	Main category	Combined category
Structures enabling collaboration Change of operating procedures Development of interprofessional education	System level	A culture supporting interprofessional collaboration and the formation of an interprofessional identity
Clarifying the responsibilities of interprofessional work Strengthening collaboration between professions Development of professional education and training	Profession level	
Knowledge and understanding of other professions Changing attitudes and increasing appreciation Understanding the benefits of interprofessional work for the client	Individual level	

In the system-level subcategory of "Structures enabling collaboration", the participant descriptions included clarifying the cooperation processes, establishing physical spaces, and implementing electronic systems. The

participants described a need for clearer structures and more opportunities and models for crossing the borders of different disciplines. They hoped for transparency in the processes at their workplaces as well as clear and consistent instructions for all professions. Furthermore, the participants wished that attention would be paid to the permanence of staff and the provision of job orientation to substitute workers as well as reserving more resources and time for interprofessional work. They considered that interprofessional work would be enabled through physical spaces, such as working at the same place and sharing meeting rooms with representatives of other professions. The participants considered it challenging to find other professionals and that this should be facilitated through space arrangements, such as designated co-working spaces. Based on their descriptions, up-to-date contact details and service unit information as well as shared electronic client and patient records would also enable interprofessional work between social and health care.

> "*There's a need for agreeing on clear structures for interprofessional cooperation, with a particular emphasis on interprofessional collaboration in primary health care and social care*."
> "*It would also be important to harmonize the patient record systems and the recording of entries in them in health and social services.*"
> "*Interprofessional work also requires a place where we can gather together.*"

In the system-level subcategory of "Change of operating procedures", the participants described the improvement of functions and operational flexibility at the system level. The views of the participants indicated that less bureaucracy would allow them to work in a more interprofessional way. To promote interprofessional cooperation, the participants hoped for flexible procedures such as job rotation to other work units and establishing interprofessional networks, work pairs, and teams. They also considered that the development of shared care and service plans and the improvement of communication and time management would enhance interprofessional work.

> *"Several separate plans may be made although a single, shared plan would be more appropriate."*
> *"Improving the flow of information and developing communications."*

In the system-level subcategory of "Development of interprofessional education", the participants described the collaboration between education providers and the social and health care services at the system level. They considered that providing interprofessional education and training was necessary both at workplaces within the service system as well as social and health care curricula to improve collaborative competencies. The participants addressed a need for the provision of interprofessional learning throughout their education and training and its integration into social and health care curricula to allow genuine learning of interprofessional practice. They hoped that education would involve more collaboration with different professional groups, interdisciplinary collaboration, lectures from different professions, and interprofessional training periods. The participants also expected education to equip students with sufficient competence to participate in interprofessional practice.

> *"Curricula should be more flexible so that our work practice periods would be actually interprofessional."*

> "*Education could include more interdisciplinary collaboration and lectures from one profession to another."*

In the profession-level subcategory of "Clarifying the responsibilities of interprofessional work", the participants highlighted the importance of understanding what kind of information may be shared under different legislation when working interprofessionally. The participants expected the responsibilities to be defined more clearly in clients' care plans. For example, clients were often personally responsible for sharing their information, even though this was considered challenging due to clients' different life situations. Additionally, the respondents proposed that a specific employee should be assigned to take responsibility for interprofessional collaboration.

> *"It is important to know what information we may share with others (legislation!) and who is responsible for implementing the client's follow-up care plans."*

In the profession-level subcategory of "Strengthening collaboration between professions", the participants described that collaboration between different professions could be enhanced by increasing day-to-day communication, regular cooperation, interprofessional meetings, and shared appointments with clients. The participants found work counseling in their work community necessary, and they also hoped that interprofessional collaboration would be given more visibility.

> *"Work units should organize interprofessional meetings from time to time to discuss the current situation of patients and assess their need for further care/rehabilitation."*

In the profession-level subcategory of "Development of professional education and training", the participants suggested that interprofessional learning should be developed in both undergraduate and postgraduate professional education. Regarding undergraduate education, the participants hoped for study visits across the service system that would allow them to get oriented to interprofessional collaboration. Meanwhile, the participants hoped for postgraduate education to include more workplace-based education promoting networking and innovative thinking as well as understanding professional roles.

> *"Right from the start, we should learn to not hesitate to contact other professional groups instead of trying to work things out on our own. The education should include visits where we get to familiarize ourselves with service path/system units that would inform us about how we can contact them with a low threshold."*
>
> *"For example, we could get internal training sessions around certain themes 1 x a month or less often, where representatives of different professional groups could talk about their work or observations on the theme."*

In the individual-level subcategory of "Knowledge and understanding of other professions", the participants described that interprofessional work would require a better conception of other professions. They hoped for more knowledge of other professions' education, job descriptions, roles, skills, and professional goals.

"We need information on the content and objectives of different professional groups. The roles of the professions in client work."
"I feel like it would be essential to get an idea of what kind of education each professional group involves/what the others' job description includes."

In the individual-level subcategory of "Changing attitudes and increasing appreciation", the participants described that interprofessional work would require positive attitudes and appreciation, an open mind, and an encouraging attitude toward other professions and new, interprofessional ways of working. The participants highlighted appreciating the special competence of other professionals as well as their own expertise. According to their views, enhancing interprofessional work would require breaking hierarchies and condemning inappropriate behavior. The participants considered that there were still some organizational silos and rigid cooperation between different professions due to some traditions and defensive habits. On the other hand, they also considered that individuals could show interest in others' professional roles and be active in networking. The participants considered interprofessional work to require courage, humility, and willingness to update familiar thought patterns.

"You must have an open mind for development and new working approaches–> encourage the team to occasionally test new approaches."
"*Appreciating other people's work. Taking into account everyone's special competence."*

In the individual-level subcategory of "Understanding the benefits of interprofessional work for the client", the participants emphasized the importance of client-centeredness. As a result, different professions should collaborate as much as possible to enhance a client-oriented approach in social and health care work. The participants found interprofessional collaboration important for providing clients with high-quality services.

"Strengthening the view that interprofessional collaboration is in the best interests of the client and should be carried out as much as possible."

A visualization (see Figure 2) was created based on the analyses and the practical implications withdrawn from the theoretical framework and the results of this study. Figure 2 presents the social and health care professions' views on the development needs at the system, profession, and individual levels to demonstrate how interprofessional socialization can be supported. According to the framework of this study (Khalili et al., 2013; Khalili & Price, 2022), interprofessional identity formation is not only operation at the individual level but requires development at the profession and system levels as well.

Interprofessional socialization includes creating optimal conditions for collaboration, participating in interprofessional collaboration, and transforming identity (Khalili et al., 2013). In order to create an interprofessional work culture in which an interprofessional identity can thrive, interprofessional socialization should be applied to several social and health care processes. In addition, favorable attitudes can predict the development of an interprofessional identity (Allport, 1954; see also Reinders Krijnen, 2023).

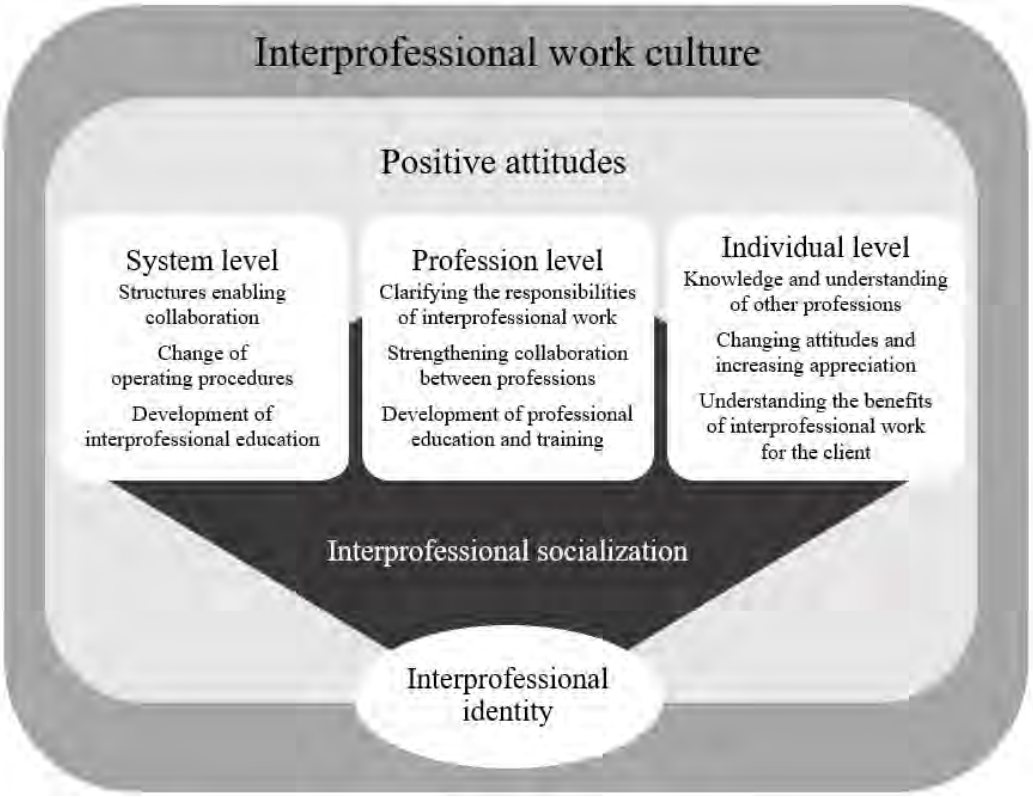

Figure 2. Supporting Interprofessional Socialization: System, Profession, and Individual Levels.

Discussion

The present mixed-method study focused on how attitudes and development needs related to interprofessionality were connected to interprofessional identity formation. Based on RIPLS mean scores, the social and health care participants showed relatively similar, favorable attitudes towards an interprofessional approach. Also, most of them perceived interprofessional work as important to clients, the quality of work, and coping at work, which lays a good foundation for interprofessional identity development. Moreover, the needs identified by the respondents related to interprofessional work provided a detailed insight into the system, profession, and individual level operations (Khalili & Price, 2022) that mediate interprofessional socialization (Khalili et al., 2013) and aid interprofessional identity development.

The findings in the system-level subcategories of "Structures enabling collaboration" and "Change of operating procedures" as well as the profession-level subcategory of "Strengthening collaboration between professions" and "Clarifying the responsibilities of interprofessional work" highlight the importance of the intergroup contact (Allport, 1954) and how to better facilitate collaboration possibilities. Interprofessional identity can be formed in relation to a wider group membership activated by a combination of contextual triggers. Hence, creating a setting where interprofessional identification and sense of belonging through positive self-enhancement is supported, can enable interprofessional identity formation. (Reinders & Krijnen, 2023.) According to prior research, contextual factors, such as access to shared workspaces, can also influence interprofessional identity salience (Tong et al., 2021). The commitment of management (Tong et al., 2021), the organization's administration (Kekoni et al.,

2019), and institutional policies can create premises for interprofessional collaboration (Ansa et al., 2020).

The results in the system-level subcategory of "Development of interprofessional education" and the profession-level subcategory of "Development of professional education and training" supported the integration of collaborative learning into curricula and workplace-based education. The participants in this study had a considerable amount of experience, which also highlights the importance of lifelong learning. As noted previously, pre-, and post-graduate programs, interprofessional and profession-specific education, as well as work and classroom-based learning, may influence the development of an interprofessional identity (Wood et al., 2022). Supporting the training of interprofessional skills in practice requires collaboration between educational institutions and the service system (World Health Organization, 2010). Therefore, facilitating interprofessional identity development should be educators' and workplace professionals' shared responsibility, since interprofessional identity has also been found to develop during interprofessional placements (Tong et al., 2021). According to earlier research, repeated exposure to interprofessional learning, such as active participation in practical settings and reflection opportunities, can promote interprofessional traits in professional identity (Shinkaruk et al., 2023).

According to previous studies, professional background, prior experience in interprofessional education (O'Carroll et al., 2016), and negative preconceptions (Tunstall-Pedoe et al., 2003) are connected to attitudes toward interprofessionality. In this study, the attitudes of the participants toward interprofessional work in social and health care were positive, as has also been the case in prior studies (Groessl & Vandenhouten, 2019; Shinkaruk et al., 2023; Thompson et al., 2016). The participants of this study had considerable work experience, and as in previous research, prior experience predicted higher RIPLS scores (Talwalkar et al., 2016). Despite these relatively positive baseline attitudes of the social and health care professions, one of the individual-level subcategories identified in this study was "Changing attitudes and increasing appreciation". This may indicate that individuals tend to estimate their own attitudes to be better than others. According to a recent review, interprofessional education can improve attitudes and perceptions of other professionals (Spaulding et al., 2021).

As attitudes toward other professionals can be influenced by educational means (Lestari et al., 2016; Mohaupt et al., 2012; Pinto et al., 2018), interprofessional education should already begin during undergraduate studies (Tervaskanto-Mäentausta, 2018) together with the development of professional competence (see also Hall, 2005). The results in the individual-level subcategory of "Knowledge and understanding of other professions" were consistent with the previous research, since comprehending professional roles was considered important for interprofessional education (Lestari et al., 2016) and interprofessional identity (Tong et al., 2021). Understanding the expertise and roles of others is needed to generate trust, share responsibility, perceive the overall situation of the client, and achieve common goals (D'Amour & Oandasan, 2005; Kekoni et al., 2019, 2021). The individual-level subcategory of "Understanding the benefits of interprofessional work for the client" refers to the interprofessional beliefs and shared objectives of the group that are considered a dimension of interprofessional identity (Reinders & Krijnen, 2023). Emphasizing interprofessional identity development as an educational objective can support the internalization of the beliefs, values, and behaviors needed to become an interprofessionally oriented professional (Tong et al., 2020). As Flood et al. (2019) highlighted, being in the spirit

of interprofessional practice is more significant than achieving interprofessional competencies alone.

The results of this study provide implications for interprofessional development at the system, profession, and individual levels of social and health care. Although the results address a wide range of operations, interprofessional education is one of the combining factors and could serve as a tool for the development of an interprofessional identity. Based on this study, interprofessional education could be used as a means of preparing individuals for future collaborative practice (O'Carroll et al., 2016), disseminating interprofessional competence in the service system (World Health Organization, 2010) and encouraging the formation of an interprofessional identity (Khalili et al., 2013; Tong et al., 2020). Further research is needed to explore the long-term impact of the suggested interventions.

A strength of this study was to involve experienced participants in both social and health care and utilize their knowledge of collaborative practices. Past research regarding experienced professionals in this context is limited (e.g., Reid et al., 2006). The amount of data in this study was moderate, but in contrary, it was representative enough for the analyses. The RIPLS scale was administered only once in this study to identify the baseline attitudes of the individuals instead of a possible change in them, as the pre-post comparison should be deliberated with this scale (Visser et al., 2018). Limitations have also been addressed concerning the RIPLS scale regarding the ceiling effect (Nørgaard et al., 2016; Torsvik et al., 2021) and the internal consistency of the subscales (Mahler et al., 2014). However, a systematic scoping review has suggested that the RIPLS scale is still widely used and appropriate due to high validation (Peltonen et al., 2020). In the qualitative analysis, the descriptive citations extracted from the data improved the reliability (Graneheim et al., 2017). The findings were influenced by the used deductive approach and the researchers' interpretations. Regardless the limitations, the mixed-method approach of this study enabled a more comprehensive and insightful understanding than what could have been obtained with one method alone (Creswell & Plano Clark, 2018). The findings of the statistical analysis along with the theory-guided content analysis were carefully examined to gain a baseline understanding of interprofessional readiness and a perspective of interprofessional needs.

Conclusion

Our study showed what should be developed in social and health care system to enhance interprofessional identity formation and to strengthen interprofessional work. Social and health care professionals' and students' attitudes and readiness for interprofessionality were at good level. System-, profession- and individual-level (Khalili & Price, 2022) operations need to be improved to enable better collaboration between professions, and further, the formation of an interprofessional identity.

In this study, we utilized the perspectives of experienced professionals as well as students. Our findings show practical suggestions to elaborate interprofessional collaboration practices to support interprofessional identity formation. First, the formation of an interprofessional identity requires comprehensive support from structures, operations, established practices, and everyday activities, as well as appreciation of collaboration in social and health care. Therefore, working environments, professional work cultures, and individual orientation need to

reinforce interprofessional collaboration. Second, interprofessional identity can be enhanced, especially by applying and developing interprofessional education and lifelong learning.

As a conclusion, we recommend adding interprofessional learning opportunities to curricula and working life. Even though positive attitudes create premises, the construction of an interprofessional identity is an extensive process. Hence, to proceed interprofessional socialization (Khalili et al., 2013; Khalili & Price 2022), prerequisites for collaboration in social and health care must be improved.

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