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What matters in low-threshold collaboration? Perceptions of interprofessional collaboration between education and social and healthcare professionals in Finnish primary schools

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ABSTRACT

This study examined the factors linked to low-threshold interprofessional collaboration in the context of Finnish primary schools. The main purpose of the study was to analyze how education and health and social care professionals perceived their mutual collaboration. The PINCOM-Q scale was used to identify factors related to interprofessional collaboration in professionals' work settings. The results indicate that individual factors such as work motivation and personal power are prominent in low-threshold collaboration. At the group level, communication has an important role to play in interprofessional collaboration. Professionals ($n = 204$) perceived mutual exchange of information as an important aspect of working together. The aspects that matter in the low-threshold mode of interprofessional collaboration are a complex combination of individual, group and less obvious organizational factors, all of which both reflect and are reflected in an individual's motivation and commitment to cooperation. The establishment of long-term and systematic low-threshold, interprofessional collaboration presupposes that individual interests are realized in good interaction in equal encounters between different organizational domains.

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Collaboration mode; interprofessional collaboration; PINCOM-Q; primary school

Introduction

There is a growing emphasis on networking by social actors and interprofessional collaboration in services for children and families (Hood, 2014; Hood et al., 2016). In Finland in particular, the reform of the social welfare and health care system (from 1 January 2023) will increase the need for welfare regions and municipalities to take joint responsibility for children's well-being and health by organizing services for children through multidisciplinary cooperation (cf. Kanste et al., 2016; Zitting et al., 2018). This networking is crucial, especially when it comes to identifying risk factors and challenges to children's growth and development at an early stage. Collaboration also plays an important role in supporting children's well-being (Hood et al., 2016; Ogbonnaya & Keeney, 2018; Perälä et al., 2015) and everyday life.

The aim of the collaboration is not only to improve services for children, but also to increase the positive outcomes and effectiveness of services (Hood, 2014; Hood et al., 2016; Kanste et al., 2016). Professionals who routinely partner with professionals from other domains will be more familiar with services and resources appropriate for children and help families to navigate the service delivery system, which is often uncoordinated (cf. McClain et al., 2022). The literature also shows strong evidence that interprofessional support positively influences academic and non-academic outcomes of students considered not only most at risk but all children (Bates et al., 2019; Phoenix et al., 2021).

Although collaboration is considered beneficial and motivating and is often successful (Ogbonnaya & Keeney, 2018), studies have revealed challenges and conflicts in practice in children's services between social and healthcare professionals and school personnel (e.g., Bronstein et al., 2012; Hietanen-Peltola et al., 2018; Hood, 2014; Horwath & Morrison, 2007; Mäntylä et al., 2021). The issues addressed in these services are often complex and require close collaboration between professionals from different disciplines. However, the number and availability of different professionals and expertise can vary widely (Bronstein et al., 2012; Hood, 2014), and some of the actors needed for collaboration are excluded (see Hietanen-Peltola et al., 2018; Hynek et al., 2020).

This complexity may burden and frustrate both professionals and clients, and thus undermine trust in the possibilities of collaboration (Bronstein et al., 2012; Hood, 2014; Kanste et al., 2016). Collaborative meetings may also be ad hoc and focus on individual cases, preventing the team-building processes required for collaboration to emerge. This makes it more difficult to build a common understanding (see Hood, 2014). Conflicts may even arise between experts about interventions (Mäntylä et al., 2021), which may further reduce the motivation to collaborate with different actors.

The challenges and conflicts that arise in collaboration are often explained by the complexity and unpredictability of the situations that arise in collaboration (Hood, 2014), and thus there may have been less reflection on professionals' own

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performance in collaboration. The problems have also been widely described in the literature on multi-professionalism (see also Borg & Drange, 2019; Bronstein et al., 2012; Dale et al., 2021), but are more pronounced in the current context with changes in the world of work. Increased busyness, disconnected interventions and deliverables can obscure a holistic understanding of, for example, the situation of the child and the interventions required to address it. However, the most important point is that there is a common understanding of why interprofessional collaboration is crucial in relation to preventive work.

Aim of the study

In this article we examine how education and social and health care professionals view low-thres-hold interprofessional collaboration in the context of Finnish primary schools. We aim to identify the various dimensions of collaboration and the elements of collaboration that practitioners prioritize when working together by using a self-report questionnaire (PINCOM-Q). PINCOM-Q was designed to examine professionals' perceptions of interprofessional collaboration. In this study, we aim to explore the PINCOM-Q factor structure for low-threshold collaboration in Finland.

Perspectives on the concept of interprofessional collaboration

Interprofessional collaboration is defined differently depending on the perspective. Xyrichis and Ream (2008) view collaboration as a dynamic activity with common goals and shared decision-making. Lackie and Tomblin Murphy (2020) emphasize customer and cross-sectoral perspectives and perceive interprofessional collaboration as a way of working together to deliver a comprehensive, high-quality service together with the client and/or patient, family or other service providers. Rose (2011), for her part, stresses mutual respect and power sharing in this interprofessional activity.

Ødegård (2005), in turn, examines interprofessional collaboration as a phenomenon. According to Ødegård (2005), interdisciplinarity manifests at three different levels: organizational, group and individual levels. An individual employee can represent all these levels. The organizational level provides the foundation for collaboration practices, where the attitudes and commitment toward collaboration are determined across different domains (Ødegård, 2005, 2006; Strype et al., 2014).

At the group level, the key determinant is the atmosphere of collaboration, which consists of communication, the ability of group members to cooperate and mutual support (Ødegård, 2006; Strype et al., 2014). Leadership also plays an important role in promoting collaboration between different professions (Reeves et al., 2010). At the individual level, interdisciplinarity is in turn determined by work motivation and professional power. It is important how rewarding a professional perceives collaboration to be in terms of their own personal goals, and whether or not they have influence when working together (Lackie & Tomblin Murphy, 2020; Ødegård, 2006). According to Kanste et al. (2016), well-agreed collaboration practices and well-functioning cooperation between different municipalities and other actors seem to increase employees' influence over their own work and are related to good social support from managers.

Reeves (2012) and Reeves et al. (2018) characterize interprofessional collaboration as modes of cooperation. Cooperation modes illustrate the way work units and institutions organize their work, and how collaborative partners interact with each other. As modes of cooperation, Reeves et al. (2018) distinguish between 1) teamwork, 2) collaboration, 3) coordination and 4) network, and represent them as a circular pattern from the most centralized form of collaboration toward the looser forms of collaboration. The transition from one level of cooperation to another, from teamwork to networking, depends on how responsibilities are shared, the degree of interdependence between actors, and also to what extent tasks are coordinated.

According to Reeves et al. (2018), there is no direct comparison of the superiority of the different forms of cooperation, but their effectiveness depends on the local context and the needs of the client or patient. For simple client problems, there is less interdependence, and the client or patient moves from one service to another according to a plan, in which case ad hoc collaborative meetings are sufficient. In complex problem-solving processes, however, professionals become more dependent on each other's input, requiring closer collaboration (D'amour & Oandasan, 2005; Goldman et al., 2018; Rudenstam & Holmberg, 2014).

Collaborative partnership can also be understood as a continuum, with communication (informal) and integration (formal) at opposite ends (Horwath & Morrison, 2007, p. 56). Communication in low-level collaboration may easily happen on a case-by-case basis locally and informally only when necessary, and thus obviously discourages the establishment of long-term and systematic cooperation which facilitates interaction between practitioners. Regularity is thus an important element of interprofessional collaboration. Rose (2011) suggests that interprofessional collaboration requires meeting regularly in order to solve problems or to provide services to improve a client's situation.

Pfeiffer et al. (2019) argue that there are quality gaps in the implementation of collaboration. Quality variations arise from different causes: the degree of coordination, the goal orientation in the work together, and the degree of shared participation and work at different stages of the collaborative process (see Pfeiffer et al., 2019). The quality of multidisciplinary work is thus presumably linked to the degree of organization of collaboration (Mönkkönen et al., 2020). These differences in quality can be described by the concepts of 1) "*parallel work*," 2) "*consultation*" and 3) "*shared work*" (cf. King-Sears et al., 2015; Mönkkönen et al., 2020; Pfeiffer et al., 2019).

The first illustrates how professionals accomplish their tasks in sequence, with little overlap between their work areas. The client deals with different professionals individually and is expected to have an overview of their own situation and the services they need. The more advanced form of collaboration involves the exchange of expertise and working in a team to discuss the client's case together and negotiate appropriate actions. However, this collaboration does not go deeper into

the area of expertise sharing but is carried out within the client's own domains. Effective interprofessional collaboration embodies the idea of shared work, whereby the expertise of all professionals is extended and merged into a single entity. It implies professionals working together from a joint situation assessment and identification of client needs, throughout the design of common objectives and interventions to the evaluation of their effectiveness. From the client's point of view, collaboration is then coherent, and the service is smooth (Mönkkönen et al., 2020.). At the same time, the effectiveness of collaboration is likely to improve.

Even at an early stage, cooperation promotes networking with other professionals and learning about each other's work and areas of expertise. This further facilitates and promotes future cooperation and opens up avenues for collaboration (cf. Hujala & Taskinen, 2020). In this circle, expertise evolves, establishes its practices and is transformed in relation to other expertise (Edwards, 2011), allowing collaboration to be conceptualized as a processual practice that involves sharing resources, responsibilities and expertise (Pärnä, 2012).

It should be noted that there is always a moral dimension in interprofessional collaboration, which has consequences for all collaborators, service providers and service users (Engel & Prentice, 2013). The moral dimension is associated with partnership and the common purpose of cooperation (Rose, 2011). The common goal is addressed through mutual partnership and complementary, shared work and tasks (also Mönkkönen et al., 2020). Cooperation is supported by mutual respect and a symmetrical power structure between actors. Without clear, shared objectives, roles and responsibilities, and mutual dependency, practical cooperation may not progress. Without mutual respect, meaningful interaction and shared understanding, favorable solutions may not be found, collaboration may end and clients may be left without a coordinated service (Lackie & Tomblin Murphy, 2020; Rose, 2011).

In this article, we approach interprofessional collaboration as a phenomenon involving multiple different dimensions. We use the concept of interprofessional collaboration (Lackie & Tomblin Murphy, 2020; ref.; Xyrichis & Ream, 2008) and consider it as a form of work where professionals from different administrative fields communicate and share knowledge with mutual respect and meaningful interaction to form new knowledge and common understanding of the situation at hand (Lackie & Tomblin Murphy, 2020; Rose, 2011). By low-threshold collaboration, we refer to non-statutory coordinated, but tiered form of collaboration between professionals, which is client-centered and provides an easily accessible service without bureaucratic barriers and a gateway to formal services (see Bulling, 2017). This kind of low-threshold cooperation creates the conditions for equitable support for all children (Phoenix et al., 2021).

The importance of interprofessional collaboration between professionals from different fields in schools

While the value of interprofessional collaboration is well-recognized in fields such as health care, there has been limited attention to assessing or supporting it in education (Gherardi et al., 2022). Interprofessional collaboration is not just a statutory form of work but has a broader purpose in schools. It is important at the societal and individual levels. At the societal level, collaboration helps to promote the efficient use of resources and avoid duplication of services and service processes (Bruner, 1991). According to Vehviläinen (2015), the school is a meeting place where actors from different professions come together – also in an informal mode. As a structure, the school thus provides an opportunity for social support networks to reach children and families quickly when they need help (Koskela, 2009), as it brings together expertise from different fields. At the individual level, collaboration is relevant for the health and well-being of the child. School can then be seen as a place where interprofessional collaboration as a low-threshold tool can promote the well-being of all children and prevent problems in a human and cost-effective way (Bronstein et al., 2012; Hynek et al., 2020; Vehviläinen, 2015).

Interprofessional collaboration also plays an important role when talking about children's right to equal support (Toros et al., 2021). The Convention on the Rights of the Child obliges public actors, i.e., municipalities, to act to develop the well-being of all children (Chung & Bemak, 2012). In Finland, the Child Welfare Act (L 417/2007) includes an obligation to influence the growing conditions and the provision of services for children. One of its key objectives is to support education in order to prevent problems (Aula & Sauli, 2011). The Pupil and Student Welfare Act (L 1287/2013), which entered into force in 2014 in Finland, also emphasizes the promotion of the health, well-being and inclusion of pupils, the provision of early support to those in need and the prevention of problems. It also specifies the management and implementation of student welfare as a functional entity and as multidisciplinary cooperation. Article 4 of the Pupil and Student Welfare Act requires all authorities and employees working with all pupils at school and those responsible for pupil welfare services to promote the well-being of all pupils and the school community and cooperation between home and school.

However, interprofessional collaboration is still easily associated with situations where the target of the work is critical co-clients, i.e., people who need and use many services (Suhola, 2017). It can be seen as the "last hope" for students with problems (Ahtola, 2012). However, for example, a large proportion of guardians and pupils see that they have nothing to do with pupil support and the whole concept of pupil support does not necessarily open up to them (Suhola, 2017). Student teams in schools meet at varying intervals, depending on the location or school, so it can be almost impossible to carry out the tasks assigned to the team, and it is therefore not possible to support the well-being of the whole school community (Hietanen-Peltola et al., 2018).

A meta-analysis of the effectiveness of interprofessional collaboration in children's services shows that collaboration with a clear focus on a specific topic area (e.g., substance use) is more sophisticated and integrated, improving the quality of services and thereby supporting child well-being and increasing lasting, positive consequences (Ogbonnaya & Keeney, 2018). Research on interprofessional collaboration among social and health professionals, on the other hand, reveals the consequences of collaboration for the worker: collaboration

engages workers in their work and increases job satisfaction (Keiser, 2019). This can equally translate into an improvement in the quality of services, thereby contributing to a positive outcome for the client. For example, collaboration has been seen to lower the threshold between different services and to act as a mediator between professionals and parents (Hood et al., 2017).

Indeed, the role of schools in building and promoting the overall well-being of pupils has been greater than has been generally thought. As society changes and traditional socialization structures are weakened, the role of schools in maintaining social continuity and life management skills has increased (Huxtable & Blythe, 2002). A study on tiered collaboration between teachers and health professionals identified the benefits of collaboration as timely support (service), capacity building and student goal achievement (Phoenix et al., 2021).

However, it should be noted that structural integration does not in itself guarantee the effectiveness of cooperation at the practical level (Hujala & Taskinen, 2020). It requires the will to work toward a common goal, as well as more training and education in practical skills. However, formal structures do matter for interprofessional collaboration, reveals a study on the role of school nurses as part of interprofessional collaboration (Granrud et al., 2019). Formal structures act as a kind of guarantor of resources. They allow for easy access to staff, regular contact, communication and the opportunity for collaboration, which is also what professionals want from collaboration, according to research (Glover et al., 2015). Therefore, it has been important to bring support as close as possible to children's everyday life and to enable professionals from different fields to work together (cf. Vehviläinen, 2015) – especially in preventive, low-threshold forms.

Method

This cross-sectional survey on education and social and health care professionals´ views was carried out as a part of the mixed-methods research describing the dimensions and practices of interprofessional collaboration. The data was collected via internet (webropol survey) from professionals, who play a key role in identifying children´s needs and providing low-threshold support to the child in school. Participants were recruited by sending a questionnaire to more than 20 localities around Finland. Participation in the survey was voluntary and based on availability of respondents (convenience sample) and informed consent: professionals could at any point withdraw. The privacy of participants was in line with the GDPR (General Data Protection Regulation) and with national guidance on ethical principles in the human sciences from TENK (Finnish National Board on Research Integrity TENK, 2023). The survey was responded to anonymously, and any identifying information about a particular participant has been removed from the results. The researchers are also under professional secrecy. Prior to the survey, the professionals received an e-mail in which they were carefully informed about the research and the importance of responding and also information on how the data will be managed.

A total of 205 professionals from 16 professions participated in the study. More than half of the professionals (62%, n = 128) worked in the education sector, the remainder (38%, n = 77) in the social and health sector. The background organizations of the professionals vary because in Finland the same job title may have two different background organizations, for example, in the case of a school social worker, either education or social services. The percentage of respondents by job title presumably reflected a moderate similarity to the composition of a normal interprofessional network or team in everyday primary education. The largest groups of respondents were classroom teachers, school social workers and school nurses. Other job titles included special education teacher, head teacher, school assistant, other teacher (lecturer), social worker and social or family counselor in social services, psychologist, doctor or nurse in health organization, youth counselor and head of services. Table 1 shows detailed characteristics for the data sample (a condensed list of professions).

The participants (n = 205) completed a validated questionnaire PINCOM-Q, which asked for their perceptions on collaboration and also a questionnaire developed by authors, which asked for professionals´ assessments of cooperation practices and the quality of cooperation. The questionnaire also included questions on background information (age, gender, job title, role in multidisciplinary teams) and two open questions, one on the concept of preventive interprofessional collaboration and the other for free expression on the theme. The results based on the latter section will be published separately.

Instrument

The questionnaire used in the study was based on the Perception of Interprofessional **Collaboration - Questionnaire (PINCOM-Q)**. PINCOM-Q is a validated international measure of interprofessional collaboration developed by the Norwegian researcher Ødegård (2005, 2006). The scale has been used, for example, to investigate interprofessional collaboration in child mental health

Table 1. Participants' characteristics (a condensed list of professions).

		N	%
Gender	Female	173	87.4
	Male	25	12.6
	Not known	7	3.4
Age	20–29	23	11.2
	30–39	49	23.9
	40–49	54	26.3
	50–59	58	28.3
	60 <	21	10.2
Organisation	Education	128	62.4
	Social office	14	6.8
	Health office	17	8.3
	Social and health district	46	22.4
Profession	Teacher (class)	47	22.9
	Teacher (special education)	15	7.2
	Education assistant	12	5.8
	Head teacher	13	6.3
	Social worker (school)	29	14.1
	Social worker; social work (child and family services)	26	12.6
	Psychologist	16	7.8
	Nurse (school)	34	16.6
	Other professions (doctor, nurse, youth coach, head of services)	9	4.3
Total		205	100%

services, to study juvenile delinquency prevention and to evaluate the development of IP and shows high external validity (Hynek et al., 2020; Jørns-Presentati et al., 2021; Ødegård, 2006; Strype et al., 2014). The original scale consists of 48 statements measuring professionals' perceptions of collaboration at the individual, group and organizational levels, four items per each construct. The individual aspect consists of items representing motivation, role expectations, personal style and professional power. Group-level constructs include leadership, communication, coping and social support. Organizational aspect constructs include organizational culture, organizational goals, organizational scope and organizational environment (Jørns-Presentati et al., 2021; Ødegård, 2006). Professionals rate their perceptions on a 7-point Likert scale (1=strongly agree, 7=strongly disagree).

In a comparison of 11 measures of multidisciplinary collaboration. PINCOM-Q was found to be the most appropriate measure for the children's services framework (Jacob et al., 2017). The basic assumption of the instrument is that professionals are attuned to the aspects of cooperation that are of primary importance to them (Jacob et al., 2017; Ødegård, 2006).

Permission to use and apply the PINCOM-Q measure in this study was obtained from its developer. The process of cultural adaptation and translation into Finnish followed established practices (cf. Eskildsen et al., 2015; Hambleton et al., 2005; Puolamäki et al., 2022). The original English version of the scale was translated into Finnish independently by four people: two researchers and two English teachers from different school levels. From these translations, PINCOM-Q was independently translated back into English by a native English speaker who was a primary school teacher and a professional English translator. Issues that arose at different stages of the translation process were resolved by the researcher in consultation with both the translators and the steering group of this study.

Data analysis

Explorative factor analysis

The data was analyzed using explorative factor analysis (EFA) to identify the dimensions and the elements of collaboration that practitioners prioritize when working together at the individual, group and organizational levels. The EFA was adopted because the study aimed to identify factors explaining a low-threshold and informal form of collaboration in the Finnish primary education, not to assess factor structure of PINCOM-Q. By examining the pattern of answers it is possible to see what attributes people emphasize in relation to the issues being studied (de Vaus, 2013). IBM SPSS v27.0 was used to calculate descriptive statistics and carry out EFA. Principal axis factoring (FA) was conducted on all the 48 items with varimax rotation. The adequacy of sampling was verified (KMO = .888) and a significant Bartlett's test of sphericity X^2 ((1128) = 6340.518; $p < .0001$) indicated that the data was suitable for EFA. The initial examination of eigenvalues (>1) and the Cattel scree test indicated an eight-factor solution, explaining 57.1% of the variance. The scree plot was ambiguous and showed inflexions that would justify retaining only three or four factors (cf. Field, 2018.).

After examination of the rotated factor matrix, we ended up with a three-factor solution with 18 items. We confirmed the fitness of the model by using extraction ML (*Maximum likelihood estimation*) and used Cronbach's alpha coefficient > .60 (sufficiently high) as a cutoff for an acceptable level of reliability (Tabachnick & Fidell, 2014). Items with factor loadings < .50 were excluded from analysis. The sample adequacy (MSA = 0.881, meritorious) of 18 items was verified by the Kaiser-Meyer-Olkin-test, and all values for individual items were greater than 0.727, well above the acceptable limit of 0.5 (Field, 2018). The measurement of three factor model represented only moderate goodness of fit X^2 (*102, N = 204*) = 192.40, $p < .001$, normed chi-squared test statistics (X^2/df) = 1.90, CFI = 0.94, TLI = 0.94, and RMSEA = 0.07, (explained 59.4% of the variance). All indices were acceptable in values, except chi square, as it is sensitive to sample size (Nummenmaa, 2009; Tabachnick & Fidell, 2014). The model was deemed acceptable.

We calculated the reliability for each factor separately: factor 1, Cronbach's α = 0.92, factor 2, Cronbach's α = 0.86, factor 3, Cronbach's α = 0.83.

Results

The items that cluster on the same factor suggest that factor 1 represents *Individual motivators for collaboration*, factor 2 *Communication and cooperation skills* and factor 3 *Conflicts and individual style*. The items and factors are presented in Table 2.

Factor 1 explained 26.7% of the variance and was composed of eight items with loadings .64–.92. It was mainly composed of original subscales of work motivation and leadership. The item with the highest loading was "I find working in interprofessional groups valuable". Factor 2 explained 17.4% of the variance and the five items' loadings ranged from .64 to .78. The items of the factor were derived from the original subscales of communication and coping abilities, with the highest loading item "There is always good communication in interprofessional groups". Factor 3 with five items explained 15.1% of the variance and loadings ranged between .61–.91. Factor 3 was composed from the original subscales "personality style and personal power". The highest loading was "Occasionally interprofessional groups do not work because some professionals dominate the meetings". Table 3 shows the factor loadings after rotation.

The results indicate that individual aspects align with group aspects matter in interprofessional collaboration. Motivation, personal style and personal power appear to be key elements in low-threshold collaboration. Professionals view mutual communication and exchange of information were also relevant aspects of working together. Meaningful communication in collaboration is seen to be linked to a personal style of action. The establishment and maintenance of a positive atmosphere of collaboration presupposes equal encounters and trust between the actors. Organizational aspects are not equally obvious in low-threshold collaboration, although the goal-setting of an organization reflects its collaborative orientation to a large extent.

Table 2. PINCOM-Q items and factors.

Dimensions	PINCOM-Q Items			
Factor 1	**Individual motivators for collaboration**	**Mean**	**Mdn**	**SD**
Individ. level/Motivation (a)	I find working in interprofessional groups valuable	2.0	1.0	1.777
Individ. level/Motivation (c)	It is important to be personally engaged when (c) collaborating in interprofessional groups	2.3	2.0	1.682
Individ. level/Motivation (d)	I experience personal growth when I work in interprofessional groups (d)	2.6	2.0	1.631
Group level/Leadership (a)	I often experience that effective interprofessional groups have a clear and defined leader.	2.5	2.0	1.610
Group level/Leadership (b)	It is important that the group leader arrange the work in ways that help the group reach their goals	2.5	2.0	1.635
Group level/Leadership (d)	I trust that the group leader will ensure the interest of the group	2.7	2.0	1.512
Group level/Social support (c)	I find that I am appreciated by other professionals in the interprofessional groups I participate in	2.8	2.0	1.531
Org. Level/Org. Environment (a)	The needs of the clients are very important for how we work in interprofessional groups	2.5	2.0	1.656
Factor 2	**Communication and collaboration skills**			
Group level/Communication (c)	There is always good communication in interprofessional groups	3.4	3.0	1.455
Group level/Communication (d)	Professionals are good at exchanging information with each other about how they work	3.8	4.0	1.564
Group level/Communication (b)	In the interprofessional groups I participate in, exchange of information is never a problem	3.8	4.0	1.786
Group level/Coping abilities (b)	There are seldom collaboration problems in interprofessional groups	3.3	3.0	1.522
Group level/Coping abilities (a)	We almost always solve the defined problems in the interprofessional group	3.4	3.0	1.503
Factor 3	**Conflicts and individual style**			
Individ. level/Personal style (b)	If some professionals had greater insight into their behavior, collaboration would be easier	3.7	4.0	1.826
Individ. level/Personal power (a)	Some professionals dominate the interprofessional meetings with their professional viewpoints	3.5	3.0	1.700
Individ. level/Personal power (c)	Sometimes I am not able to present my perspectives because other high-status professionals talk all the time.	4.5	5.0	1.971
Individ. level/Personal power (d)	Occasionally interprofessional groups do not work because some professionals dominate the meetings	4.2	4.0	1.899
Org. level/Org. Environment (d)	It is often difficult to get interprofessional groups to work well because professionals represent so many different interests	3.9	4.0	1.674

Table 3. Exploratory factor analysis of three-factor model of PINCOM-Q.

Cronbach's alpha coefficient	.92	.86	.83	
Subscale/Item	Factor 1	Factor 2	Factor 3	Cronbach's alpha if item deleted
1 Motivation (a)	.94			.89
2 Motivation (c)	.88			.90
3 Motivation (d)	.72			.91
4 Social support (c)	.65			.91
5 Leadership (b)	.71			.91
6 Leadership (d)	.67			.91
7 Leadership (a)	.64			.91
8 Organisational environment (a)	.76			.90
9 Communication (c)		.78		.81
10 Communication (d)		.78		.82
11 Communication (b)		.66		.85
12 Coping abilities (b)		.71		.82
13 Coping abilities (a)		.64		.82
14 Personal style (b)			.60	.82
15 Personal power (d)			.91	.77
16 Personal power (c)			.80	.81
17 Personal power (a)			.66	.81
18 Organisational environment (d)			.61	.81

Discussion

In this study we examined how low-threshold interprofessional collaboration is perceived by education and social and healthcare professionals. Our purpose was also to identify the factors that were manifested in the informal mode of interprofessional collaboration in the context of Finnish primary schools when supporting children's everyday life and overall well-being.

The results indicate that interprofessional collaboration is still a complex phenomenon and not easy to assess (cf. Ødegård, 2005). It is suggested that factors found in this study (*1) Individual motivators for collaboration, 2) communication and cooperation skills, 3) conflicts and individual style*) represent relevant aspects of low-threshold collaboration between professionals in an informal context.

The first factor explained the largest amount of variation and was labelled 1) *Individual motivators for collaboration*. By individual motivators, we mean personal factors/causes that motivate professionals to work together in informal settings. The component consisted of aspects relevant from a personal perspective, such as mutual appreciation and opportunity for personal growth in cooperation. As professionals, it is essential to have a positive attitude toward cooperation and value working together so that cooperation is possible and progresses at all. Reciprocally, it is equally important to be appreciated and valued in a collaborative group in order to sustain the motivation to work together. The opportunity to complement and develop one's own expertise in cooperation also seems to be important and obviously influences willingness to work together. Surely, a professional who experiences a lack of both the possibility of personal growth and social support or

appreciation from other actors is not very likely to enter a collaboration or continue with it (Lackie & Tomblin Murphy, 2020; cf.; Rose, 2011).

Our data from a prior study (Farmakopoulou, 2010) thus suggests that professionals perceive the individual quality of interprofessional collaboration to be a central element of their collaborative practice in informal types of networking. Based on this and previous studies it can be argued that individual interests are prominent factors in a low-threshold and informal context of collaboration (cf. Farmakopoulou, 2010; Jørns-Presentati et al., 2021; Ødegård, 2006; Strype et al., 2014).

Coherent with prior studies (Lackie & Tomblin Murphy, 2020; Reeves et al., 2010), our data suggests that leadership also plays a vital role in interprofessional collaboration. A collaborative group needs a coordinator who can take responsibility for facilitating the process forward and for promoting cross-sectoral gatherings – and above, all, contributes to the availability of different professionals in collaboration. It is obvious that well-organized and well-led cooperation also enhances professionals' engagement to work together with other professionals and hence progress cooperation and helps a client access coordinated services. According to previous evidence, collaboration management has a positive impact on professional power. It brings accountability and opportunities for personal development (Kanste et al., 2016).

The second factor was 2) *communication and cooperative skills*, with the highest loadings of items that represented the exchange of information (about working methods, services) between professionals. Communication and exchange of information have impacts on collaboration processes and especially on building a common understanding, the crucial aspect of collaboration. Awareness of other services and agreed cooperation are positively related to a professional's collaboration skills (Kanste et al., 2016). Transparency and exchange of information are important factors in multi-professional teams, because they contribute to building trust between actors, which in turn helps to facilitate the collaboration process.

The third factor had the highest loadings for items representing the construct 3) *conflicts and individual style*, which was also reported in previous work (Jørns-Presentati et al., 2021; Strype et al., 2014). The highest loading items in this subscale were related to assessing the agency of other professionals. The assessments concerned personal interests that were in conflict with the interests or actions of other actors in collaboration groups. Clearly, a constructive style of working enables actors to achieve their common goals and facilitate the realization of everyone's personal interests. Individualistic aspects also play an important role in collaboration in this respect.

A strong individualistic dimension may be due to the way professionals perceive their own professional identity in relation to collaboration partnership as a whole (Khalili & Price, 2021). It may also reflect the phase in which professionals stand on their collaboration process not only at the individual level but also at the organizational level (Mönkkönen et al., 2020; cf.; Pfeiffer et al., 2019). The idea of shared work was relevant for professionals. Disagreements over claims of personal style and power indicate that professionals' focus seemed to be on delivering care and services as a group. Professionals perceived the expertise and competence of each professional as equals, an important part of the care and service provision, and therefore did not perceive anyone's competence as being emphasized at the expense of others.

Limitations

Although the study shows interesting results, it has some limitations. The major disadvantage of using convenience sampling is that geographical parity of the survey could not be fully verified, and neither could the generalizability of the results, because there is no certainty about the national representativeness of the empirical data. Furthermore, it is noted that the factors that emerge in this study must be considered as indicative in line with the exploratory approach in this study. The use of principal axis factoring analysis may have artificially inflated factor loadings, so the evidence may not be completely conclusive.

Conclusion

According to our data, the aspects that matter in low-threshold interprofessional collaboration are a complex combination of individual and group factors, all of which both reflect and are reflected in an individual's motivation and commitment to cooperation. It can be argued that employees who are personally highly motivated, committed and actively involved in collaboration create a positive atmosphere for collaboration around them, which in turn can increase the appreciation of collaboration within the organization and increase inter-organizational planning and ambition to collaborate across administrative boundaries. This may result, as Rose (2011) and Lackie and Tomblin Murphy (2020) suggest, in mutual respect, meaningful interaction and shared understanding between different professionals and therefore to favorable solutions for all clients.

The reverse is also possible. The values and culture of the organization may not promote a positive climate for collaboration or may not set a clear goal for cooperation and thus do not improve employees' attitudes and personal motivation toward collaboration. This may lead to a rather low level of collaboration, which may gradually diminish, and clients may be left without a coordinated service, as Rose (2011) and Lackie and Tomblin Murphy (2020) state.

Declaration of interests

The Authors report there are no competing interests to declare. The Authors alone are responsible for the content and writing this article.

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