

Review Article

Supporting Children's Health and Well-Being Through Interprofessional Collaboration: A Scoping Review of Educational Collaboration Between Health Sciences, Social Sciences and Teacher Training

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Addressing children's complex health and well-being issues requires the collaborative efforts of health and social care professionals and teachers to develop effective care solutions and prevent the escalation of problems. Consequently, there is a recognized need to prepare professionals in children's services for interprofessional collaboration already during undergraduate studies. However, knowledge on interdisciplinary collaboration aimed at promoting related competencies is fragmented. A scoping review was conducted to map the scientific literature on educational collaboration among health sciences, social sciences and teacher training, including collaboration with working life and the studies common for the students of these fields. Scientific publication in English in 2000–2023 was searched. A total of 1197 papers were initially identified. Following the selection process, 25 articles were included in the thematic analysis. Of the 25 articles analysed, 60% were empirical and 40% were theoretical. Perspectives included education ($n = 10$), healthcare ($n = 5$), social work ($n = 2$) and general interprofessional work ($n = 8$). The main contexts were children with special needs ($n = 11$) and child and family well-being ($n = 5$). The reporting was guided by the PRISMA-ScR checklist. The literature described the requirements for collaboration between faculties in universities for interdisciplinary education and the challenges experienced. In higher education, programmes in health sciences, social sciences and teacher training collaborated to enhance students' interprofessional competencies through two main strategies: interfaculty collaboration in designing and delivering joint studies and collaboration with working life to provide authentic, practice-based learning. These shared studies emphasised skills such as collaborative attitudes, role understanding and knowledge exchange—competencies that are essential for professionals working with clients of all ages. This review contributes to the knowledge base on interprofessional education and highlights the importance of both academic and practice-based collaboration. It also identifies key challenges, including structural barriers within universities—such as rigid curricula and disciplinary silos—and limited resources for engaging in professional practices.

Keywords: education; health sciences; higher education; interdisciplinarity; interprofessionalism; social sciences; teacher training

1. Introduction

Children's health, welfare and learning problems often interweave, necessitating a multifaceted approach involving collaboration among professionals from various fields [1–3]. Effective interprofessional collaboration can address the

complexities of children's needs, yet current practices in many educational programmes for future professionals often emphasise isolated training [4].

In addressing the intricate needs of children, it is crucial to recognise the involvement of diverse professionals across health services, social services and educational contexts.

These professionals bring unique expertise, contributing to a holistic understanding of care and problem prevention [5]. Without collaborative efforts, information transfer and care coordination often fall to the child's parents, which may leave them without adequate support [6, 7] in critical moments, such as during service transitions, when family disruptions occur or when mental health concerns emerge. Moreover, inadequate interprofessional collaboration can lead to poorer outcomes for children, underscoring the need for effective models of engagement among these professionals [8].

Interprofessional collaboration refers to coequal partnership among professionals from different disciplines [9]. Professionals interact directly in the assessment and implementation of services, sharing decision-making as they work towards a common objective [10] to reach outcomes for the interests of a common client [9, 11]—in this study, children and families. Bringing different perspectives and competencies together is aimed at knowledge integration for solid and effective service provision [1].

However, several barriers obstruct effective interprofessional collaboration. In general, a lack of interprofessional collaboration competencies has been found to have a negative impact on, among other things, client and organisational performance and has even been shown to lead to work stress (e.g., [11, 12]). From a professional practice perspective, organisational barriers [3] such as stringent privacy policies [13] and resource scarcity [2] can hinder communication between disciplines. Moreover, group-level obstacles, including conflicting values [9], mistrust and overlapping roles [13], exacerbate the challenges of interprofessional collaboration. Research has revealed that these barriers not only inhibit collaboration but can also lead to fragmented services that fail to meet children's complex needs [14]. Research on facilitators of interprofessional collaboration among health services, social services and school professionals has been called for [7], in which ensuring professionals' competency in collaboration is central [15].

Undergraduate studies play a crucial role in equipping future professionals [16] in these fields [9] with the competencies needed for interprofessional collaboration as they transition into working life. However, interdisciplinary collaboration during undergraduate studies, which creates the basis for interprofessional collaboration, remains scarce among the fields concerned [6]. Preparing students for interprofessional work plays a key role in the ease and occurrence of collaboration across sectors in working life. Interdisciplinary studies which bring students from different fields of sciences together have improved collaborative competencies [16, 17] and reflected in improved professional practice and client outcomes [18]. Interdisciplinary studies which bring students from different fields of sciences together have improved collaborative competencies [16, 17], role and responsibility awareness and conflict management, ultimately leading to a more integrated approach and a higher quality of care and support. By learning to function as part of an interprofessional team, students develop essential teamwork strategies critical for addressing complex issues [19]. The need for students to be exposed to

interprofessional experiences within authentic interprofessional settings is thus paramount to both the understanding and development of interprofessional responsibilities [20]. The benefits of collaborative practice also include a reduction in errors and improved outcomes. Additionally, collaboration among students from different disciplines fosters innovation and advanced problem-solving capabilities. Interdisciplinary studies thus help to ensure that students are 'collaborative practice-ready' when they graduate [19]. It is also important to note that interdisciplinary studies can help students strengthen their professional identity, not undermine it [20].

This scoping review mapped the scientific literature on educational collaboration among health sciences, social sciences and teacher training, including collaboration with working life and the studies common among students of these fields.

2. Methods

2.1. Design. To address the research question, we employed the scoping review method [21], a widely recognized approach for synthesizing information from research that spans diverse methodologies, disciplines and perspectives. This method allowed us to map the available evidence, identifying key concepts, gaps and patterns across a broad and heterogeneous studies. To ensure transparency and consistency in the reporting process, we adhered to the PRISMA Extension for Scoping Reviews (PRISMA-ScR) guidelines [22]. This framework provided a comprehensive checklist to document each stage of the review process, from study selection to data extraction, enabling rigorous and reproducible results (Supporting file 1, checklist).

2.2. Search and Selection. The literature was retrieved from the electronic databases PubMed, CINAHL, ERIC, SocINDEX and SCOPUS (Figure 1). The selection of databases and search terms was conducted in collaboration with an information specialist over the course of two sessions. In the first, potential databases were discussed and their suitability confirmed. A preliminary list of search terms was also provided and tested between meetings. During the second session, additional terms were recommended, with the observation that closely related concepts are often used interchangeably in both research and practice within the field.

Based on preliminary searches, we focused on interdisciplinary collaboration, higher education, the fields of health sciences, social sciences and teacher training and their close concepts (Supporting file 2, search). The search was focused on higher education because the majority of professionals in these fields are trained in universities and universities of applied sciences in developed countries. We limited searches to scientific articles published in English between January 2000 and May 2023. The searches yielded 1197 results in total, of which 314 duplicates were removed with Zotero software. Two researchers (*initials blinded for review*) independently selected the articles based on titles

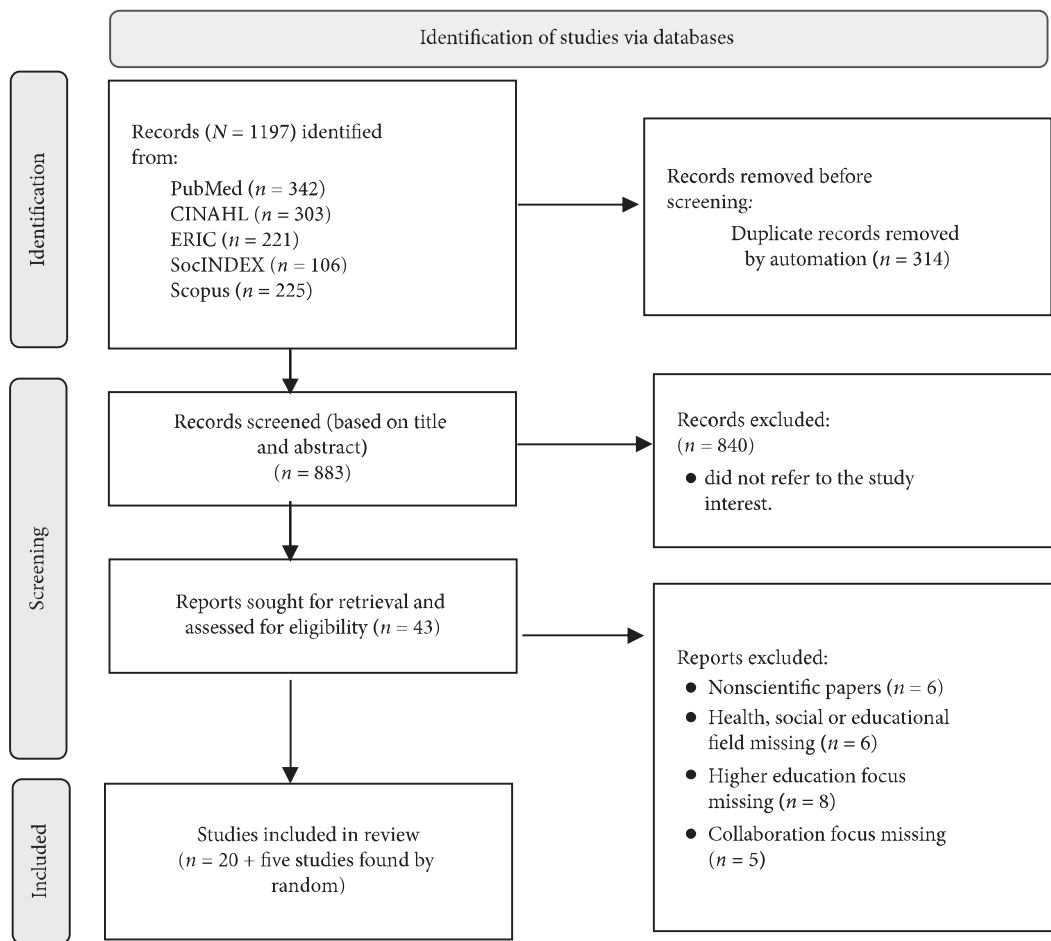


FIGURE 1: Search and selection (reported according to the PRISMA guideline; Page et al. 2021).

and abstracts ($n = 883$) and full texts ($n = 48$). Based on their consensus, 19 articles were selected for the analysis. In addition, six articles, identified using the same search terms as in the current study and previously collected by researchers in an earlier project, were included in the dataset. These articles are marked with asterisks in Table 1.

2.3. Analysis. The analysis method was data-driven thematic analysis, which emphasises the reflexive and iterative nature of the analysis and the active role of researchers in constructing meaning [23–25]. First, all the articles were tabulated (Table 2), and the open-ended responses were carefully reviewed to form a preliminary overview of the data and their potentially meaningful content. While reading the articles, the researcher (blinded for review) began to identify the central initial themes that responded to the research interests.

The analysis was conducted inductively by all researchers. Coding was carried out to identify expressions in the data that were relevant to the research questions. Although the coding was semantic—focussing on the explicit content—researchers made conscious interpretive decisions about what was considered meaningful, in line with the principles of reflexive thematic analysis. The coded data

units varied in length, ranging from single sentences to clusters of several sentences.

Based on the main themes ($n = 3$), content was extracted and subthemes ($n = 11$) were formed. Throughout the process, the researchers discussed and reflected on which codes were related and what common meanings they revealed. These preliminary themes were then assessed in relation to the data as a whole, with attention paid to both the internal coherence of the themes and their distinctiveness from one another. Where necessary, themes were reformulated through collaborative discussion. To ensure consistency and address any discrepancies during the coding process, the researchers engaged in iterative comparison of coded data and regularly discussed interpretations until consensus was reached. Finally, the themes were named to clearly reflect the relevant phenomena emerging from the data. The analysis was discussed and finalised, and the results were written collaboratively and by consensus among the researchers.

3. Results

3.1. Study Characteristics. Of the 25 articles included in the analysis, 15 (60%) used empirical methods and 10 (40%) were theoretical based on literature and project experiences and outcomes. Articles were written in North America

TABLE 1: Description of reviewed articles.

Author (s), year, country	Aim	Method	Characteristics and implementation	Main findings/content
Almendingen et al., 2021, Norway [42]	To assess the extent to which students attending health, social care and teacher education felt their uniprofessional education and a mandatory interprofessional learning course had taught them about children as next of kin. To explore variations in student responses according to age and educational background.	Empirical: quantitative (survey of 2811 students)	Individual flipped learning possibility. Two days seminar with in-person group work with digital learning materials.	Students considered learning about children as next of kin important but insufficient. Education and child-welfare students reported more positively on their learning than health and social care students. Age was not decisive.
Almendingen et al., 2021, Norway [49]	To assess (1) to what extent students in teacher education, health and social care programmes agreed that blended learning was a suitable approach in a mandatory interprofessional course, (2) to what extent they learnt the WHO's core interprofessional learning competencies and (3) student rankings of the learning outcomes from different components of the course.	Empirical: quantitative (survey of 363 students)	Voluntary flipped learning preparation with digital materials. Two seminar days combining face-to-face discussions of a group of 8 students from different disciplines. Digital content: Case-based materials and miniatures from professionals and public authorities. Supervision by staff, master's students and field professionals.	The main part of students considered blended learning a suitable method. Students saw they had somewhat better understanding of WHO's competencies. The most satisfying learning outcomes were related to face-to-face group discussions, the combination of everything, the digital learning content of the learning management system canvas, the submission assignment, the syllabus and the supervision. The breakout room environment was found to provide a potential arena to practice generic skills.
Almendingen et al., 2022, Norway [38]	To explore if digital small group rooms, breakout rooms, are feasible for students to learn about, from and with each other in an interprofessional learning initiative.	Empirical: quantitative (repeated survey of 5412 students)	Fully digital. Student-led groups of 8 students from different disciplines in Zoom breakout rooms, digital learning materials. Two seminar days per year, integrated into a 3-year curriculum.	Student teachers, more than others, valued breakout rooms as a suitable platform to share sensitive issues. Respectively, health students reported breakout rooms improved interprofessional skills.
Barnett et al., 2017, USA [29]	To capture social work faculty experiences in integrating interprofessional education in the social work curriculum.	Empirical: mixed methods (survey with quantitative and open questions, 23 faculty members)	Suggestions for implementation: - Approval by supervisors. - Institutional support and designated schedule. - Infrastructure needs taken into account (e.g, technical systems). - Collaboration with multiple disciplines. - Mandatory courses. - Involvement of staff and students. - Diverse teaching methods. - Client/patient educators.	Faculty staff showed strong interest in integrating interprofessional education into the curriculum but had little experience in its implementation. The significance of administrator support to overcome time resource barriers preventing interprofessional collaboration among faculties was emphasised.

TABLE 1: Continued.

Author (s), year, country	Aim	Method	Characteristics and implementation	Main findings/content
Bond and Dogaru, 2019, UK [50]	To evaluate the outcomes of an interdisciplinary training programme for professionals to support children and their families who have experienced online sexual abuse.	Empirical: mixed methods (survey with quantitative and open questions, 114 students)	Intensive three-hour interprofessional training session based on real-life case studies and actual experiences. Included interactive learning tools: videos, written case studies, discussions and group activities. Delivered by an experienced facilitator.	The professionals felt that they had learnt content related to the subject, and almost all felt that the course was useful and that they were confident in their knowledge of the subject after the programme. Regarding the methods, real-life examples and case study video clips, as well as presenting the victim's point of view, were felt to be useful. The facilitator played a role in the effectiveness of group discussions.
Bronstein et al., 2012, USA [44]	To learn about the issues that support or pose barriers to community-university collaboration that is characterised by interdisciplinary practice in a school setting.	Empirical: qualitative (repeated interviews with 10 school staff participants)	Implemented over one academic year. Half-day planning retreat with school and university stakeholders. Weekly interdisciplinary team meetings involving students, faculty and school staff. Graduate students provided services in teams under faculty supervision: - School- and home-based services - Collaborative planning and implementation - Consent-based enrolment of students identified as needing support	Participants found the interdisciplinary collaboration process to be complex and challenging. There were notable differences between schools in staff perceptions of interdisciplinary work, suggesting that organisational culture in schools played a significant role in interdisciplinarity. Nursing resource, parent involvement and staff understanding of their roles within the services being implemented needed to be strengthened.
Corbacho et al., 2021, Uruguay [30]	An interdisciplinary course was developed that included teacher training and undergraduate courses. The study evaluated the influences of the course for the students.	Empirical: mixed methods (survey with quantitative questions and reflective writing, 110 students)	Course duration 1-2 weeks, 7-8 h/day. Elective, during intersemester periods. Interdisciplinary teams of four students. Problem-based learning and real-world interdisciplinary problems. Team-building and inclusive participation activities in sessions.	The students felt the course improved the skills and attitudes needed to: - work as a team member - explore ideas confidently with other people - develop as a person - develop relevant, ethical, social and professional perspectives - develop enthusiasm for learning - tackle unfamiliar problems - become an active, enquiring learner.

TABLE 1: Continued.

Author (s), year, country	Aim	Method	Characteristics and implementation	Main findings/content
Corcoran et al., 2021, Canada [31]	To present a multidisciplinary course focused on violence prevention and a pilot evaluation of the course, namely on its influence on students' competencies.	Empirical: mixed methods (survey with quantitative and open questions before and after the course, 18 students)	A four-course, 1-year graduate program for working professionals. Course 1: one week in-person, on-campus courses 2–4: fully online. Experiential exercises, group discussions, critical reflection, and application of lived experiences. Focus on social–emotional learning, trauma-informed practice, and antioppression frameworks. <ul style="list-style-type: none"> - Recommendations for implementation: - Start with integrated field and classroom experiences. - Co-taught across disciplines with community mentors. - Emphasis on family- and community-centred, culturally responsive services. - Cover collaboration, systems coordination and reflective colearning. 	Overall, students' self-evaluation and feedback reflected positive views about the course, as well as attitudes towards multidisciplinary collaboration and engagement in it. Students provided high scores for teaching and learning in several domains, particularly in group interaction. <ul style="list-style-type: none"> - Barriers and change needs were focused at: - Unbalanced governance and organisational structures - Resource scarcity - Projectitis (dying project models) - Information-sharing problems - Failure in participant alignment - Requirements for licensure and certification - Class conflicts - Different views of research - Track record (university–community gap) - Unclear roles and reward system.
Corrigan, 2000, USA [41]	To describe barriers to interagency collaboration and interprofessional training and the changes necessary in higher education to deal with these barriers.	Theoretical	<ul style="list-style-type: none"> - Rooted in local culture and designed for long-term sustainability. 	<ul style="list-style-type: none"> - In the field experience, graduate student professionals provided direct services to school-aged children and their families. Intern students formed multidisciplinary teams and were placed in elementary, middle and high schools to develop treatment plans and provide services for at-risk children. The case management method was used for learning. Challenges were encountered, and these concerned university faculty and school district supervisors' time resources and scheduling difficulties and change of practices and traditions in schools and universities.
Gropper and Shepard-Tew, 2000, USA [32]	To describe a multidisciplinary field experience of students directed at providing comprehensive services for at-risk students in public schools.	Theoretical	<ul style="list-style-type: none"> - Participated in planning, supervision and weekly case meetings. 	<ul style="list-style-type: none"> - Case management techniques and holistic service delivery. - Direct services to at-risk students and families.

TABLE 1: Continued.

Author (s), year, country	Aim	Method	Characteristics and implementation	Main findings/content
Iachini and Wolfer, 2015 USA [45]	To describe the case method of teaching and provide pilot evaluation data demonstrating the potential value of this pedagogical strategy for promoting cross-disciplinary school mental health (SMH) competencies.	Empirical: mixed methods (survey with quantitative and open questions, 173 students)	<ul style="list-style-type: none"> - Implemented within a graduate-level capstone course. - Spanned one semester, with 12 weekly sessions, each focused on a different multidisciplinary case. - Students analysed a real-world dilemma. - Pedagogical approach: case method teaching with decision cases, emphasis on collaborative problem-solving, critical thinking and reflection. 	<p>The case method supported learning. Students reported learning most about interprofessional and cross-systems collaboration and the key policies and laws guiding SMH. They also learnt outside of the SMH competency domains.</p>
Kallio et al., 2023, Finland [43]	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 interprofessional collaboration in higher education by analysing higher education curricula in Finland.	Empirical: qualitative (document analysis on 24 curricula with 1699 courses)	<p>Recommendations for training</p> <ul style="list-style-type: none"> - Increase cross-disciplinary integration and make IPE mandatory. - Prioritize interactive, collaborative learning with real-life cases. - Strengthen content on service systems, ethics and client-centred care. - Support interdisciplinary planning and delivery structurally 	<p>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 based on independent online self-study.</p>
Lam, 2005, USA [33]	To present a study on the use of an interdisciplinary course to prepare school professionals to work with families that have exceptional children.	Empirical: mixed methods (survey before and after the course and analysis of reflection sheets, 85 students)	<p>3 semester units, taught over one semester. Cotaught by two professors from different disciplines. Students met together in a shared classroom. Assignments and activities:</p> <ul style="list-style-type: none"> - Partnership with families of children through multiple meetings, creating a family resource notebook. - Series of reflective writings; in-class reflections, family meeting reflections and a final integrative paper. - Participation in regular multidisciplinary group work to exchange experiences, concerns and strategies collaboratively. 	<p>The course improved students' sense of self-efficacy and expectations for families as well as their educational preparation for family work. Students had misconceptions for other professions, but the course improved their awareness of commonalities, similarities and differences between disciplines and the confidence and empathy needed to collaborate with other disciplines and also with families.</p>

TABLE 1: Continued.

Author (s), year, country	Aim	Method	Characteristics and implementation	Main findings/content
Mackenzie and Bjornson, 2005, Canada [48]	To describe how an online course used interactive exercises to engage students in mutual exploration of cross and/or interdisciplinary work.	Theoretical	<p>13-week semester course, offered twice a year. Fully online, optional phone consultations.</p> <p>Learning activities:</p> <ul style="list-style-type: none"> - Interactive online role plays simulating interdisciplinary team meetings. - Small group discussions. - Reflective journaling. - Case-based scenarios with assigned professional roles. - Group synthesis and debriefing exercises. 	<p>A course was developed for interdisciplinary practice with children and families. Distance education delivery was used. Students worked in interdisciplinary small groups in different interactive learning tasks. Based on students' reports, they had positive experiences with the course, and interactive role plays seemed to provide the most beneficial learning experience. The authors conclude that a web-based course functioned well as an interdisciplinary meeting place for students.</p>
Miller et al., 2018, USA [27]	A multidepartmental project was undertaken to design a new interprofessional education training programme (in teacher education) to foster collaborative knowledge of, dispositions towards, and skills in family school partnering. The components of the programme, the proposed criteria to gauge the success an initial pilot of the programme and challenges faced in setting up such cross-disciplinary training were described.	Theoretical	<p>Two-year graduate-level program; leads to an additional certificate.</p> <ul style="list-style-type: none"> - Began with an IPE leadership course in the first quarter, cotaught by faculty and field supervisors, using problem-based cases, reflective dialogue and team negotiation exercises. - Continued with two supplemental courses outside the student's primary discipline. - Involved a 6-month interdisciplinary field placement in partnership schools to serve families, supported by both individual and group supervision using video feedback and observation. 	<p>Interdisciplinary teams of faculty members and field supervisors coworked to infuse interprofessional competencies into teacher education and on-site experiences. The paper presents an evaluation plan for the programme. Regarding programme development, authors found that willingness to examine personal and professional biases and share knowledge about one's discipline was essential, for which purpose profound self-reflections and group discussions were necessary. Also, disagreements in some points were inevitable, and conflict management was essential. The development required time, and structural and organisational constraints had to be tackled.</p>
Stayton et al., 2001, USA [34]	To describe the development of an interdisciplinary personnel preparation programme to prepare students to work with children with disabilities and families of these children.	Theoretical with a quantitative element (survey of 77 students)	<p>Multyear program integrated into degree programs:</p> <ul style="list-style-type: none"> - Interdisciplinary summer practicum: 5 weeks, full-time. - Seminars: 3 during fall/spring semesters + 5 during summer term before practicum. - Team-based practicum in infant, toddler or preschool settings. 	<p>An interdisciplinary group of faculties developed and coordinated an interdisciplinary study programme to prepare students to provide family-centred services in teams with a focus on children with disabilities. Serving children and families in teams was at the core of the practicum. Students estimated that interdisciplinary work in the teams was the best yield of the programme.</p>

TABLE 1: Continued.

Author (s), year, country	Aim	Method	Characteristics and implementation	Main findings/content
Straub et al., 2017, Germany [39]	To describe the development of an interprofessional course and to evaluate student perceptions of the course.	Empirical: mixed methods (survey with quantitative and open questions, 85 students)	<ul style="list-style-type: none"> - Offered once per term with two mandatory in-person sessions, 2 weeks apart. - 14-day self-study phase between sessions - Blended learning: lectures, group work, case-based learning. - Assigned team roles: communication, time management. - Interactive tools: quizzes, role play, discussions. 	<p>The course was well received by the students, whose overall evaluations of it and of co-teaching improved during the term. Based on qualitative data, students considered the most important thing to be discussions with students from other fields.</p>
Tarr et al. 2013, UK [35]	To explore the development of child protection education and learning for trainee teachers, and reflect on authors' experiences, learning and student feedback.	Theoretical	<ul style="list-style-type: none"> - Integrated compulsory into all undergraduate and postgraduate teacher training programmes. - Delivered annually, each year group receives one 2-h session per year: 50-min interactive lecture + 1-h seminar. Includes case studies, role play, group discussions, quizzes. 	<p>Child protection education was developed for trainee teachers. An interprofessional team ensured that the key competencies for new teachers were included.</p> <p>Face-to-face lectures and seminars were used, and understanding about the roles and responsibilities of different professional groups was at the core of the education. Based on the experiences, the authors present improvement needs, such as more time for group discussion. A school of education expanded its knowledge base with nursing, social work, counselling psychology and law. The interdisciplinary faculty team worked with schoolteachers, special education experts and parents to ensure the relevancy and topicality of knowledge. A clinical practice model was developed in which students from different disciplines practiced together in a school specialising in children with disabilities.</p> <p>The central focus of the paper is the college-community partnership in which the private school served as a learning platform for college students, and the college provided educational benefits for school staff.</p>
Tourse et al., 2008, USA [28]	To describe the process of expanding the knowledge base and clinical practice for students in professional preparation programmes in social work, nursing and education.	Theoretical	<ul style="list-style-type: none"> - Offered annually on spring semester for five consecutive years. - Seminar-style course with interactive learning activities. - Faculty and community professionals coteach the course. - Key learning activities: <ul style="list-style-type: none"> - Reading and discussions. - Observing children in multidisciplinary settings. - Interviewing transdisciplinary staff - Visiting schools - Parent panels sharing lived experiences - Collaborative planning and reflection 	<p>Offered annually on spring semester for five consecutive years. Seminar-style course with interactive learning activities. Faculty and community professionals coteach the course. Key learning activities: Reading and discussions. Observing children in multidisciplinary settings. Interviewing transdisciplinary staff. Visiting schools. Parent panels sharing lived experiences. Collaborative planning and reflection.</p>

TABLE 1: Continued.

Author (s), year, country	Aim	Method	Characteristics and implementation	Main findings/content
Trepanier-Street, 2010, USA [36]	To describe the first 3 years of collaboration between a university's early childhood teacher education programme and a hospital's programme for families with children with special needs to prepare a new generation of teachers who excel in helping children with and without disabilities.	Theoretical	A 3-year collaboration. Activities ranged from one-time events to weekly playgroups and semester-long coursework. Year 1: Inclusive family event, assessment observations, inclusive lesson plans. Year 2: Art therapy workshop, shadowing of professionals, joint projects, shared facility acquired. Year 3: Shared facility opened, weekly playgroups, summer camp, colloquia, public events. Delivered via open and distance learning. - Modular format with thematic content; includes audio materials, case studies and research-based assignments - Duration not explicitly stated, but structured for flexible, part-time study typical of open university courses. Multilayered approach - Interprofessional group project: 8–10 h, profession research, interview, video presentation. - Social work course infusion: Joint assignments, ethics comparison, agency visits. - IPE course: Flipped classroom, online modules, in-person simulations. - Teaming Symposium: 5 h event + 2 h prep, case-based care planning. - Simulation experience: 2 h prep + 2 h simulation, emergency scenario, hospital, family.	Both organisations recognised the need for preparing future professionals for transdisciplinary child-centred work and developed shared aims. Opportunities for student teachers were created to work with disabled children, plan and implement suitable activities for them and observe the work of a transdisciplinary team. Planning and implementing this entity required considerable effort from the steering committee and staff from both organisations. Challenges were encountered particularly in relation to time/scheduling and funding.
Tucker, 2003, UK [26]	To present the development of multidisciplinary educational material and two courses focused on services for children and youth.	Theoretical		The paper focuses on the course content. At the core is ensuring students' client-centred values and attitudes towards children's needs and answering them in authentic interdisciplinary work.
VanKuiken et al., 2016, USA [37]	To highlight how a private university without an affiliated medical centre created a multifaceted interprofessional education programme that engages students from a variety of disciplines and experience levels.	Theoretical		The paper is written from the perspective of healthcare. The concern was ensuring students' interprofessional competency when there was a lack of common clinical settings for "real-world" experiences. Faculty members formed an interdisciplinary team and built a programme for the development of interprofessional learning. The programme aimed at increasing students' interprofessional knowledge, skills and attitudes with interdisciplinary group work, a teaming symposium and simulations. Existing courses were exploited to bring students together.

TABLE 1: Continued.

Author (s), year, country	Aim	Method	Characteristics and implementation	Main findings/content
Wellmon et al., 2009, USA [40]	To examine how students from education, clinical psychology, physical therapy and social work would describe the benefits of participating in an interdisciplinary learning experience.	Empirical: qualitative (focus group interviews with 16 students)	A three-part structured learning experience at university: - Didactic session: 45 min faculty-led discussion on roles, values, collaboration, conflict resolution, leadership - Discipline-specific planning: Students prepare care plans and discussion points within own discipline. - Simulated team conference: Interdisciplinary planning for reintegrating a fictional student case. Annual single-day workshop: Expert talks, case scenarios, small and large group discussions. - Collaboration modelling: Practitioners demonstrate interprofessional teamwork. - Core themes: Collaboration, mutual respect, role awareness. - Methods: Problem-based learning, informal networking.	The experience increased students': - understanding of the professional roles of other disciplines - awareness of professional role overlap - appreciation for the importance of collaboration - understanding that conflict can arise within interdisciplinary teams - Realising the importance of leadership - Confidence in their abilities to collaborate.
Whiteley et al., 2014, Canada [46]	To identify student perceptions of a workshop in child welfare education and to determine what students felt they had learnt about interprofessional practice during the workshop.	Empirical: mixed methods (survey with quantitative and open questions in two consecutive years, 100 + 98 students)	Graduate course sequence: 9-month hybrid model over two academic years. - In-person sessions: Led by faculty and visiting experts. - Online modules: Codeveloped with experts, freely available also to external professionals.	Students considered interprofessional studies and workshops beneficial for their learning. They reported that the most important things they learnt were teamwork skills and roles and responsibilities. The involvement of practitioners in the development of scenarios promoted their realism.
Woodside-Jiron et al., 2019, USA [47]	To explore the outcomes of an interprofessional graduate course, which aimed to build capacity among community providers to improve the well-being of children and families.	Empirical: mixed methods (survey with quantitative and open questions, 40 students)		Professional self-efficacy and expectations regarding job outcomes improved significantly. Respondents' interprofessional and service system knowledge improved.

TABLE 2: Description of data.

	<i>n</i>
<i>Period</i>	
2000–2004	4
2005–2009	4
2010–2014	4
2015–2019	7
2020–2023	6
Total	25
<i>Country</i>	
USA	13
Canada	3
Norway	3
UK	3
Finland	1
Germany	1
Uruguay	1
Total	25
<i>Methodology</i>	
Theoretical	10
Mixed methods	9
Qualitative	3
Quantitative	3
Total	25
<i>Perspective</i>	
Teachers, school system	10
Interprofessionalism in general	8
Health professionals, nursing	5
Social work	2
Total	25
<i>Contextual background</i>	
Children with special/complex needs	11
Well-being of children and families	5
Interdisciplinary skills in general	2
Mental health promotion	2
Well-being/human services	1
Child sexual abuse	1
Intimate partner violence	1
Paediatrics	1
Social work in general	1
Total	25
<i>Study interest in empirical papers (n = 15)</i>	
Student perceptions of interprofessional studies	10
Suitability of certain learning method for interprofessional studies	2
Faculty staff experiences of integrating interprofessionalism in curriculum	1
Barriers and promotion of university–working life collaboration	1
Interprofessional collaboration among social, health and education disciplines	1
<i>Study interest in theoretical articles (n = 10)</i>	
Development of interprofessional education in university	7
University–working life collaboration for interprofessional education	3
Total	25

($n = 16$; 64%), Europe ($n = 8$; 32%) and South America ($n = 1$; 4%). They were written from the perspective of teachers and school system ($n = 10$), health professionals ($n = 5$), social workers ($n = 2$) and interprofessional work in general ($n = 8$). The contextual focus was mainly on children with special/complex needs ($n = 11$) and the well-being of children and families ($n = 5$). Most of the empirical papers ($n = 10$) explored students' perceptions of interprofessional studies.

These perceptions included, for example, the view that interprofessional studies enhanced students' preparedness for working life by increasing their confidence. Theoretical papers focused on describing university work ($n = 7$), such as faculties codeveloping and coteaching interprofessional courses, as well as on collaboration with working life ($n = 3$) to support the development of interprofessional education (Tables 1 and 2).

3.2. *Educational Collaboration Among Health Sciences, Social Sciences and Teacher Training.* Educational collaboration among health sciences, social sciences and teacher training emerged in two spheres. These were collaboration among faculties for interdisciplinary education and collaboration among higher education and community organisations for interdisciplinary education.

3.2.1. *Collaboration Among Faculties for Interdisciplinary Education*

3.2.1.1. *The Need for Faculty Collaboration.* Faculties recognised the role of interdisciplinary work and education in breaking down barriers between different services in working life [26] and the need to reform traditional, discipline-specific teaching and learning towards interdisciplinary models [27]. Information and skills from other disciplines needed to be infused and students brought together to develop their interprofessional skills [26]. To enable this, collaboration between faculties was needed [28].

3.2.1.2. *Faculty Staff Collaboration.* Faculties developed interdisciplinary education in teams that consisted of faculty members from different disciplines [27–37], who also cotaught students [27, 30, 33–35, 38–40]. In developing education, seeking consensus and common goals was central [28, 31, 32]. Shared, understandable language was also needed [28, 29, 36, 41]. It was necessary for staff from different faculties and fields to become familiar with each other [28, 37], foster professional and respectful relationships and build trust [29]. Sometimes, deep-rooted diverging knowledge bases [42], cultures [36], views [27] and practices [27, 32] challenged interdisciplinary collaboration. Also, even though new approaches were introduced, they tended to be forgotten, and old ones returned [27, 30, 41]. Thus, staff members' interdisciplinary competency [28–30] was enhanced by coarranging interdisciplinary training [30, 37].

3.2.1.3. *Structural Basis for Educational Collaboration Among Faculties.* Several challenges in collaboration between faculties were identified as related to directive structures guiding higher education. Faculty collaboration was seen to require a regulatory basis which allows and guides interdisciplinary development of education. Currently, the specific regulations and degree requirements of different disciplines [27, 37] hamper the integration of interdisciplinary studies into curricula [26, 28, 29, 36, 42, 43] or course [37]. Thus, coordinating and harmonising different curricula and schedules to bring students from different disciplines together had been challenging [37, 39]. Interdisciplinary collaboration among faculties was also seen to require a change away from the rigid administrative structures that favoured fragmentation [27, 28, 32, 41], competition [26, 37], and slowness in decision-making [24] and posed challenges with liability issues [26, 27]. Interdisciplinary collaboration also required considerable financial and time resources [35–37, 43]. Resource challenges

were also related to physical distance and the dispersed locations of faculties [28, 37].

3.2.2. *Collaboration Among Higher Education and Working Life for Interdisciplinary Education*

3.2.2.1. *Working Life Collaboration for Educational Development.* Collaboration between higher education and working life was needed for the development of interdisciplinary education [26, 28, 32, 44–47]. Working life representatives, such as school staff [32], brought topical knowledge and practice perspective into the developmental work [28]. Educational codevelopment was focused at determining course requirements or entire courses [27, 28, 43, 48] or programmes [32], planning lectures [49] and facilitating educational initiatives [34]. Working life representatives' participation was also beneficial in the development of learning material and realistic case scenarios [45]. They also taught students together with university staff [27, 28, 38, 49] and brought their expertise to classrooms [36].

3.2.2.2. *Working Life as an Interprofessional Learning Environment.* Collaboration between higher education and working life was needed to enable students' interdisciplinary learning in real-life settings [27, 28, 32, 36, 37, 44]. Working life offered a valuable platform for students from different fields to work and learn with each other in authentic working environments [27, 32, 37, 44]. Collaborative efforts between higher education and working life were focused at enabling students' visits [28, 37] and internships [27, 32, 36, 44] for their familiarisation with interprofessional work. A working life platform enabled students to familiarise themselves with the work of professionals from different fields and their interprofessional teamwork [32, 36], as well as to have interprofessional discussions [37] and to work together [36] with them.

3.2.2.3. *Family Involvement for Interprofessional Learning.* Collaboration with working life facilitated student contact with children and their parents [27, 32, 33, 36, 44]. In working life contexts, students could observe and interact with special children, thus increasing their familiarity of and confidence with them [28, 35]. Working life platforms enabled facilities for students to plan and arrange services and events for children and families in an interprofessional setting. In one project, students planned and provided health and social services for children in their school to decrease waiting time between problem identification and treatment. School staff helped recognise such children and consulted students for proper solutions and care coordination [44]. Respectively, students studying in a healthcare environment planned and arranged social events and activities for children and their families [36]. Family involvement in students' interprofessional learning also occurred in classroom environments, as parents visited universities to share their life experiences [28, 34].

3.2.2.4. Requirements for Interdisciplinary Collaboration Between Higher Education and Working Life. In the analysed literature, certain requirements were emphasised for collaborative work between higher education and working life. Willingness and understanding of the importance of interprofessional work and education [44] and the engagement of both parties [27] in the partnership [41] were crucial. University and working life representatives needed a shared vision and common goals in collaboration [27, 36]. Open communication [28] and trust [44] between university and working life actors were needed. Sometimes, professionals in working life had difficulties establishing themselves as part of interdisciplinary teams [32]. Collaboration between higher education and working life required resources [28, 32, 44] and funding mechanisms [29, 34]. Harmonising operators' schedules set challenges [28, 36, 44], and flexibility to meet on and off university campus was called for [41]. Sometimes, professionals' time resources for instructing students in practice were scant [44].

3.3. Studies Common to Students in Health Sciences, Social Sciences and Teacher Training. The major part ($n = 21$; 84%, Table 3) of the analysed literature introduced a training session, a project, a course or a study programme common for students in health sciences, social sciences and teacher training. These studies were available to graduate ($n = 9$) or undergraduate ($n = 7$) students but also for both levels ($n = 2$). In two articles, the degree level was unclear. One set of sessions provided in-service training for professionals in working life. Most often ($n = 18$), interprofessionalism was covered within the topic of children and family services, while the rest covered the topic of interprofessional collaboration in general (Table 3). Studies were voluntary [50] or compulsory for all [42] or for part of the targeted disciplines [34, 35, 38, 43]. A few online courses were open to anyone interested [43, 47].

3.3.1. Learning Objectives. Interprofessional studies were aimed at enhancing students' interprofessional competencies in three interrelated core areas: collaboration attitudes, role familiarity and team and knowledge sharing. For collaboration attitudes, it was central that students understood the significance of collaboration [26, 37, 40] from different perspectives, such as those of service quality and the client [28, 46]. The collaborative attitudes [27, 37] pursued included collegial respect, trust, support [35, 40, 46] and empathy [33], openness to critical discussions in interprofessional teams [35], willingness to learn from others [28, 37, 39, 49] and engagement in a collaborative working approach [31]. Studies pursued strengthening students' confidence in collaboration [29, 40] and consultation [33] but also the ability to engage in critical self-reflection [26, 28].

Interprofessional studies were aimed at increasing students' familiarity with other professionals' roles. This included knowledge of their competencies and tasks [26, 27, 33, 35, 37, 39, 40, 46] as well as principles and standards that guide [34] and limits that impact their work [33, 39]. Role familiarity was connected with service system

awareness [28, 49]. Studies also aimed to improve students' understanding of other professionals' perspectives [28, 45, 46] and role overlap [40]. In their learning of others' roles, studies were also aimed at promoting students' understanding of their own contribution to interprofessional work [40, 46, 48] and their own professional boundaries [40] and perceptions [26, 28, 48].

Team skills and knowledge sharing were the core learning objectives. Team skills [27, 29, 37, 46, 47] covered the ability to distribute tasks [27], developing a shared vision [28] and engaging with common goals [46]. Knowledge-sharing competencies referred to effective communication [36, 40, 42, 45, 48] and the use of common language [27, 28, 35, 39]. It also included the ability to provide and receive information and perceptions [34, 45] and a readiness to learn from professionals outside one's own discipline [37, 39, 47]. Understanding and controlling conflict were related to these skills [20, 40].

3.3.2. Learning Methods and Instructor's Role. Different learning methods have been used in interprofessional studies (Table 3). Students experienced interaction [28, 35] and sharing views with students from other disciplines as particularly fruitful for their learning [34, 39, 46–50]. They also enjoyed case-based group assignments [45, 46] and role-play exercises in these groups [35]. Online learning was exploited [36] and experienced as suitable for interprofessional learning [38, 48] although insufficient information technology capabilities among students created challenges [48]. The instructor's role in interprofessional studies was brought up as a facilitator of an interprofessional student group [31, 34, 50], a student group in its own faculty [34] and individual students [48]. Instructors also acted as case and quality managers, intervened and encouraged group discussions [48] and assessed how they worked [49]. Facilitators also worked as an interdisciplinary group [39] modelling interprofessional working practices for students [35].

3.3.3. Course Evaluations and Outcomes. Eleven articles reported course evaluations having been conducted (Table 3). Evaluation was focused on learning about interprofessional [30, 34, 39, 40, 46, 47, 49] and family [33] collaboration, learning about course topics [42, 50] or the suitability of learning methods [31, 46, 49]. Both quantitative and qualitative methods were used. Comparative testing before and after training was introduced in five articles (Table 3). In one study [48], students' experiences were assessed based on their course assignments. All in all, students experienced interprofessional studies as needed for working life preparedness [30, 31, 33, 34, 39, 40, 46, 48–50] and reported they should be offered in future [39] and to other students too [27, 46]. Evaluations showed students' interprofessional attitudes [31, 40] and competency [30, 32, 33, 39, 40, 42, 45–47, 50] and confidence in their own professional role [30, 31, 40, 47] as having improved. Studies also promoted students' competencies to work with clients and their families [33, 34], as well as their enthusiasm for learning [30].

TABLE 3: Studies common to students in health sciences, social sciences and teacher education.

Topic	Extent/type of education	Target group (s)	Teaching/learning method (s)	Competence evaluation	Reference
Children as next of kin	Course	Undergraduate health, social care and education students	Hybrid case-based learning in small groups	A pre and post self-evaluation questionnaire to examine the extent of learning of the topic	[42]
Interprofessional interaction with children and youth	Course	Undergraduate students in health, social care and teacher education programmes	Blended learning, 2-day seminar and a case-based group assignment	A post self-evaluation questionnaire to examine the extent of learning of the topic	[49]
Recognising child sexual abuse and supporting the child and family	3-h in-service training session	Professionals with a frontline responsibility for safeguarding children, such as social workers, police, teachers and youth workers and students in these fields	Training session with an opportunity for questions and discussions, and a range of learning materials and resources available to the participants	A pre and post self-evaluation questionnaire to evaluate the learning outcomes	[50]
Interdisciplinary school services	School-based services project	Graduate students from the fields of education, nursing and social work	Students worked in interprofessional teams in a school environment. With supervision of faculty, they determined the need for health and social services of pupils and provided these services	Not reported	[44]
Disability and interdisciplinarity	Course	Undergraduate students of medicine, physical education, physiotherapy, psychology, social work, education, anthropology, biochemistry, law, notary, sign language and veterinary medicine	Problem-based learning	Postmeasurement with the <i>Student Course Experience Questionnaire</i> .	[30]
Advancing healthy and socially just schools and communities	Four-course programme	Graduate students who will work with youth in schools and communities, such as social work, education and nursing.	One week of on-campus, in-person classes followed by several weeks of online learning in one course. Other courses delivered online	Pre- and postmeasurement questionnaire to test attitudes, beliefs, knowledge, skills and confidence on competency	[31]
Recognising and supporting at-risk children in schools	Course	Graduate students (professionals): school counsellors, social workers, school psychologists and nurses	Case management in which students together provided counselling, consultation and home visits for at-risk children and classroom interventions in schools	Not reported	[32]
Interprofessional collaboration for children with special needs	Two separate courses	Graduate students of social work, psychology and special education (+ another course open for anyone interested)	The other course was an online self-study course. It was an online course in which students completed a multidisciplinary assignment together and reflected on their roles	Not reported	[43]

TABLE 3: Continued.

Topic	Extent/type of education	Target group (s)	Teaching/learning method (s)	Competence evaluation	Reference
Interprofessional collaboration with families with exceptional children	Course	Graduate students (professionals) of special education, deaf education, social work, psychology and counselling	Partnership project with parents, reflection papers and a multidisciplinary group assignment Online studies including asynchronous discussion, scenario-based small group work, reflective journal, interactive role-plays and summary paper	Pre and post self-evaluation questionnaire to explore self-efficacy	[33]
Interdisciplinary practice with children and families	Course	Students from various disciplines	Students studied each other's fields and completed specific interprofessional coursework and fieldwork	Not tested, but the course experience was analysed based on students' coursework	[48]
Interprofessional collaboration with families	Study programme	Graduate students (professionals) of general and special education, school psychology and social work	Coursework, seminar and field experience. Individual practicum plan and portfolio. Functioning as a service coordinator	In future, knowledge assessment will be conducted before, during and after the study programme to evaluate mutual understanding of course content	[27]
Interdisciplinary work for children with disabilities	Study programme	Students who will work with children with disabilities, such as those in social work and psychology	Face-to-face meetings, interprofessional online group work: solving a clinical case study and preparing a poster presentation, a poster walk and reflections	A postsurvey exploring the course experience	[27]
Interprofessional collaboration in child protection and family services in paediatrics	Course	Undergraduate students of medicine, psychology, social work, clinical education and educational science	Lectures, seminar discussions of case studies and scenarios, role plays, group work, quizzes.	Postevaluations with the <i>Readiness for Interprofessional Learning Scale</i> and <i>Interprofessional Self-assessment Instrument</i>	[39]
Safeguarding children and child protection	2 h training session	Undergraduate and graduate trainee teachers	Interactive seminar with learning activities, a panel of parents. Field visits; child observation and interviewing professionals working with that child	Not reported	[35]
Transdisciplinary collaboration for children with learning and behaviour problems	Course	Graduate students and selected undergraduate seniors in social work, nursing and education	Events for children and families planned by students, shadowing and observing professionals, attending a real-life multidisciplinary clinic. Expert visits in university	Not reported	[28]
Interprofessional collaboration with children and families	3-year study programme	Graduate students in teacher education		Not reported	[36]

TABLE 3: Continued.

Topic	Extent/type of education	Target group (s)	Teaching/learning method (s)	Competence evaluation	Reference
Interprofessional collaboration with children and youth	Two open university courses.	Undergraduate students in social care, health and education sectors	Students were encouraged to write reflections. The paper focuses on study content, and specific learning methods were not reported.	Not reported	[26]
Interprofessional collaboration in general	Study programme	Graduate and undergraduate students of athletic training, clinical mental health counselling, health services administration, nursing, occupational therapy, psychology, radiologic technology, social work and special education	Interprofessional group project, problem-based learning, simulation labs, scenarios, case studies, designing interventions, flipped classrooms. In future, consulting projects, on-campus clinic and interdisciplinary field placements	Not reported	[37]
Interprofessional collaboration in general	Three-part training session (learning experience)	Graduate students from clinical psychology, education, social work and physical therapy	An introductory session, discipline-specific group works, and a simulated team conference	A postqualitative inquiry on the benefits of training	[40]
Interprofessional work in child welfare	A training (workshop) session	Undergraduate students of nursing, social worker and education	Small group workshop with problem-based learning and scenarios	A questionnaire to evaluate the effectiveness of learning methods	[46]
Trauma-informed practice in child welfare, mental health and schools	Course	Graduate students working with children and families impacted by trauma	In-person class meetings taught by university faculty and visiting content experts. Online module free-of-charge to professionals	A pre- and postquestionnaire focused on substance knowledge, self-efficacy and interprofessional collaboration	[47]

3.3.4. Challenges in Relation to Interprofessional Studies. Challenges were encountered in relation to the studies. These were related to students' different competence levels so that study content and expectations reasonably answered them [28, 37, 38, 42]. In relation to course arrangements, unbalanced small group compositions [28, 38] and conflicts within them caused challenges, although they prepared students for conflict management in working life at the same time [40]. For an interprofessional study environment, auditorium-type seating was considered unsuitable [35, 37].

4. Discussion

Our findings showed that higher education in the fields of health sciences, social sciences and teacher training, namely, those preparing professionals for children's services, collaborated in two spheres to promote students' interprofessional competency. First, collaboration among faculties was needed to plan and realise interprofessional studies in universities. Second, collaboration extending into working life was central; students could become familiar with interprofessional work in real-life settings and client and family contact, to ensure the working life relevancy of education. The studies common to students in health sciences, social sciences and teacher training were focused on collaboration attitudes, role familiarity and team and knowledge sharing, thus corresponding to those considered central for professionals working with children [1, 2, 4] as well as clients of any age [12, 15]. A variety of learning methods was used, and course evaluations showed that students considered interprofessional studies important and meaningful, with their competencies having been enhanced as desired.

Scrutinising different spheres of collaboration for interprofessional education, we perceive two types of challenges: university structure and resource scarcity. While collaboration between faculties was generally seen as crucial for the development of interdisciplinary education, the analysed papers discussed several structural challenges maintaining silos in university education. These were related to differing regulatory bases and degree requirements among different fields of science, but traditions also seemed to complicate interdisciplinary work. These universities structural barriers often stem from deeply embedded institutional norms and disciplinary identities, which can create resistance to change and hinder the integration of interprofessional approaches. For example, rigid curricula and accreditation requirements may limit flexibility in course design, making it difficult to implement joint modules or shared learning experiences. Furthermore, the lack of shared pedagogical frameworks and assessment criteria across disciplines can complicate collaboration and reduce perceived legitimacy among faculty [51].

Resource scarcity caused significant challenges particularly for the collaboration between higher education and working life. Our research suggests that planning and implementing interprofessional education requires time, flexibility and the ability to manage uncertainty. Aligning goals and schedules across disciplines involves negotiation

and collaboration, which are often hindered by institutional and cultural barriers. Facilitating interprofessional learning also demands specific skills from educators—beyond single-discipline teaching—including managing diverse group dynamics and fostering shared understanding [52]. Coteaching, i.e., two or more teachers from different disciplines teaching together—while also a matter of resource allocation—has been recognised as an effective approach to fostering interprofessional collaboration. Coteaching, particularly when instructors represent different disciplines, enhances student learning by integrating diverse areas of expertise and perspectives, which promotes deeper understanding and critical thinking. Students benefit from exposure to varied teaching styles and viewpoints, resulting in greater engagement, improved social skills and a more cohesive classroom community. Moreover, observing constructive dialogue between instructors from different fields empowers students to articulate their own ideas more confidently and effectively [53].

The root causes of resource scarcity include limited funding for interdisciplinary initiatives, competing priorities within institutions and insufficient administrative support. These constraints often lead to fragmented efforts and reliance on individuals who take on all the burden of promoting interdisciplinarity rather than systemic solutions. Moreover, time constraints—both in terms of faculty workload and scheduling across departments—further exacerbate the difficulty of sustaining collaboration. Despite these challenges, potential solutions can be identified. Higher education institutions could establish dedicated funding streams and support structures for interprofessional education, such as coordination units or shared teaching platforms. Leadership commitment is also essential: When university management prioritises interprofessional collaboration and aligns it with strategic goals, overcoming structural and resource-related barriers becomes more feasible.

While the challenges were obvious, our data covered very little the promotion of faculty collaboration. Faculty and department leadership was one of the areas sparsely presented. Universities are generally expected to be interdisciplinary, but they have the autonomy to decide how to achieve this. If interdisciplinarity is perceived as important in faculties and encouraged by management, this will encourage faculty staff to engage in interdisciplinary collaboration for education. However, it is also known that the extent to which people are motivated to engage in interdisciplinary activities depends on their perception of its benefits for student learning and their own work and social contexts. The success of interdisciplinary education is also linked to management's ability to use tangible and intangible resources to improve perceived benefits and synergies [54]. Thus, we argue that the heads of faculties play central roles in advocating and enabling interdisciplinary collaboration and education. However, other elements connecting education structures are needed. Interdisciplinary teaching is carried out at several levels, such as the department, faculty, university and groups of higher education institutions. Thus, the development of interdisciplinary activities also requires

shared interests and collaboration between faculty deans and leaders of different higher education institutions, for example, when applying for funding [55]. Nevertheless, even large-scale collaboration often begins with bilateral discussions and building mutual trust. Interdisciplinary collaboration develops at its best where teachers have genuine enthusiasm and opportunities to work together. Therefore, it is important for management to facilitate everyday encounters between faculty staff in different fields to enable them to get to know each other.

Based on our findings, better implementation of interdisciplinary collaboration in undergraduate studies requires the reform of disciplinary-based thinking and ways of organising work (see [56]). Consideration must be given to how organisational structures and management practices can be optimised to reduce barriers to interdisciplinary collaboration [57, 58] such as hierarchy, lack of communication and departmental siloing [59]. Rather than approaching child and family well-being through the lenses of individual disciplines within separate faculties, a bold structural solution could involve reorganising university faculties and departments thematically, with a collective focus on advancing child and family well-being as a shared objective. In addition, the practice of dual or even triple posts, where a university employee works simultaneously for both the university and an external organisation, such as a school, a child protection unit or a family centre, could be applied more widely to different disciplines. This would also make it easier to organise the supervision of interdisciplinary work placements in collaboration with faculty staff from different disciplines. These kinds of joint structures across faculty boundaries can provide ideas and solutions for collaboration between faculties and working life. They can play their part in ensuring high-quality, interprofessional and integrated services for children, adolescents and families. For example, social and healthcare units linked to universities could serve as interdisciplinary training centres if they were also linked to teaching and education units (e.g., hospital school or early childhood education) and supervised by faculty staff and professionals from different disciplines. Another example of such a common unit where interdisciplinary training could be provided is the interprofessional family centre, which plays a unique role as a link between the community and public services [60].

4.1. Limitations. Although, as we see it, our study adds value to the field of interdisciplinary education research, it has several limitations. The broad, complex and relatively unexplored nature of interprofessional collaboration between health sciences, social sciences and teacher education posed significant challenges in designing comprehensive search strategies. Capturing all relevant aspects of such a multifaceted phenomenon is difficult, and some important studies may have been missed. Although electronic database searches are considered an effective method for identifying relevant literature, they may retrieve only approximately half of all eligible studies due to inconsistencies in search terminology and limitations in indexing systems [61]. This was

evidenced in this study by the fact that relevant papers were identified outside of the systematic searches. Additionally, conceptual and terminological differences between educational fields and across countries may have limited the inclusiveness of the search results. The sample was also geographically restricted, which may affect the generalisability of the findings. Furthermore, although the study was conducted with great care and precision, methodological limitations—such as potential biases in data collection and analysis—may influence the validity of the results. Future research should address these limitations by employing broader and more refined search strategies and using more diverse samples.

5. Conclusions and Implications

To ensure the quality of health and social care services and education and to support students' transition to working life, interprofessional collaboration should be promoted at the undergraduate level. This review provides a knowledge base for the development of interprofessional education for future professionals in children's services—students in health sciences, social sciences and teacher education. It is evident that structural and resource-related barriers often hinder collaboration in higher education settings.

Based on our findings, we recommend several actions to improve interprofessional collaboration in both education and practice. Universities should design collaborative educational programmes that bring together students from different disciplines to engage with real-world challenges, thereby fostering mutual understanding and teamwork. Faculty members should be supported and incentivised to participate in interdisciplinary teaching and research. The creation of interdisciplinary units and dual appointments can further enhance collaboration across academic and professional boundaries. In addition, future research should examine the long-term impact of interdisciplinary education on student outcomes and professional practice, assess the effectiveness of various collaboration models, and explore how digital tools can enhance interprofessional learning. It should also focus on identifying ways to overcome persistent structural and resource-related barriers to strengthen interprofessional support for the well-being of children, youth and families.

Conflicts of Interest

The authors declare no conflicts of interests.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section.

Supporting Information 1. Supporting File 1: Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist.

Supporting Information 2. Supporting File 2: Search words and fields with results.

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