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MAIN FILE

Preparing students for interprofessional collaboration in services for children with special needs in Finland: a document analysis

Abstract

Introduction: Multiple types of support and expertise are needed for the benefit of children with special needs, with the collaboration between psychologists, social workers and special education teachers playing a key role. Here, we studied the extent of their academic training in interprofessional collaboration.

Methods: A document analysis of 24 curricula with 1,699 courses from eight Finnish universities was applied. The courses focused on interprofessional collaboration were selected for the analysis. The course information was analysed with descriptive statistical methods, content analysis and qualitative quantification.

Results: A total of 38 courses focused on interprofessional collaboration. The courses were often mandatory; however, in psychology, they were often optional. The content of the courses included the basis of interprofessional collaboration, collaboration skills, and service systems and network familiarity. Two courses were common for the social work, psychology and special education programmes. Various learning methods were used, with five courses being based on independent online self-study.

Discussion: Considering the need for studies focusing on interprofessional collaboration, it was contradictory that these were largely maintained within one discipline and some were realised as independent self-studies. The variability of the curricula may reflect on students' professional skills. For the collaboration of professionals working with children with special needs, it is also needed to deepen familiarity with cross-sectional services and the school system.

Keywords (MeSH): children with disabilities, curriculum, education, interprofessional relations

INTRODUCTION

Genuine and functional collaboration between professionals from different disciplines is necessary to achieve client-oriented [1] and effective service provision [2]. Competencies [3, 4], attitudes and trust [5] that extend beyond a professional's disciplinary boundaries are crucial for such collaboration. However, several barriers prevent collaboration among professionals from different disciplines, often being linked to communication failures [2, 6] and alienation of other professionals' expertise [5]. In this context, the role of academic education has been increasingly treated as essential in preparing students for interprofessional work life [6, 7]. Strategies in higher education have begun to emphasise the need to integrate this aspect in the curricula. However, relevant courses vary globally in frequency, duration and activities [8], resulting in students being unequally prepared for interprofessionalism in different fields [3].

Collaboration among disciplines and professions has numerous definitions. In this study, the concept of interprofessional collaboration (IPC) describes a horizontally integrative work approach and partnership [2] among professionals from different fields. Thanks to the partnership, IPC produces synergy in work and considers the goals of clients' individual needs [1]. Continuity and high quality of care depend on combining various fields of expertise and multi-perspective decision-making [7, 9]. Collaboration among professionals should always involve the common client in the partnership to achieve successful care [1]. IPC has been shown to contribute to client satisfaction [5, 7] and employees' experience of meaningful work life [7]. It is also crucial in avoiding the overlap of professionals' functions and, consequently, the waste of resources.

Carrying out client-oriented, purposeful IPC requires certain generic competencies from professionals [1, 7, 10]. Professionals must be competent in assessing the client's individual needs for care and being aware of the adequate contacts to ensure good service [1, 10]. Therefore, being familiar with other professionals' roles and tasks and understanding their perspectives is essential [1, 3, 5]. As for IPC competencies, communication [6] and teamwork skills, including mastery of reciprocal knowledge sharing [1, 7] and a common, understandable language [6] are central elements. Additionally, professionals' attitudes and willingness to provide customer service [1] and collaborate [4], mutual values, respect and trust [5] are elements of success. Learning methods have shown to be connected to the

effectiveness and meaningfulness of interprofessional studies. Particularly those with interactive cross-disciplinary approach have yielded beneficial results in learning [11].

A group of clients benefiting from strong IPC is children with special needs [12], whose learning, intellectual or physical disabilities and emotional difficulties complicate their lives and often require special education [13]. Special needs not only burden children themselves but also represent an additional obstacle in their families' lives. On the other hand, home circumstances reflect on the well-being of children, leading to psychic harm and harmful behaviours [e.g. 14]. Indeed, children's special needs are intertwined with complex causes and consequences, underlining the importance of receiving services from collaborating professionals from different fields [12]. Without IPC, families do not access adequate help and support for the complex challenges they face, and children's distress may remain unresolved.

In the case of children with special needs, psychologists, social workers and special education teachers play a key role in providing practical support, care and rehabilitation [15]. Psychologists apply their skills and knowledge for the benefit of children through consultation, assessment, intervention, research and training [16]. Social workers' role is particularly central in advocating for the children's best interest in a challenging family situation [15]. School forms a significant part of children's lives, and in the case of learning disabilities, special education teachers act as experts in assessing and providing particular pedagogic support to tackle them [17].

Despite the obvious need to educate students in healthcare, social care and special education together [3], the students are traditionally trained in isolation from each other [18]. There is also very little research on the interprofessional learning of students in these fields [19] and research has mainly been focused on the field of health education [3]. Dilemmas acknowledged by the European Commission related to adaptive teaching for pupils who need help from multiple services (e.g. healthcare and social care services) can be solved by placing greater emphasis on IPC in schools [20]. The situation in Finland is no different from the international situation, although the law imposes the collaboration of healthcare, social care and educational administration to ensure pupils' equal rights for the promotion and maintenance of high-quality learning, good mental and physical health, and social well-being [21].

The purpose of this study was to explore how future professionals in the field of service provision to children with special needs, namely psychologists, social workers and special education teachers, are being prepared for IPC in higher education by analysing higher education curricula in the Finnish context. The research questions were as follows:

1. What kind of courses that prepare students for IPC do the curricula include?
2. What kind of interprofessional competency should students achieve considering the above-mentioned courses?

METHODS

Study design

This study applied document analysis design [22] and was reported according to CARDA criteria [23].

Study context

There are 13 universities in Finland, with varying emphases on disciplines. Since this study focused on the education of professionals who are central to the services of children with special needs, the research was focused on those universities ($N = 8$) that provide education for special education teachers ($n = 7$), early special education teachers ($n = 5$), social workers ($n = 6$) and psychologists ($n = 6$).

Data and data collection

A study of curricula was necessary to identify the interprofessional competence and development pursued in the education of psychologists, social workers and special education teachers. The data consisted of all the special education ($n = 7$), early special education ($n = 5$), social work ($n = 6$) and psychology ($n = 6$) degree curricula starting in autumn 2022 ($N = 24$ when bachelor's and master's degrees were merged into one curriculum). The curricula were retrieved from the universities' websites or, if not available on the Internet, requested via e-mail from the departments' administration offices. The researchers designed an

extraction matrix [22] adapting the general curriculum elements, including course credits, learning aims, timing and availability of the courses. To test the tentative matrix, one curriculum was selected from each university and the matrix filled with the relevant information. The matrix was deemed feasible by the research team, after which information was extracted from all the curricula and placed into the matrix.

Data analysis

The background characteristics of the courses were analysed using descriptive statistical methods, and the course contents using an adaptation of the inductive content analysis approach [24]. In the content analysis, all the sentences or parts thereof that answered research question 2 were identified and grouped based on their similarities using NVivo v.12 software. Thus, three main categories and ten sub-categories were formed. Quantification was used to indicate how many of the courses contributed to the identified categories.

Ethics and trustworthiness

The data were publicly available; thus, research permissions were not required [22]. The rigour of the study was maintained by close collaboration and regular discussions within the research team, careful methodological decisions and transparent reporting. Researchers had previous experience in analysing different kinds of documents related to education and health services. [23.]

RESULTS

Characteristics of courses in curricula

The 24 curricula included 1,699 courses in total (special/early special education $n = 717$; social work $n = 397$; psychology $n = 585$). Out of these courses, 38 (2%) focused on IPC, with a varied offer of interdisciplinary courses between universities and faculties. However, not all the degrees scrutinised in this study were available in all the universities. (Table 1.) The courses varied in credits, spanning from 1 to 7 European Credit Transfer (ECT; one ECT

corresponds to 27 hours of class) points (average = 4). Most frequently, 5 ECTs ($n = 18$) were assigned to the courses. The majority of the courses ($n = 30$) were mandatory and were included in master's degree curricula ($n = 25$). Ten courses provided recommendations for the timing of the course, varying from the early bachelor phase to the master stage. More than half of the courses ($n = 22$) specified prerequisites to enter the course, including basic studies or bachelor degrees, practical training or specific preceding courses. Most of the courses were provided exclusively to a certain study programme without interaction with other disciplines, with 14 of them being included in the curricula of special education, 13 in social work and six in psychology programmes, or 2%, 3% and 1% of all the courses in the programmes, respectively. Only two common courses were offered to special education, social work and psychology students, two for social work and psychology students and one for the special education and psychology programmes (Table 1).

In most of the courses ($n = 26$), various learning methods were used, combining lectures or seminars, group assignments, independent learning and written assignments. Moreover, exams ($n = 5$), practical training ($n = 2$) and visits ($n = 2$) were applied. In group assignments, students from different study programmes were required to collaborate; for example, they were asked to assess an imaginary client's case and propose recommendations for resolving the relevant issues, reflecting afterwards on their individual professional roles. Five of the courses were entirely based on online self-study.

As for the courses common for the social work, psychology and special education programmes, one was "*The basis of multiprofessional collaboration in social, health and educational fields*" [translated from Finnish] (2 ECTs). This course aimed at instructing the basic principles, such as relevant laws, ethics and client involvement, as well as the benefits and effects of collaboration and consultation. The course also introduced the stakeholders' roles, different collaboration contexts and practices, and requirements for functional teamwork. This was an online self-study course open for anyone interested and reported having been designed in multidisciplinary collaboration. The topic of the other course was "*Multiprofessional competencies: a group exercise*" [translated from Finnish] (1 ECT). This course aimed to strengthen students' readiness to act as a team and combine their functions as part of multiprofessional context. This was an online course in which students conducted together a multidisciplinary assignment and reflected on their respective roles. The course was also available for students of social psychology and logopaedics. Both courses were

included in master's degree curricula and were mandatory for special education and social work students while being optional courses for psychology students.

[Table 1 approximately here]

Contents and competence aim of the courses

Based on the content analysis, three main categories emerged from the contents and learning objectives of the courses: the basis of IPC, collaboration skills, and familiarity with the service system and networks (Table 2).

[Table 2 approximately here]

Basis of IPC. According to the course descriptions, it was central that students understand why IPC and partnership are necessary and beneficial, as well as the type of values and principles that should guide them. The courses underlined the **significance of IPC** in relation to societal effectiveness and its benefits for different sectors and organisations and a client. The courses aimed at strengthening students' **client-oriented** thinking by instructing them to perceive clients with individual needs in the centre of collaboration and consider clients' involvement, rights and self-determination crucial in the service provision processes. They also introduced students to the **legal and ethical basis governing IPC**, including ethical and juridical tensions that may challenge professionals.

"Students deepen their understanding of how professional discussions with the key actors improve the learning conditions for children and students in need of support." (A course for special education students)

Collaboration skills. The courses aimed to promote embracing **the role of experts** in their respective disciplines within an interprofessional team. This included acting as an expert in an interprofessional team, recognising situations requiring others' expertise, managing

consultation, understanding their expertise and role, and sharing their knowledge with the interprofessional teams. In this context, **professional discourse and interaction** were emphasised, including communicating verbally and in writing, talking about difficult issues, managing structured discussion and leading conversations. In relation to collaboration skills, courses also mentioned the need for being aware of and applying adequate **collaboration methods and tools** as well as the possible **challenges of collaborating with others**. Collaboration skills not only focused on other professionals but also included **client and family involvement**, referring to the promotion of their agency as a part of a team.

"After completing the course, the students will know how to act as a member of a multidisciplinary team and combine their expertise as part of IPC." (A course common for special education, social work and psychology students)

Familiarity with the service system and networking. The need to promote students' familiarity with **the social care, healthcare and rehabilitation systems** that surround a client was important and was included in social work and psychology curricula. Psychology emphasised the importance of the mental health service system entity and the patient's care path within it. Courses for social work students included developmental trends related to the service system related and employees' and clients' positions in that system. The courses also aimed to increase students' familiarity with the **collaboration networks** required in their future work lives, for example, in relation to the demanding support needed by children.

"After completing the course, the students will have a research-based overall understanding of the social, health and rehabilitation service system and its development at policy, practice and user levels." (A course for social work and psychology students)

DISCUSSION

In general, the purpose of curricula is to define what students are expected to learn and the competencies they are expected to achieve. In this study, we explored how future professionals in the field of service provision to children with special needs, namely

psychologists, social workers and special education teachers, are being prepared for IPC in higher education by analysing higher education curricula in Finland. We were interested in finding out what kinds of study courses that prepare students for IPC were included in the curricula and what kind of interprofessional competency students should achieve considering these courses.

There are potential limitations to this study that concern the data and analysis. Regarding the data, its intended use needs to be noticed [22]: The course descriptions were written not for study purposes but to provide directional information about the courses. Therefore, IPC may have been a central topic in other courses but lack visibility in the course descriptions, leading to their exclusion from the dataset. Considering the possible data bias [22], it should be noted that some course descriptions were detailed, while others were scant and ambiguous. In general, descriptions of courses tend to be exiguous, leading to somewhat elementary findings in qualitative analysis. Also, despite our attempts to perform authentic inductive analysis, pre-understanding always has an impact on some level. It should also be noted that students have are able to choose interprofessional studies from other higher education institutions' curricula in Finland and abroad; these other possible choices have been excluded from this study.

As a means of improving service delivery, interprofessional education is invoked globally by policymakers, healthcare and social care professionals, and educators [25]. The law in Finland imposes the collaboration of healthcare, social care and educational administration in providing services for children and families [21]. Client-oriented interventions performed in fragmented silos are insufficient and ineffective for solving and preventing complex problems, where IPC offers a solution [9]. In this study, we explored whether future professionals in the field of service provision to children with special needs, namely psychologists, social workers and special education teachers, are prepared for IPC in higher education.

Our findings showed that the offer of IPC courses depended on the university, referring to the fact that the autonomy of universities and faculties in the design of curricula influences the interprofessional skills among students. We also found that courses related to IPC were largely (87%) offered exclusively to individual study programme and were separated from other disciplines, even if the topics and content were parallel. Only two courses in a single university were common for the disciplines studied here. In some cases, students had no

contact with the class as they merely depended on self-study. However, educational activities that bring different disciplines together have been recommended for the formation of students' interprofessional attitudes and perceptions [4, 5]. It is worth to consider how fruitful, meaningful and credible are interprofessional courses without interdisciplinary contacts and learning.

Moreover, there were differences between disciplines regarding the compulsory nature (mandatory or optional) of the courses focused on interprofessionalism. For the students of special education, all the courses were mandatory, but social work and psychology students often were free to select these courses. Organising and including generic studies is undoubtedly a challenge in disciplines such as psychology that predominantly emphasises subject-specific information. However, interprofessionalism should be an integral part of the study programme. The mandatory nature of such courses reflects the indispensability of the subject and affects students' engagement with it [11]. Consequently, students' uniform professional skills and attitudes are impacted. It is also worth studying the role of students who voluntarily attend a course and if they are regarded as equal partners in an interprofessional group.

The content of the courses on the topic of interprofessionalism was also reported here. The basis of IPC, collaboration skills, and familiarity with the service system and network were the prominent topics. When comparing the disciplines, there were some differences. Familiarity with the service systems was emphasised in social work curricula. Nevertheless, the cross-sectorial collaboration among social, healthcare and education professionals, where the aspiring professionals would be exposed to and familiarised with partner systems, was not a part of the curricula included in this study. However, for effective and high-quality collaboration, being aware of the relevant social, healthcare and educational systems should be a prerequisite for all members of an interprofessional team. Scrutinising the study contents more closely, it seemed to be considered particularly important to promote students' client-oriented thinking, understanding of shared expertise, and professional discourse and interaction. Indeed, based on previous literature [1], these are all elements recognised as central for successful client work.

Thus, we conclude that higher education aims to prepare special education, social work and psychology students for IPC. Notwithstanding, the relevant courses need to be reinforced and unified to ensure purposeful client-oriented services for children with special needs. New

structures within higher education are needed to bring together students from different disciplines and enable an authentic work-life-oriented interprofessional learning experience at this level of education. It is crucial to ensure interdisciplinarity in higher education for teachers, as part of their fundamental planning and realisation of studies. For academic studies to be relevant and pertinent, both higher education and work life representatives should collaborate on the development of an integrative curriculum. This should also be considered in the continuing education offered to professionals.

Further research is needed on the realised contents and outcomes of IPC studies, as well as on professionals' continuing education on IPC originating from the collaboration between higher education institutes and professionals to promote these competencies. In the future, it would also be relevant to broaden the focus of IPC education research from a national to a cross-national comparison. As students' opportunities to study abroad have improved significantly, it would also be important to explore what kind of IPC learning opportunities are offered by the curricula in, for example, universities within the EU.

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Table 1. Courses focused on interprofessional collaboration ($n = 38$)

	<i>Courses offered exclusively to students of:</i>			<i>Courses common for students of:</i>		
	Special education (SE)	Social work (SW)	Psychology	• SE • SW • Psychology	• SW • Psychology	• SE • Psychology
Number of courses	14	13	6	2	2	1
Courses by the universities ^a						
• A ($n = 3$)	0	2	1			
• B ($n = 11$)	4	4	0	2	1	
• C ($n = 4$)	2	0	1			1
• D ($n = 1$)	NA ^b	1	NA ^b			
• E ($n = 2$)	2	NA ^b	0			
• F ($n = 3$)	NA ^b	2	0		1	
• G ($n = 9$)	3	4	2			
• H ($n = 5$)	3	NA ^b	2			
Credits (ECTs)	2–5 (avg. 3.9)	2–7 (avg. 4.0)	3–7 (avg. 5.3)	1 and 2	2 and 5	5
Timing (n)						
• Bachelor phase	4	7	1		1	
• Master phase	10	6	5	2	1	1
Compulsion (n)						
• Mandatory	14	9	4	Mandatory for SE and SW, alternative for psychology	One course was mandatory for both. The other course was mandatory for SW but alternative for psychology.	2
• Optional or alternative	0	4	2			

^a University names coded with letters.

^b Degree not available in this university.

Table 2. Categorisation of course contents and numbers of courses that covered the categories

Categorisation		Number of courses that covered the category** (Number of the courses for the students of)						Courses in total (percent of all the 38 courses)
Main categories	Sub-categories	SE	SW	Ps	SE SW Ps	SW Ps	SE Ps	
Basis for IPC*	Significance of IPC*	2	4	1				7 (18)
	Client orientation	5	5	2		1		13 (34)
	Legal and ethical basis	3	3				1	7 (18)
Collaboration skills	The expert role in IPC*	4	5	2	1	1	1	14 (37)
	Professional discourse and interaction	5	3	2			1	11 (29)
	Collaboration tools and methods	1	2	1			1	5 (13)
	Challenges of collaboration	2	1				1	4 (11)
	Client and family involvement	4	3	1				8 (21)
Service system and networks	Service systems			5	2	1		8 (21)
	Collaboration networks	3	2					5 (13)

* IPC = interprofessional collaboration, ** SE = Special education, SW = Social work, Ps = Psychology